



**GENERAL NOTES:**

- ALL CONSTRUCTION SHALL COMPLY WITH STONEGATE VILLAGE METROPOLITAN DISTRICT SPECIFICATIONS.
- THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY COMPANIES, THE TOWN OF PARKER, DOUGLAS COUNTY, AND THE DISTRICT ENGINEER PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ANY EXISTING UTILITY (INCLUDING DEPTHS) WHICH MAY CONFLICT WITH THE PROPOSED CONSTRUCTION. ALL EXISTING UTILITIES SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. DAMAGED UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS/HER OWN EXPENSE.  
  
ALL ITEMS SHOWN ON THE PLANS AS EXISTING ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE ACTUAL LOCATIONS MAY VARY FROM THE PLANS, ESPECIALLY IN THE CASE OF UNDERGROUND UTILITIES. WHENEVER CONTRACTOR DISCOVERS A DISCREPANCY IN LOCATIONS, HE/SHE SHALL CONTACT THE ENGINEER IMMEDIATELY.
- THE DISTRICT ENGINEER AND OTHER APPROVING AGENCIES ARE TO BE NOTIFIED AT LEAST 48-HOURS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN, AT HIS/HER EXPENSE, ALL PERMITS WHICH ARE NECESSARY TO PERFORM THE PROPOSED WORK.
- ALL CONCRETE SHALL BE A MINIMUM OF CLASS A, 6 SACK, TYPE II, 3,000-POUND COMPRESSION STRENGTH.
- THE DESIGN ENGINEER SHALL SUBMIT ONE SET OF ROLLED "AS-BUILT" BLUELINE PRINTS AND ELECTRONIC FILES TO THE DISTRICT ENGINEER FOR APPROVAL PRIOR TO PRINTING MYLAR SEPIAS FOR THE DISTRICT. AFTER APPROVAL HAS BEEN GRANTED BY THE DISTRICT ENGINEER, FULL SIZE MYLAR SEPIA PRINTS SHALL BE TRANSMITTED TO THE STONEGATE VILLAGE METROPOLITAN DISTRICT OFFICE AND AN ADDITIONAL SET OF ROLLED BLUELINE PRINTS SHALL BE TRANSMITTED TO THE DISTRICT ENGINEER'S OFFICE PRIOR TO PROBATIONARY ACCEPTANCE.
- ALL BACKFILL MATERIAL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY. COMPACTION TESTS MUST BE SUBMITTED TO DISTRICT ENGINEER PRIOR TO PROBATIONARY ACCEPTANCE.
- TRENCHES SHALL BE EXCAVATED AND THE PIPE EXPOSED FOR THE INSPECTION AT ANY LOCATION ON THE PROJECT IF SO ORDERED BY THE INSPECTOR.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF LINES (WATER AND SEWER) FOR UP TO 1-YEAR FROM THE DATE OF PROBATIONARY ACCEPTANCE OF THE LINES BY THE DISTRICT. ANY MALFUNCTION DURING THIS PERIOD OF GUARANTEE SHALL BE REMEDIED BY THE CONTRACTOR TO THE SATISFACTION OF THE DISTRICT ENGINEER AT NO EXPENSE TO THE DISTRICT.
- SURFACE GRADES ARE TO BE WITHIN PLUS OR MINUS 1-FOOT OF FINISHED GRADE AND VERIFICATION OF COMPACTION RESULTS OBTAINED PRIOR TO THE INSTALLATION OF WATER AND SEWER LINES. RESULTS MUST BE SUBMITTED TO THE DISTRICT ENGINEER.
- NO WORK SHALL BE BACKFILLED UNTIL THE CONSTRUCTION HAS BEEN INSPECTED AND APPROVED FOR BACKFILLING BY THE DISTRICT ENGINEER OR REPRESENTATIVE OF THE DISTRICT ENGINEER.
- GRADING IS REQUIRED TO BE ADVANCED TO AT LEAST SUBGRADE LEVEL PRIOR TO UTILITY INSTALLATION. SURVEYOR CONFIRMATION WILL BE REQUIRED.

**WATER MAIN NOTES**

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE STONEGATE VILLAGE METROPOLITAN DISTRICT ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST REVISION. ALL WORK SHALL BE INSPECTED AND APPROVED BY PERSONNEL OF THE STONEGATE VILLAGE METROPOLITAN DISTRICT AND THE DISTRICT ENGINEER.
- ALL WATER MAINS SHALL BE CLASS 50 DUCTILE IRON PIPE (AWWA C-151-71) OR PVC 6-INCH THROUGH 12-INCH C-900 CLASS 200. ALL JOINTS AND FITTINGS SHALL BE IN ACCORDANCE WITH THE STONEGATE VILLAGE METROPOLITAN DISTRICT STANDARDS AND SPECIFICATIONS. WATER MAINS 20-INCH AND LARGER SHALL BE CLASS 51. ANY VARIATION OF THIS STANDARD SHALL BE NOTED ON THE PLANS. ALL D.I. PIPE FITTINGS SHALL BE POLYETHYLENE WRAPPED.
- ALL BENDS, PLUGS, REDUCERS, AND FIRE HYDRANTS ARE TO BE RODDED. ALL FITTINGS SHALL BE WRAPPED WITH 8-MIL MINIMUM THICKNESS POLYETHYLENE MATERIAL PER AWWA STANDARD C-103.
- THERE SHALL BE A MINIMUM COVER OF 4-1/2- FEET OVER ALL WATER MAINS.
- FIRE HYDRANTS SHALL CONFORM TO AWWA C-502 "DRY BARREL FIRE HYDRANTS" PIPE. HYDRANT ASSEMBLIES SHALL INCLUDE ALL PIPE, FITTINGS, VALVES, MATERIALS, AND LABOR NECESSARY TO INSTALL THE HYDRANT COMPLETE IN PLACE. ACCEPTABLE MODELS ARE MUELLER CENTURIUM MODEL 423 OR WATEROUS COMPANY PACER WB-67 MODEL WITH BRONZE BUSED SHOW AND BRONZE SHAFT COUPLING, THE 4-1/2-INCH NOZZLE TO HAVE N.S.T. THREADS.
- ALL BENDS, TEES, FIRE HYDRANTS, BLOW-OFFS AND PLUGS AT DEAD-END MAINS SHALL BE PROTECTED FROM THRUST BY USING CONCRETE THRUST BLOCKS.
- CHLORINATION AND FLUSHING: ALL WATER MAINS SHALL BE INSTALLED AND CHLORINATED PER STONEGATE VILLAGE METROPOLITAN DISTRICT STANDARDS AND SPECIFICATIONS. THE LINES SHALL BE CHLORINATED IN ACCORDANCE WITH AWWA C-601, "DISINFECTING WATER MAINS." THE PREFERRED METHOD IS TO USE SUFFICIENT CHLORINE TABLETS TO PRODUCE A 50-MG TO 1 SOLUTION. THESE TABLETS SHOULD BE ADHERED TO THE TOP OF THE PIPE SECTION WITH PERMATEX NO. 1 (RED). THE CHLORINATION OF ANY FINISHED PIPELINE SHALL BE DONE PRIOR TO THE HYDROSTATIC TESTING. STERILIZATION AND FLUSHING OF ALL MAINS SHALL BE INSPECTED COPY OF THE CERTIFIED BY HEALTH DEPARTMENT HAVING JURISDICTION. ONE COPY OF THE CERTIFICATION SHALL STATE THE LOCATION OF THE MAIN, THAT THE MAIN HAS BEEN INSPECTED BY A REPRESENTATION OF THE HEALTH DEPARTMENT HAVING JURISDICTION, AND WAS FOUND TO COMPLY WITH THE PROCEDURES SET FORTH BY THAT DEPARTMENT.
- HYDROSTATIC TESTING: ALL WATER MAINS SHALL BE TESTED PER THE REQUIREMENTS OF THE STONEGATE VILLAGE METROPOLITAN DISTRICT STANDARDS AND SPECIFICATIONS. ALL PIPE SHALL BE FIELD PRESSURE-TESTED TO A MINIMUM OF 150 PSI. ALL TESTING SHALL BE DONE IN THE PRESENCE OF A STONEGATE VILLAGE METROPOLITAN DISTRICT INSPECTOR. LEAKAGE FOR EACH SECTION OF PIPE BETWEEN LINES VALVES SHALL NOT EXCEED THE LIMITS SET FORTH IN THE STONEGATE VILLAGE METROPOLITAN DISTRICT STANDARDS AND SPECIFICATIONS.
- VALVES IN STREETS ARE TO BE LOCATED AT PROPERTY LINE EXTENSIONS EXCEPT FOR TAPPING TEES, WHERE AN ADDITIONAL VALVE SHALL BE PLACED ON THE TAPPING TEE. OTHER VALVE LOCATIONS, SUCH AS WHERE CROSS-PANS EXIST, ARE SHOWN ON THE PLANS.
- WHEN NECESSARY TO LOWER OR RAISE WATER LINES AT STORM DRAINS AND OTHER UTILITY CROSSINGS, A MINIMUM CLEARANCE OF 1-1/2- FEET SHALL BE MAINTAINED BETWEEN OUTSIDE OF PIPES.
- THE CONTRACTOR SHALL HAVE IN HIS/HER POSSESSION AT ALL TIMES ONE SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE STONEGATE VILLAGE METROPOLITAN DISTRICT AND THE DISTRICT ENGINEER.
- THE CONTRACTOR SHALL NOTIFY THE STONEGATE VILLAGE METROPOLITAN DISTRICT AND THE DISTRICT ENGINEER AT LEAST 48-HOURS PRIOR TO ANY CONSTRUCTION. IF WORK IS SUSPENDED FOR ANY PERIOD OF TIME AFTER INITIAL START-UP, THE CONTRACTOR MUST NOTIFY THE DISTRICT ENGINEER 48-HOURS PRIOR TO RE-START.
- PIPE BEDDING SHALL BE A CLEAN, WELL-GRADED SAND OR SQUEEGEE SAND IN ACCORDANCE WITH STONEGATE VILLAGE METROPOLITAN DISTRICT STANDARDS AND SPECIFICATIONS, LATEST REVISION.
- THE CONTRACTOR SHALL NOTIFY THE PUBLIC UTILITY COMPANIES AND DETERMINE THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO PROCEEDING WITH THE EXCAVATION. ALL WORK PERFORMED IN THE AREA OF THE PUBLIC UTILITIES SHALL BE PERFORMED ACCORDING TO THE REQUIREMENTS OF THESE AGENCIES.
- COMPACTION OF ALL TRENCHES MUST BE ATTAINED IN ACCORDANCE WITH THE SOILS REPORTS AND COMPACTION TEST RESULTS SUBMITTED TO THE DISTRICT ENGINEER PRIOR TO PROBATIONARY ACCEPTANCE.
- VALVE BOXES: TYLER SCREW-TYPE 6-INCH CAST-IRON VALVE BOX ASSEMBLY SERIES 6860 WITH NO. 160 OVAL BASE. CLAY AND BAILEY SCREW-TYPE 6 INCH CAST-IRON VALVE BOX ASSEMBLY NO. P-108 WITH NO. 160 LARGE OVAL BASE.
- ALL PIPE LENGTHS ARE APPROXIMATE.
- AT LEAST 5-DAYS PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING WILL BE HELD AT THE OFFICE OF THE DISTRICT ENGINEER AND ATTENDED BY THE CONTRACTOR AND REPRESENTATIVE OF OTHER APPROVING AGENCIES. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE DISTRICT ENGINEER.
- ALL WATER VALVES SHALL BE OPEN RIGHT.
- 12 GAUGE COPPER TRACER WIRE REQUIRED ALONG ALL WATER LINES.

**DISTRICT ACCEPTANCE NOTE:**

- UPON COMPLETION OF SANITARY SEWER AND WATER CONSTRUCTION AND TESTING, THE DEVELOPER OR CONTRACTOR SHALL CONTACT THE DISTRICT FOR PROBATIONARY ACCEPTANCE INSPECTION. A PUNCHLIST WILL BE PROVIDED THE DEVELOPER AND CONTRACTOR UPON COMPLETION OF THE INITIAL WALK-THROUGH AND PROBATIONARY ACCEPTANCE WILL BE ISSUED FOLLOWING COMPLETION AND ACCEPTANCE OF THE WORK OUTLINED IN THE PUNCHLIST.
  - THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF THE LINES FOR UP TO 1-YEAR FROM THE DATE OF PROBATIONARY ACCEPTANCE OF THE LINES BY THE DISTRICT. ANY MALFUNCTION DURING THIS PERIOD OF GUARANTEE SHALL BE REMEDIED BY THE CONTRACTOR TO THE SATISFACTION OF THE DISTRICT ENGINEER AT NO EXPENSE TO THE DISTRICT.
  - THE DATE OF FINAL ACCEPTANCE WILL BE INDICATED IN THE CONDITIONS OF THE PROBATIONARY ACCEPTANCE LETTER. THE DEVELOPER SHALL BE RESPONSIBLE FOR CONTACTING THE DISTRICT FOR FINAL INSPECTION AND FINAL ACCEPTANCE.
- SANITARY SEWER NOTES**
- ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE STONEGATE VILLAGE METROPOLITAN DISTRICT STANDARDS AND SPECIFICATIONS.
  - ALL SEWER MAINS SHALL BE PVC, ASTM D-3034, SDR 35 OR APPROVED EQUAL. ALL SEWER MAIN SIZE IS 8-INCH IN DIAMETER UNLESS OTHERWISE NOTED.
  - SEWER LINES SHALL BE INSTALLED 5- FEET SOUTH OR WEST OF RACCOON TAIL WAY CENTERLINE, UNLESS OTHERWISE SHOWN ON PLANS. SEWER LINES SHALL BE 10- FEET FROM WATER LINES EXCEPT WHEN CROSSING EACH OTHER. SEWER LINES WHICH CROSS LESS THAN 1-1/2- FEET VERTICALLY FROM THE WATER MAIN SHALL BE ENCASED IN CONCRETE AS PER STONEGATE VILLAGE METROPOLITAN DISTRICT STANDARDS AND SPECIFICATIONS. USE RUBBER GASKETS FOR PVC ENCASEMENT.
  - SEWER RIM ELEVATIONS SHOWN ARE APPROPRIATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. RING AND COVER SHALL BE SET IN CENTERED CONCRETE RINGS WITH RAM-NECK FOR ADJUSTMENT TO MATCH FINAL PAVEMENT ELEVATIONS.
  - THE CONTRACTOR AND SURVEY CREW SHALL VERIFY ELEVATIONS OF EXISTING SEWER LINES AND MANHOLES TO BE TIED TO PRIOR TO CONSTRUCTION OR STAKING OF SANITARY SEWER.
  - SEWER WYES SHALL BE USED RATHER THAN TEES. SEWER SERVICE WYES FOR EACH UNIT SHALL BE STAKED BY A SURVEY CREW, AND FURNISHED AND INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL FURNISH TO THE ENGINEER "AS BUILT" LOCATION OF WYES.
  - ALL MANHOLES SHALL BE 48-INCHES IN DIAMETER WITH 24-INCH RING AND COVER, ECCENTRIC CONE, UNLESS OTHERWISE SPECIFIED.
  - PIPE BEDDING SHALL BE CLASS "B" AND SHALL CONFORM TO ASTM C-33 OR D-448 GRADATION NO. 6 OR NO. 67.
  - AT LEAST 5-DAYS PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING WILL BE HELD AT THE OFFICE OF THE DISTRICT ENGINEER AND ATTENDED BY THE CONTRACTOR AND REPRESENTATIVES OF THE OTHER APPROVING AGENCIES. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE DISTRICT ENGINEER TO SCHEDULE THIS MEETING.
  - ALL PIPE LENGTHS ARE APPROXIMATE.
  - THE CONTRACTOR SHALL HAVE IN HIS/HER POSSESSION AT ALL TIMES ONE SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE STONEGATE VILLAGE METROPOLITAN DISTRICT AND THE DISTRICT ENGINEER.
  - ALL MANHOLES SHALL HAVE SHAPED INVERTS.
  - ALL SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STONEGATE VILLAGE METROPOLITAN DISTRICT STANDARDS AND SPECIFICATIONS PRIOR TO ACCEPTANCE OR ANY CONNECTION TO AN EXISTING SEWER LINE.
  - PRIOR TO START WORK WHERE SEWER MAIN IS TO BE INSTALLED INTO EXISTING DISTRICT SEWER SYSTEMS, THE NEAREST MANHOLE TO THE POINT OF TIE-IN SHALL BE PLUGGED WITH A PLUMBER'S PLUG ON THE INLET SIDE BY THE CONTRACTOR. THIS PLUG SHALL REMAIN IN PLACE UNTIL FINAL ACCEPTANCE BY THE DISTRICT. ITS PURPOSE SHALL BE TO PREVENT ANY MUD, WATER OR OTHER MATERIALS FROM ENTERING THE LINE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PUMPING AND CLEANING THESE MANHOLES AND REMOVING THE PLUG WHEN SO INSTRUCTED BY THE DISTRICT.
  - PRIOR TO PROBATIONARY ACCEPTANCE WALK-THROUGH, THE CONTRACTOR/DEVELOPER SHALL JET CLEAN THE ENTIRE SANITARY SEWER SYSTEM AND PUMPOUT AT THE PLUGGED MANHOLE.
  - ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:  
  
"X" FOR SANITARY SEWER SERVICES  
  
"V" FOR WATER SERVICES
  - ALL WAREHOUSE BUILDING COMPANIES WITH AN SIC CODE SHALL FILL OUT AN INDUSTRIAL WASTE AND SILVER MERCURY WASTE DISCHARGE QUESTIONNAIRE PRIOR TO DISTRICT APPROVAL.
  - 12 GAUGE TRACER WIRE REQUIRED ALONG ALL SANITARY SEWER LINES.

**MASTER LEGEND**

	PROPOSED SANITARY SEWER W/MANHOLE
	PROPOSED WATERLINE W/ GATE VALVE
	PROPOSED F.H. ASSEMBLY, GATE VALVE & TEE
	EXISTING SANITARY SEWER W/ MANHOLE
	EXISTING WATERLINE W/ GATE VALVE
	EXISTING FH ASSEMBLY, GATE VALVE & TEE
	EXISTING HIGH PRESSURE GAS LINE
	PROPOSED STORM SEWER W/ MANHOLE
	PROPOSED EOA, FL AND BOC
	PROPOSED SIDEWALK
	PROPOSED ROW
	PROPOSED UTILITY EASEMENT
	EXISTING TOP BACK OF CURB
	EXISTING FLOWLINE
	EXISTING LIP OF CURB/EDGE OF ASPHALT
	EXISTING STORM INLET
	PROPOSED STORM INLET
	PROPOSED WATER SERVICE W/ CURBSTOP
	PROPOSED SANITARY SERVICE
	EXISTING WATER SERVICE W/ CURBSTOP
	EXISTING SANITARY SERVICE
	CAUTION! UTILITY CROSSING
	PROPOSED CROSS PAN
	EXISTING CROSS PAN
	PROPOSED CONTOURS
	EXISTING CONTOURS
	EXISTING TELEPHONE LINE
	EXISTING ELECTRIC LINE
	EXISTING STORM
	EXIST. OVERHEAD UTILITY
	EXISTING POWER POLES
	HIGH POINT
	LOW POINT
	TOP OF WALL ELEVATION
	MATCH EXISTING
	INDICATES PROPERTY CORNER ELEV. PER GRADING TEMPLATES
	CUT/FILL LINE
	FLOW DIRECTION ARROW
	PROPOSED ASPHALT LIMITS
	PROPOSED SIGN
	PROPOSED STREET LIGHT
	TRAIL (CRUSHED FINES)
	TRAIL (CONCRETE)

Plotted: 11/20/2020 9:29 AM, Dwg Name: D:\Cipak3\komsouth05-residential.ctb\Draw(Erv)\Final Drawings\Plan Set\District\PHASE 2\05B-GENERAL NOTES.dwg, Updated By: jhawthorne

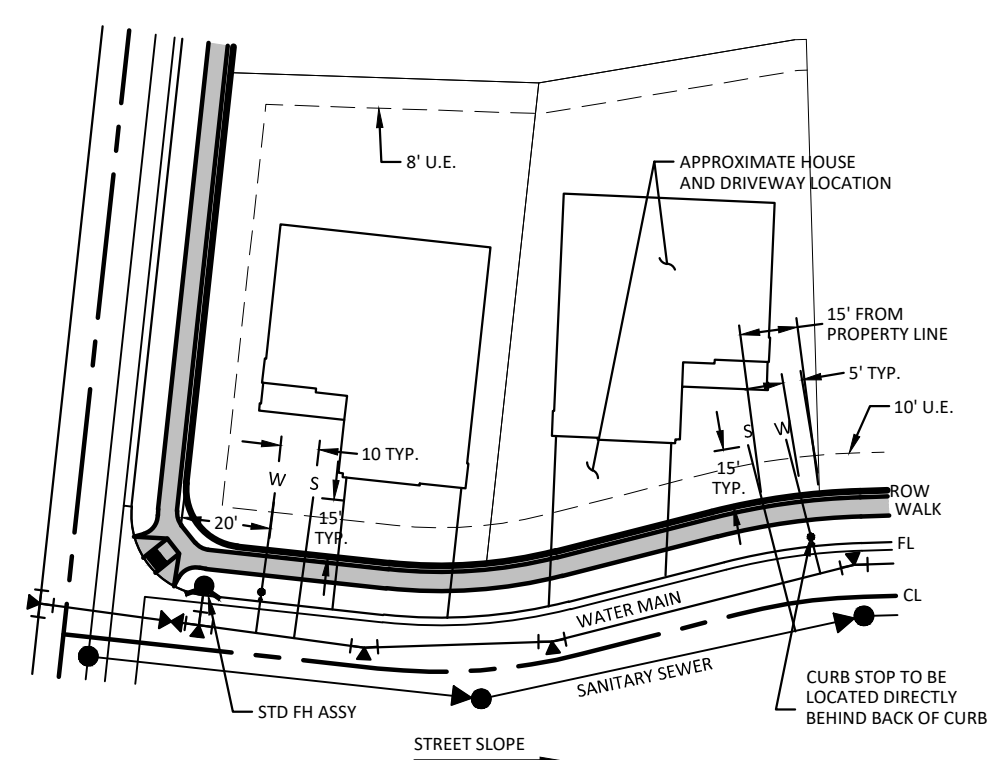
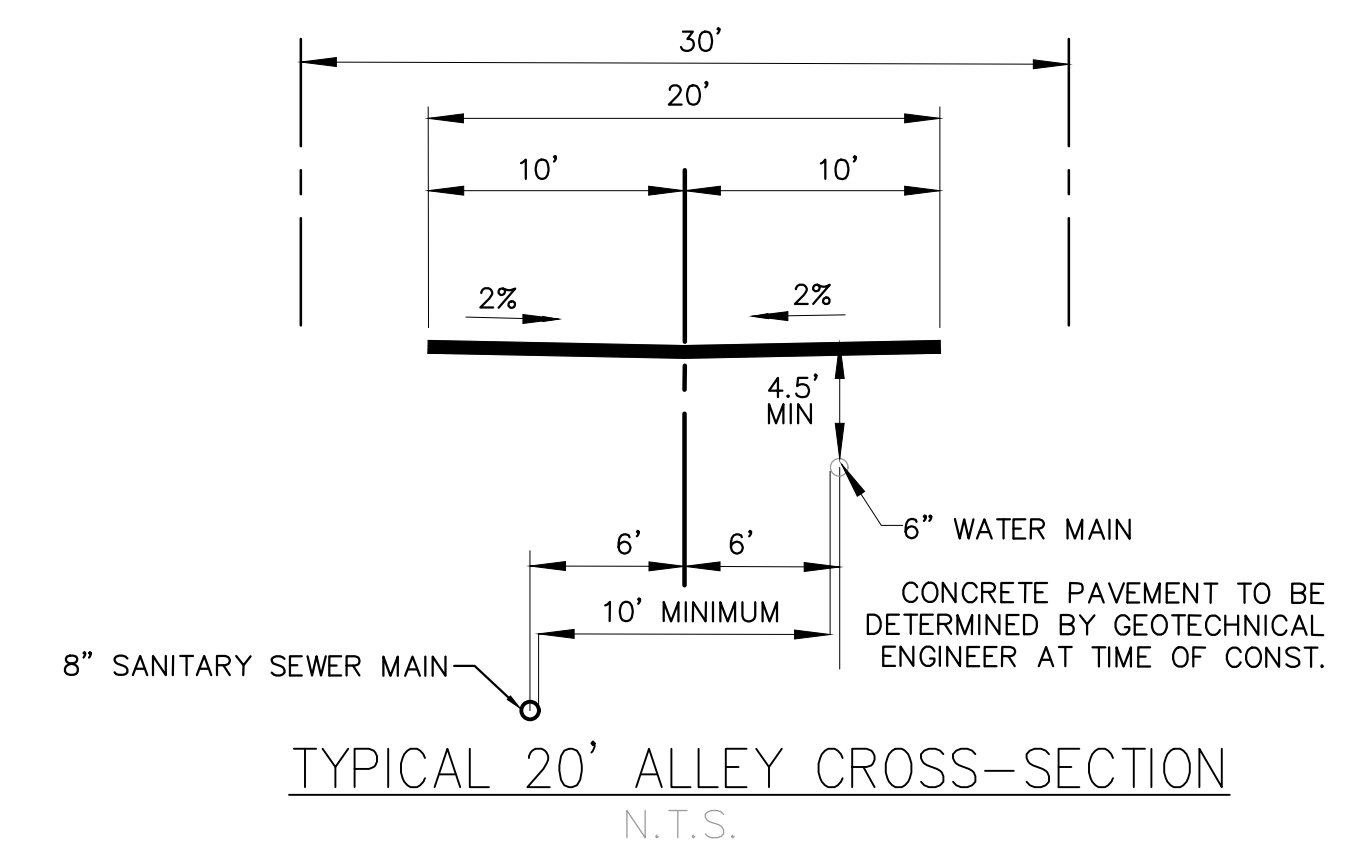
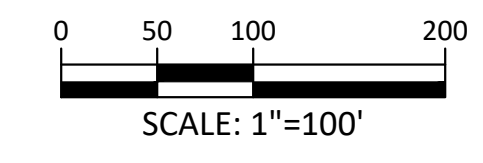
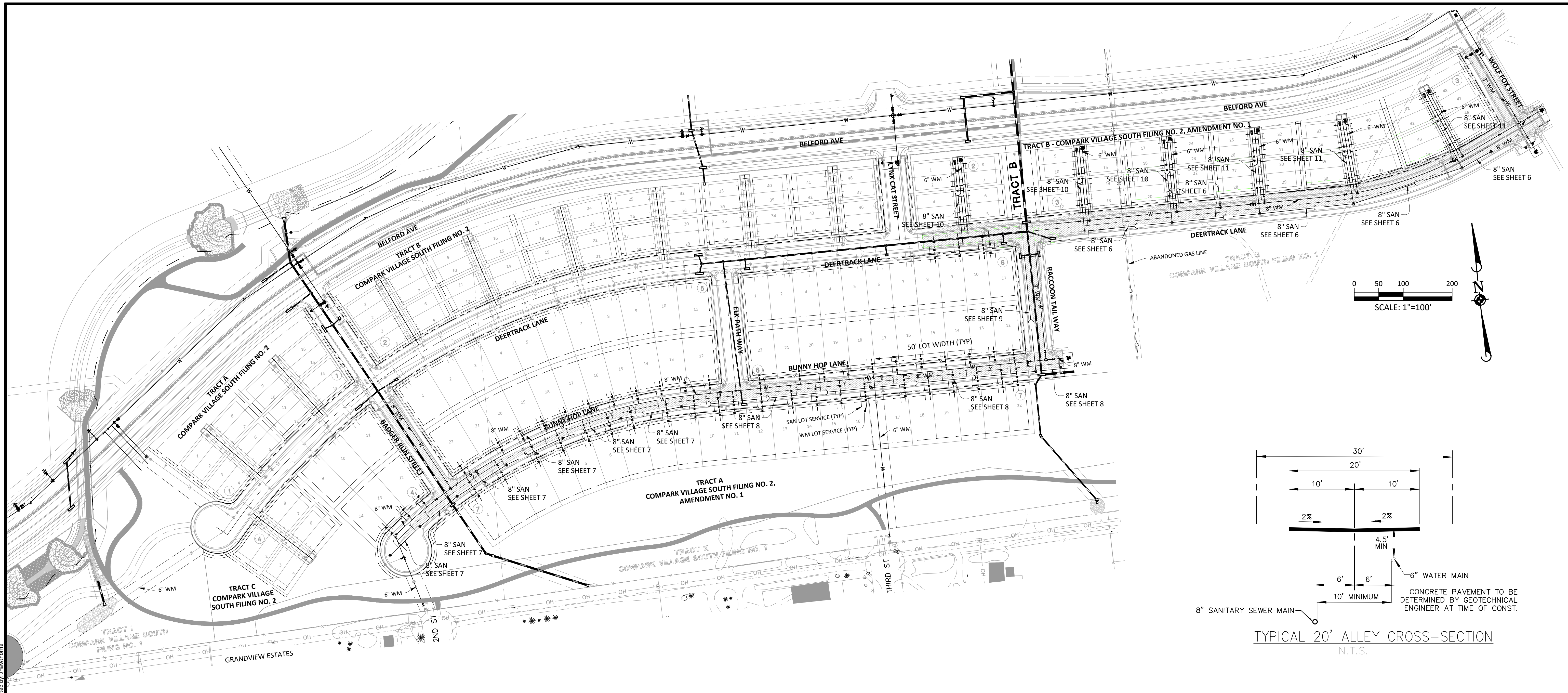
DATE	REVISIONS

**Manhard CONSULTING LTD.**  
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 Civil Engineers • Surveyors • Water Resource Engineers • Vertical & Horizontal Engineering • Construction Management • Environmental Scientists • Landscape Architects • Planners

**COMPARK VILLAGE SOUTH FILING NO. 2 - AMENDMENT NO. 1**  
**TOWN OF PARKER, COLORADO**  
**GENERAL NOTES**

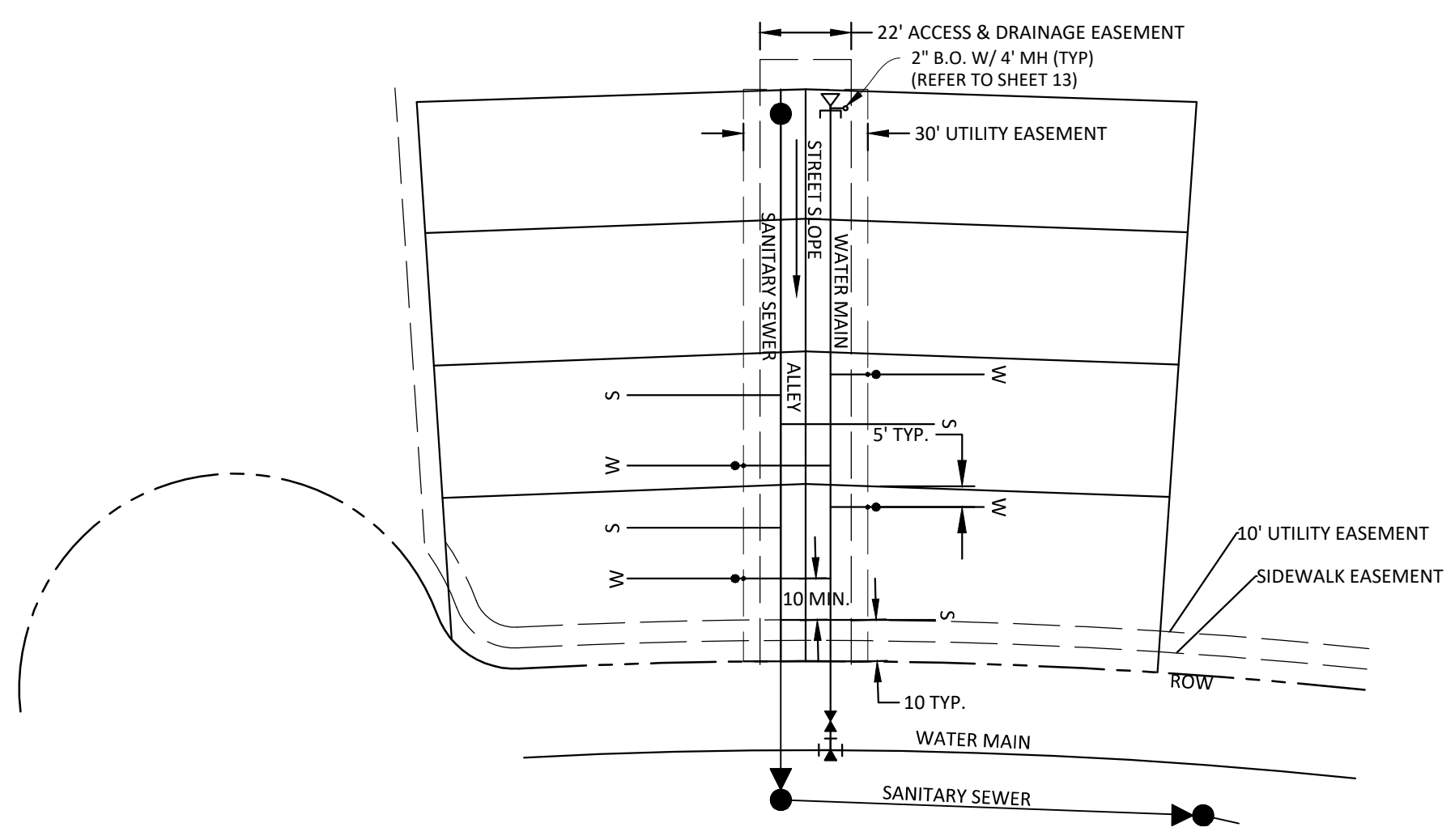
PROJ. MGR.: RJM  
 PROJ. ASSOC.: RAK  
 DRAWN BY: ASD  
 DATE: 10/20/16  
**SHEET**  
2 OF 14  
 CLCPK3

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NOTES:

- SERVICE LOCATIONS ARE TYPICAL, UNLESS OTHERWISE NOTED. REFER TO STREET & UTILITY PLAN AND PROFILES, AND AREA GRADING PLAN FOR EXACT LOCATIONS.
- INSIDE METER SETTING IS REQUIRED FOR RESIDENTIAL DEVELOPMENT. WRITTEN PERMISSION MAY BE ALLOWED BY THE DISTRICT FOR SPECIFIC SITUATIONS.



NOTE:

SERVICE LOCATIONS ARE TYPICAL, UNLESS OTHERWISE NOTED. REFER TO UTILITY PLAN AND PROFILES FOR EXACT LOCATIONS.

**TOWN OF PARKER BUILDING DEPT FIRE LIFE SAFETY APPROVAL**

ALL FIRE HYDRANTS SHALL BE INSTALLED ACCORDING TO WATER UTILITY STANDARDS. THE NUMBER AND LOCATIONS OF THE FIRE HYDRANTS AS SHOWN ON THE OVERALL UTILITY PLAN ARE CORRECT AS SPECIFIED BY THE TOWN OF PARKER, COMMUNITY DEVELOPMENT DEPARTMENT.

BY: \_\_\_\_\_ DATE \_\_\_\_\_

(SIGNATURE OF FIRE CODE OFFICIAL OR DESIGNATED REPRESENTATIVE)

NOTE: UNDERGROUND FIRE LINE (UFL) SUBMITTAL DOCUMENTS MUST MEET THE REQUIREMENTS OF NFPA 24 WHEN SUBMITTING FOR REVIEW

**TOWN OF PARKER APPROVALS**

THE TOWN OF PARKER REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE TOWN'S STANDARDS AND APPROVED VARIANCES, SUBJECT TO THESE PLANS BEING STAMPED, SIGNED, AND DATED BY THE PROFESSIONAL ENGINEER OF RECORD. REVIEW BY THE TOWN DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN OR ACCURACY AND CORRECTNESS OF ENGINEERING CALCULATIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE ARE AFFIXED TO THIS DOCUMENT.

THIS REVIEW DOES NOT CONSTITUTE APPROVAL OF ANY PRIVATE ON-SITE IMPROVEMENTS WHICH MAY BE SHOWN. CONSTRUCTION CANNOT COMMENCE UNTIL ALL REQUIRED DRAINAGE/TRAFFIC REPORT(S), FINAL DEVELOPMENT PLAN(S), SPECIAL REVIEW(S), GRADING PERMIT, AND/OR OTHER PERMITS ARE COMPLETE, APPROVED AND ON FILE WITH THE TOWN OF PARKER.

TOWN OF PARKER, DIRECTOR OF ENGINEERING/PUBLIC WORKS \_\_\_\_\_ DATE \_\_\_\_\_

**DISTRICT APPROVALS**

THESE DESIGNS, PLANS, AND CONTRACT DOCUMENTS ARE REVIEWED FOR CONCEPT AND GENERAL CONFORMANCE TO THE DISTRICT'S MINIMUM STANDARDS ONLY, AND THE PRIMARY RESPONSIBILITY FOR DESIGN ADEQUACY IS TO REMAIN WITH THE ENGINEER OF RECORD. THIS REVIEW DOES NOT IMPLY RESPONSIBILITY BY EITHER THE STONEGATE VILLAGE METROPOLITAN DISTRICT OR THE DISTRICT ENGINEER FOR COMPLETENESS, ACCURACY OR CORRECTNESS OF CALCULATIONS. THE REVIEW DOES NOT IMPLY THAT QUANTITIES OF ITEMS INDICATED ON THE PLANS ARE THE FINAL QUANTITIES REQUIRED. THE REVIEW SHALL NOT BE CONSTRUED FOR ANY REASON AS ACCEPTANCE OF FINANCIAL RESPONSIBILITY BY THE STONEGATE VILLAGE METROPOLITAN DISTRICT FOR ADDITIONAL ITEMS AND ADDITIONAL QUANTITIES OF ITEMS SHOWN THAT MAY BE REQUIRED DURING THE CONSTRUCTION PHASE.

APPROVED FOR CONSTRUCTION WITHIN ONE YEAR OF THE EARLIEST OF THESE DATES:

BY \_\_\_\_\_ DATE \_\_\_\_\_

STONEGATE VILLAGE METROPOLITAN DISTRICT ENGINEER

BY \_\_\_\_\_ DATE \_\_\_\_\_

STONEGATE VILLAGE METROPOLITAN DISTRICT MANAGER

DATE	REVISIONS
11/20/20	REVISED PER SWMD COMMENTS
07/20/17	FINAL SUBMITTAL
06/20/17	REVISED ALLEY EASEMENTS
08/20/16	REVISED PER SWMD COMMENTS

**Manhard CONSULTING**

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**COMPARK VILLAGE SOUTH FILING NO. 2 - AMENDMENT NO. 1**

**TOWN OF PARKER, COLORADO**

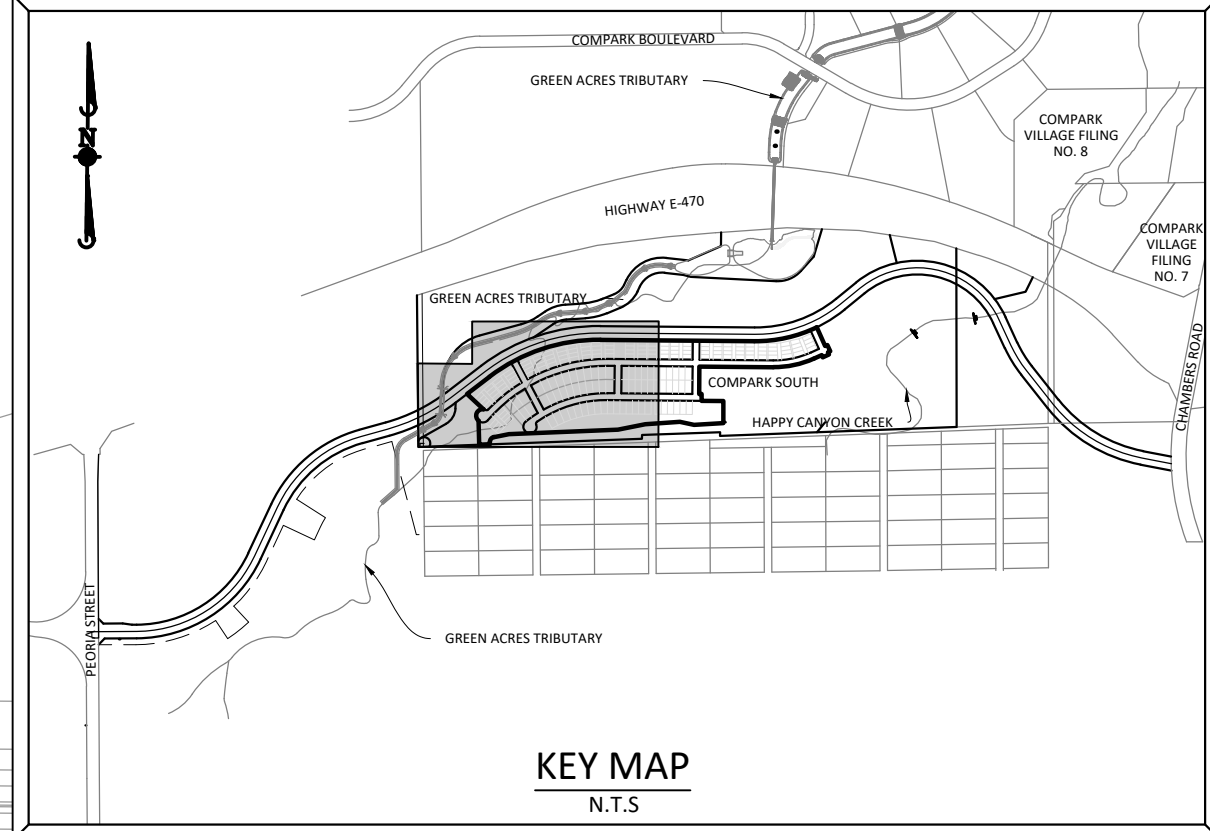
**OVERALL UTILITY PLAN**

PROJ. MGR.: RJM  
 PROJ. ASSOC.: RAK  
 DRAWN BY: ASD  
 DATE: 10/20/16

SHEET  
**3** OF **14**  
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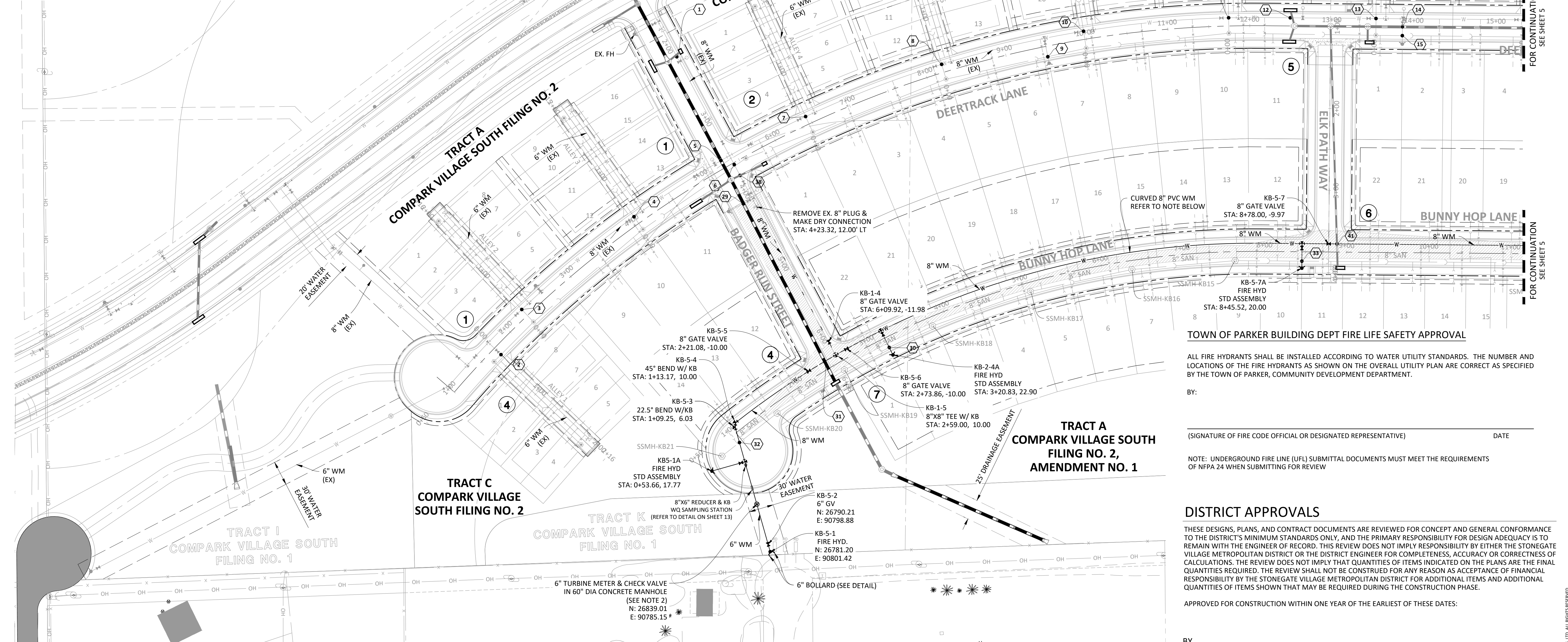
CROSSING	STREET	STATION/OFFSET	TYPE OF CROSSING	UPPER UTILITY	B.O.P.	LOWER UTILITY	T.O.P.	CLEAR
1	BADGER RUN STREET	STA: 2+16.17, 11.98' L	ST OVER WM (WATER LOWERING)	WM	5825.14	WM	5823.14	2.00
2	DEERTRACK LANE	STA: 1+72.35, 11.24' R	WM OVER SAN	WM	5834.33	SAN	5827.95	6.38
3	DEERTRACK LANE	STA: 2+29.06, 10.00' L	WM OVER SAN	WM	5833.48	SAN	5827.48	6.00
4	DEERTRACK LANE	STA: 4+05.15, 10.00' L	WM OVER SAN	WM	5830.74	SAN	5824.96	5.78
5	DEERTRACK LANE	STA: 5+30.36, 10.00' L	ST OVER WM (WATER LOWERING)	ST	5826.36	WM	5824.36	2.00
6	DEERTRACK LANE	STA: 5+41.93, 2.34' R	WM OVER SAN	WM	5829.42	SAN	5823.33	6.09
7	DEERTRACK LANE	STA: 6+45.71, 10.00' L	WM OVER SAN	WM	5828.07	SAN	5822.52	5.55
8	DEERTRACK LANE	STA: 8+21.94, 10.00' L	WM OVER SAN	WM	5826.26	SAN	5820.55	5.71
9	DEERTRACK LANE	STA: 9+49.78, 12.78' R	WM (FH) OVER SAN	WM	5824.95	SAN	5818.80	6.15
10	DEERTRACK LANE	STA: 9+98.17, 10.00' L	WM OVER SAN	WM	5824.46	SAN	5818.63	5.83
11	DEERTRACK LANE	STA: 11+74.40, 10.00' L	WM OVER SAN	WM	5822.65	SAN	5816.66	5.99
12	DEERTRACK LANE	STA: 12+49.14, 9.96' L	ST OVER WM (WATER LOWERING)	ST	5820.82	WM	5818.82	2.00
13	DEERTRACK LANE	STA: 13+53.59, 9.96' L	WM OVER SAN	WM	5820.81	SAN	5814.69	6.12
14	DEERTRACK LANE	STA: 13+85.84, 0.00' R	ST OVER WM (FH) (WATER LOWERING)	ST	5818.66	WM	5816.66	2.00
15	DEERTRACK LANE	STA: 13+85.81, 10.61' R	WM (FH) OVER SAN	WM	5815.99	SAN	5813.84	2.15
16	DEERTRACK LANE	STA: 15+33.59, 9.97' L	WM OVER SAN	WM	5818.97	SAN	5812.69	6.28
17	DEERTRACK LANE	STA: 17+89.84, 9.99' L	WM OVER SAN	WM	5816.34	SAN	5809.90	6.44
18	DEERTRACK LANE	STA: 18+38.84, 0.00' L	ST OVER WM (FH) (WATER LOWERING)	ST	5812.43	WM	5810.93	1.50
19	DEERTRACK LANE	STA: 18+35.84, 11.00' R	WM (FH) OVER SAN	WM	5810.26	SAN	5808.33	1.93
20	DEERTRACK LANE	STA: 19+12.47, 10.00' L	WM OVER SAN	WM	5815.56	SAN	5806.28	9.28
21	DEERTRACK LANE	STA: 19+23.34, 10.00' L	ST OVER WM (WATER LOWERING)	ST	5810.79	WM	5808.79	2.00
22	DEERTRACK LANE	STA: 19+35.32, 4.57' R	ST OVER WM (WATER LOWERING)	ST	5812.94	WM	5810.94	2.00
23	DEERTRACK LANE	STA: 19+35.32, 11.00' R	WM OVER SAN	WM	5810.27	SAN	5806.75	3.52
24	DEERTRACK LANE	STA: 20+39.84, 10.00' L	WM OVER SAN	WM	5816.85	SAN	5808.11	8.74
25	DEERTRACK LANE	STA: 22+19.84, 10.00' L	WM OVER SAN	WM	5820.02	SAN	5809.46	10.56
26	DEERTRACK LANE	STA: 23+99.84, 10.00' L	WM OVER SAN	WM	5822.66	SAN	5810.74	11.92
27	DEERTRACK LANE	STA: 25+91.77, 10.00' L	WM OVER SAN	WM	5820.85	SAN	5811.53	9.32
28	DEERTRACK LANE	STA: 28+22.75, 10.00' L	WM OVER SAN	WM	5818.43	SAN	5812.41	11.00
29	BADGER RUN STREET	STA: 4+12.17, 0.64' R	ST OVER WM (FH) (WATER LOWERING)	ST	5827.92	WM	5825.92	2.00
30	BUNNY HOP LANE	STA: 30+20.88, 12.81' R	WM OVER SAN	WM	5837.37	SAN	5828.96	8.41
31	BUNNY HOP LANE	STA: 2+43.56, 10.00' L	WM OVER ST	WM	5838.34	ST	5835.18	3.16
32	BUNNY HOP LANE	STA: 1+01.67, 11.83' R	WM (FH) OVER SAN	WM	5840.25	SAN	5831.63	8.62
33	BUNNY HOP LANE	STA: 8+45.52, 11.39' R	WM (FH) OVER SAN	WM	5831.22	SAN	5824.53	6.69
34	BUNNY HOP LANE	STA: 11+61.10, 11.00' R	WM (FH) OVER SAN	WM	5827.96	SAN	5821.18	6.78
35	BUNNY HOP LANE	STA: 14+76.91, 11.00' R	WM (FH) OVER SAN	WM	5824.94	SAN	5818.02	6.92
36	BUNNY HOP LANE	STA: 14+92.03, 10.00' L	WM OVER SAN	WM	5824.91	SAN	5816.85	8.06
37	BUNNY HOP LANE	STA: 15+03.31, 10.00' L	WM OVER ST	WM	5824.91	ST	5823.00	1.91
38	BADGER RUN STREET	STA: 3+79.95, 11.98' R	ST OVER WM (WATER LOWERING)	ST	5828.74	WM	5827.24	1.50
39	RACCOON TAIL WAY	STA: 10+47.68, 11.88' R	WM OVER ST	WM	5816.49	ST	5814.50	1.99
40	BUNNY HOP LANE	STA: 11+76.91, 11.00' R	WM OVER SAN	WM	5827.95	SAN	5821.02	6.93
41	ELK PATH WAY	STA: 3+65.03, 10.01' R	WM OVER ST	WM	5830.76	ST	5829.26	1.50
42	DEERTRACK LANE	STA: 27+91.61, 10.00' L	WM OVER ST	WM	5818.26	ST	5816.61	1.65
43	DEERTRACK LANE	STA: 29+64.03, 10.00' L	ST OVER WM (WATER LOWERING)	ST	5813.32	WM	5811.82	1.50
44	DEERTRACK LANE	STA: 29+69.66, 0.14' R	ST OVER WM (WATER LOWERING)	ST	5816.05	WM	5814.55	1.50
45	DEERTRACK LANE	STA: 30+14.39, 10.32' L	ST OVER WM (WATER LOWERING)	ST	5816.99	WM	5815.49	1.50
46	WOLF FOX STREET	STA: 1+69.58, 2.02' R	WM OVER ST	WM	5820.46	ST	5816.96	3.50



**SOURCE BENCHMARKS:**  
DOUGLAS COUNTY BM 1.115010  
A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF THE CENTERLINE OF COMPARK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)

DATE	REVISIONS
11/20/20	REVISED PER SWD COMMENTS
07/20/21	FINAL SUBMITTAL
06/20/21	REVISED ALLEY EASEMENTS
08/20/21	REVISED PER SWD COMMENTS

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Civil Engineering | Surveying & Geospatial Services | GIS | Construction Management | Water Resource Management



**TOWN OF PARKER BUILDING DEPT FIRE LIFE SAFETY APPROVAL**  
ALL FIRE HYDRANTS SHALL BE INSTALLED ACCORDING TO WATER UTILITY STANDARDS. THE NUMBER AND LOCATIONS OF THE FIRE HYDRANTS AS SHOWN ON THE OVERALL UTILITY PLAN ARE CORRECT AS SPECIFIED BY THE TOWN OF PARKER, COMMUNITY DEVELOPMENT DEPARTMENT.  
BY: \_\_\_\_\_ DATE \_\_\_\_\_  
(SIGNATURE OF FIRE CODE OFFICIAL OR DESIGNATED REPRESENTATIVE)

NOTE: UNDERGROUND FIRE LINE (UFL) SUBMITTAL DOCUMENTS MUST MEET THE REQUIREMENTS OF NFPA 24 WHEN SUBMITTING FOR REVIEW

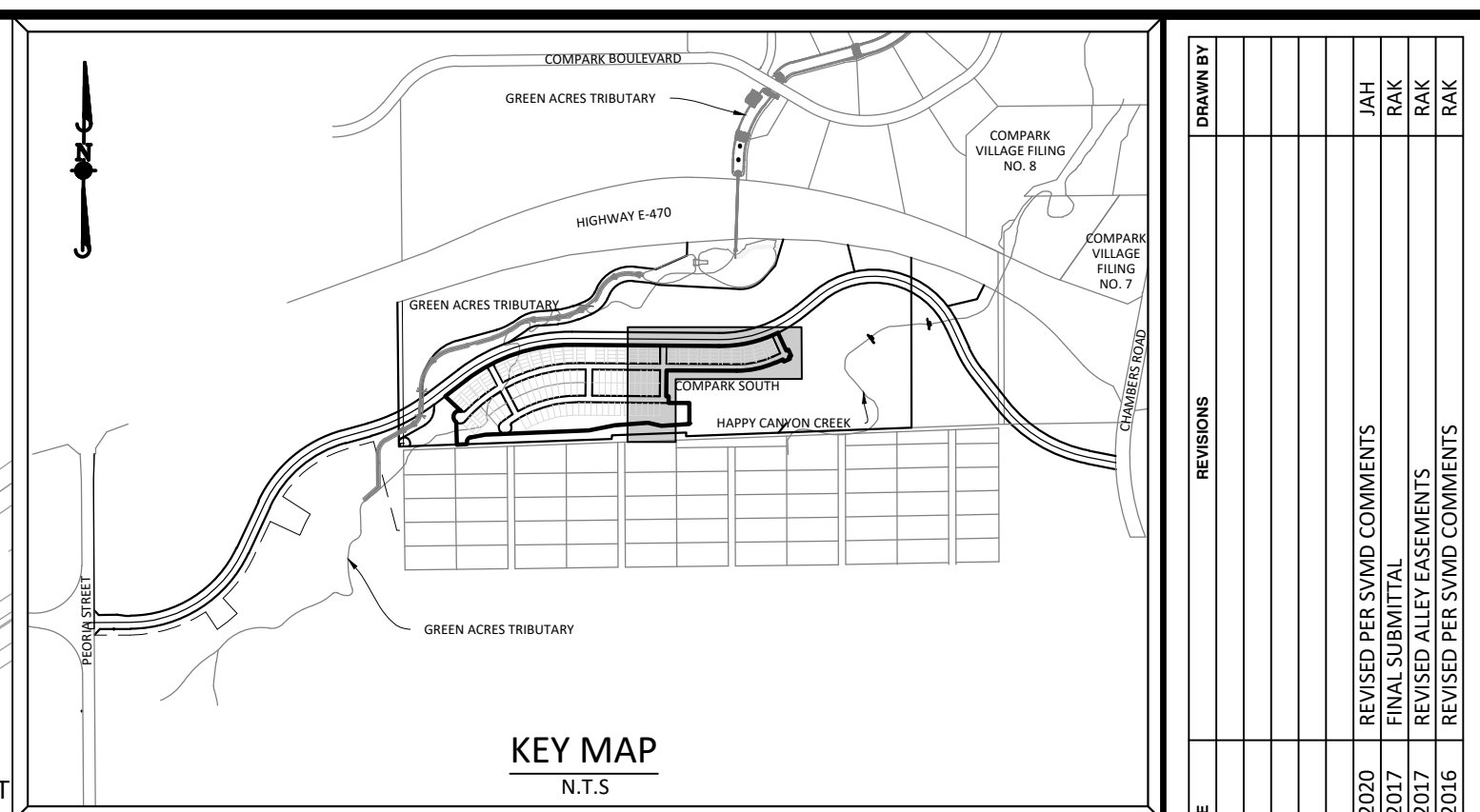
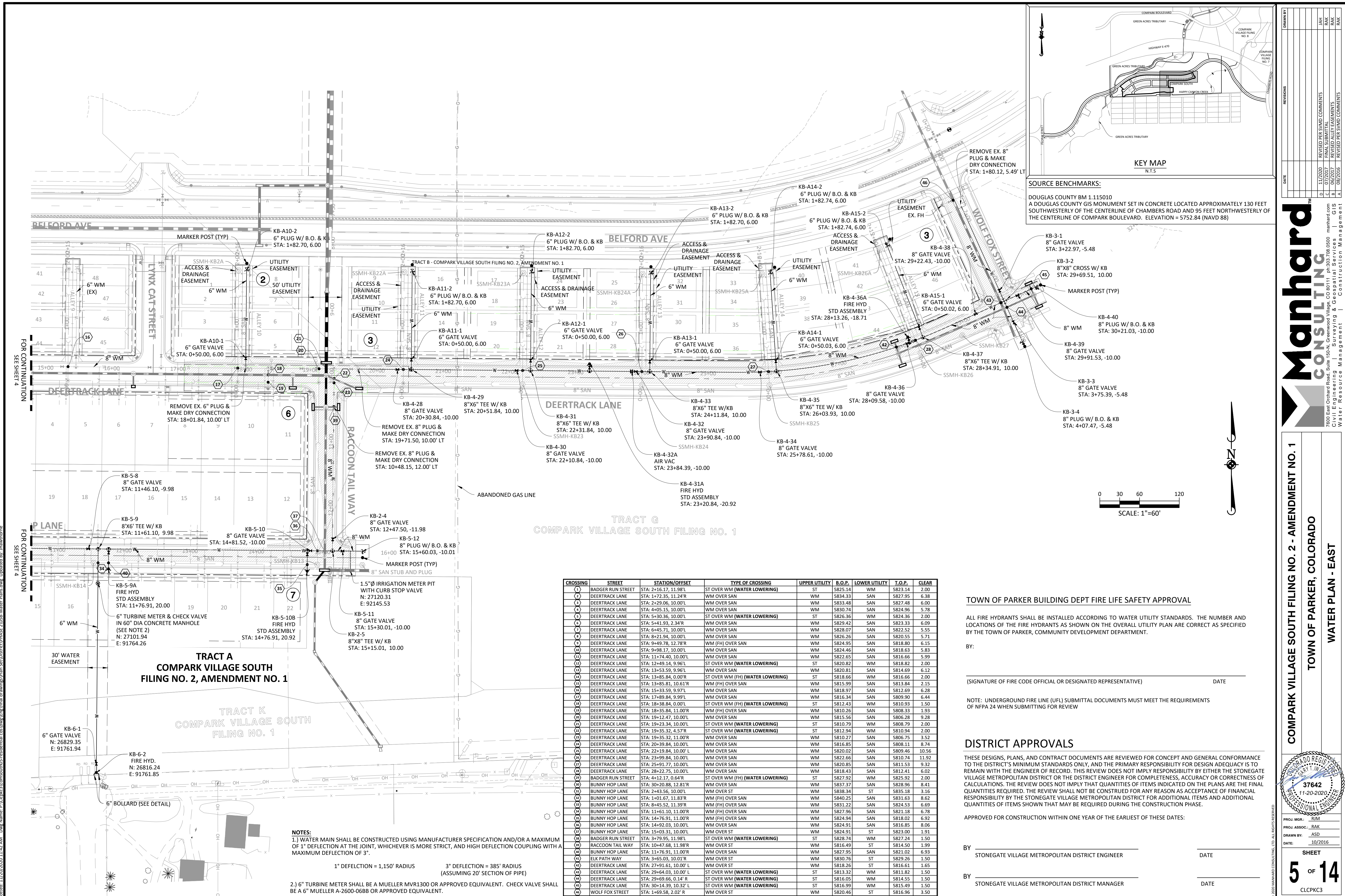
**DISTRICT APPROVALS**  
THESE DESIGNS, PLANS, AND CONTRACT DOCUMENTS ARE REVIEWED FOR CONCEPT AND GENERAL CONFORMANCE TO THE DISTRICT'S MINIMUM STANDARDS ONLY. AND THE PRIMARY RESPONSIBILITY FOR DESIGN ADEQUACY IS TO REMAIN WITH THE ENGINEER OF RECORD. THIS REVIEW DOES NOT IMPLY RESPONSIBILITY BY EITHER THE STONEGATE VILLAGE METROPOLITAN DISTRICT OR THE DISTRICT ENGINEER FOR COMPLETENESS, ACCURACY OR CORRECTNESS OF CALCULATIONS. THE REVIEW DOES NOT IMPLY THAT QUANTITIES OF ITEMS INDICATED ON THE PLANS ARE THE FINAL QUANTITIES REQUIRED. THE REVIEW SHALL NOT BE CONSTRUED FOR ANY REASON AS ACCEPTANCE OF FINANCIAL RESPONSIBILITY BY THE STONEGATE VILLAGE METROPOLITAN DISTRICT FOR ADDITIONAL ITEMS AND ADDITIONAL QUANTITIES OF ITEMS SHOWN THAT MAY BE REQUIRED DURING THE CONSTRUCTION PHASE.

APPROVED FOR CONSTRUCTION WITHIN ONE YEAR OF THE EARLIEST OF THESE DATES:  
BY \_\_\_\_\_ DATE \_\_\_\_\_  
STONEGATE VILLAGE METROPOLITAN DISTRICT ENGINEER  
BY \_\_\_\_\_ DATE \_\_\_\_\_  
STONEGATE VILLAGE METROPOLITAN DISTRICT MANAGER

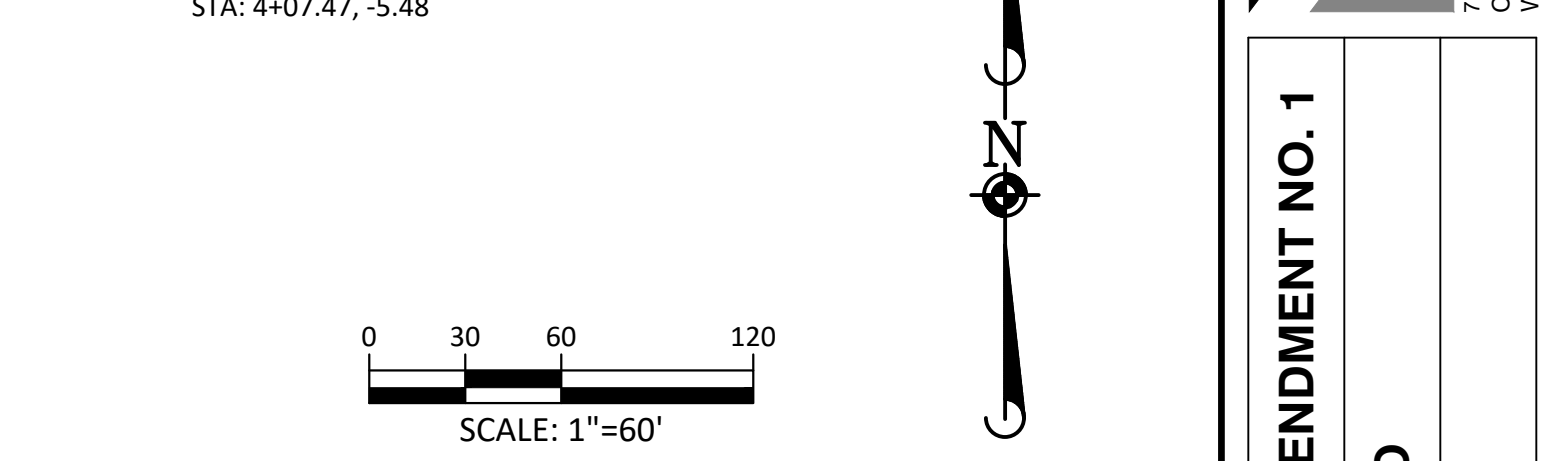
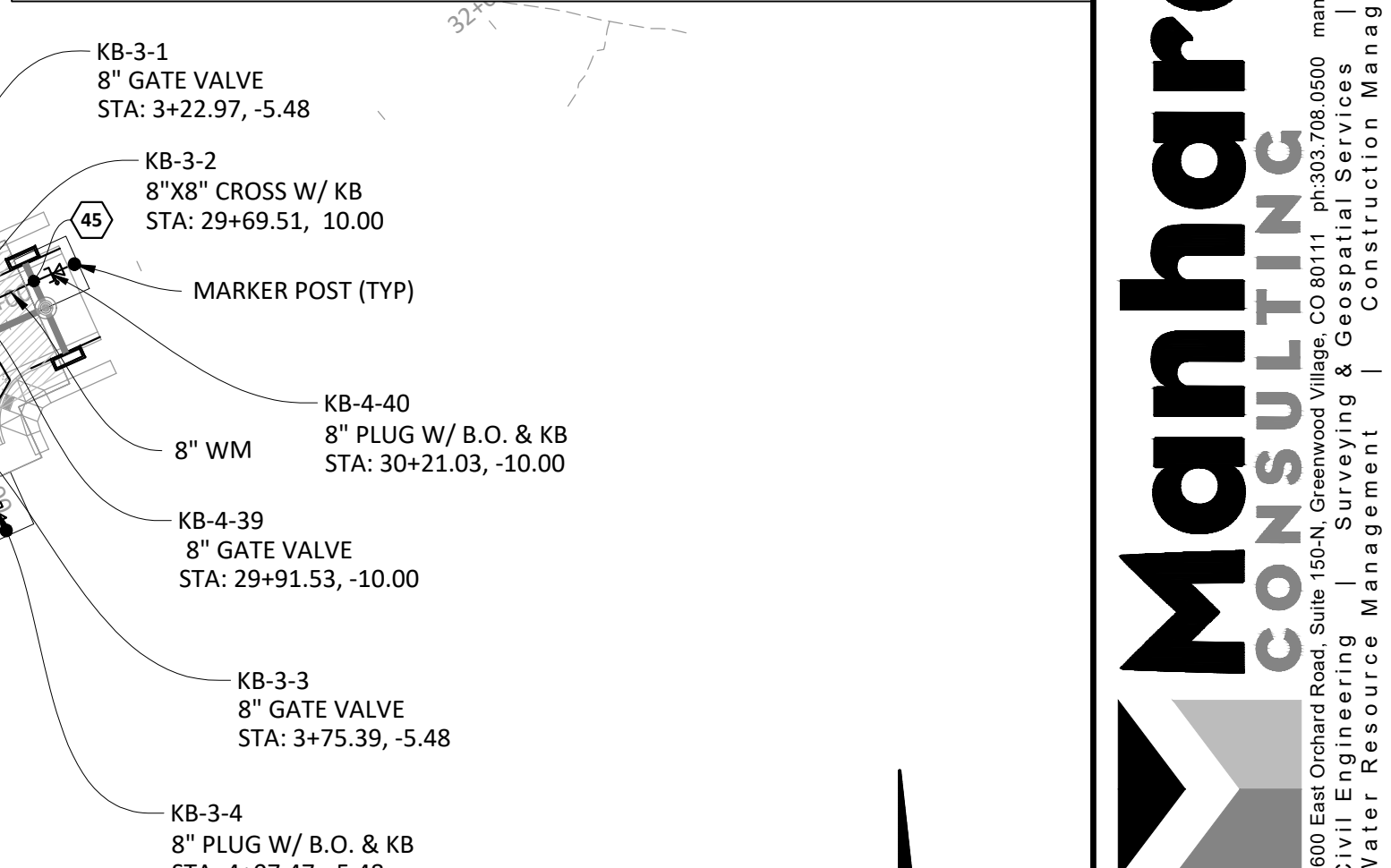
**NOTES:**  
1) WATER MAIN SHALL BE CONSTRUCTED USING MANUFACTURER SPECIFICATION AND/OR A MAXIMUM OF 1" DEFLECTION AT THE JOINT, WHICHEVER IS MORE STRICT, AND HIGH DEFLECTION COUPLING WITH A MAXIMUM DEFLECTION OF 3".  
2) 6" TURBINE METER SHALL BE A MUELLER MVR1300 OR APPROVED EQUIVALENT. CHECK VALVE SHALL BE A 6" MUELLER A-2600-06BB OR APPROVED EQUIVALENT.  
1" DEFLECTION = 1,150' RADIUS  
3" DEFLECTION = 385' RADIUS (ASSUMING 20' SECTION OF PIPE)

**COMPARK VILLAGE SOUTH FILING NO. 2 - AMENDMENT NO. 1**  
**TOWN OF PARKER, COLORADO**  
**WATER PLAN - WEST**  
**PROFESSIONAL ENGINEER**  
37642  
11-20-2020  
PROJ. MGR.: RJM  
PROJ. ASSOC.: RAK  
DRAWN BY: ASD  
DATE: 10/20/21  
SHEET 4 OF 14  
CLPCPC3

Printed: 11/20/2020 9:38 AM. Draw Name: p:\c\c\c\3\comp\005-residential\c\w\w\w\final drawings\Plan set\District\PHASE 2\05B-Water Plans.dwg. Updated By: Jhawthorne



**SOURCE BENCHMARKS:**  
 DOUGLAS COUNTY BM 1.115101  
 A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF THE CENTERLINE OF COMPARK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)



CROSSING	STREET	STATION/OFFSET	TYPE OF CROSSING	UPPER UTILITY	B.O.P.	LOWER UTILITY	T.O.P.	CLEAR
(1)	BADGER RUN STREET	STA: 2+16.17, 11.98'L	ST OVER WM (WATER LOWERING)	WM	5825.14	WM	5823.14	2.00
(2)	DEERTRACK LANE	STA: 1+72.35, 11.24'R	WM OVER SAN	WM	5834.33	SAN	5827.95	6.38
(3)	DEERTRACK LANE	STA: 2+29.06, 10.00'L	WM OVER SAN	WM	5833.48	SAN	5827.48	6.00
(4)	DEERTRACK LANE	STA: 4+05.15, 10.00'L	WM OVER SAN	WM	5830.74	SAN	5824.96	5.78
(5)	DEERTRACK LANE	STA: 5+30.36, 10.00'L	ST OVER WM (WATER LOWERING)	ST	5826.36	WM	5824.36	2.00
(6)	DEERTRACK LANE	STA: 5+41.93, 2.34'R	WM OVER SAN	WM	5829.42	SAN	5823.33	6.09
(7)	DEERTRACK LANE	STA: 6+45.71, 10.00'L	WM OVER SAN	WM	5828.07	SAN	5822.52	5.55
(8)	DEERTRACK LANE	STA: 8+21.94, 10.00'L	WM OVER SAN	WM	5826.26	SAN	5820.55	5.71
(9)	DEERTRACK LANE	STA: 9+49.78, 12.78'R	WM (FH) OVER SAN	WM	5824.95	SAN	5818.80	6.15
(10)	DEERTRACK LANE	STA: 9+98.17, 10.00'L	WM OVER SAN	WM	5824.46	SAN	5818.63	5.83
(11)	DEERTRACK LANE	STA: 11+74.40, 10.00'L	WM OVER SAN	WM	5822.65	SAN	5816.66	5.99
(12)	DEERTRACK LANE	STA: 12+49.14, 9.96'L	ST OVER WM (WATER LOWERING)	ST	5820.82	WM	5818.82	2.00
(13)	DEERTRACK LANE	STA: 13+53.59, 9.96'L	WM OVER SAN	WM	5820.81	SAN	5814.69	6.12
(14)	DEERTRACK LANE	STA: 13+85.84, 0.00'R	ST OVER WM (FH) (WATER LOWERING)	ST	5818.66	WM	5816.66	2.00
(15)	DEERTRACK LANE	STA: 13+85.81, 10.61'R	WM (FH) OVER SAN	WM	5815.99	SAN	5813.84	2.15
(16)	DEERTRACK LANE	STA: 15+33.59, 9.97'L	WM OVER SAN	WM	5818.97	SAN	5812.69	6.28
(17)	DEERTRACK LANE	STA: 17+89.84, 9.99'L	WM OVER SAN	WM	5816.34	SAN	5809.90	6.44
(18)	DEERTRACK LANE	STA: 18+38.84, 0.00'L	ST OVER WM (FH) (WATER LOWERING)	ST	5812.43	WM	5810.93	1.50
(19)	DEERTRACK LANE	STA: 18+35.84, 11.00'R	WM (FH) OVER SAN	WM	5810.26	SAN	5808.33	1.93
(20)	DEERTRACK LANE	STA: 19+12.47, 10.00'L	WM OVER SAN	WM	5815.56	SAN	5806.28	9.28
(21)	DEERTRACK LANE	STA: 19+23.34, 10.00'L	ST OVER WM (WATER LOWERING)	ST	5810.79	WM	5808.79	2.00
(22)	DEERTRACK LANE	STA: 19+35.32, 4.57'R	ST OVER WM (WATER LOWERING)	ST	5812.94	WM	5810.94	2.00
(23)	DEERTRACK LANE	STA: 19+35.32, 11.00'R	WM OVER SAN	WM	5810.27	SAN	5806.75	3.52
(24)	DEERTRACK LANE	STA: 20+39.84, 10.00'L	WM OVER SAN	WM	5816.85	SAN	5808.11	8.74
(25)	DEERTRACK LANE	STA: 22+19.84, 10.00'L	WM OVER SAN	WM	5820.02	SAN	5809.46	10.56
(26)	DEERTRACK LANE	STA: 23+99.84, 10.00'L	WM OVER SAN	WM	5822.66	SAN	5810.74	11.92
(27)	DEERTRACK LANE	STA: 25+91.77, 10.00'L	WM OVER SAN	WM	5820.85	SAN	5811.53	9.32
(28)	DEERTRACK LANE	STA: 28+22.75, 10.00'L	WM OVER SAN	WM	5818.43	SAN	5812.41	6.02
(29)	BADGER RUN STREET	STA: 4+12.17, 0.64'R	ST OVER WM (FH) (WATER LOWERING)	ST	5827.92	WM	5825.92	2.00
(30)	BUNNY HOP LANE	STA: 30+20.88, 12.81'R	WM OVER SAN	WM	5837.37	SAN	5828.96	8.41
(31)	BUNNY HOP LANE	STA: 2+43.56, 10.00'L	WM OVER ST	WM	5838.34	ST	5835.38	3.16
(32)	BUNNY HOP LANE	STA: 1+01.67, 11.83'R	WM (FH) OVER SAN	WM	5840.25	SAN	5831.63	8.62
(33)	BUNNY HOP LANE	STA: 8+45.52, 11.39'R	WM (FH) OVER SAN	WM	5831.22	SAN	5824.53	6.69
(34)	BUNNY HOP LANE	STA: 11+61.10, 11.00'R	WM (FH) OVER SAN	WM	5827.96	SAN	5822.74	6.78
(35)	BUNNY HOP LANE	STA: 14+76.91, 11.00'R	WM (FH) OVER SAN	WM	5824.94	SAN	5818.02	6.92
(36)	BUNNY HOP LANE	STA: 14+92.03, 10.00'L	WM OVER SAN	WM	5824.91	SAN	5816.85	8.06
(37)	BUNNY HOP LANE	STA: 15+03.31, 10.00'L	WM OVER ST	WM	5824.91	ST	5823.00	1.91
(38)	BADGER RUN STREET	STA: 3+79.95, 11.98'L	ST OVER WM (WATER LOWERING)	ST	5828.74	WM	5827.24	1.50
(39)	RACCOON TAIL WAY	STA: 10+47.68, 11.98'R	WM OVER ST	WM	5816.49	ST	5814.50	1.99
(40)	BUNNY HOP LANE	STA: 11+76.91, 11.00'R	WM OVER SAN	WM	5827.95	SAN	5821.02	6.93
(41)	ELK PATH WAY	STA: 3+65.03, 10.01'R	WM OVER ST	WM	5830.76	ST	5829.26	1.50
(42)	DEERTRACK LANE	STA: 27+91.61, 10.00'L	WM OVER ST	WM	5818.26	ST	5816.61	1.65
(43)	DEERTRACK LANE	STA: 29+64.03, 10.00'L	ST OVER WM (WATER LOWERING)	ST	5813.32	WM	5811.82	1.50
(44)	DEERTRACK LANE	STA: 29+69.66, 0.14'R	ST OVER WM (WATER LOWERING)	ST	5816.05	WM	5814.55	1.50
(45)	DEERTRACK LANE	STA: 30+14.39, 10.32'L	ST OVER WM (WATER LOWERING)	ST	5816.99	WM	5815.49	1.50
(46)	WOLF FOX STREET	STA: 1+69.58, 2.02'R	WM OVER ST	WM	5820.46	ST	5816.96	3.50

**NOTES:**  
 1.) WATER MAIN SHALL BE CONSTRUCTED USING MANUFACTURER SPECIFICATION AND/OR A MAXIMUM OF 1" DEFLECTION AT THE JOINT, WHICHEVER IS MORE STRICT, AND HIGH DEFLECTION COUPLING WITH A MAXIMUM DEFLECTION OF 3".  
 1" DEFLECTION = 1,150' RADIUS      3" DEFLECTION = 385' RADIUS (ASSUMING 20' SECTION OF PIPE)  
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BY: \_\_\_\_\_ DATE \_\_\_\_\_  
 (SIGNATURE OF FIRE CODE OFFICIAL OR DESIGNATED REPRESENTATIVE)

NOTE: UNDERGROUND FIRE LINE (UFL) SUBMITTAL DOCUMENTS MUST MEET THE REQUIREMENTS OF NFPA 24 WHEN SUBMITTING FOR REVIEW

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APPROVED FOR CONSTRUCTION WITHIN ONE YEAR OF THE EARLIEST OF THESE DATES:

BY \_\_\_\_\_ DATE \_\_\_\_\_  
 STONEGATE VILLAGE METROPOLITAN DISTRICT ENGINEER  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 STONEGATE VILLAGE METROPOLITAN DISTRICT MANAGER

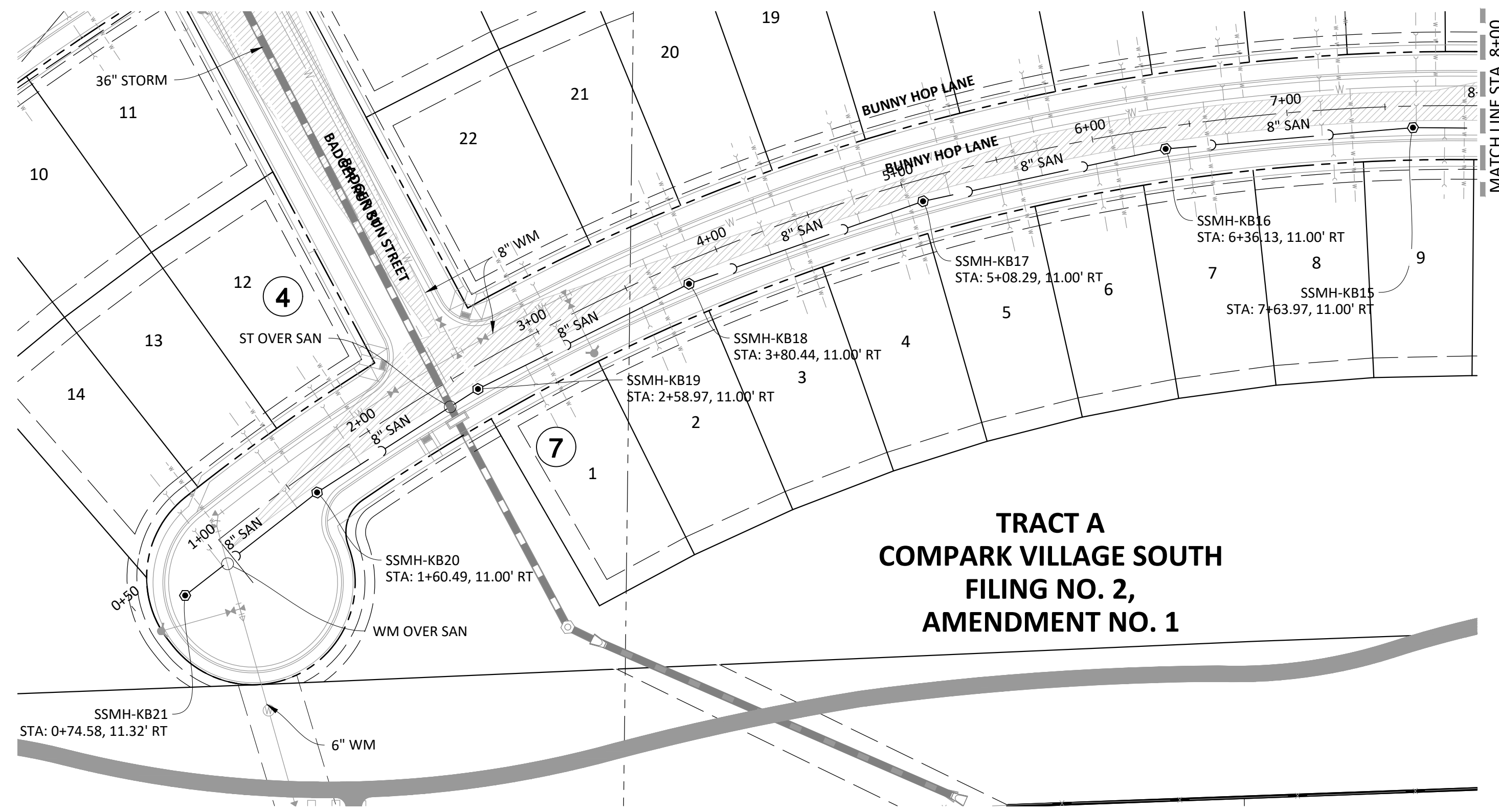
DATE	REVISIONS
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06/20/21	REVISED ALLEY EASEMENTS
08/20/21	REVISED PER SWMD COMMENTS

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 Civil Engineering | Surveying & Geospatial Services | GIS | Water Resource Management | Construction Management

**COMPARK VILLAGE SOUTH FILING NO. 2 - AMENDMENT NO. 1**  
**TOWN OF PARKER, COLORADO**  
**WATER PLAN - EAST**

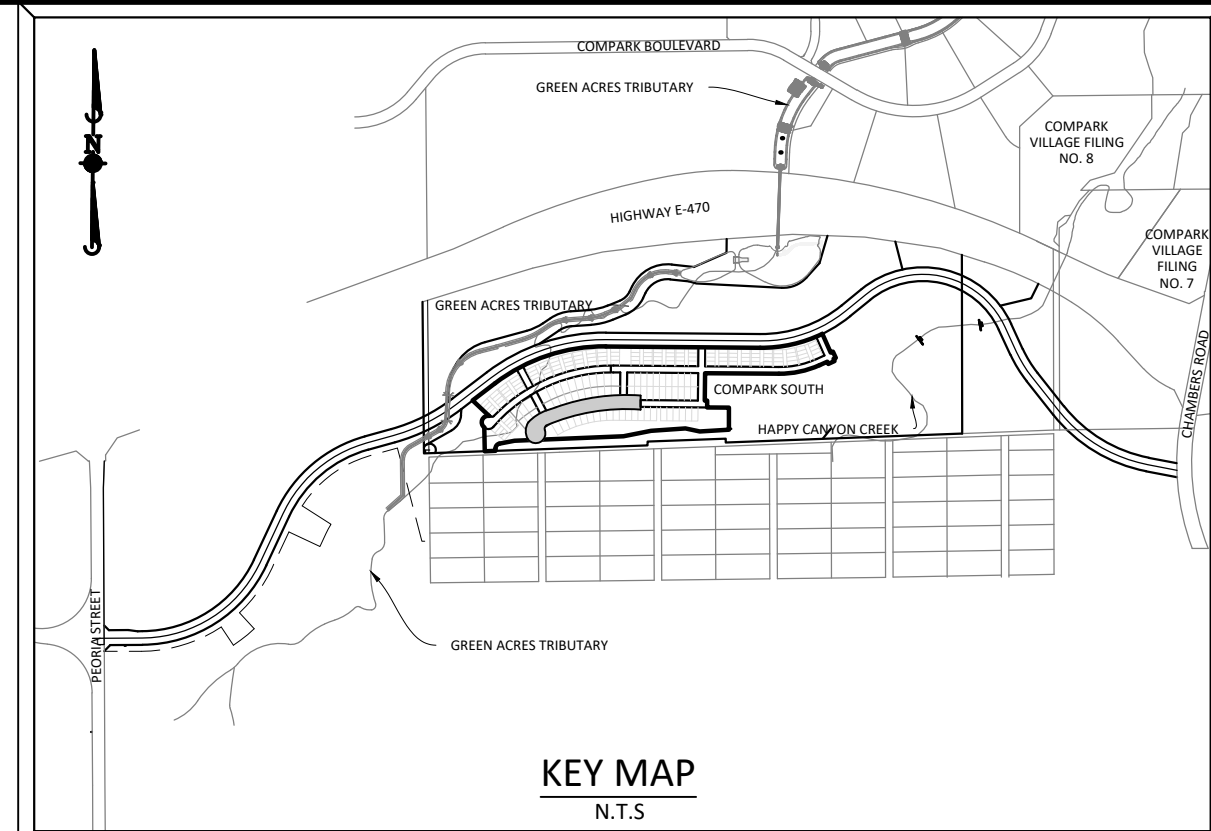
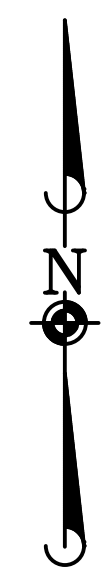
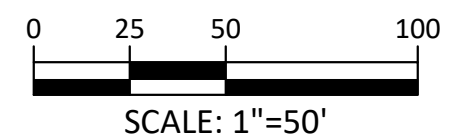
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 PROJ. ASSOC.: RAK  
 DRAWN BY: ASD  
 DATE: 10/20/21  
 SHEET 5 OF 14  
 CLCPK3





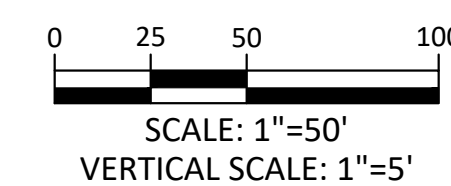
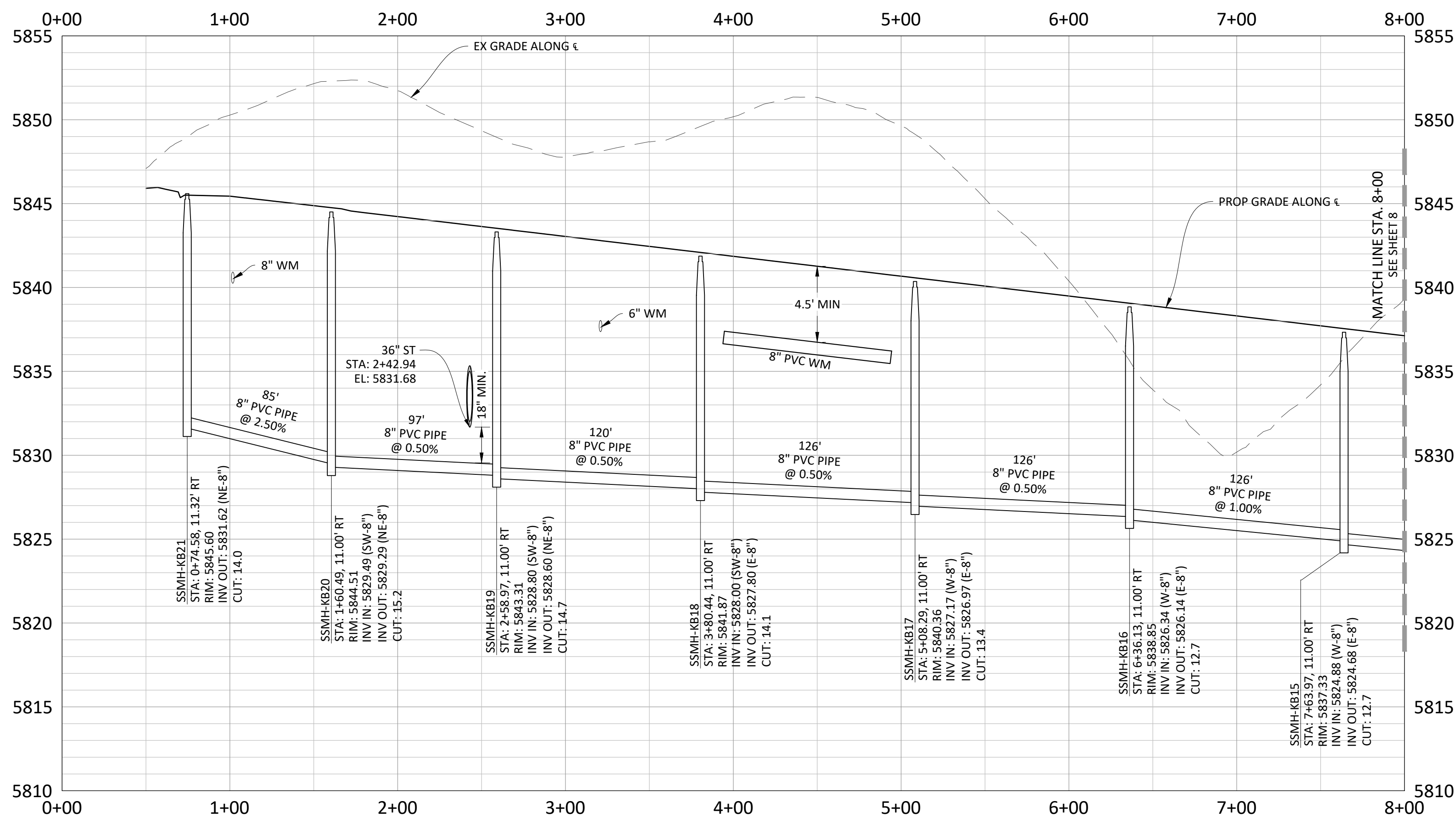
**TRACT A  
COMPARK VILLAGE SOUTH  
FILING NO. 2,  
AMENDMENT NO. 1**

**BUNNY HOP LANE**



**KEY MAP**  
N.T.S.

**SOURCE BENCHMARKS:**  
DOUGLAS COUNTY BM 1.115010  
A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET  
SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF  
THE CENTERLINE OF COMPARK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)



- NOTES:**
1. SET ALL MANHOLE RIMS NOT IN PAVED AREAS 6" ABOVE FINISHED GRADE AND PROVIDE CARSONITE MARKER POST AT 5' OFFSET W/ CONCRETE COLLAR.
  2. ALL WATER LINES WITHIN THE COMPARK SOUTH DEVELOPMENT WILL BE REQUIRED TO BE C9000 DR14 PIPE MATERIAL WITH A MINIMUM 4.5' OF COVER.
  3. WATER MAIN SHALL BE CONSTRUCTED USING MANUFACTURER SPECIFICATION, EBAA IRON SERIES 3800 MEGACOUPLING HIGH DEFLECTION COUPLINGS SHALL BE UTILIZED FOR ALL DEFLECTIONS AT JOINTS.
  4. ALL PLUGS AT END OF WATER LINES SHALL HAVE A 2" BLOWOFF IN MANHOLE. REFER TO SHEET 13 FOR DETAIL.

Plotted: 11/20/2020 9:44 AM. Dwg Name: C:\cplk3\yomso005\_residential.cad\cplk3\Drawings\Plan Set\District\PHASE 2\05B-P&P-2-Street-11.dwg. Updated By: JHawthorne

DATE	REVISIONS

NO.	DATE	REVISIONS
1	11/20/20	REVISED PER SAND COMMENTS
2	07/20/17	FINAL SUBMITTAL
3	06/20/17	REVISED ALLEY EASEMENTS
4	08/20/16	REVISED PER SAND COMMENTS

**COMPARK VILLAGE SOUTH FILING NO. 2 - AMENDMENT NO. 1**

**TOWN OF PARKER, COLORADO**

**SANITARY SEWER PLAN AND PROFILE - BUNNY HOP LANE**

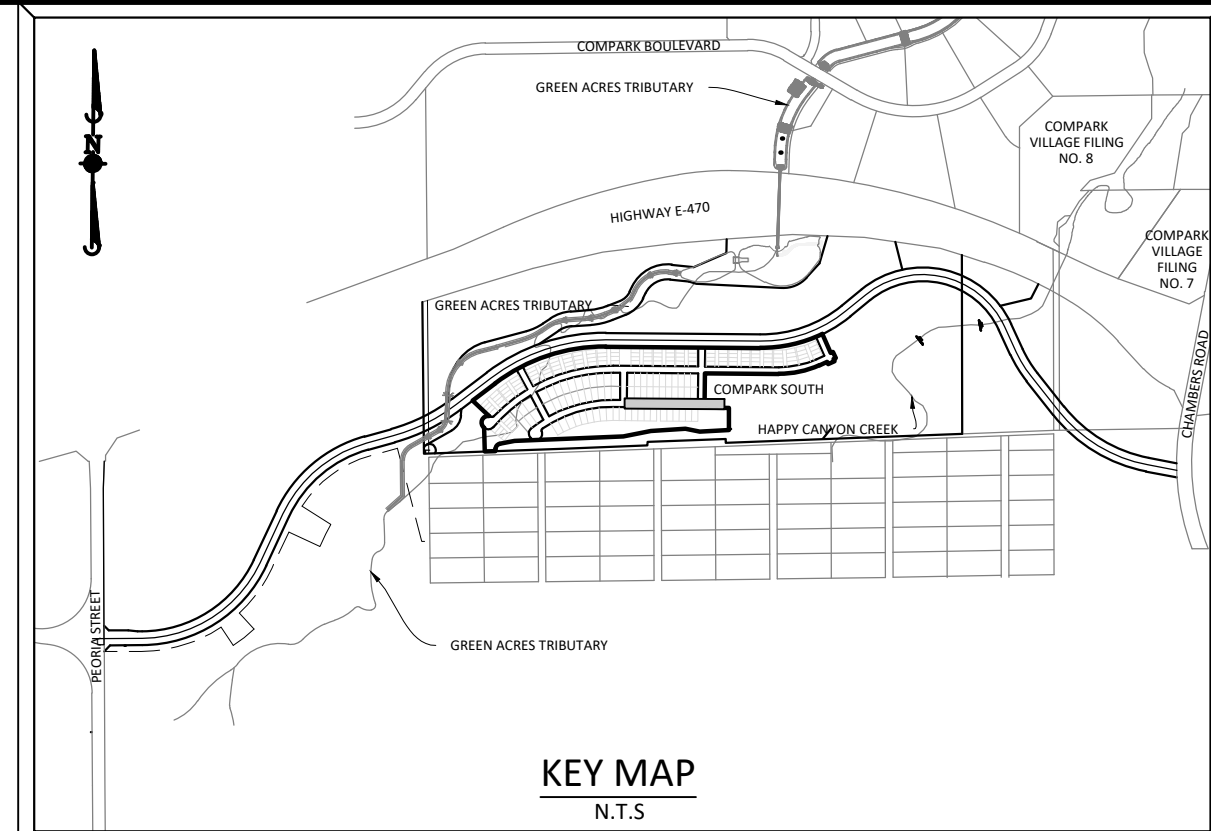
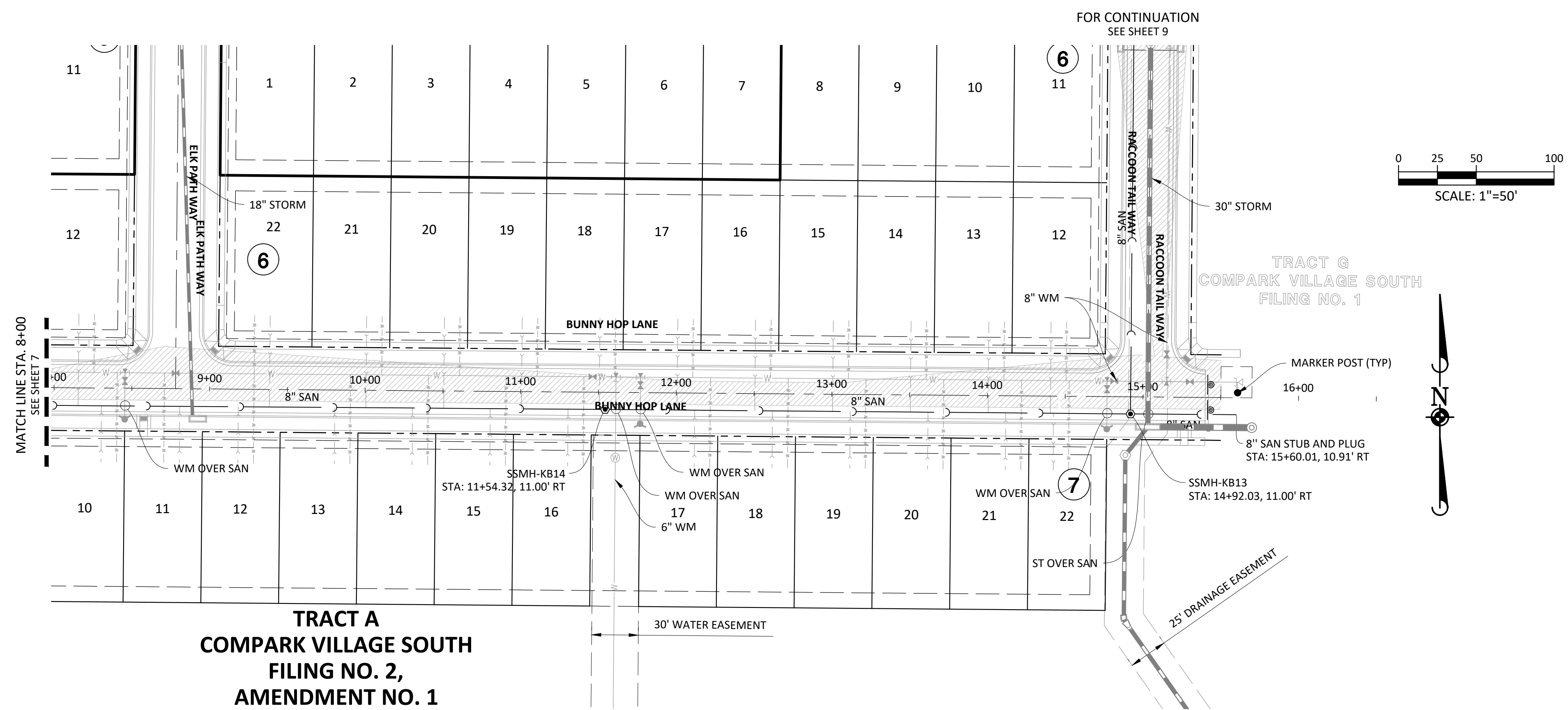
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 PROJ. ASSOC.: RAK  
 DRAWN BY: ASD  
 DATE: 10/20/16

**SHEET**  
**7 OF 14**  
 CLCPK3

**Manhard CONSULTING**

7600 East Orchard Road, Suite 100, Greenwood Village, CO 80111, phone: 303.780.0500  
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Plotted: 11/20/2020 11:41 AM Dwg Name: P:\C06K3\comsouth05-residential\cds\dwg\Eng\Final Drawings\Plan Set\District\PHASE 2\05B-P&P-2-Street II.dwg Updated By: jhawthorne

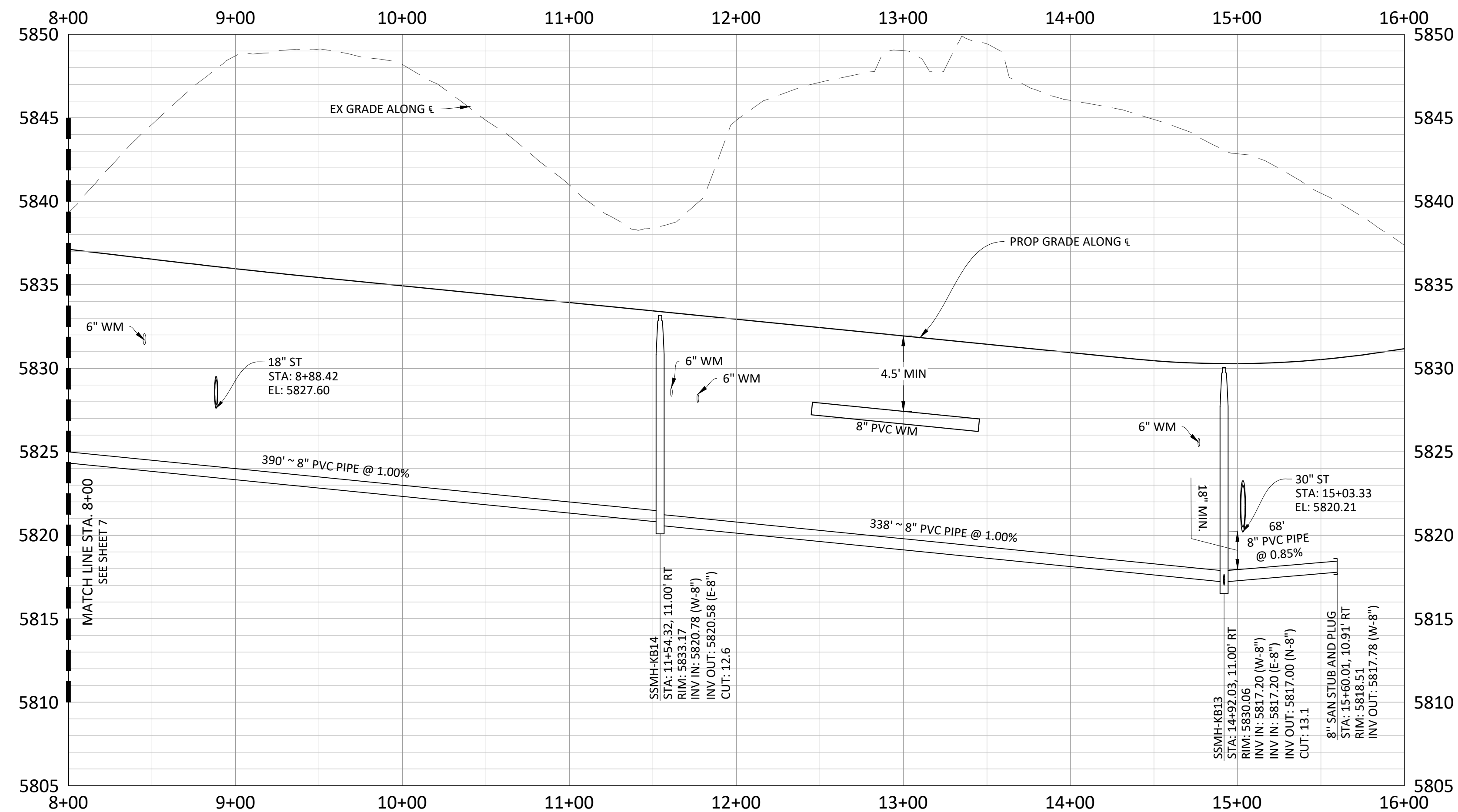


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 7600 East Orchard Road, Suite 100-2, Greenwood Village, CO 80111, phone: 303.780.0500 manhard.com  
 Civil Engineering | Surveying & Geospatial Services | GIS | Construction Management | Water Resource Management

### BUNNY HOP LANE



- NOTES:**
- SET ALL MANHOLE RIMS NOT IN PAVED AREAS 6" ABOVE FINISHED GRADE AND PROVIDE CARSONITE MARKER POST AT 5' OFFSET W/ CONCRETE COLLAR.
  - ALL WATER LINES WITHIN THE COMPARK SOUTH DEVELOPMENT WILL BE REQUIRED TO BE C9000 DR14 PIPE MATERIAL WITH A MINIMUM 4.5' OF COVER.
  - WATER MAIN SHALL BE CONSTRUCTED USING MANUFACTURER SPECIFICATION. EBAA IRON SERIES 3800 MEGACOUPLING HIGH DEFLECTION COUPLINGS SHALL BE UTILIZED FOR ALL DEFLECTIONS AT JOINTS.
  - ALL PLUGS AT END OF WATER LINES SHALL HAVE A 2" BLOWOFF IN MANHOLE. REFER TO SHEET 13 FOR DETAIL.

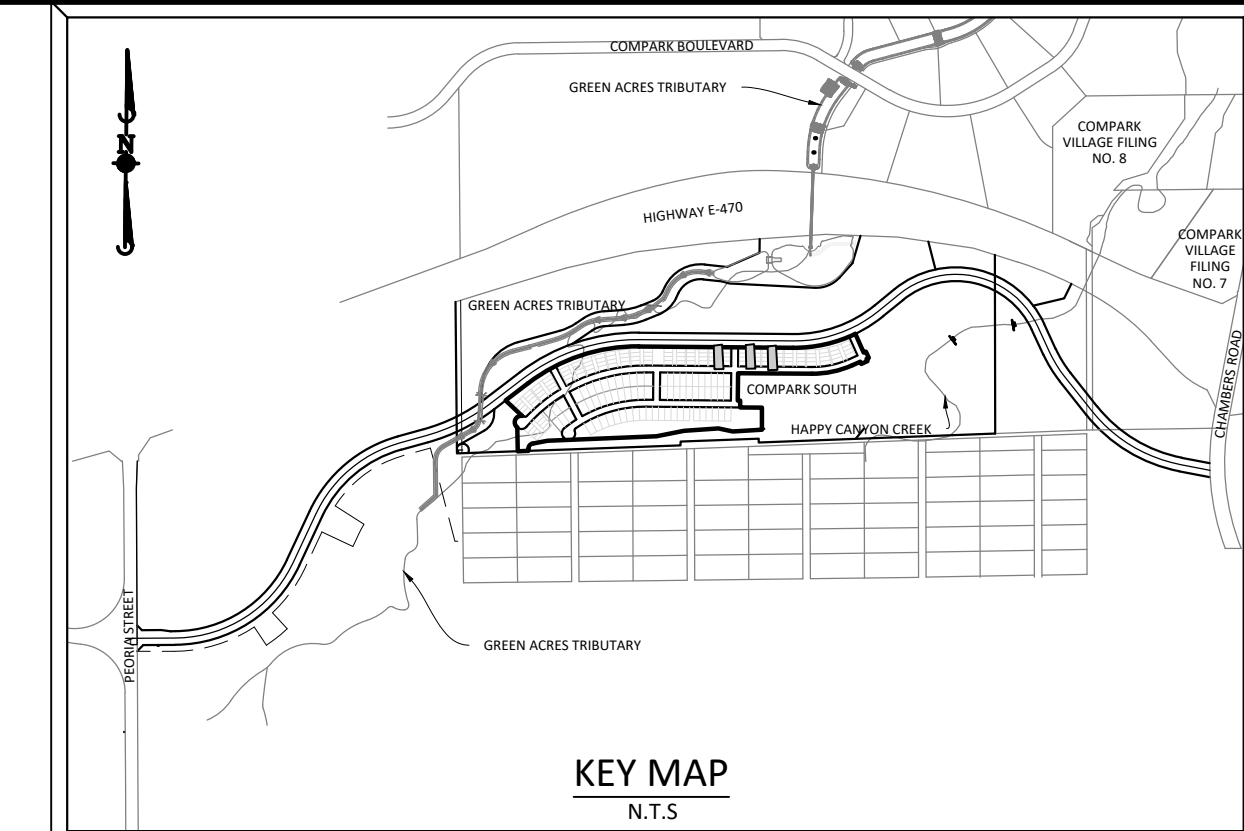
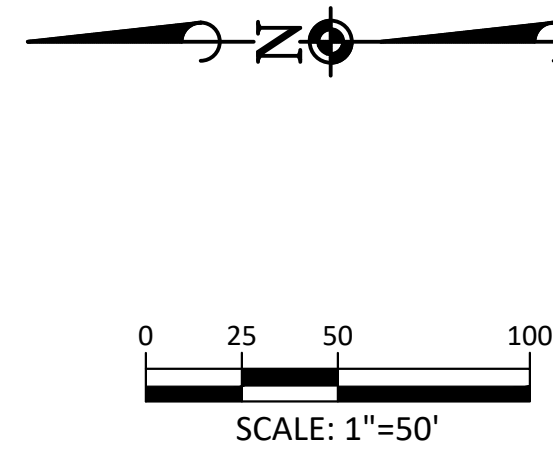
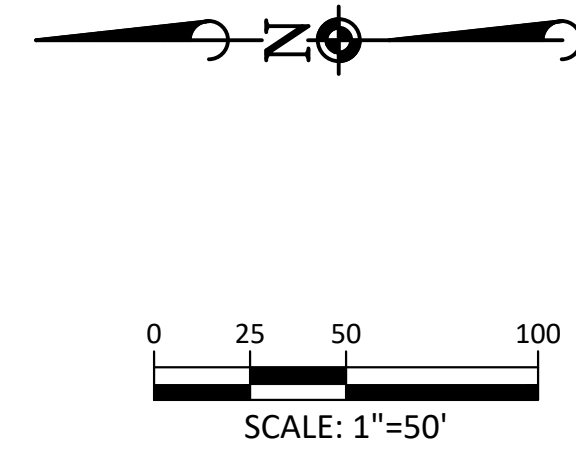
**COMPARK VILLAGE SOUTH FILING NO. 2 - AMENDMENT NO. 1**  
**TOWN OF PARKER, COLORADO**  
**SANITARY SEWER PLAN AND PROFILE - BUNNY HOP LANE**

PROJECT NO: 37642  
 DATE: 11-20-2020  
 PROFESSIONAL ENGINEER

PROJ. MGR.: RJM  
 PROJ. ASSOC.: RAK  
 DRAWN BY: ASD  
 DATE: 10/20/16

**SHEET 8 OF 14**  
 CLCPK3



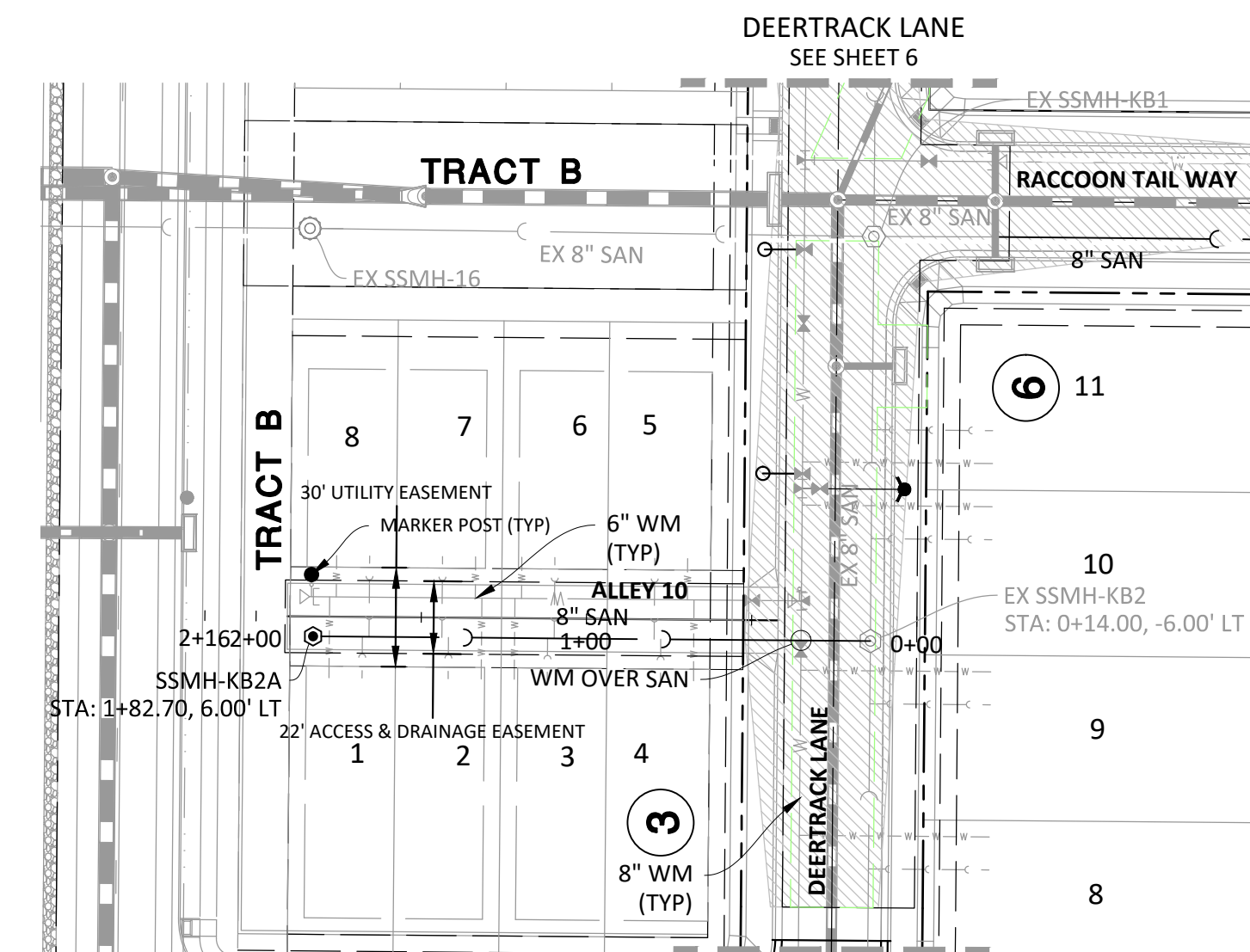


**KEY MAP**  
N.T.S.

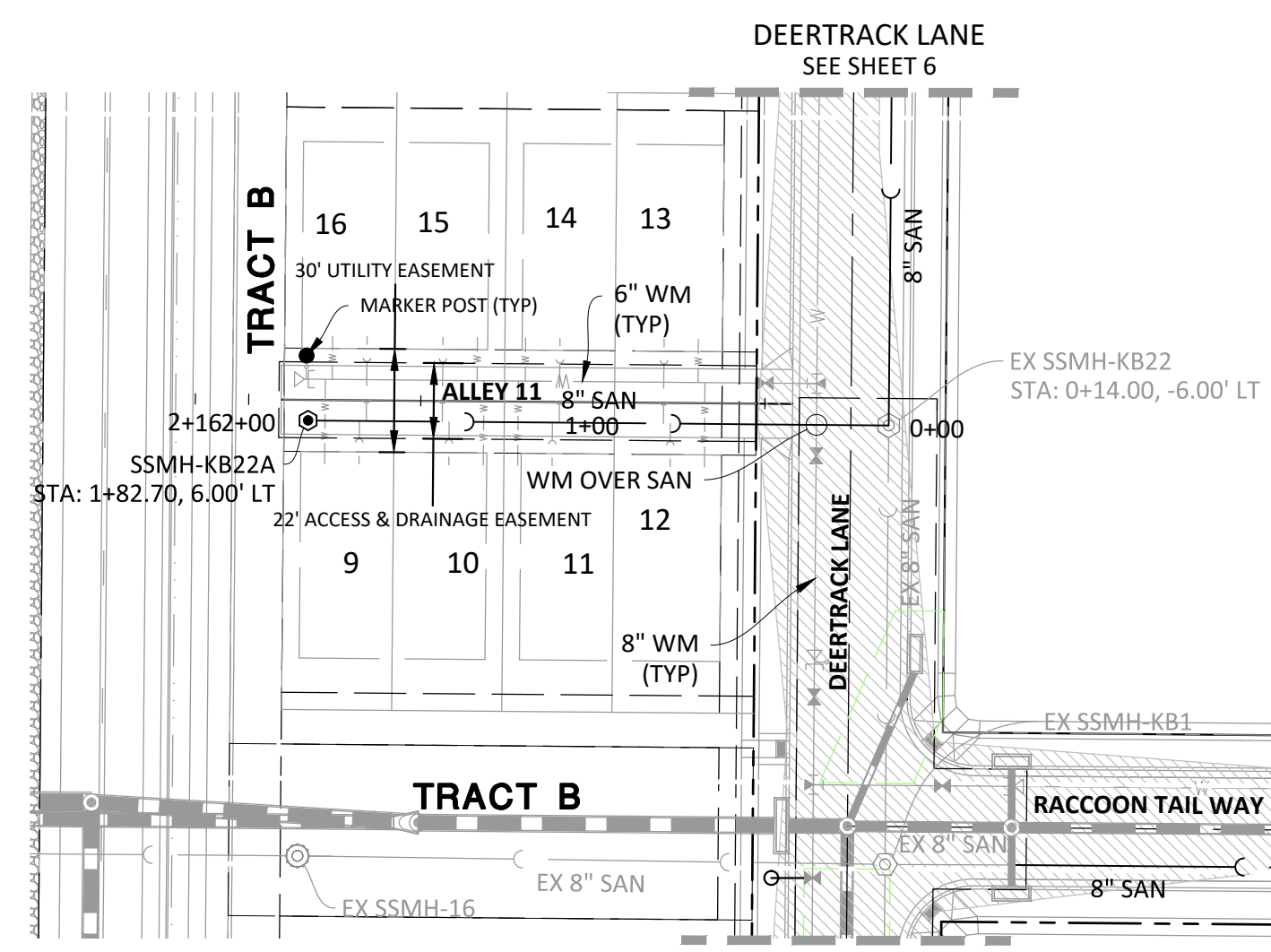
**SOURCE BENCHMARKS:**  
DOUGLAS COUNTY BM 1.115010  
A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF THE CENTERLINE OF COMPARK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)

- NOTES:**
1. SET ALL MANHOLE RIMS NOT IN PAVED AREAS 6" ABOVE FINISHED GRADE AND PROVIDE CARSONITE MARKER POST AT 5' OFFSET W/ CONCRETE COLLAR.
  2. ALL WATER LINES WITHIN THE COMPARK SOUTH DEVELOPMENT WILL BE REQUIRED TO BE C9000 DR14 PIPE MATERIAL WITH A MINIMUM 4.5' OF COVER.
  3. WATER MAIN SHALL BE CONSTRUCTED USING MANUFACTURER SPECIFICATION: EBAA IRON SERIES 3800 MEGACOUPLING HIGH DEFLECTION COUPLINGS SHALL BE UTILIZED FOR ALL DEFLECTIONS AT JOINTS.
  4. ALL PLUGS AT END OF WATER LINES SHALL HAVE A 2" BLOWOFF IN MANHOLE. REFER TO SHEET 13 FOR DETAIL.

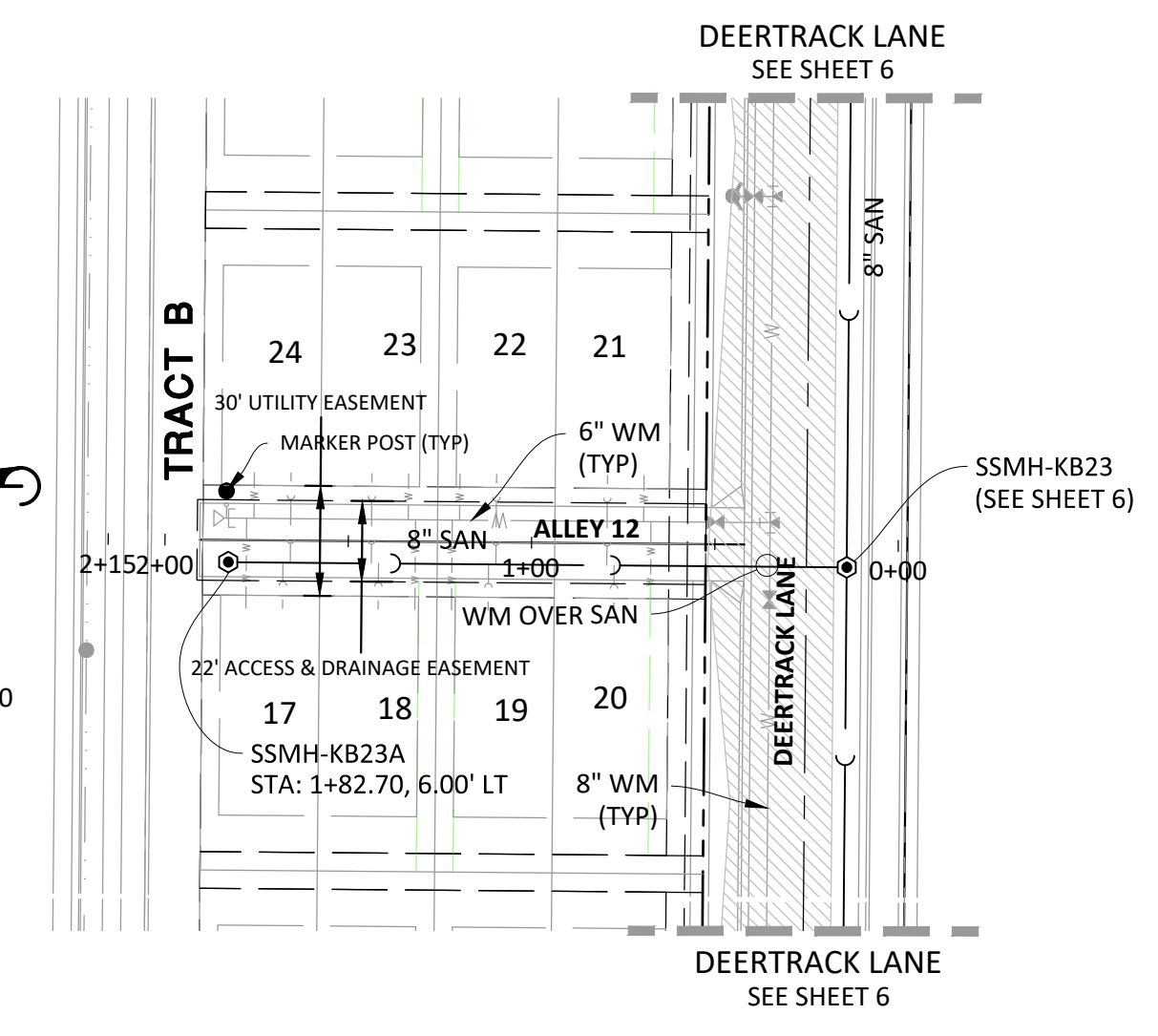
DATE	REVISIONS
11/20/20	REVISED PER SVD COMMENTS
07/20/17	FINAL SUBMITTAL
06/20/17	REVISED ALLEY EASEMENTS
08/20/16	REVISED PER SVD COMMENTS



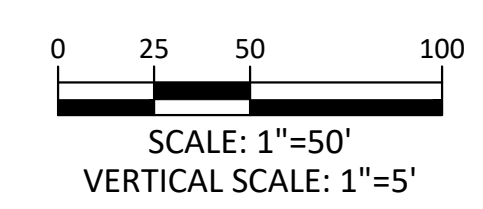
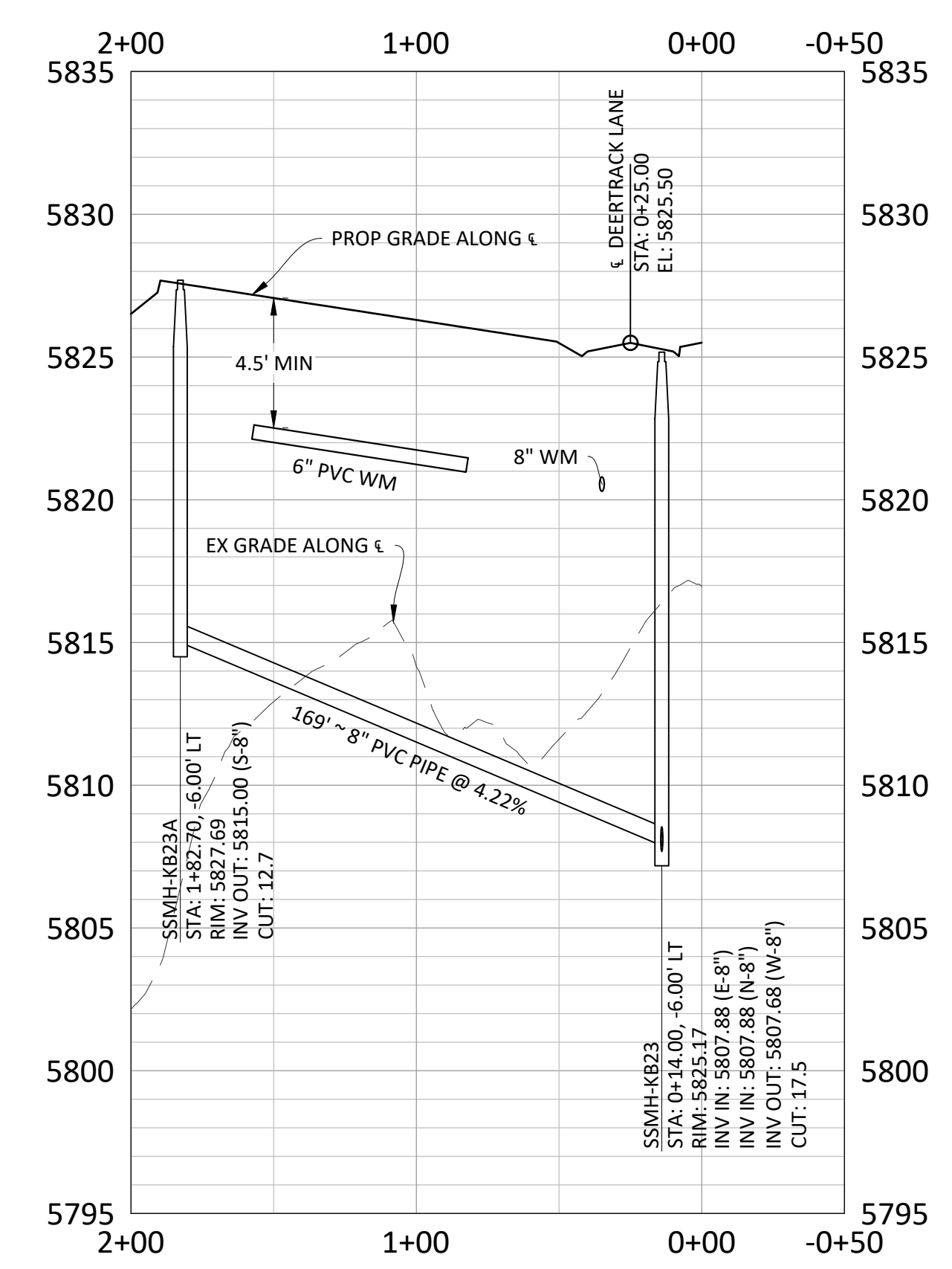
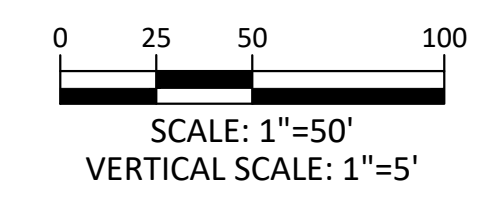
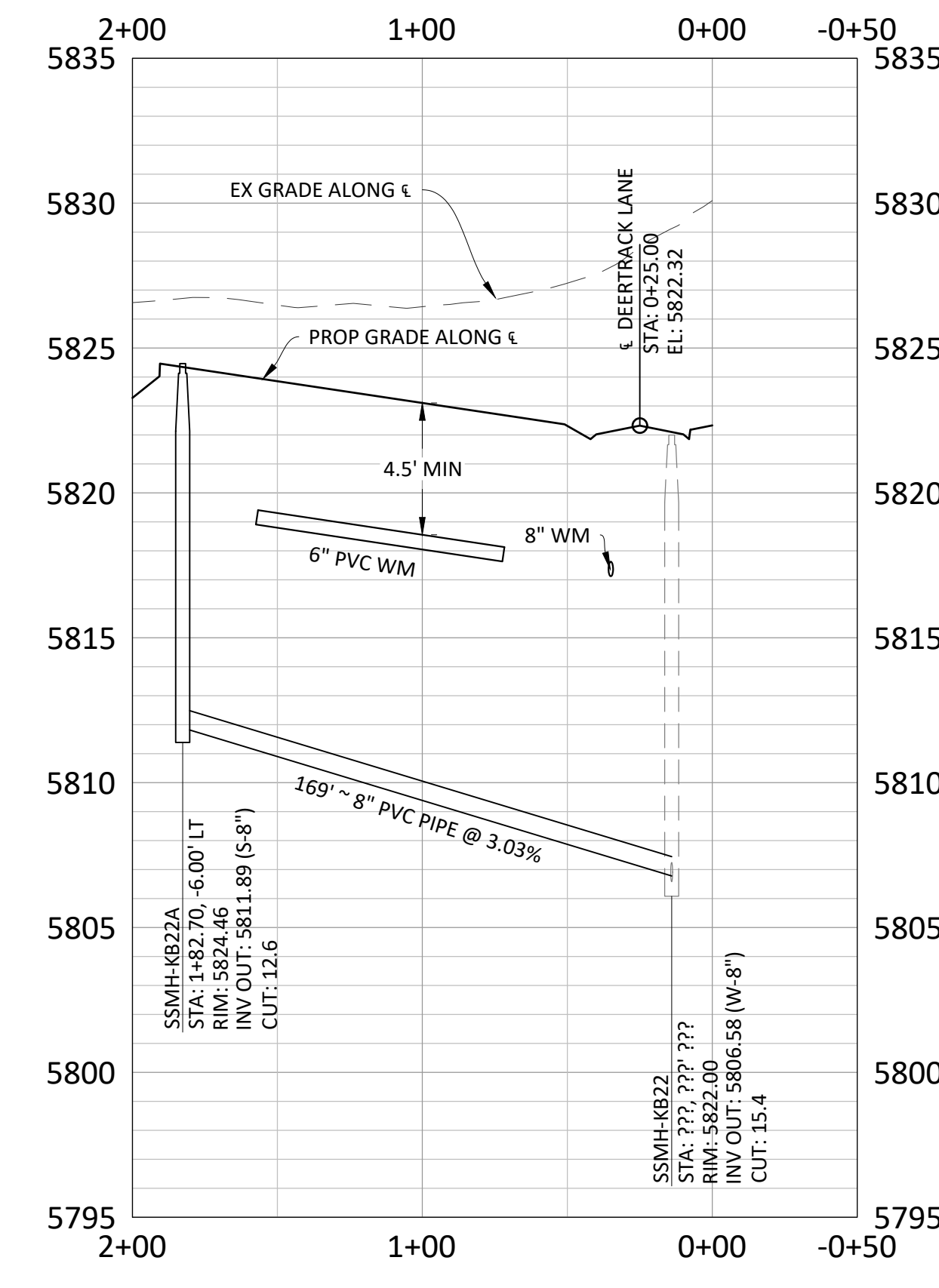
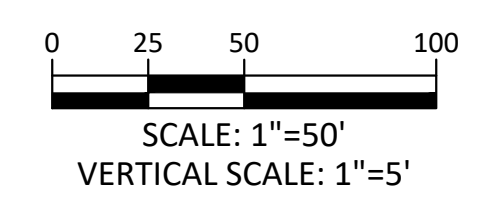
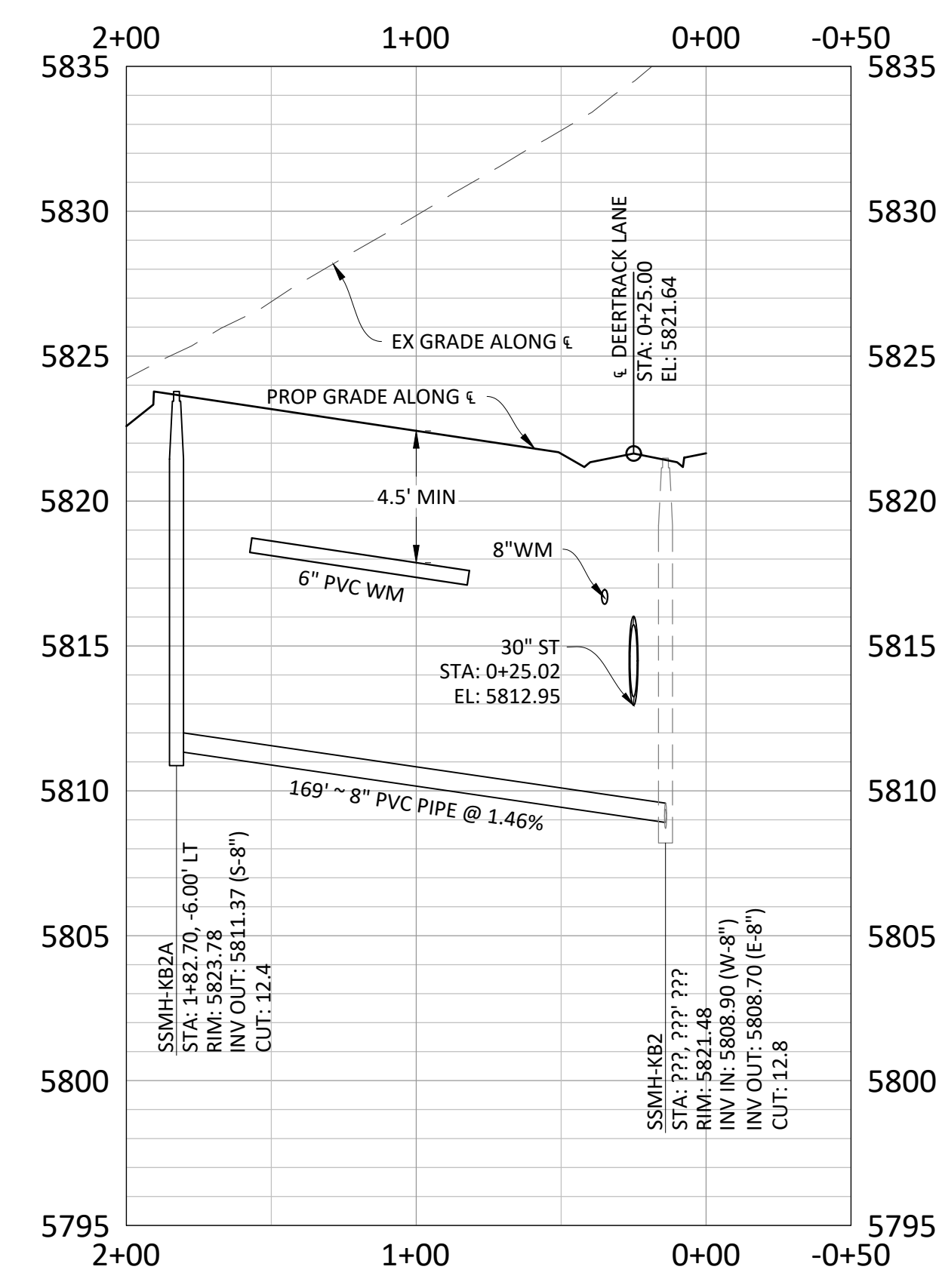
**ALLEY 10**



**ALLEY 11**



**ALLEY 12**



Plotted: 11/20/2020 9:50 AM. Dwg Name: C:\pdk3\homsouth05-residential.ctb\Drawings\Plan Set\District\PHASE 2\05B-P&P-7-Alley 10-12.dwg. Updated By: JHawthorne

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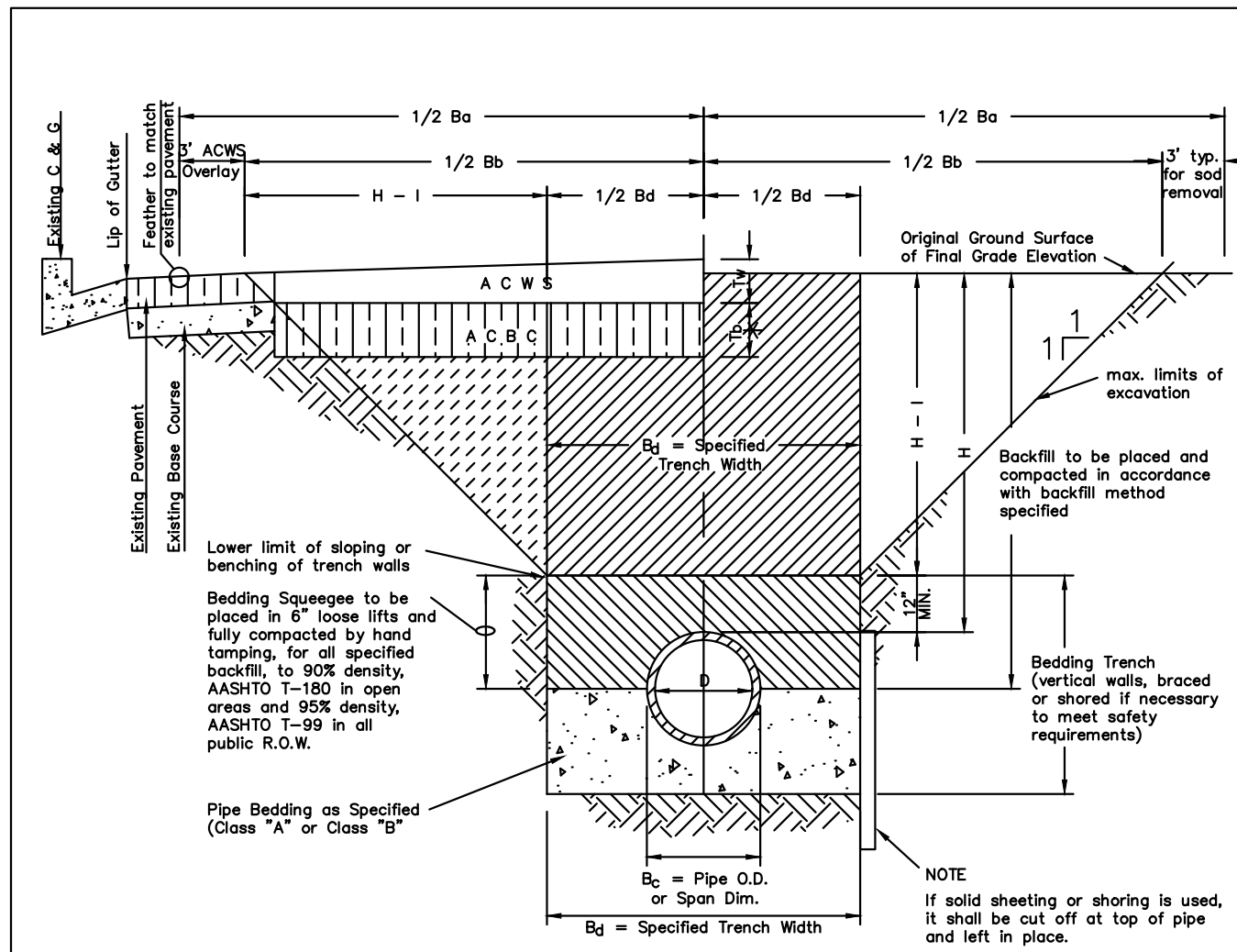
**COMPARK VILLAGE SOUTH FILING NO. 2 - AMENDMENT NO. 1**  
**TOWN OF PARKER, COLORADO**  
**SANITARY SEWER PLAN AND PROFILE - ALLEY 10-12**

37642  
11-20-2020  
PROFESSIONAL ENGINEER

PROJ. MGR.: RJM  
PROJ. ASSOC.: RAK  
DRAWN BY: ASD  
DATE: 10/20/16

**SHEET 10 OF 14**  
CLCPK3



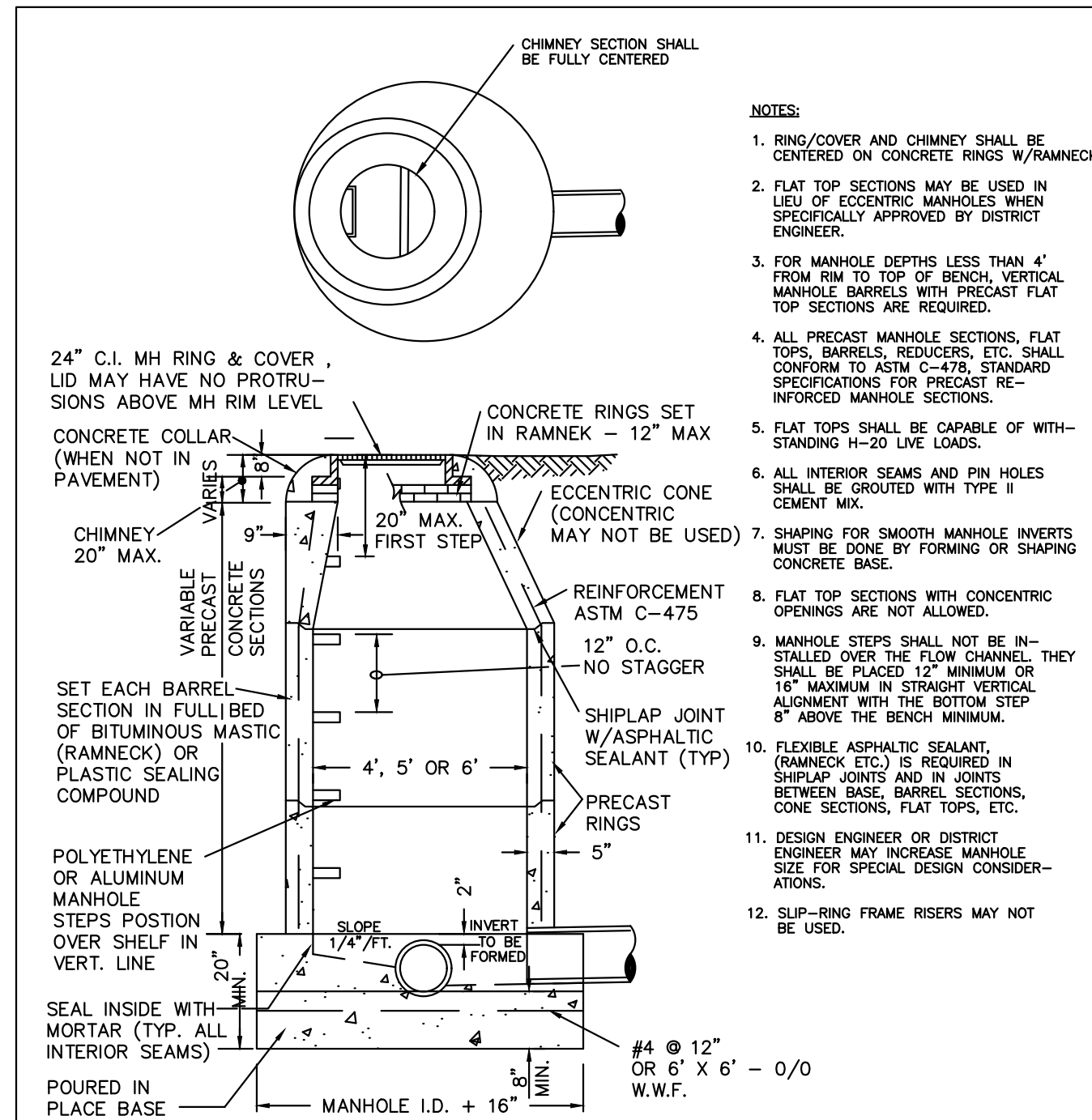


**TYPICAL TRENCH DETAIL**

Notes:  
 1. Slipping or benching of trench side walls, where permitted shall be in accordance with applicable Federal, State and Local safety regulations.  
 2. Trench shall be braced and shored as necessary to afford safe working conditions or to protect adjacent utilities, structures, etc. Unless otherwise specified on the plans, no pavement will be made for removal, replacement or relocation of curb and gutter, utilities, sidewalk, structures, etc. outside the maximum limits of excavation as shown and the contractor shall be responsible for protection of same.  
 3. If dimension  $T_b$  is  $\leq 5'$ , then existing asphalt pavement shall be removed and replaced up to the gutter. Maximum asphalt pay width,  $B_a$  &  $B_b$  shall then be based upon this actual width.

STREET WIDTH	ASPHALTIC BASE COURSE (T <sub>b</sub> )	ASPHALTIC WEARING SURFACE (T <sub>w</sub> )	TOTAL THICKNESS (T <sub>a</sub> )
UP TO 36'	4"	2"	6"
36' TO 44'	4"	3"	7"
44' TO 48'	5"	3"	8"
WIDER THAN 48'	6"	3"	9"

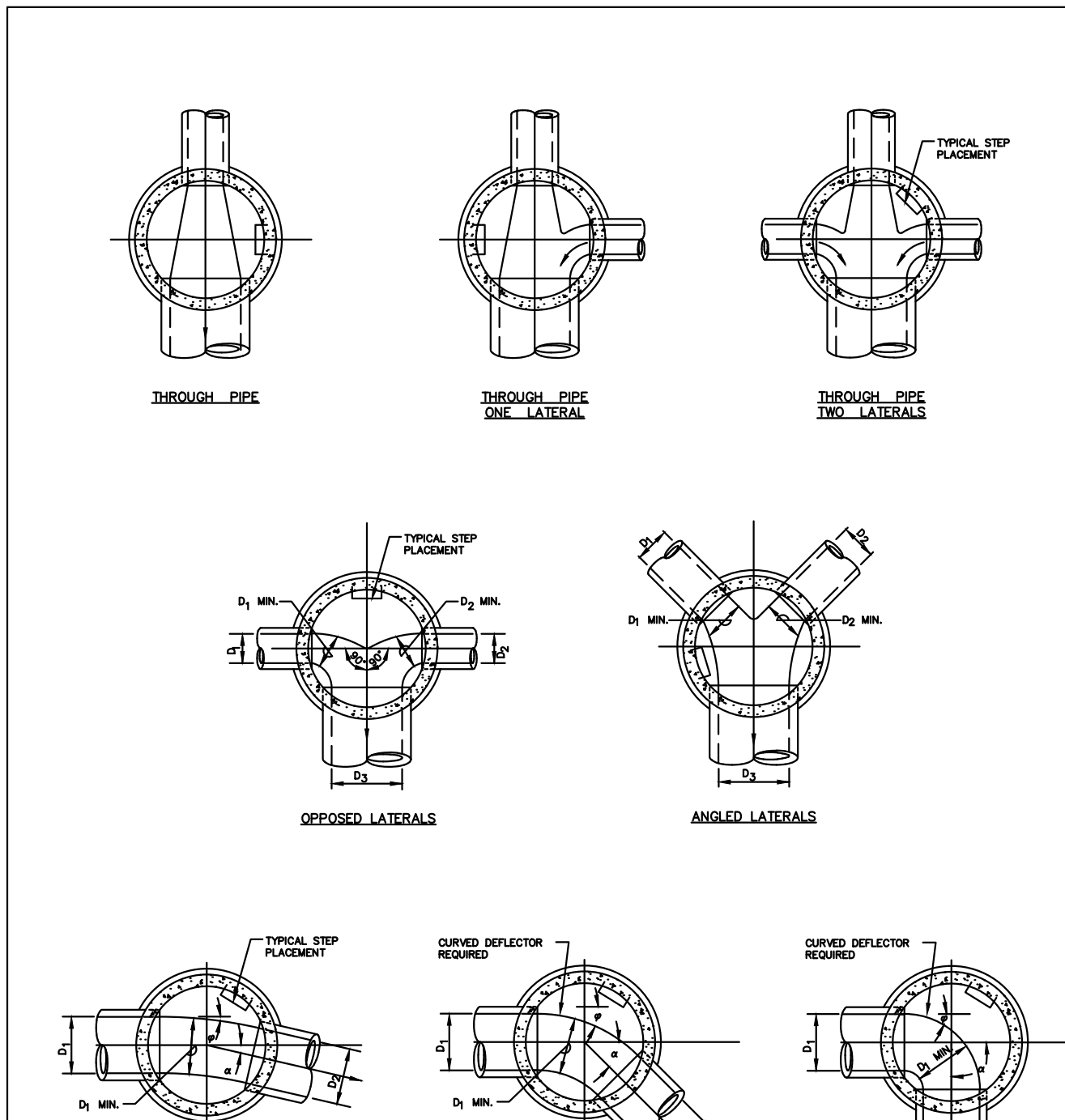
SCALE: NONE DATE: 4/20  
 APPROVED: RJC DISTRICT ENGINEER



**STONEGATE VILLAGE METROPOLITAN DISTRICT PRECAST MANHOLE ECCENTRIC CONE**

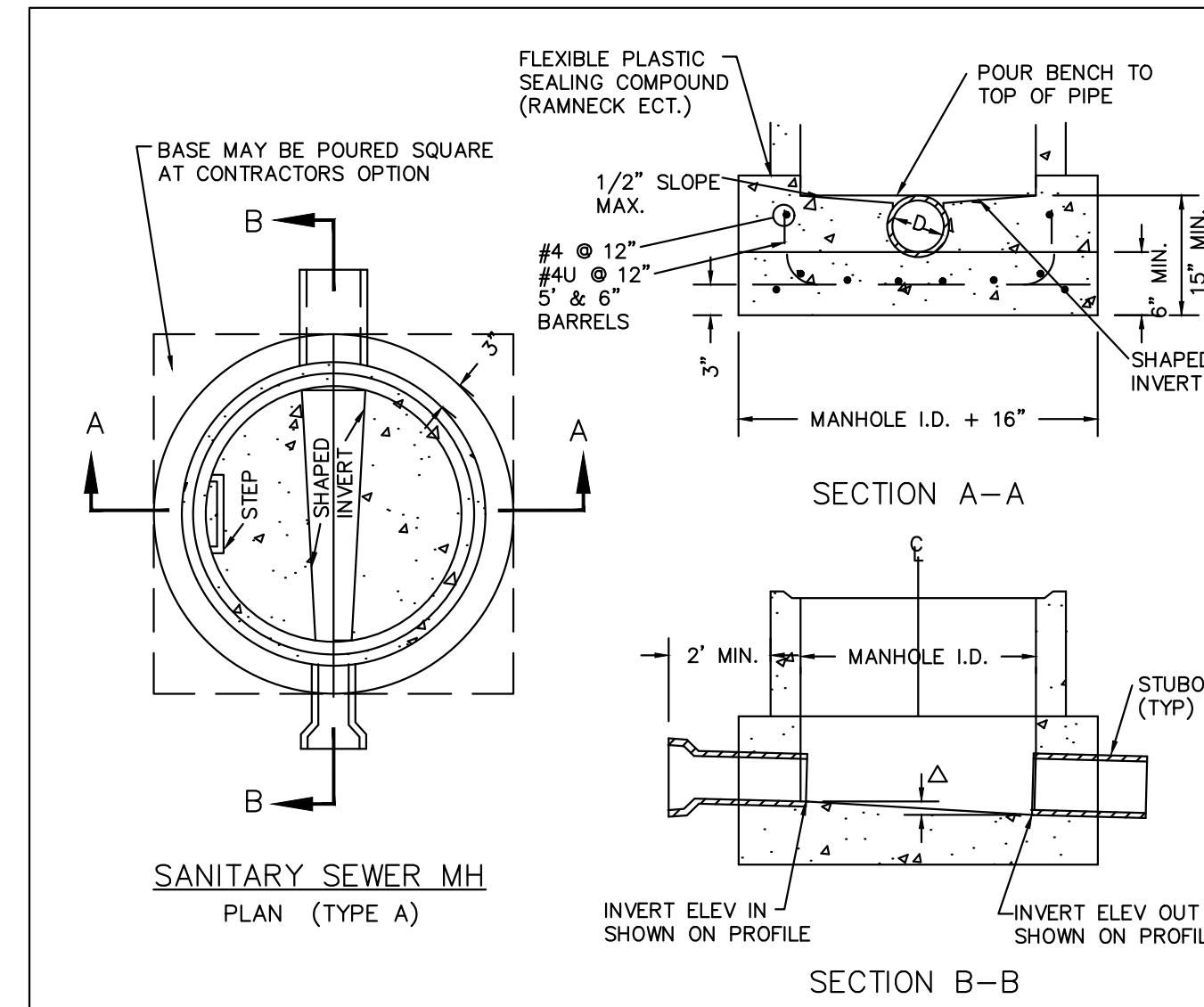
PIPE I.D.	MANHOLE I.D.
18" & SMALLER	4'-0"
21" TO 48"	5'-0"
54"	6'-0"
60" & LARGER	SPECIAL DESIGN

SCALE: NONE DATE: 4/20  
 APPROVED: RJC DISTRICT ENGINEER



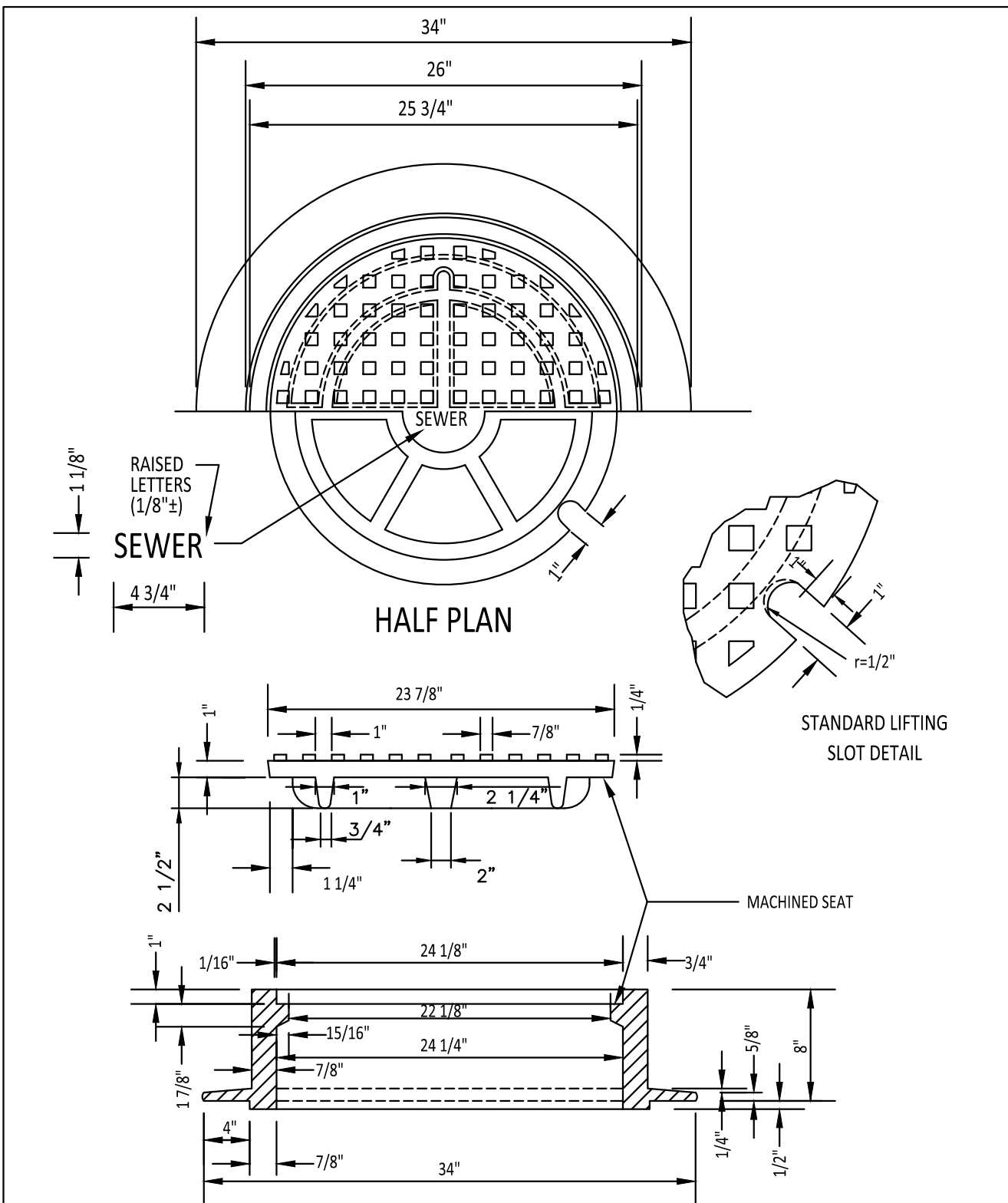
**STONEGATE VILLAGE METROPOLITAN DISTRICT TYPICAL BASE CHANNELIZATION DETAILS**

SCALE: NONE DATE: 4/20  
 APPROVED: RJC DISTRICT ENGINEER



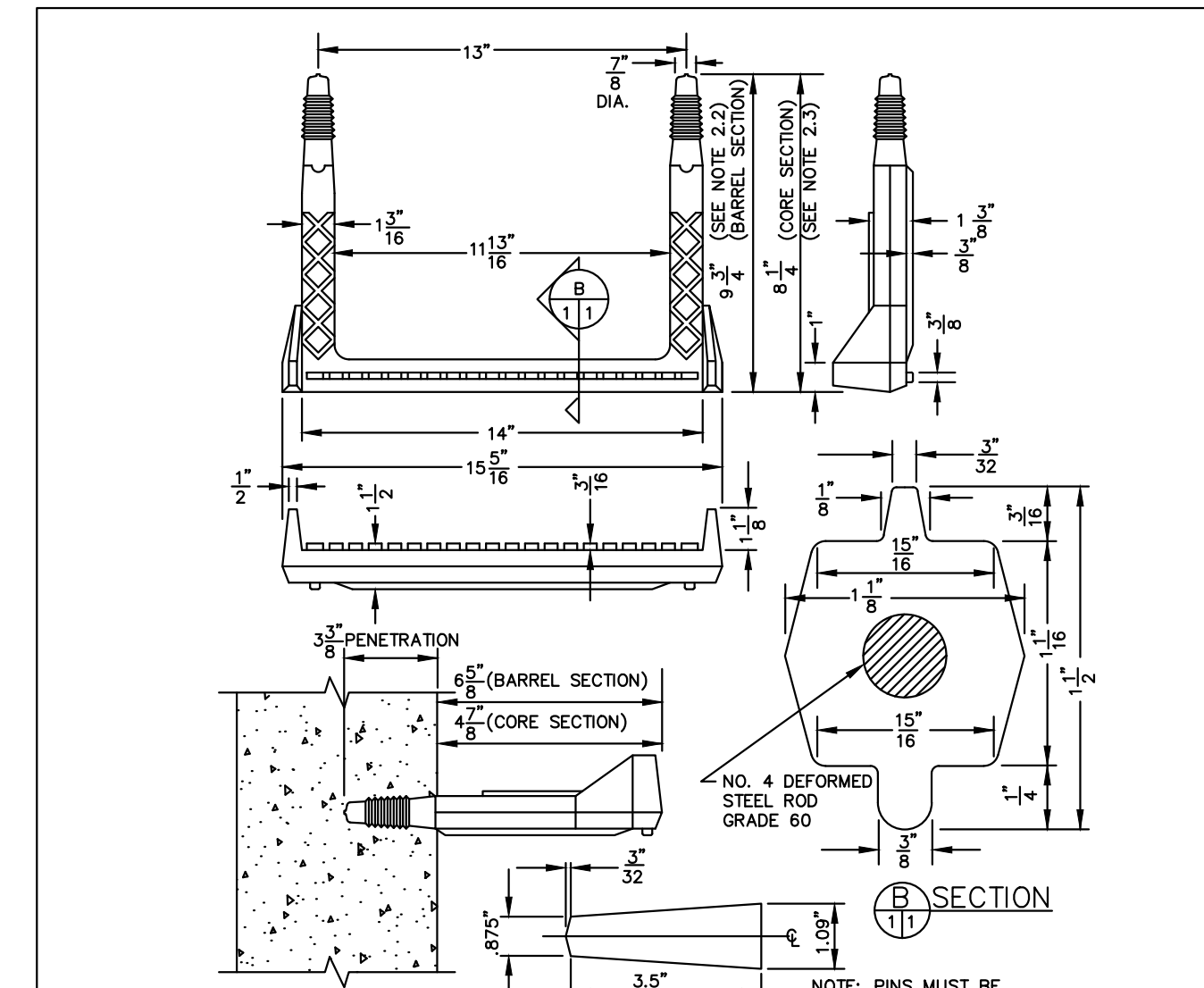
**STONEGATE VILLAGE METROPOLITAN DISTRICT CAST-IN-PLACE MANHOLE BASE DETAIL**

SCALE: NONE DATE: 4/20  
 APPROVED: RJC DISTRICT ENGINEER



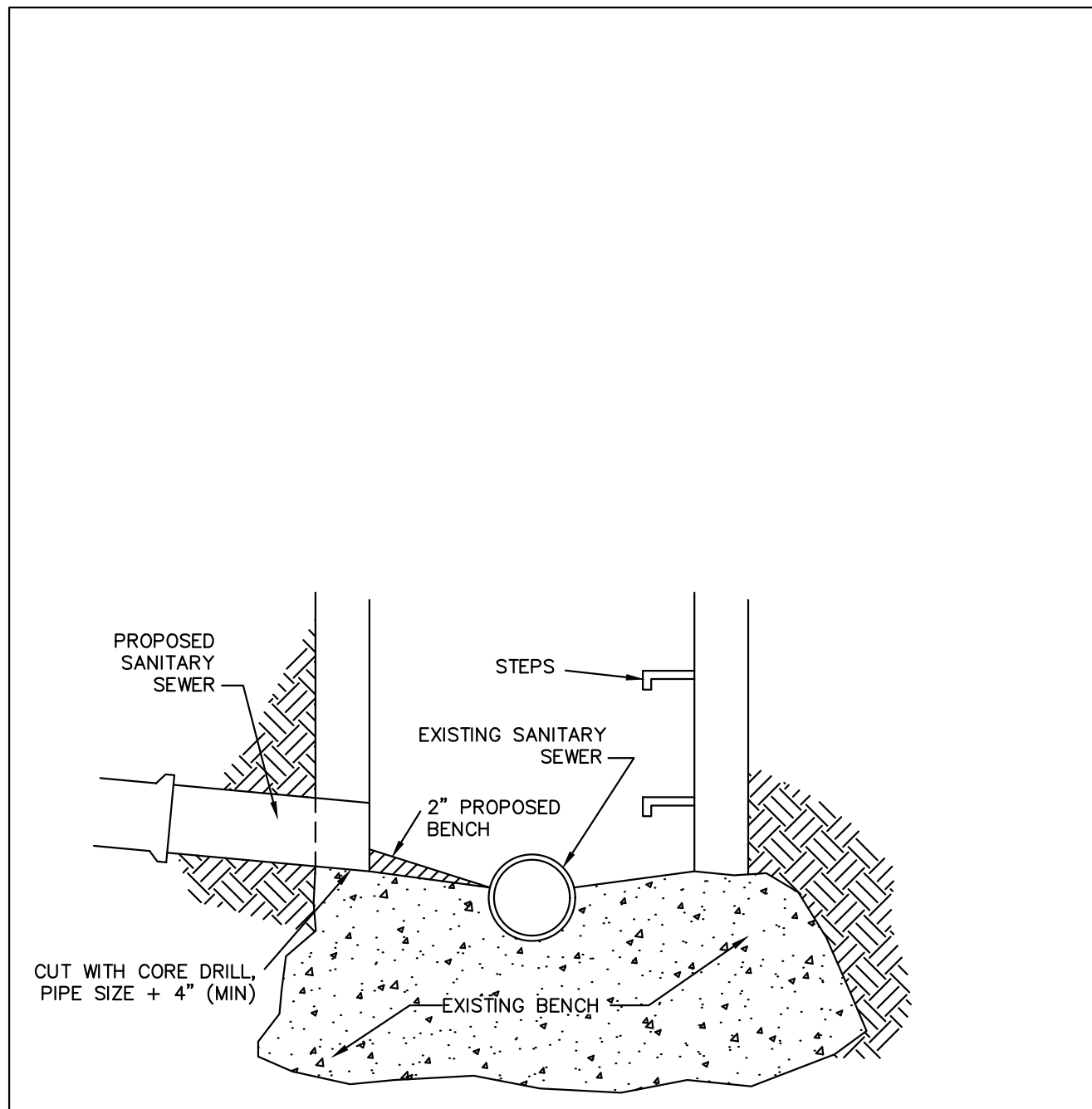
**STONEGATE VILLAGE METROPOLITAN DISTRICT 24\"/>**

SCALE: NONE DATE: 4/20  
 APPROVED: RJC DISTRICT ENGINEER



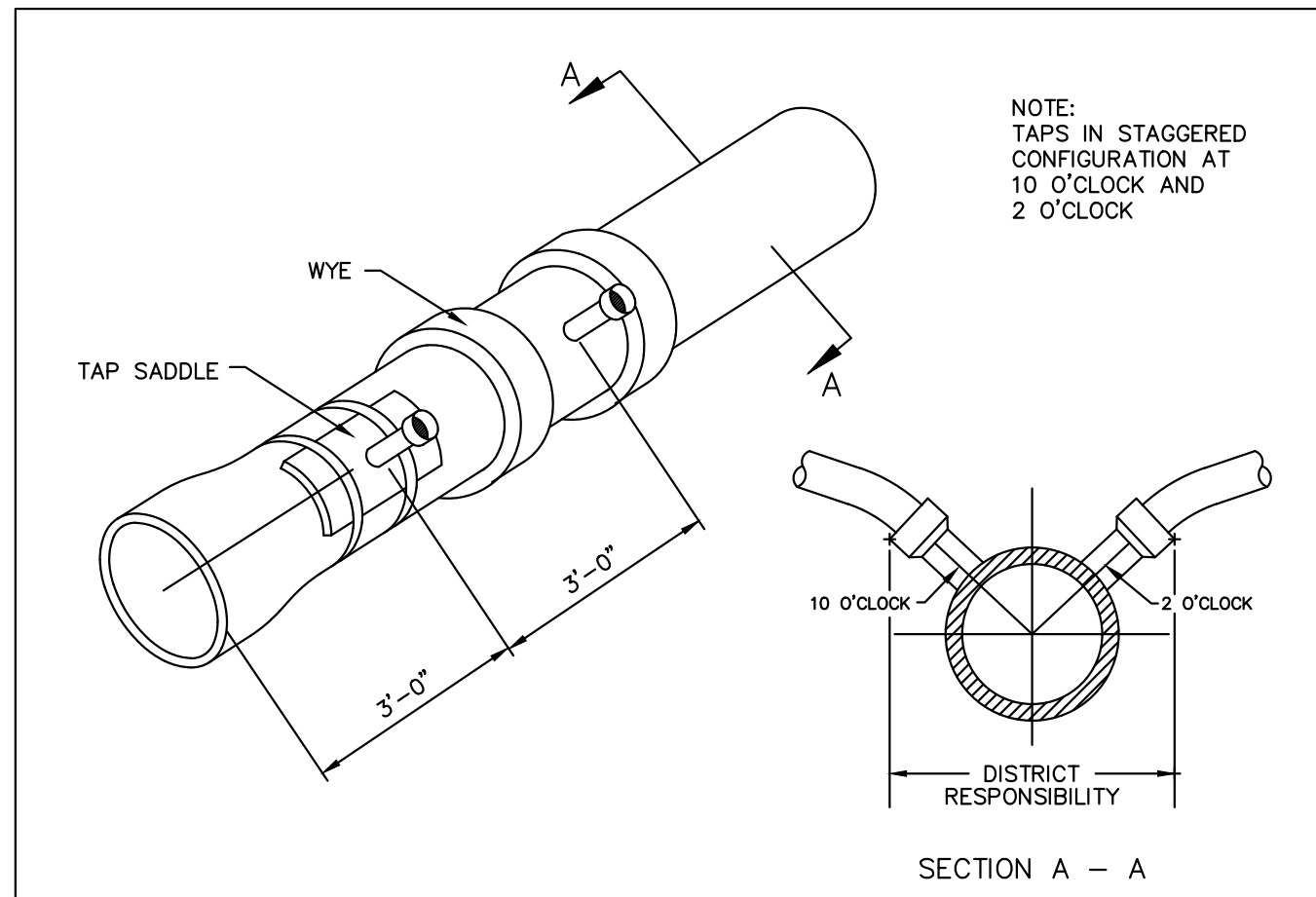
**STONEGATE VILLAGE METROPOLITAN DISTRICT POLYPROPYLENE REINFORCED PLASTIC MANHOLE STEP**

SCALE: NONE DATE: 4/20  
 APPROVED: RJC DISTRICT ENGINEER



**STONEGATE VILLAGE METROPOLITAN DISTRICT MANHOLE INVERT TIE-IN DETAIL**

SCALE: NONE DATE: 4/20  
 APPROVED: RJC DISTRICT ENGINEER



**STONEGATE VILLAGE METROPOLITAN DISTRICT DOMESTIC SEWER TAPPING DETAIL**

SCALE: NONE DATE: 4/20  
 APPROVED: RJC DISTRICT ENGINEER

Plotted: 11/20/2020 9:53 AM. Dwg Name: D:\C\p3\3\homework\residential\cd\dwg\Enr\Final drawings\Plan Set\District\PHASE 2\05B-SANITARY DETAILS.dwg. Updated By: RJK

DRAWN BY: [ ]  
 CHECKED BY: [ ]  
 DATE: [ ]  
 REVISIONS: [ ]  
 DATE: [ ]  
 11/20/2020 REVISED PER SVAD COMMENTS  
 07/20/2017 FINAL SUBMITTAL  
 06/20/17 REVISED ALLEY EASEMENTS  
 08/20/16 REVISED PER SVAD COMMENTS

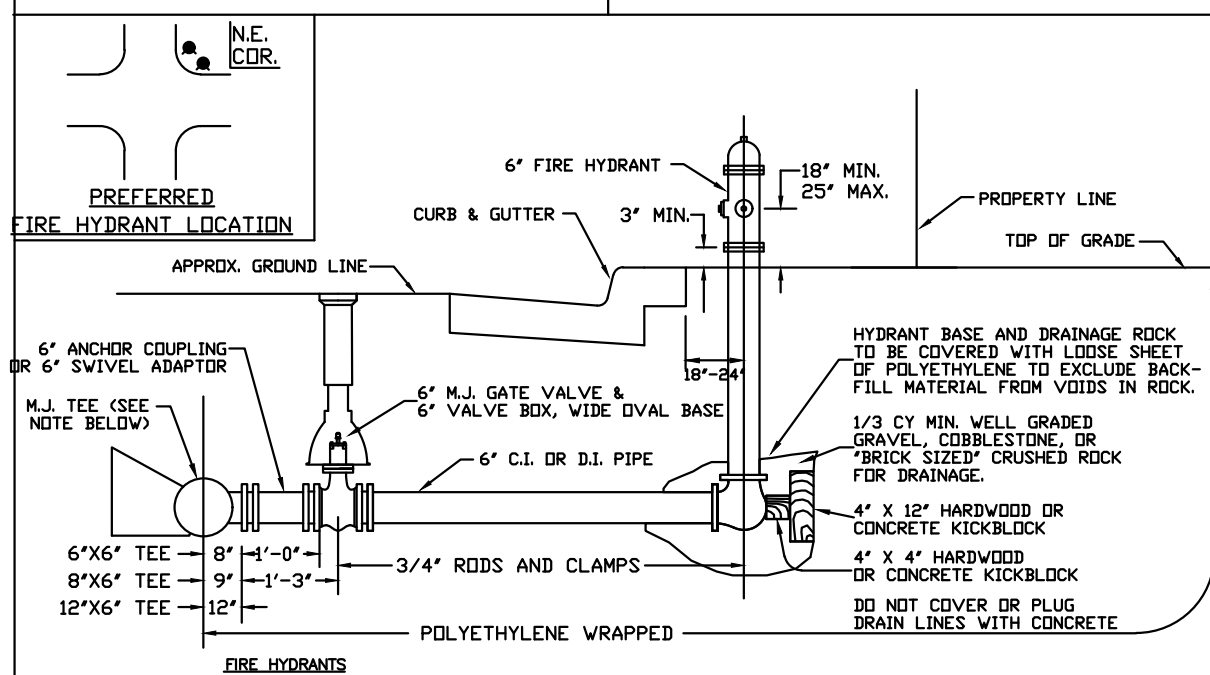
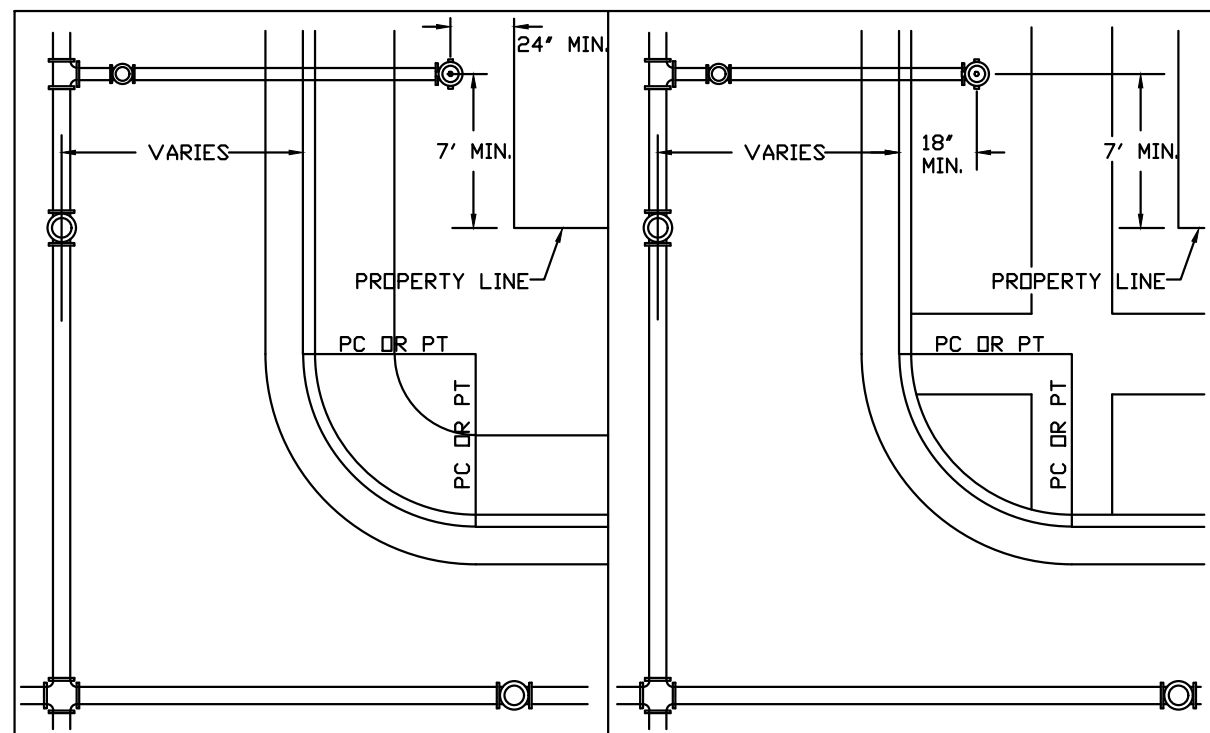
**Manhard CONSULTING**  
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**COMPARK VILLAGE SOUTH FILING NO. 2 - AMENDMENT NO. 1**  
**TOWN OF PARKER, COLORADO**  
**SANITARY SEWER CONSTRUCTION DETAILS**

PROJECT NO: 37642  
 11-20-2020  
 PROFESSIONAL ENGINEER

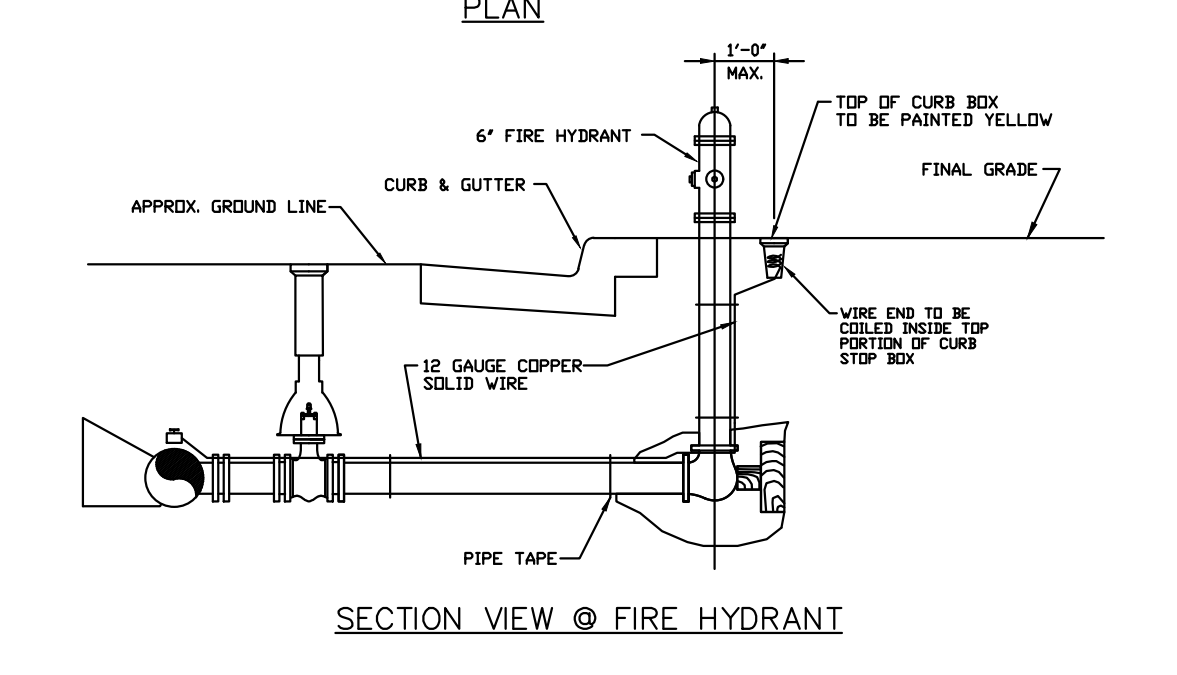
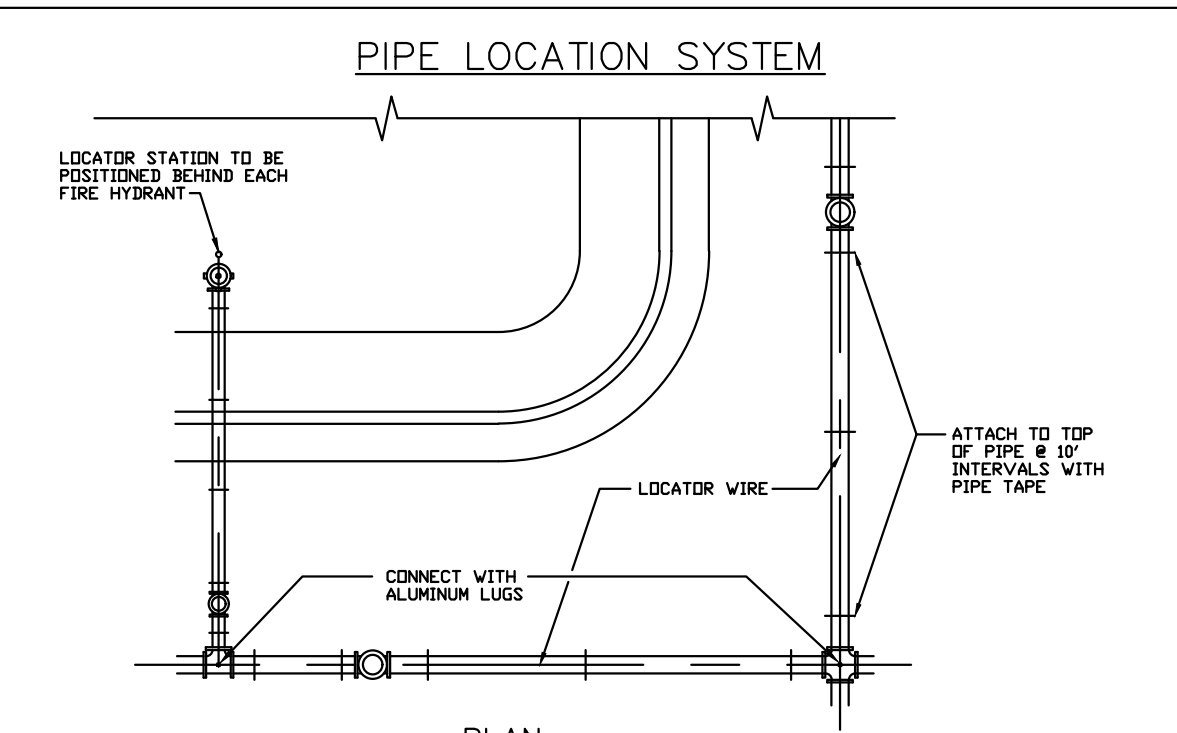
PROJ. MGR.: RJM  
 PROJ. ASSOC.: RAK  
 DRAWN BY: ASD  
 DATE: 10/20/16

**SHEET 14 OF 14**  
 CLCPK3

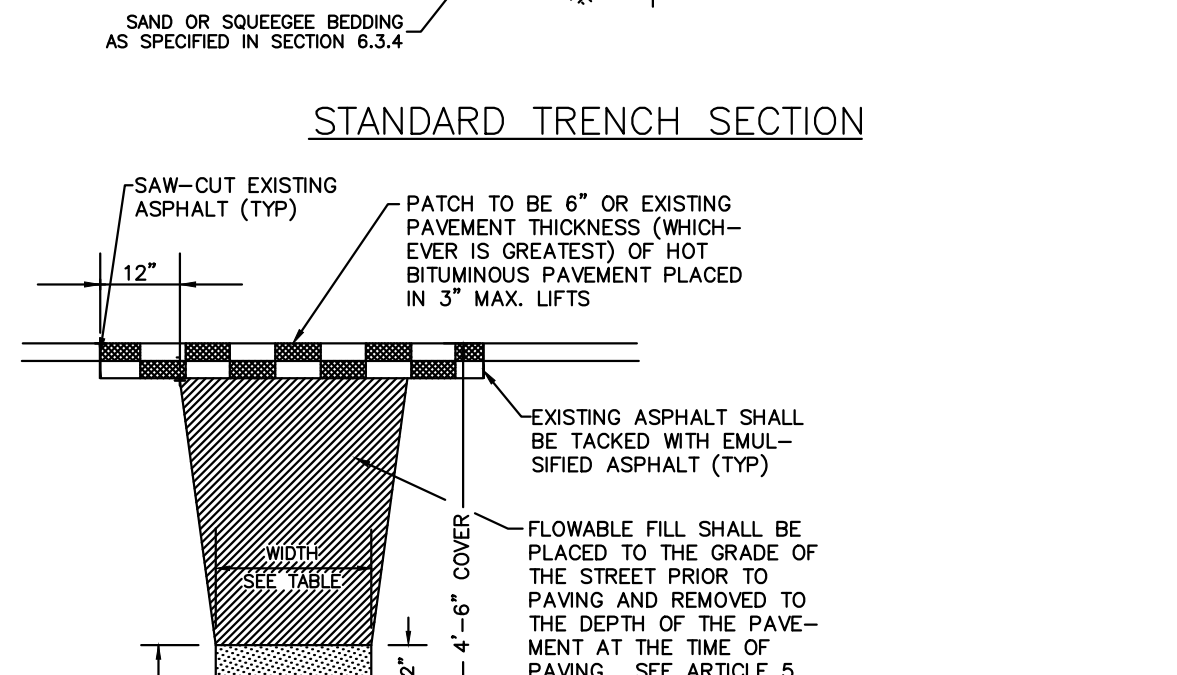
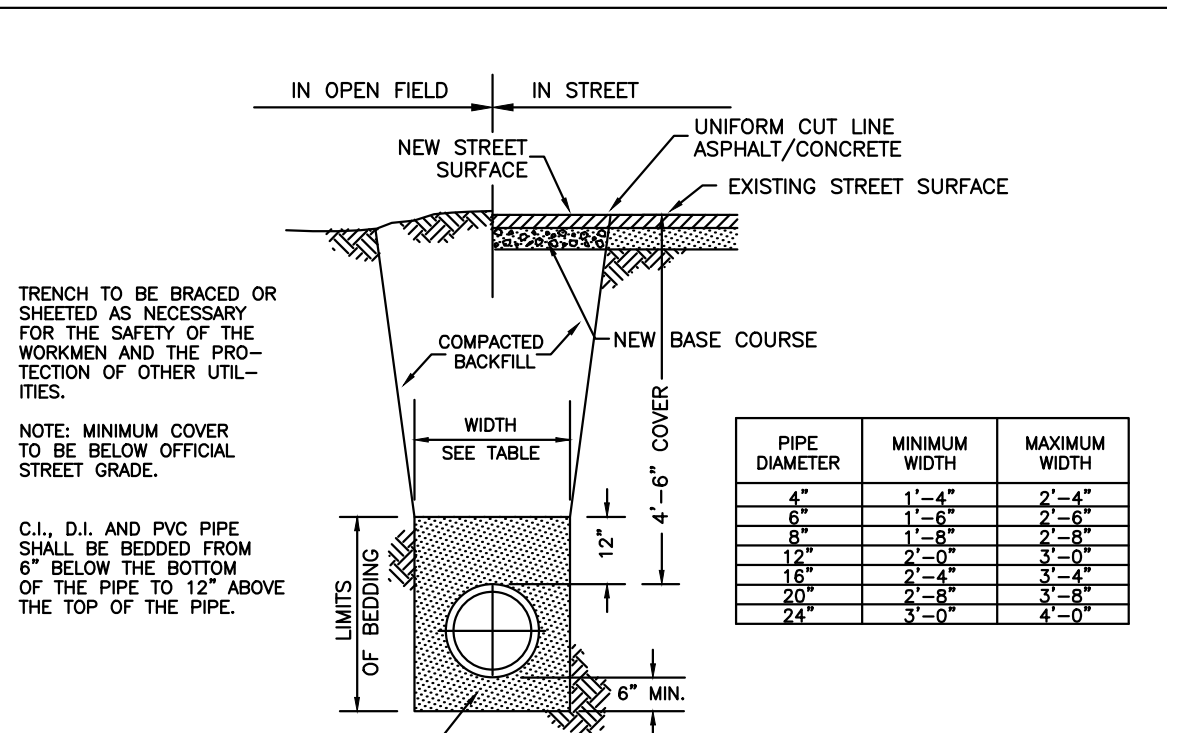


Manufacturer	Model No.	Options to be furnished
Mueller Company	Centurion Model 423	Furnish standard product, no additional options required.
Waterco Company	Power Model 47	Hydrant shall include a bronze bushed area providing bronze to bronze seating for the main top seal, compatible with C-ring sealings.

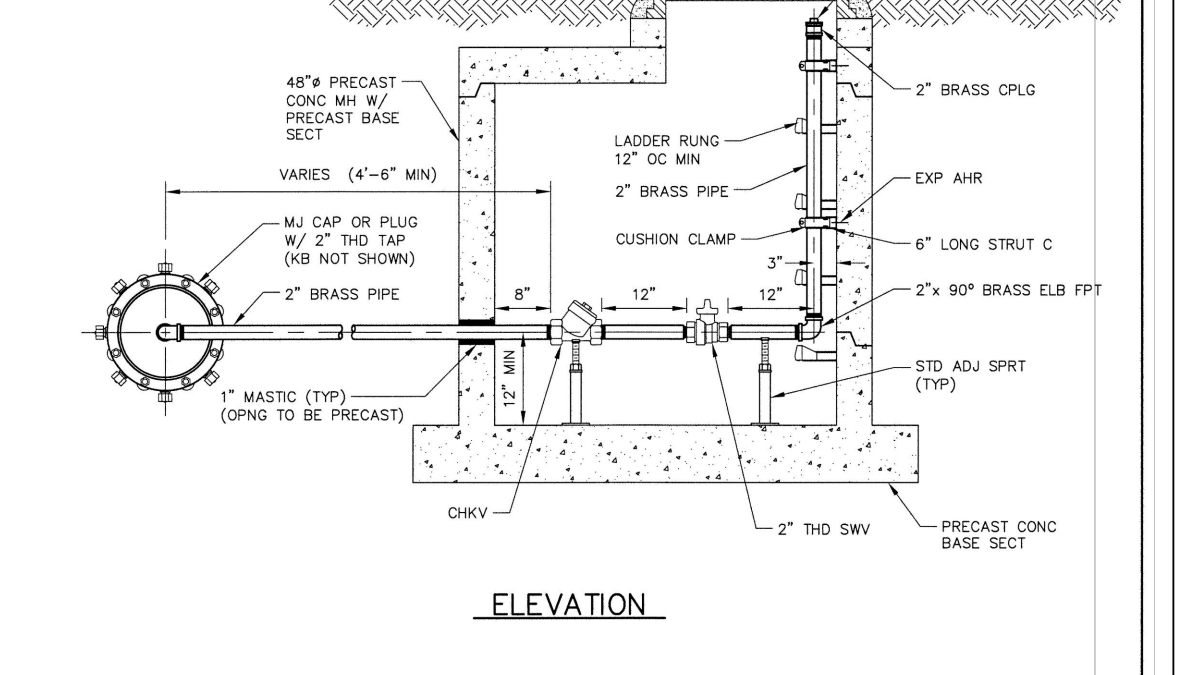
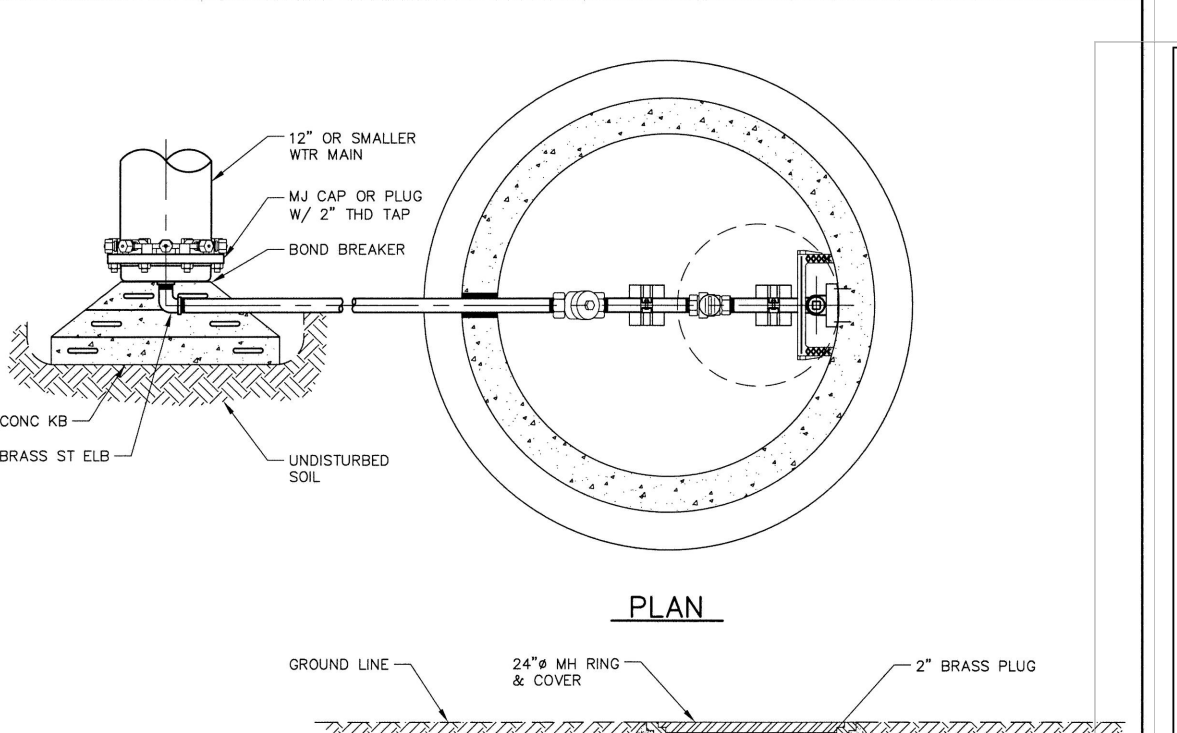
STONEGATE VILLAGE METROPOLITAN DISTRICT FIRE HYDRANTS LOCATION & INSTALLATION	
SCALE: NONE	DATE: 4/00
APPROVED: R/JG	DISTRICT ENGINEER



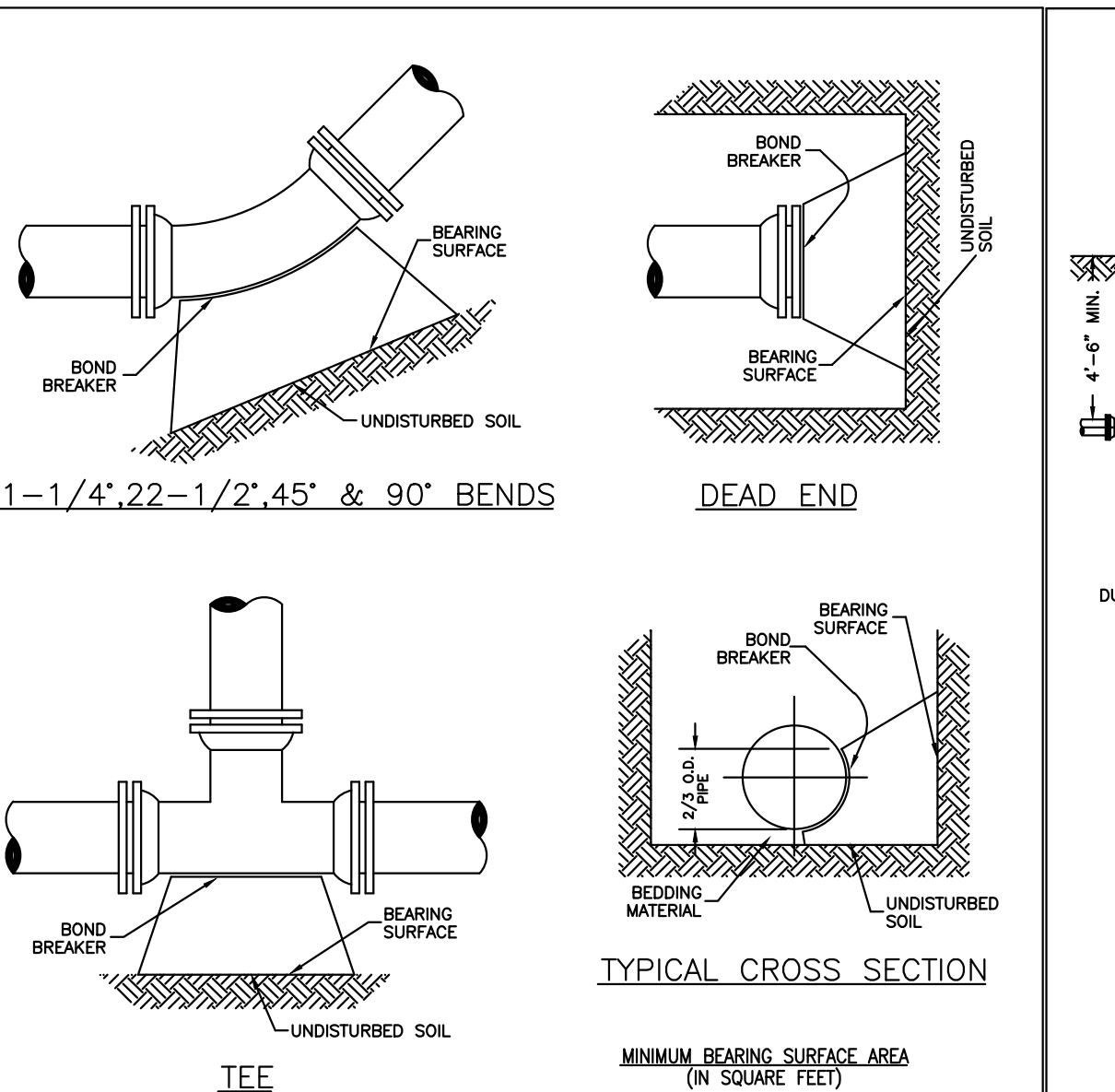
STONEGATE VILLAGE METROPOLITAN DISTRICT LOCATOR WIRE DETAILS	
SCALE: NONE	DATE: 4/00
APPROVED: R/JG	DISTRICT ENGINEER



STONEGATE VILLAGE METROPOLITAN DISTRICT TYPICAL TRENCH SECTION PIPE PROTECTION	
SCALE: NONE	DATE: 4/00
APPROVED: R/JG	DISTRICT ENGINEER

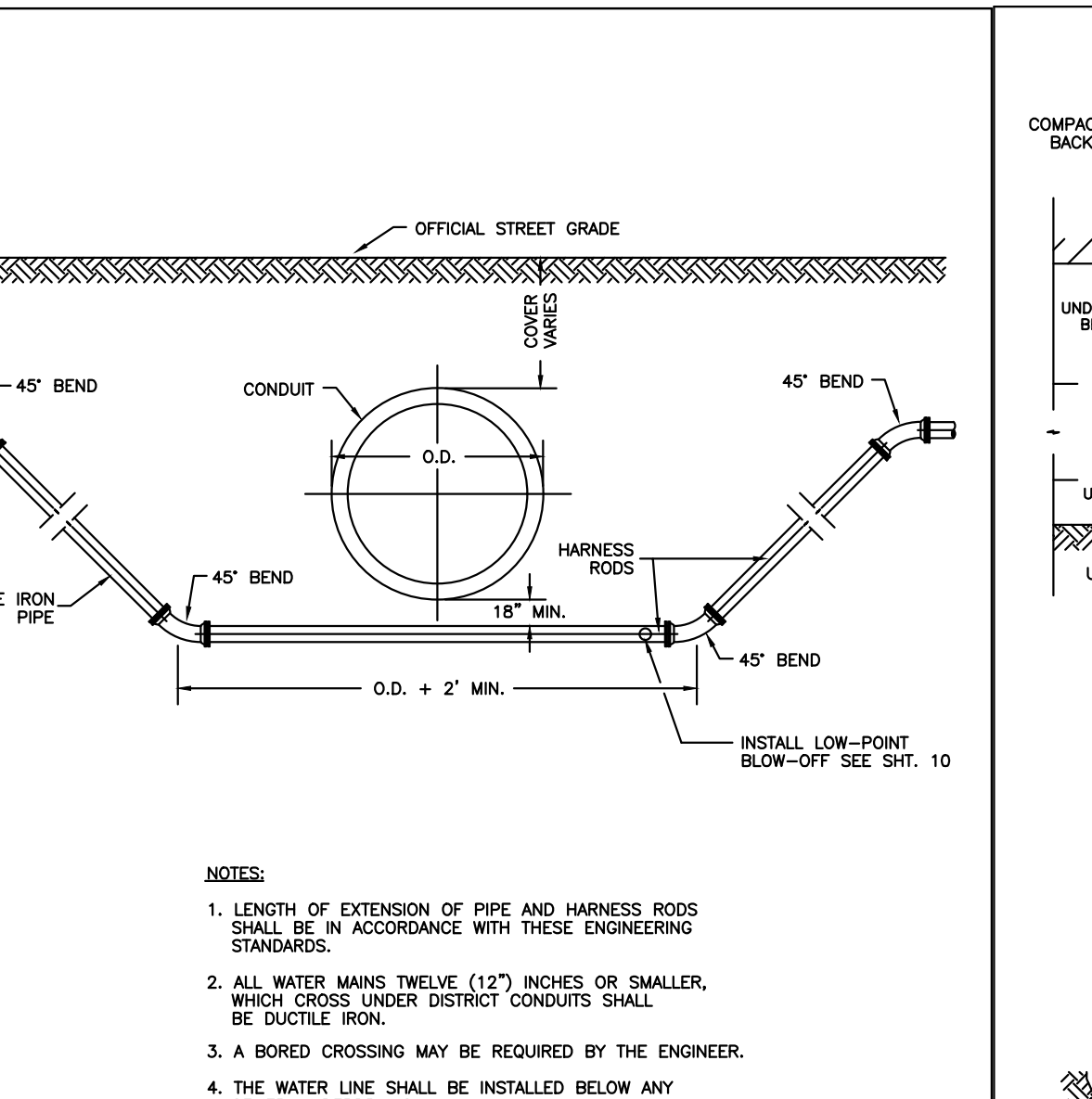


STONEGATE VILLAGE METROPOLITAN DISTRICT WATER QUALITY SAMPLING STATION	
SCALE: NONE	DATE: 4/00
APPROVED: R/JG	DISTRICT ENGINEER

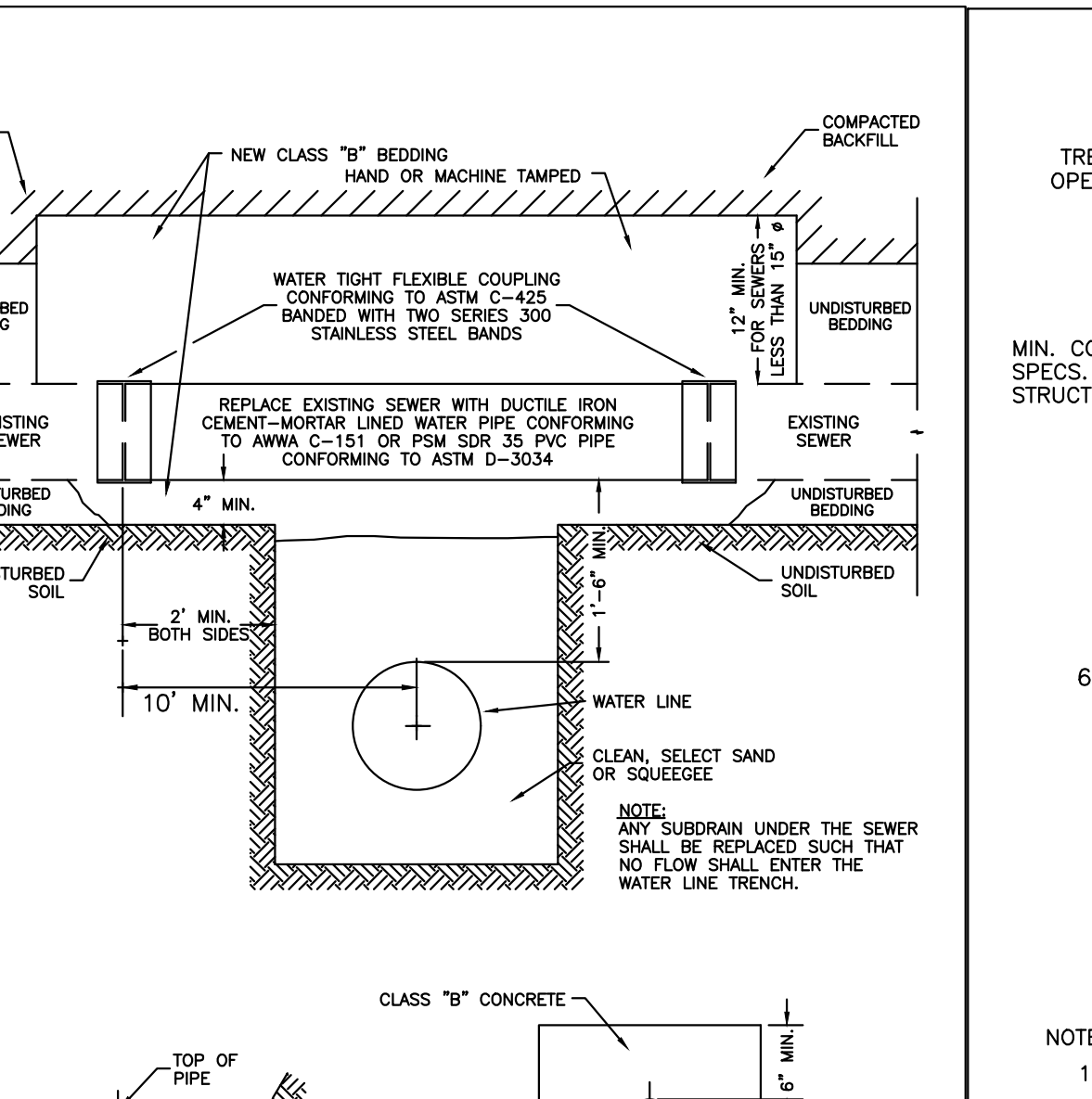


SIZE OF PIPE	11-1/4"	22-1/2"	45"	90"	TEE OR DEAD END
4"	1.00	1.00	1.00	1.50	1.50
6"	1.00	1.25	2.25	3.00	3.00
8"	1.00	2.00	4.00	7.50	7.50
12"	2.00	4.25	8.25	15.25	11.00
16"	3.00	6.50	12.50	23.00	15.00
20"	5.00	10.00	19.50	32.50	25.00
24"	6.50	13.00	26.00	47.00	33.00

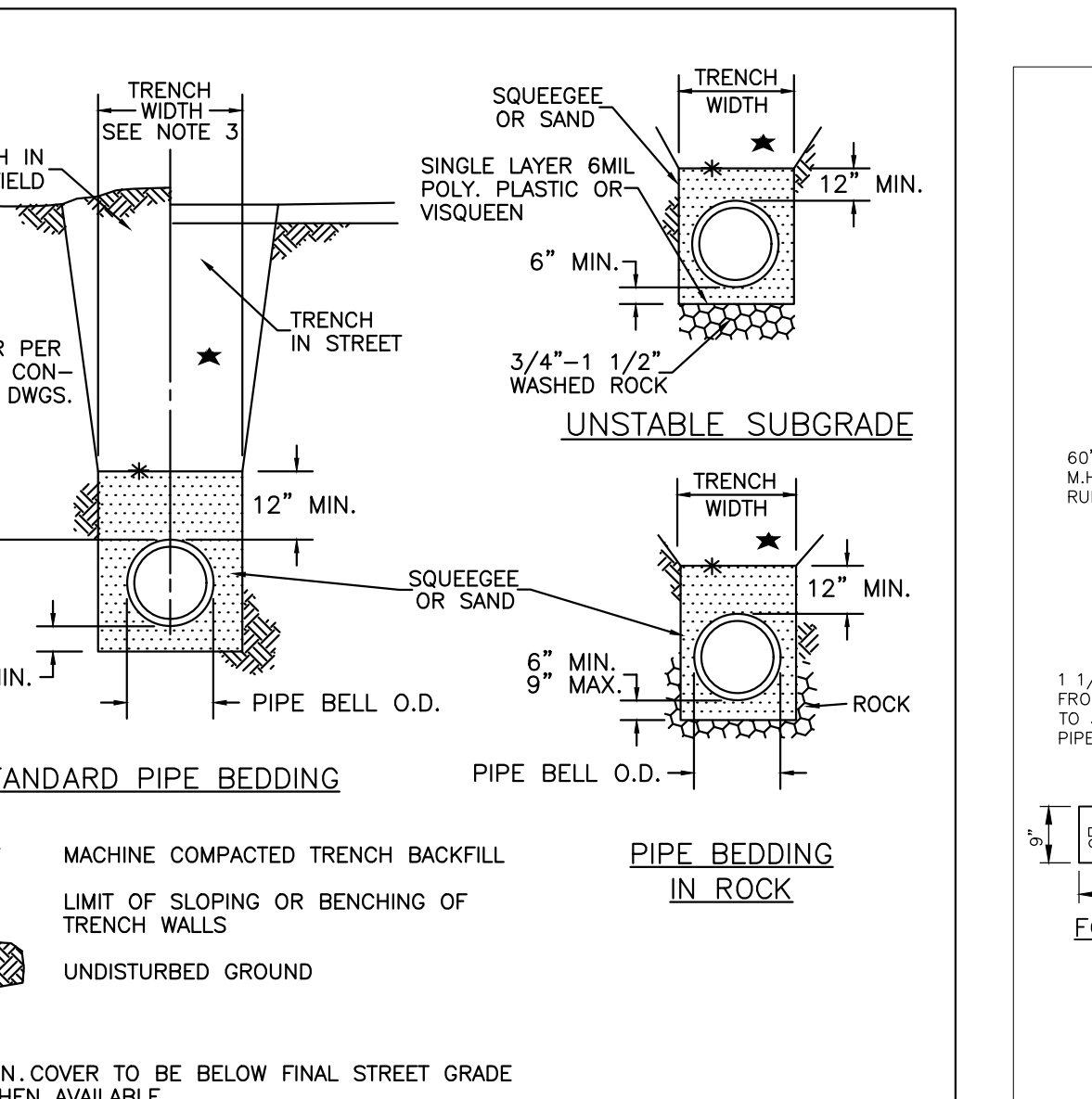
STONEGATE VILLAGE METROPOLITAN DISTRICT CONCRETE KICKBLOCKS BEARING SURFACES AND INSTALLATION	
SCALE: NONE	DATE: 4/00
APPROVED: R/JG	DISTRICT ENGINEER



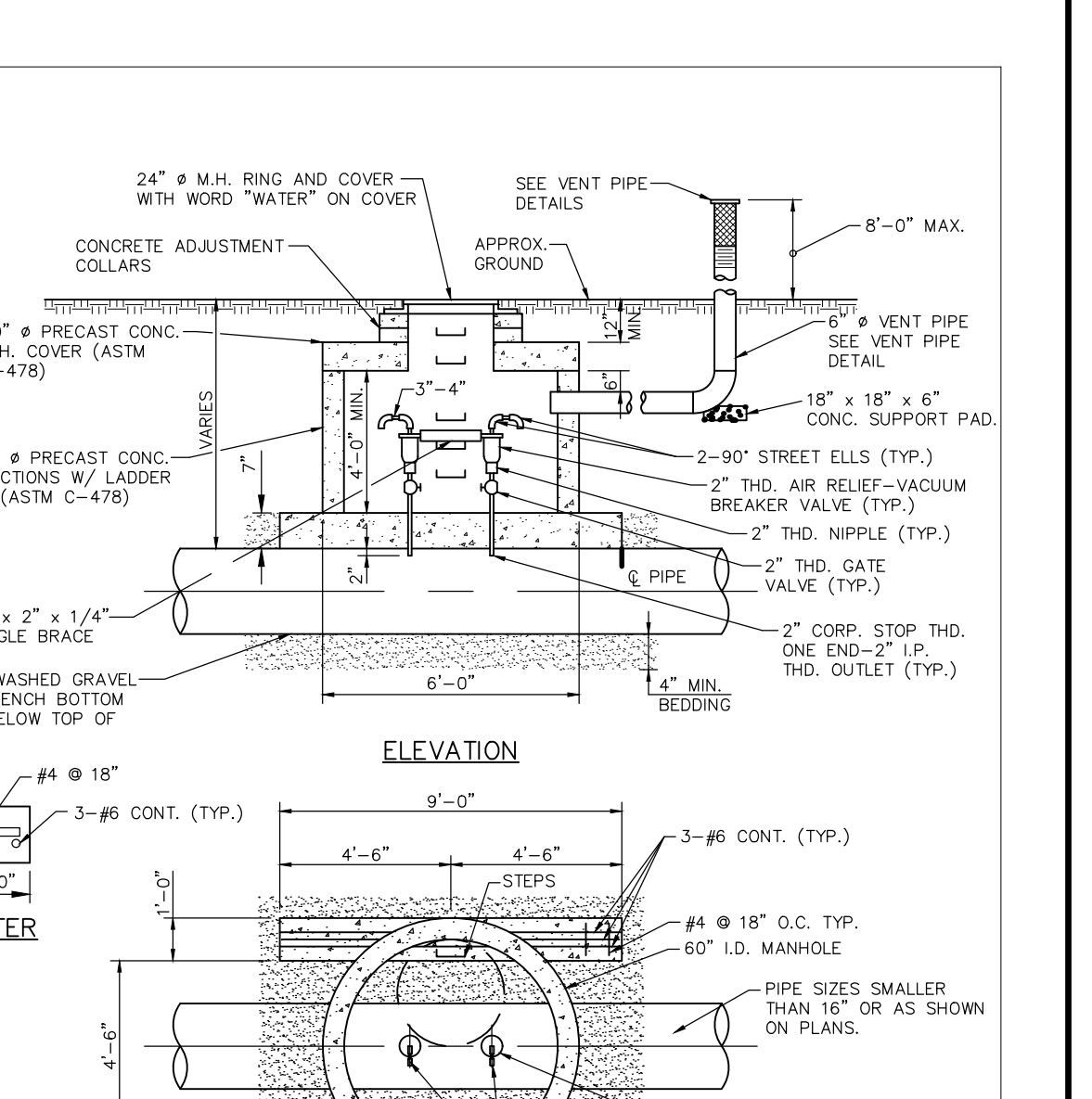
STONEGATE VILLAGE METROPOLITAN DISTRICT CONDUIT OR STORM SEWER CROSSING	
SCALE: NONE	DATE: 4/00
APPROVED: R/JG	DISTRICT ENGINEER



STONEGATE VILLAGE METROPOLITAN DISTRICT CROSSING STORM & SANITARY SEWERS	
SCALE: NONE	DATE: 4/00
APPROVED: R/JG	DISTRICT ENGINEER



STONEGATE VILLAGE METROPOLITAN DISTRICT BEDDING DETAILS	
SCALE: NONE	DATE: 4/00
APPROVED: R/JG	DISTRICT ENGINEER



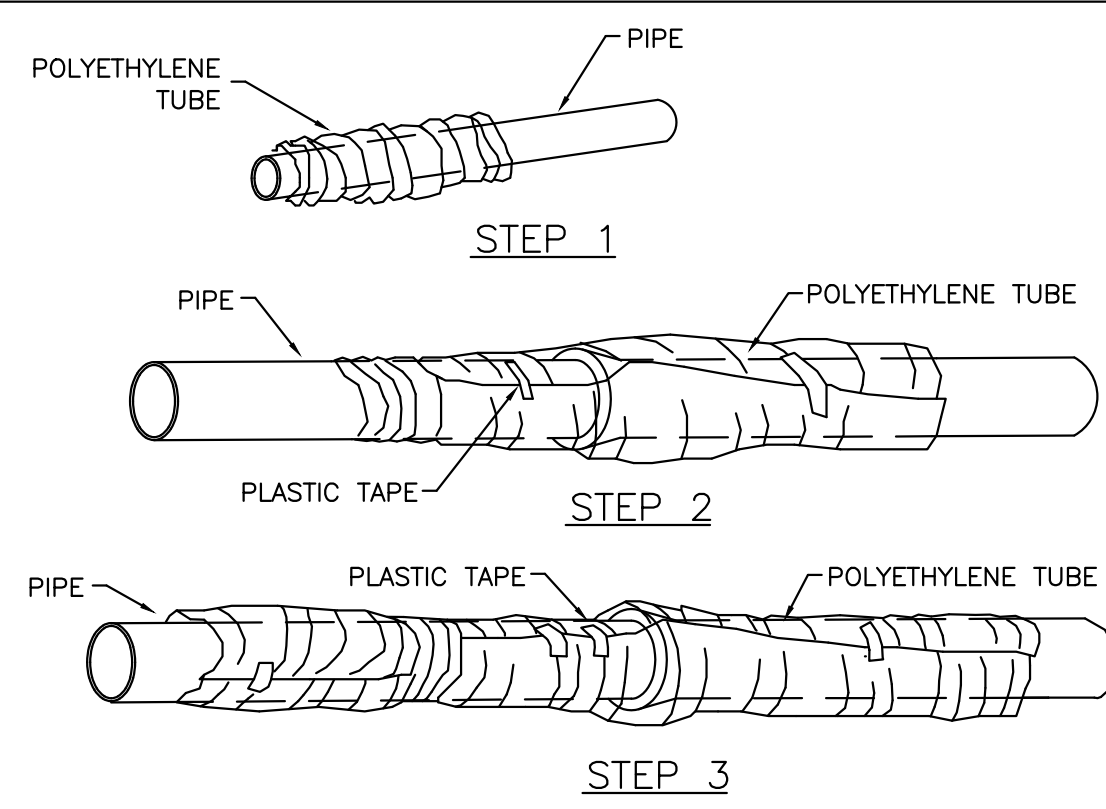
STONEGATE VILLAGE METROPOLITAN DISTRICT AIR RELEASE VALVE VAULT	
SCALE: NONE	DATE: 4/00
APPROVED: R/JG	DISTRICT ENGINEER

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**COMPARK VILLAGE SOUTH FILING NO. 2 - AMENDMENT NO. 1**  
**TOWN OF PARKER, COLORADO**  
**WATER SYSTEM CONSTRUCTION DETAILS**

PROJ. MGR.: RJM  
 PROJ. ASSOC.: RAK  
 DRAWN BY: ASD  
 DATE: 10/2016

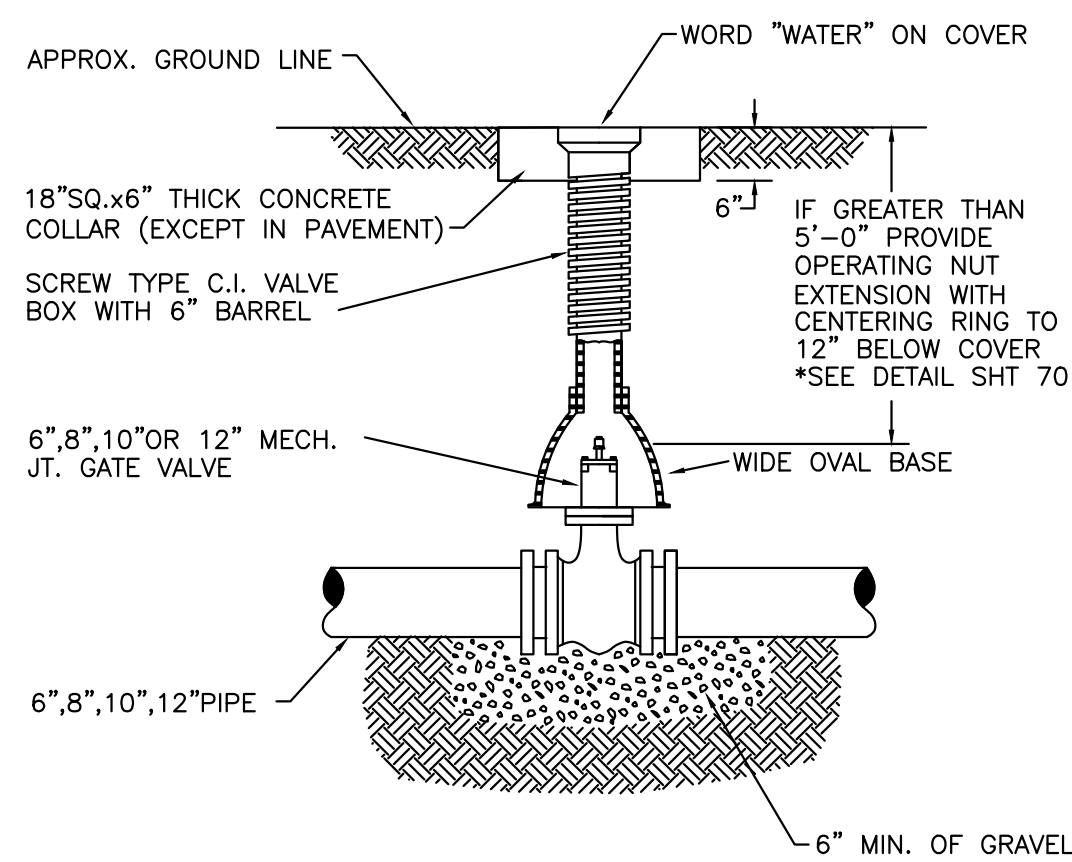
**SHEET 13 OF 14**  
 CLCPK3



**FIELD INSTALLATION -- POLYETHYLENE WRAP**

- STEP 1** - PLACE TUBE OF POLYETHYLENE MATERIAL ON PIPE PRIOR TO LOWERING IT INTO TRENCH.
- STEP 2** - PULL THE TUBE OVER THE LENGTH OF THE PIPE. TAPE TUBE TO PIPE AT JOINT. FOLD MATERIAL AROUND THE ADJACENT SPIGOT END AND WRAP WITH TAPE TO HOLD THE PLASTIC TUBE IN PLACE.
- STEP 3** - OVERLAP FIRST TUBE WITH ADJACENT TUBE AND SECURE WITH PLASTIC ADHESIVE TAPE. THE POLYETHYLENE TUBE MATERIAL COVERING THE PIPE SHALL BE LOOSE. EXCESS MATERIAL SHALL BE NEATLY DRAWN UP AROUND THE PIPE BARREL, FOLDED ON TOP OF PIPE AND TAPED IN PLACE.

STONEGATE VILLAGE METROPOLITAN DISTRICT	
POLYETHYLENE WRAP	
SCALE: NONE	DATE: 4/00
APPROVED: R/JG	DISTRICT ENGINEER



**6-INCH VALVE BOXES**

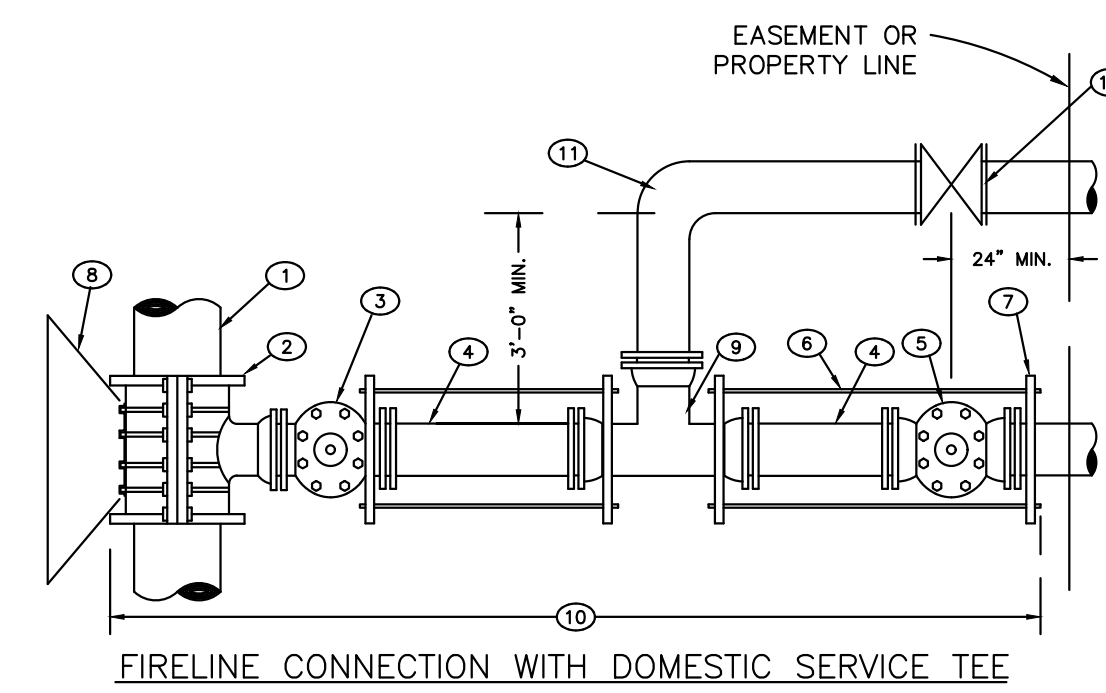
**Materials:**  
Valve box parts shall be made from gray cast iron, ASTM A48 Class 20A. Use of an aluminum alloy as a casting material is not acceptable.

**Approved Patterns:**  
Valve boxes shall be the three-piece adjustable screw type and the following two patterns are acceptable.

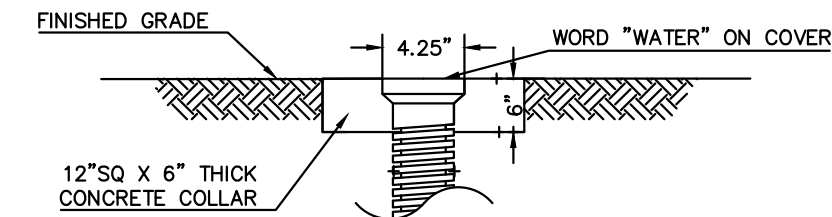
1. Tyler screw-type 6-inch cast iron valve box assembly series 6860 with No. 160 oval base.
2. Clay and Bailey screw-type 6-inch cast iron valve box assembly No. P-108 with No. 160 large oval base.

- NOTES:**
1. VALVE BOXES SHALL BE:
    - A. TYLER SCREW-TYPE 6" C.I. ASSY. SERIES 6860 W/NO.160 LARGE OVAL BASE OR
    - B. CLAY & BAILEY SCREW-TYPE 6" C.I. ASSY. NO. P-108 W/NO.160 LARGE OVAL BASE.
  2. ALL C.I. SHALL BE WRAPPED WITH 8 MIL. MIN. THICKNESS POLYETHYLENE.
  3. VALVE NUT SHALL BE CENTERED.
  4. VALVE BOX SHALL BE PLUMB.

STONEGATE VILLAGE METROPOLITAN DISTRICT	
VALVE BOX DETAIL	
SCALE: NONE	DATE: 4/00
APPROVED: R/JG	DISTRICT ENGINEER



**CURB STOP BOX IN PAVEMENT/LANDSCAPING DETAIL**



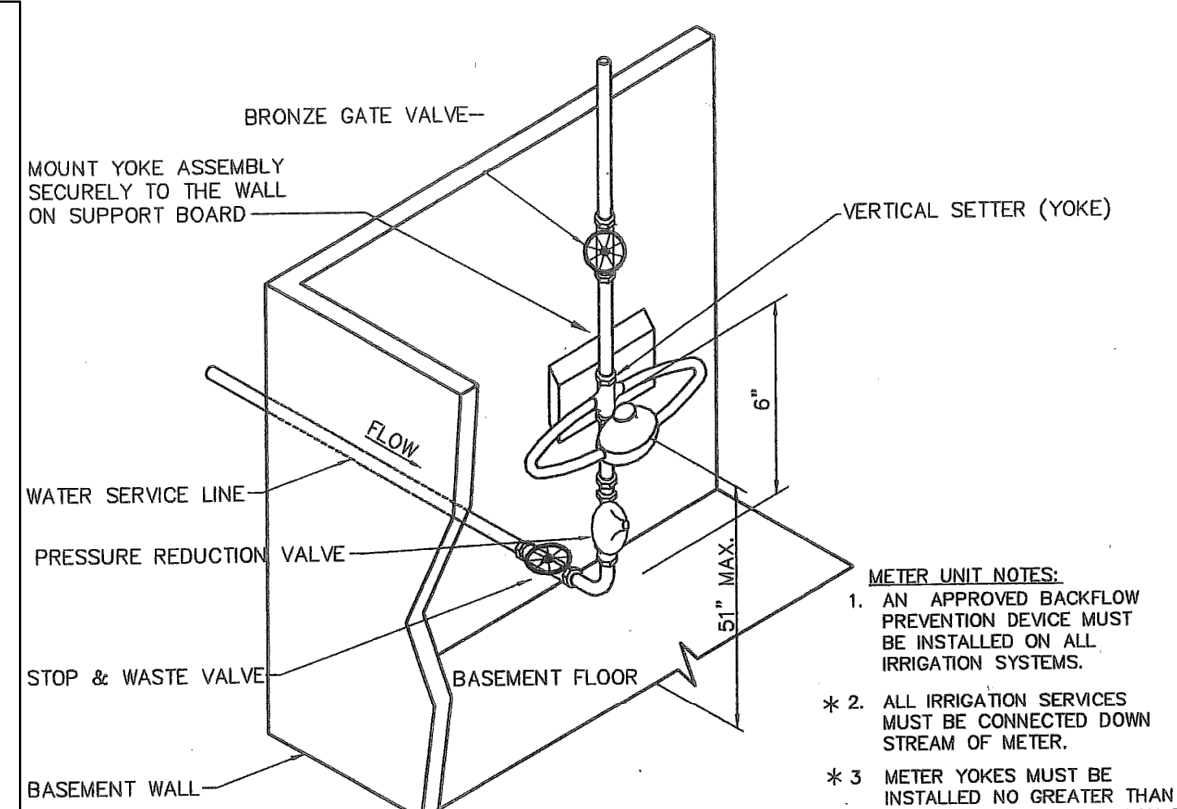
1. EXISTING MAIN
2. TAPPING SLEEVE OR M.J. ANCHORING TEE (SWIM TEE WHERE APPLICABLE)
3. TAPPING VALVE OR DOMESTIC SERVICE TEE OR SERVICE TAP
4. DOUBLE SPIGOT PIPE
5. PROPERTY LINE VALVE
6. TIE RODS (MEGALUS MAY BE USED IN PLACE OF RODDING)
7. PIPE CLAMP
8. CONCRETE KICKBLOCK
9. DOMESTIC SERVICE TEE OR SERVICE TAP
10. POLYETHYLENE WRAPPED
11. 90° FITTING (BEND FOR 2" & SMALLER)
12. VALVE OR CURBSTOP AS REQUIRED

**COMMERCIAL AND MULTI-FAMILY USE ONLY**

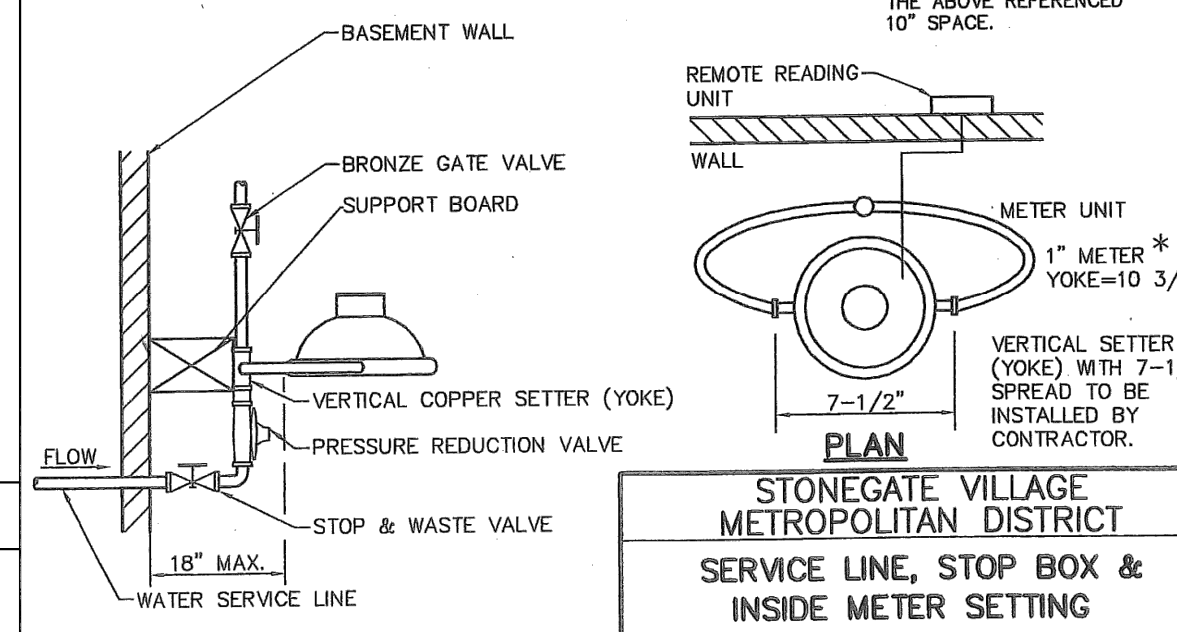
**STONEGATE VILLAGE METROPOLITAN DISTRICT**

**COMBINATION FIRE/SERVICE TAP**

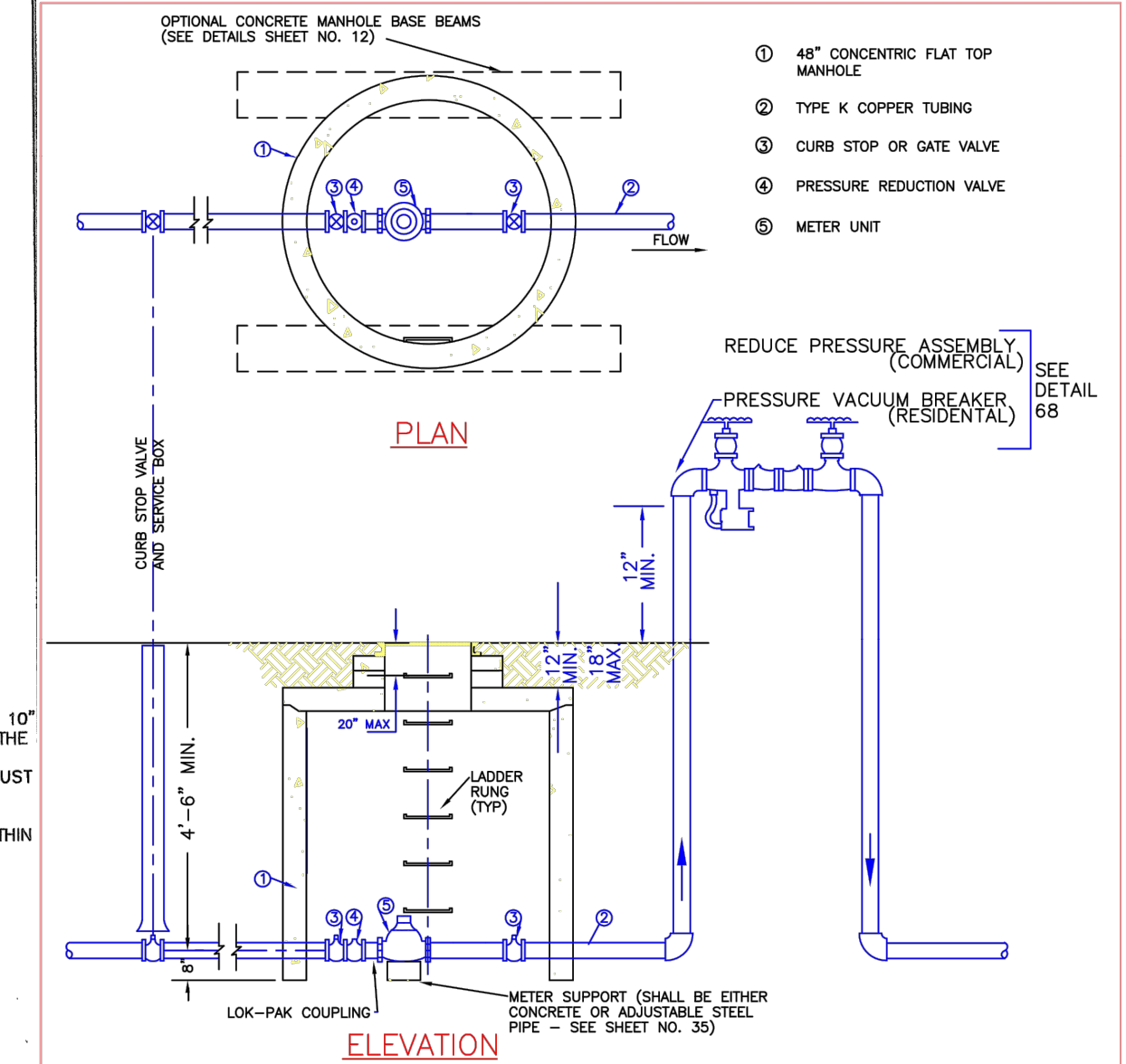
SCALE: NONE		DATE: 4/00	
APPROVED: R/JG		DISTRICT ENGINEER	



**ISOMETRIC VIEW**



SCALE: NONE		DATE: 4/00	
APPROVED: R/JG		DISTRICT ENGINEER	



- NOTES:**
1. MANHOLE BASE BEAMS SHALL BE REQUIRED FOR INSTALLATIONS IN DRIVEWAYS, OR PARKING AREAS.
  2. A 4" DIA. MANHOLE PIT WILL ACCOMMODATE 1 1/2" AND 2" SPIGOT METERS.
  3. JOINTS INSIDE METER WELT SHALL BE EITHER THREADED OR SOLDERED WITH 95-5 TINANTIMONY SOLDER.
  4. SEE SECTION 10.0, WATER SYSTEM SPECIFICATIONS FOR GENERAL METER NOTES.
  5. NO CONCRETE TO BE LAD IN FLOOR OF METER M.H.
  6. METER SHALL BE FLANGED WITH BRASS COMPANION FLANGES.
  7. NO CONNECTIONS OR CHANGES IN PIPE DIAMETER SHALL BE MADE IN THE METER PIT OR IN THE DISTANCE OF FIVE FEET BEYOND THE METER PIT ON THE OUTLET SIDE.
  8. LADDER RUNGS SHALL BE ON OPPOSITE SIDE OF BYPASS.
  9. (JUMPER OR CHEATER) PIPES TO BE REMOVED BEFORE METER SET DATE.

**STONEGATE VILLAGE METROPOLITAN DISTRICT**

**OUTSIDE SETTING FOR 1 1/2" & 2" METER FOR IRRIGATION**

SCALE: NONE		DATE: 4/00	
APPROVED: R/JG		DISTRICT ENGINEER	

PIPE SIZE	4"			6"			8"			12"			16"			20"			24"		
	D	L	G	D	L	G	D	L	G	D	L	G	D	L	G	D	L	G	D	L	G
TEE OR VALVE	3/4"	16.0"	1.0"	3/4"	13.0"	1.0"	3/4"	10.0"	1.0"	3/4"	8.0"	1.0"	3/4"	6.0"	1.0"	3/4"	4.0"	1.0"	3/4"	3.0"	1.0"
90° BEND	3/4"	16.0"	1.0"	3/4"	13.0"	1.0"	3/4"	10.0"	1.0"	3/4"	8.0"	1.0"	3/4"	6.0"	1.0"	3/4"	4.0"	1.0"	3/4"	3.0"	1.0"
45° BEND	3/4"	16.0"	1.0"	3/4"	13.0"	1.0"	3/4"	10.0"	1.0"	3/4"	8.0"	1.0"	3/4"	6.0"	1.0"	3/4"	4.0"	1.0"	3/4"	3.0"	1.0"
22-1/2° BEND	3/4"	16.0"	1.0"	3/4"	13.0"	1.0"	3/4"	10.0"	1.0"	3/4"	8.0"	1.0"	3/4"	6.0"	1.0"	3/4"	4.0"	1.0"	3/4"	3.0"	1.0"
11-1/4° BEND	3/4"	16.0"	1.0"	3/4"	13.0"	1.0"	3/4"	10.0"	1.0"	3/4"	8.0"	1.0"	3/4"	6.0"	1.0"	3/4"	4.0"	1.0"	3/4"	3.0"	1.0"

- NOTES:**
1. LENGTH OF TIED PIPE MEASURED EACH WAY FROM VALVES AND BENDS.
  2. CAMPS AND RODS NOT ALLOWED FOR 24" AND LARGER PIPES.
  3. P.C. DIMENSION TO CENTERLINE.
  4. MINIMUM 4.5' GROUND COVER REQUIRED.
  5. BASED ON 150 PSI INTERNAL PRESSURE.
  6. M.S. MEANS MILD STEEL ROD A.S.T.M. STANDARD DESIGNATION A-36.
  7. A-183 GRADE B7-2.
  8. NUTS SHALL BE A.S.T.M. STANDARD DESIGNATION A-307 GRADE A OR B HEAVY SERIES.
  9. SEE IF BOTH BEING DRAWN, ALLOWABLE ROD COUPLING DETAILS.
  10. LENGTH REFERS TO THE AMOUNT OF PIPE WHICH MUST BE TIED TOGETHER AND IS NOT NECESSARILY THE LENGTH OF THE RODS.
  11. STAR BOLTS NOT ALLOWED ON PIPE LARGER THAN 16".
  12. MINIMUM OF 4 RODS REQUIRED ON 16" PIPE IF STAR BOLTS ARE USED.
  13. TEES ARE TO BE RODDED ON BRANCH ONLY.
  14. ALL VALVES TO BE RODDED IN BOTH DIRECTIONS.

STONEGATE VILLAGE METROPOLITAN DISTRICT	
LENGTH OF TIED PIPE	
SCALE: NONE	DATE: 4/00
APPROVED: R/JG	DISTRICT ENGINEER

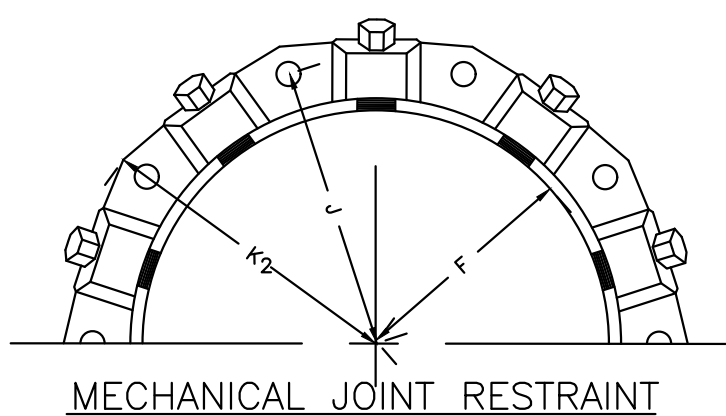
- PIPE BEDDING:**
- (c) **Installation of Bedding and Pipe:** After completion of the trench excavation and proper preparation of the foundation, six inches (6") of bedding material shall be placed on the trench bottom for support under the pipe. Bed holes shall be dug deep enough to provide a minimum of two inches (2") of clearance between the soil and bedding material. All pipe shall be installed in such a manner as to insure full support of the pipe barrel over its entire length. After the pipe is adjusted for line and grade, and the joint is made, the bedding material shall be carefully placed and tamped under the haunches of the pipe and in the previously dug bed holes.
- Tamping is herein defined as the act of placing approved bedding material under the haunches of the pipe, paying particular attention to voids, bell holes, and sling holes. The purpose of tamping is to ensure uniform support for the pipe.
- The limits of bedding shall be from six inches (6") below the bottom of the pipe to twelve inches (12") above the top of the pipe. Approved backfill may then be installed to the groundline. See Section 6 of these Standards for backfill and composition of backfill.
- Completion of bedding is not required. The only requirement is sufficient tamping to achieve uniform support under the pipe. See Sheet 8 of the Standard Drawings for a typical trench cross section.
- (d) **Bedding Material:** The bedding material shall be a clean well-graded sand or squeegee sand and shall conform to the following limits when tested by means of laboratory sieves:

Well-Graded Sand	
Sieve Size	Total Percent Passing by Weight
3/8 inch	100
No. 4	85-100
No. 8	80-100
No. 16	50-85
No. 30	10-60
No. 50	10-30
No. 100	2-10
No. 200	0

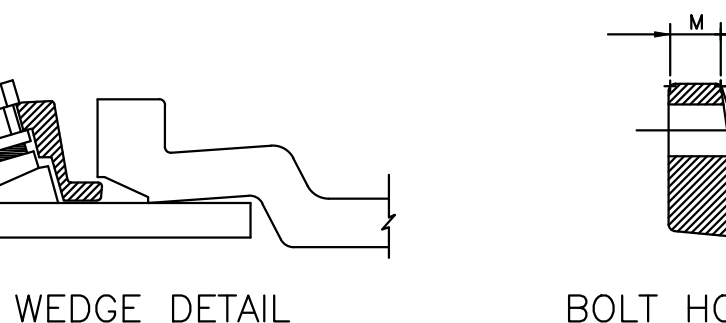
  

Squeegee Sand	
Sieve Size	Total Percent Passing by Weight
3/8 inch	100
No. 100	0-5

If approved by the District, fines from the trench walls and spoils pile may be used to provide uniform support for the pipe. No rock or stone larger than that allowed by the sieve analysis, or any other detrimental substance, shall be placed closer to the pipe than six inches (6"). Approved bedding materials shall be stockpiled on the jobsite to be used in the event natural materials become unsatisfactory. The District reserves the right to require the use of the specified bedding material at any time.



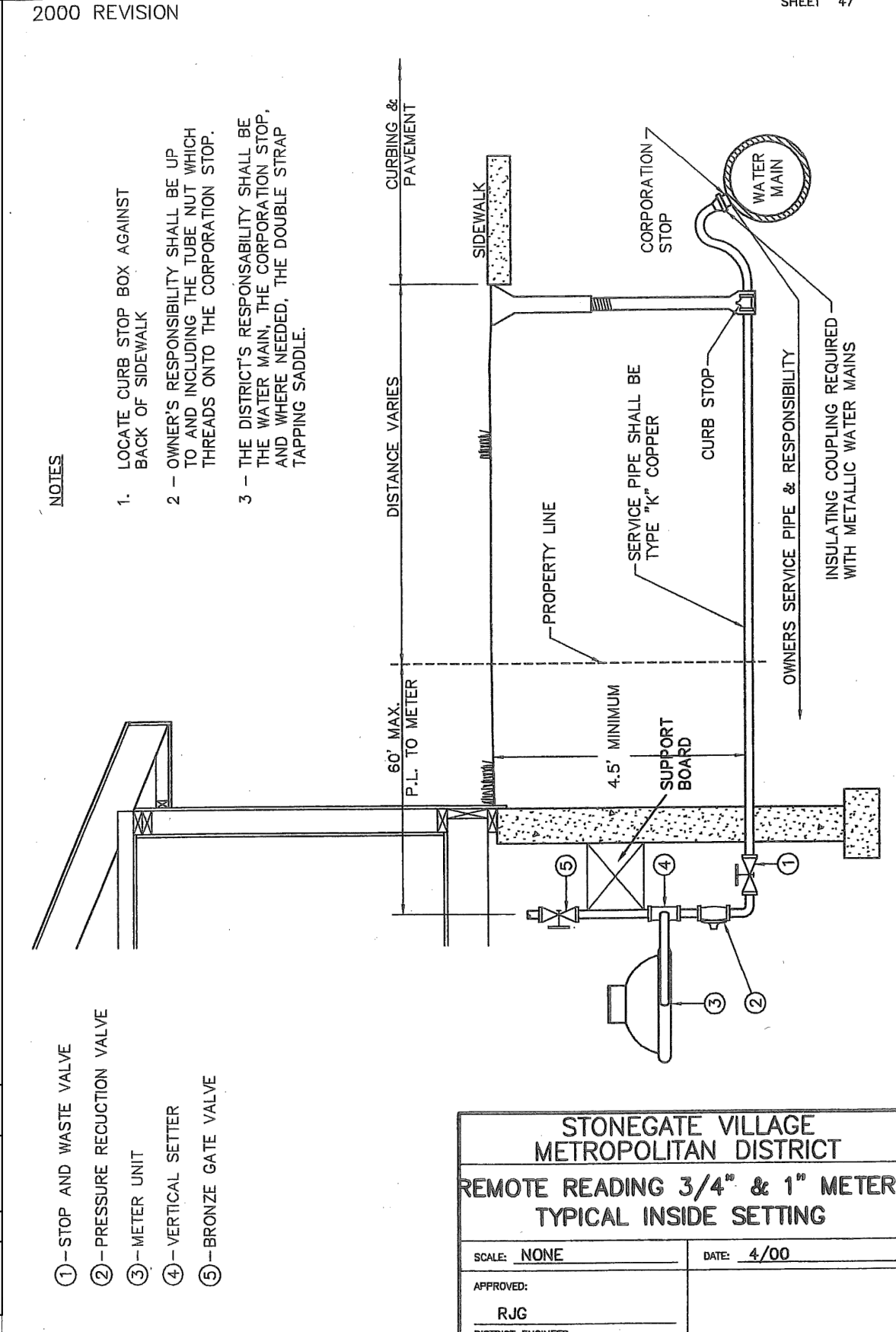
**MECHANICAL JOINT RESTRAINT**



NOMINAL PIPE SIZE	NO. OF BOLTS	NO. OF WEDGES	K2 INCHES	J INCHES	F INCHES	M INCHES
P 4"	2	2				
V 6"	6	3	11.12	9.5	7.00	0.88
V 8"	6	4	13.37	11.75	9.15	1.00
C 10"	8	6	15.62	14.00	11.20	1.00
C 12"	8	8	17.88	16.25	13.30	1.25
D 4"	4	2				
D 6"	6	3	11.12	9.5	7.00	0.88
D 8"	6	4	13.37	11.75	9.15	1.00
D 10"	8	6	15.62	14.00	11.20	1.00
D 12"	8	8	17.88	16.25	13.30	1.25

- NOTES:**
1. REFER TO SHEET W-19 SECTION 6.10.
  2. DIMENSIONS FOR 16" AND 20" D.I. PIPE NOT SHOWN.

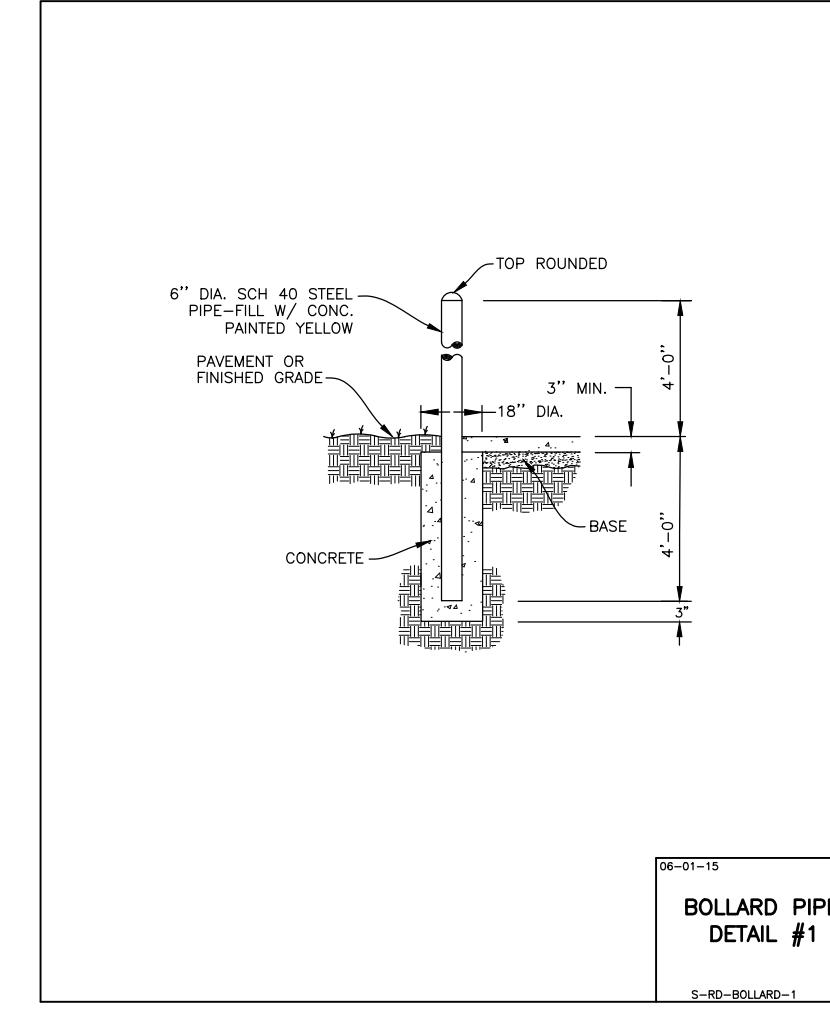
STONEGATE VILLAGE METROPOLITAN DISTRICT	
MECHANICAL JOINT RESTRAINT DETAIL	
SCALE: NONE	DATE: 4/00
APPROVED: R/JG	DISTRICT ENGINEER



**STONEGATE VILLAGE METROPOLITAN DISTRICT**

**REMOTE READING 3/4" & 1" METER TYPICAL INSIDE SETTING**

SCALE: NONE		DATE: 4/00	
APPROVED: R/JG		DISTRICT ENGINEER	



**BOLLARD PIPE DETAIL #1**

**Manhard CONSULTING**

7600 East Orchard Road, Suite 100-100, Greenwood Village, CO 80121, phone: 303.778.0500, manhard.com

Civil Engineering | Surveying & Geospatial Services | GIS | Water Resource Management | Construction Management

DATE	REVISIONS
11/20/20	REVISED PER SAND COMMENTS
07/2017	FINAL SUBMITTAL
06/2017	REVISED ALLEY EASEMENTS
08/2016	REVISED PER SAND COMMENTS

**COMPARK VILLAGE SOUTH FILING NO. 2 - AMENDMENT NO. 1**

**TOWN OF PARKER, COLORADO**

**WATER SYSTEM CONSTRUCTION DETAILS**

PROJ. MGR.: R/JM

PROJ. ASSOC.: RAK

DRAWN BY: ASD

DATE: 10/2016

SHEET 14 OF 14

CLCPK3

37642

11-20-2020

PROFESSIONAL ENGINEER