

CONSTRUCTION PLANS FOR GLEN OAKS FILING NO. 2 & 3

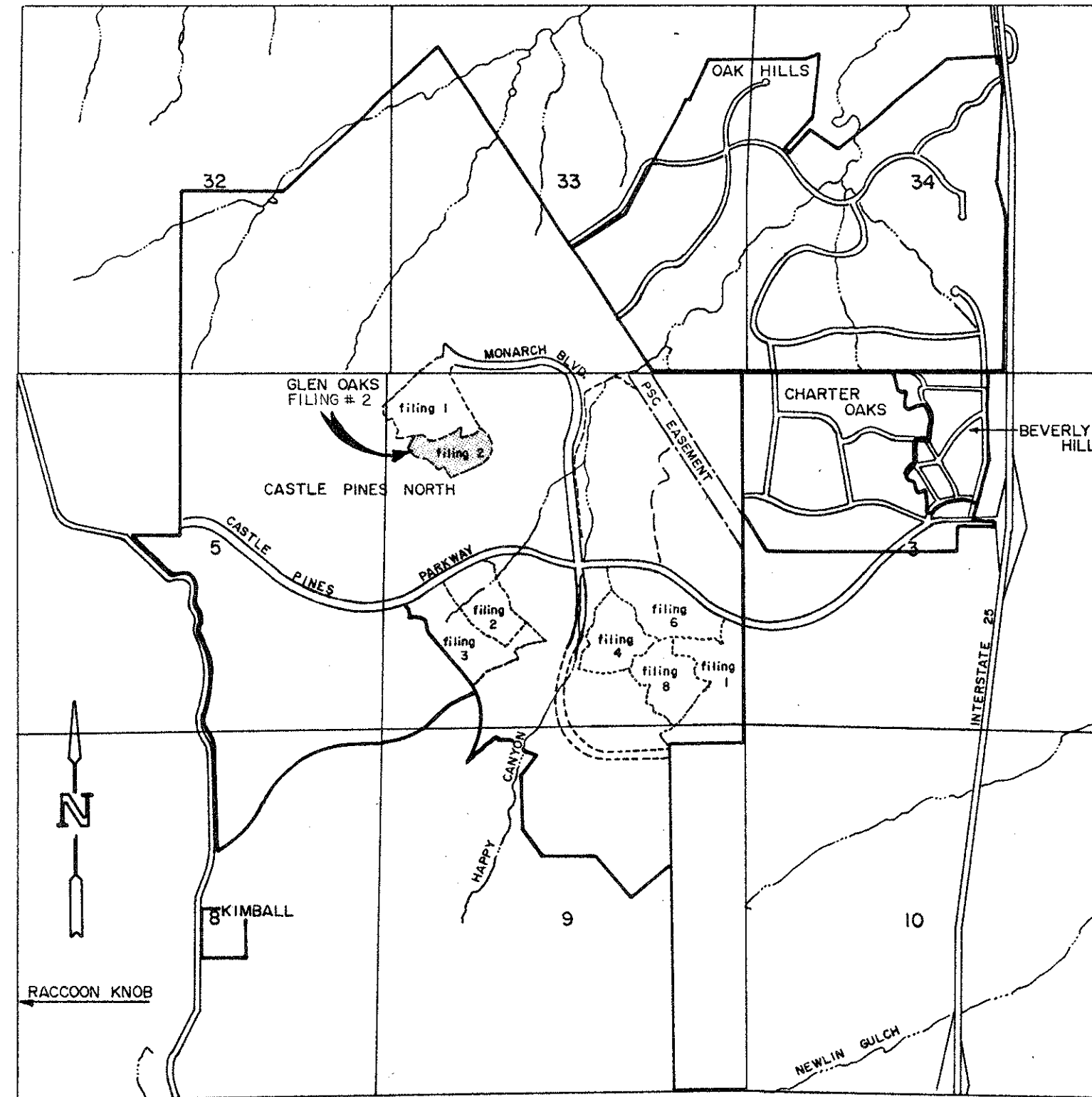
GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO DOUGLAS COUNTY SPECIFICATIONS AND CASTLE PINES NORTH METROPOLITAN DISTRICT SPECIFICATIONS.
2. CAUTION: THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ANY AND ALL EXISTING UTILITIES. IF THE CONTRACTOR WOULD EXPOSE THESE UTILITIES AND NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION, THE ENGINEER WILL VERIFY DEPTH AND DETERMINE IF THERE ARE ANY CONSTRUCTION PROBLEMS.
3. ALL CROSS PANS ARE 8 FEET WIDE MINIMUM.
4. ALL STATIONING IS ON CENTERLINE UNLESS OTHERWISE NOTED.
5. T.C. INDICATES BACK OF WALK GRADE FOR COMBINATION CURB, GUTTER, AND SIDEWALK, OR TOP OF CURB FOR 6-INCH VERTICAL CURB AND GUTTER.
6. ALL DIMENSIONS AND RADII ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
7. ALL FLOWLINE RADII ARE 25.0 FEET UNLESS OTHERWISE NOTED.
8. HANDICAP RAMPS TO BE PROVIDED AT ALL INTERSECTIONS IN ACCORDANCE WITH DOUGLAS COUNTY REGULATIONS.
9. IN ALL CASES, MAINTAIN A MINIMUM OF 10 FEET HORIZONTAL DISTANCE BETWEEN WATER AND SANITARY SEWER.
10. THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH A SET OF "AS-BUILT" PLANS MARKED WITH ALL DEVIATIONS FROM THE CONSTRUCTION PLANS PRIOR TO FINAL ACCEPTANCE.
11. CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF PLANS APPROVED BY THE COUNTY.
12. ALL MANHOLE RINGS, WATER VALVE BOXES AND BLOW-OFFS IN THE STREETS WILL BE 1/8-INCH TO 1/2-INCH BELOW FINISHED ASPHALT.
13. ANY DISTURBED AREAS WHICH ARE NOT TO BE LANDSCAPED OR CONSTRUCTED UPON SHALL BE RESEDED WITH NATURAL VEGETATION TO THE SPECIFICATIONS OF THE DOUGLAS COUNTY SOIL CONSERVATION DISTRICT.
14. THE DOUGLAS COUNTY SIGNATURES AFFIXED TO THIS DOCUMENT INDICATE THAT THE DEPARTMENTS OF HIGHWAYS AND ENGINEERING HAVE REVIEWED THE DOCUMENT AND FOUND IT TO BE IN GENERAL CONFORMANCE WITH DOUGLAS COUNTY ROADWAY AND DRAINAGE SPECIFICATIONS, OR APPROVED VARIANCES TO THOSE SPECIFICATIONS. THE COUNTY, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY, OTHER THAN STATED ABOVE, FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS. THE COUNTY DOES NOT ACCEPT THE LIABILITY FOR FACILITIES DESIGNED BY OTHERS. THE RESPONSIBILITY FOR THE ENGINEERING ADEQUACY OF THE FACILITIES DEPICTED IN THIS DOCUMENT LIES SOLELY WITH THE REGISTERED PROFESSIONAL ENGINEER WHO STAMPS AND SIGNS THIS DOCUMENT.
15. THESE CONSTRUCTION PLANS SHALL BE CONSIDERED VALID FOR ONE YEAR FROM DATE OF COUNTY ACCEPTANCE AFTER WHICH TIME THESE PLANS SHALL BE SUBJECT TO REVIEW AND RE-ACCEPTANCE BY DOUGLAS COUNTY.
16. THE CONTRACTOR SHALL NOTIFY THE DOUGLAS COUNTY ENGINEERING INSPECTION DEPARTMENT (660-7490) AND CASTLE PINES NORTH METROPOLITAN DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO STARTING CONSTRUCTION.
17. ALL STREET CUTS OF EXISTING ASPHALT (OR CONCRETE) FOR UTILITIES, STORM SEWER OR OTHER REASONS ARE LISTED AND REFERENCED BELOW:

WATER TIE-IN	-- SHEETS	3 & 4
SANITARY SEWER CROSSING	-- SHEETS	4
18. PER THE URBAN DRAINAGE CRITERIA MANUAL, IN NO CASE SHOULD ROCK BEING USED FOR RIPRAP HAVE A SPECIFIC GRAVITY OF LESS THAN 2.50. RHYOLITE IS NOT PERMITTED TO BE USED AS RIPRAP.

STREET NOTES

1. LIFTS IN FILL AREAS SHALL NOT EXCEED 8 INCHES IN COMPACTED DEPTH. MAXIMUM SLOPES OF ALL CUTS AND FILLS SHALL BE 3:1 OR AS OTHERWISE NOTED.
2. ALL ROADWAY CONSTRUCTION SHALL CONFORM TO DOUGLAS COUNTY ROADWAY DESIGN STANDARDS AND SPECIFICATIONS, ALONG WITH THE COLORADO DEPARTMENT OF HIGHWAYS SPECIFICATIONS. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY DOUGLAS COUNTY, THE OWNER, HIS REPRESENTATIVES, AND ONE OR ALL OF THE PARTIES HAS THE RIGHT TO REJECT MATERIALS AND WORKMANSHIP WHICH DOES NOT CONFORM TO SPECIFICATIONS.
3. PAVING SHALL NOT START UNTIL A SOIL REPORT AND PAVEMENT DESIGN ARE APPROVED BY DOUGLAS COUNTY AND SUBGRADE COMPACTION TESTS ARE TAKEN AND APPROVED BY THE DOUGLAS COUNTY ENGINEER.
4. THE CONTRACTOR SHALL SAW-CUT ALL EXISTING PAVEMENT WHERE MATCH LINES WITH EXISTING EDGE OF PAVEMENT OCCUR.
5. HOT BITUMINOUS PAVEMENT SHALL BE CDQH GRADING "E" PLACED IN NO GREATER LIFT THAN A 3-INCH COMPACTED LIFT. PORTLAND CEMENT CONCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH CDQH STANDARD 600.
6. THE CONTRACTOR SHALL OBTAIN ALL PERMITS NECESSARY (IF APPLICABLE) TO COMPLETE THE CONSTRUCTION AND SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
7. ALL SIGNAGE AND STRIPING SHALL CONFORM TO THE MUTCD, THE COLORADO M&S STANDARDS, AND THE DOUGLAS COUNTY SIGNAGE GUIDELINES.
8. ALL MATERIALS SHALL CONFORM TO THE DOUGLAS COUNTY SIGNAGE STANDARDS.
9. DELINEATION OF ROADWAYS SHALL BE AS SPECIFIED IN THE COLORADO M&S MANUAL.
10. MEDIAN ISLANDS SHALL BE DELINEATED.
11. LATERAL OFFSET OF SIGNS SHALL BE 8 FEET MINIMUM FROM EDGE OF PAVEMENT ON COLLECTORS AND 6 FEET MINIMUM ON INTERIOR ROADWAYS.
12. SIGNAGE AND STRIPING HAVE BEEN DETERMINED BY INFORMATION AVAILABLE AT THE TIME OF REVIEW. DOUGLAS COUNTY RESERVES THE RIGHT TO REQUIRE ADDITIONAL SIGNAGE AND/OR STRIPING AFTER INITIAL INSTALLATION IF THEY DETERMINE THAT AN UNFORESEEN CONDITION WARRANTS SUCH SIGNAGE ACCORDING TO THE MUTCD OR THE CDQH M&S STANDARDS.
13. ALL REQUIRED SIGNS AND STRIPING MUST BE INSTALLED AND INSPECTED PRIOR TO THE START OF THE 2-YEAR WARRANTY PERIOD.



VICINITY MAP

WATER MAIN NOTES

1. WATER MAIN SHALL BE DUCTILE IRON PIPE, CLASS 50, MANUFACTURED IN ACCORDANCE WITH ANSI A21.51-01, POLYETHYLENE WRAPPED. ALL FITTINGS SHALL BE MADE FROM GRAY IRON OR DUCTILE IRON AND FURNISHED WITH MECHANICAL JOINT ENDS. ALL FITTINGS SHALL HAVE A PRESSURE RATING OF 250 PSI AND SHALL BE WRAPPED WITH 8 MILLIMETER MINIMUM THICKNESS POLYETHYLENE MATERIAL PER A.W.W.A. STANDARD C105.
2. FLUSHING AND STERILIZATION OF LINES SHALL BE DONE IN ACCORDANCE WITH SPECIFICATIONS OF THE COLORADO STATE BOARD OF HEALTH. CHLORINE DOSAGE SHALL BE AT LEAST 50 MG/L AND SHALL BE RETAINED IN THE LINE AT LEAST 24 HOURS, AFTER WHICH TIME THE RESIDUE AT THE ENDS OF THE LINES AND OTHER REPRESENTATIVE POINTS SHALL BE AT LEAST 25 MG/L. IF IT DOES NOT MEET THE REQUIREMENTS, THE PROCEDURE SHALL BE REPEATED.
3. THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH A SET OF PLANS MARKED WITH "AS-BUILT." THE PLANS SHALL SHOW LOCATIONS OF FITTINGS, FIRE HYDRANTS, AND VALVES FOR THE WATER LINE.
4. FIRE HYDRANTS LOCATED AT INTERSECTIONS SHALL BE LOCATED AT CURB AND GUTTER PCR. FIRE HYDRANTS NOT LOCATED AT THE INTERSECTION SHALL BE LOCATED AT PROPERTY LINE EXTENSIONS.
5. FIRE HYDRANT ASSEMBLY INCLUDES THE FIRE HYDRANT, 6-INCH VALVE TEE, AND AN AVERAGE LENGTH OF PIPE OF 15 FEET. INSTALLATION SHALL BE IN ACCORDANCE WITH THE CASTLE PINES NORTH METROPOLITAN DISTRICT STANDARDS.
6. DISTANCES FOR WATER LINES ARE THE HORIZONTAL DISTANCE BETWEEN CENTER OF FITTING TO CENTER OF VALVE, METER, ETC. THEREFORE, DISTANCES SHOWN ON THE PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT AND FITTING DIMENSIONS.
7. BLOWOFFS ARE TO BE LOCATED SUCH THAT THE CURB AND GUTTER WILL CARRY ANY RUNOFF, PREVENTING DAMAGE TO PRIVATE PROPERTY. VALVE AND BLOW-OFF ASSEMBLY SHOULD ALWAYS BE TURNED AWAY FROM SEWER LINES. INSTALLATION SHALL BE IN ACCORDANCE WITH DOUGLAS COUNTY REGULATIONS AND CASTLE PINES NORTH METROPOLITAN DISTRICT (SEE DETAIL SHEET 7 of 10).
8. PROVIDE A MINIMUM OF 5.0 FEET OF COVER OVER WATER LINES.
9. WATER SERVICE LINE LOCATIONS ARE SHOWN ON SHEET 3. SERVICE LOCATION MAY BE MODIFIED TO FIT ACTUAL FIELD CONDITIONS OF LOT VEGETATION AND ROCKS.
10. ALL VALVES ARE TO BE LOCATED ON PROPERTY LINE EXTENSIONS.
11. ANY DEFLECTION REQUIRED UNDER OR AROUND (HORIZONTALLY) EXISTING UTILITIES SHALL BE MADE USING BENDS. HORIZONTAL BENDS SHALL REQUIRE THRUST BLOCKS. VERTICAL BENDS SHALL REQUIRE WAREHOUSE ROADS. ANY ABRUPT CHANGE IN LINE OR GRADE SHALL REQUIRE FITTINGS. JOINT DEFLECTION PER MANUFACTURER'S SPECIFICATIONS SHALL BE ALLOWED TO FOLLOW HORIZONTAL AND VERTICAL ALIGNMENT OF STREETS.
12. THE CONTRACTOR SHALL OBTAIN ALL PERMITS FOR STREET CUTS, UTILITY INTERFERENCE AND TRAFFIC CONTROL.
13. ALL VALVES AND FITTINGS SHALL BE POLYWRAPPED.
14. NO VALVES WILL BE ALLOWED IN CROSS PANS.
15. ALL BENDS, TEES, FIRE HYDRANTS, BLOW-OFFS, AND PLUGS AT DEAD END MAINS SHALL BE PROTECTED FROM THRUST BY USING CONCRETE THRUST BLOCKS. SEE DETAIL SHEET.
16. THERE SHALL BE A MAXIMUM OF 2 TAPS PER PIPE SECTION WITH A 5-FOOT MINIMUM SEPARATION BETWEEN TAPS.

SANITARY SEWER NOTES

1. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO DATE OF CONSTRUCTION.
2. IN ALL CASES, MAINTAIN 10 FEET HORIZONTAL DISTANCE BETWEEN WATER AND SANITARY SEWER.
3. SANITARY SEWER SHALL BE 8-INCH PVC (POLYVINYL CHLORIDE) PIPE, ASTM D3034-SDR35.
4. DISTANCES FOR SANITARY SEWER ARE THE HORIZONTAL DISTANCES FROM CENTER OF MANHOLE TO CENTER OF MANHOLE. THEREFORE, DISTANCES SHOWN ON PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT AND MANHOLE WIDTHS.
5. RIM ELEVATIONS SHOWN ARE APPROXIMATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATION. BRICK UP 2 COURSES MINIMUM, 4 COURSES MAXIMUM FOR FINISHED GRADE. RIM SHALL BE LEFT 1/8-INCH TO 1/2-INCH BELOW FINISHED ASPHALT.
6. CONTRACTOR SHALL FURNISH THE ENGINEER WITH A SET OF PLANS MARKED "AS CONSTRUCTED." THESE PLANS SHALL SHOW LOCATIONS OF MANHOLES, WYE LOCATIONS, SERVICE STUBS, DISTANCES, AND GRADES. CONTRACTOR SHALL MARK THE END OF THE SEWER SERVICE WITH A 2 X 4 AS WELL AS GIVE A LOCATION ON THE "AS CONSTRUCTED" PLANS. A 2x4x10 POST SHALL BE ATTACHED TO THE END OF THE SERVICE A STEEL FENCE POST NEXT TO 2x4 INSCRIBE "S" IN CURB AT EACH SERV.
7. THE SANITARY SEWER SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CASTLE PINES NORTH METROPOLITAN DISTRICT.
8. ALL PIPES SHALL HAVE CLASS "B" BEDDING UNLESS OTHERWISE SHOWN OR MAY BE BEDDED IN SQUEEGEE.
9. BEDDING MATERIAL SHALL CONFORM TO ASTM C-33 OR D-448, GRADATION NUMBER 6 OR 67.
10. SANITARY SEWER WYE LOCATIONS ARE SHOWN ON SHEET 3.
11. SEWER MAINS ABOVE OR LESS THAN 1.5 FEET BELOW THE WATER MAIN SHALL BE ENCASED IN CONCRETE. SEE SANITARY SEWER DETAIL SHEET.

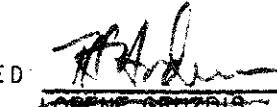
STORM SEWER NOTES

1. STORM SEWER SHALL BE REINFORCED CONCRETE PIPE PER ASTM C-76 PER THE LATEST REVISION OR PER CURRENT DOUGLAS COUNTY SPECIFICATIONS. CLASS III PIPE SHALL BE USED UNLESS OTHERWISE NOTED.
2. ALL PIPE SHALL BE INSTALLED WITH CLASS "B" BEDDING UNLESS OTHERWISE NOTED.
3. INLETS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT EDITION OF THE STATE OF COLORADO DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OR CURRENT DOUGLAS COUNTY DEPARTMENT OF HIGHWAYS STANDARDS.

INDEX

C&L (ABS) 1	COVER SHEET
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C&L (ABS) 3	OVERALL UTILITY PLAN
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6	STORM SEWER PLAN & PROFILE
7	WATER & SEWER DETAIL SHEET
8	GRADING & EROSION CONTROL PLAN
9	GRADING & EROSION CONTROL DETAIL SHEET
10	SIGNAGE PLAN

SHEETS REQUIRING REAPPROVAL - Shits: 1 & 4,
OTHER SHEETS INCLUDED for INFORMATION ONLY.

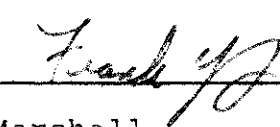
APPROVED  DATE 5/14/96
LORENE SHROEDER - Thomas H. Anderson
CASTLE PINES NORTH METROPOLITAN DISTRICT MANAGER

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR STREET AND DRAINAGE IMPROVEMENTS ONLY.
(SIGNED COPIES ON FILE AT DOUGLAS COUNTY ENGINEERING DEPARTMENT) DATE: DEC. 1988
FRED KOCH, COUNTY ENGINEER

REAPPROVED

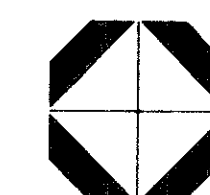
COUNTY ENGINEER

All materials and construction shall conform to Castle Pines North Metropolitan District Specifications. The number and location of fire hydrants are specified by Castlewood Fire Department.

 4-2-96
Fire Marshal

AS-BUILT	
ONLY ITEMS MARKED WITH "AB" REFLECT AS-CONSTRUCTED INFORMATION BY CARROLL & LANGE, INC. "ABO" INDICATES AS-CONSTRUCTED INFORMATION BY OTHERS. AS-CONSTRUCTED INFORMATION IS SHOWN ONLY FOR THE ITEMS INDICATED BELOW. UNLESS EXPLICITLY MARKED WITH "AB" OR "ABO", CONSTRUCTED CONDITIONS SHOULD NOT BE ASSUMED.	
☒ SANITARY SEWER	DATE 5-18-96
☐ STORM SEWER	DATE
☐ WATER	DATE 10-3-96
☐	DATE

PREPARED UNDER THE SUPERVISION OF



Carroll & Lange

165 South Union Blvd., Suite 156
Lakewood, Colorado 80228
303/980-0200

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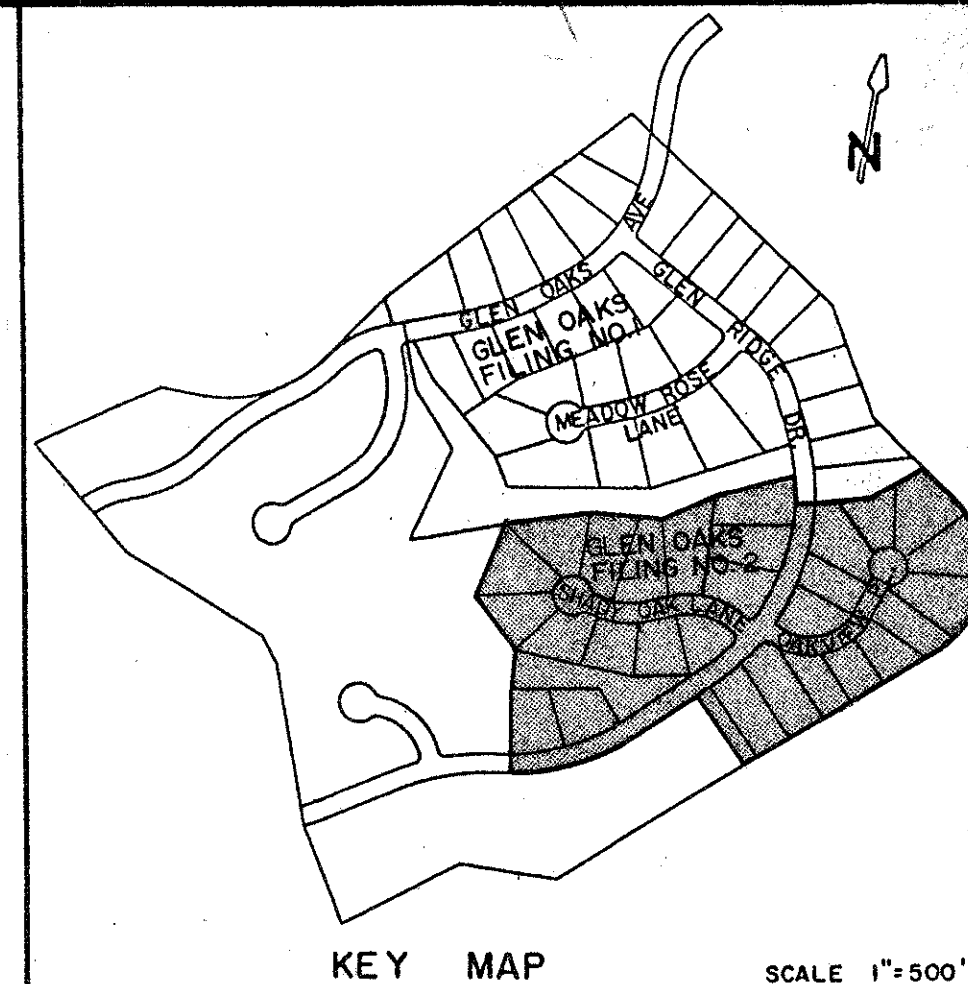
REAPPROVED

COUNTY ENGINEER

DATE:

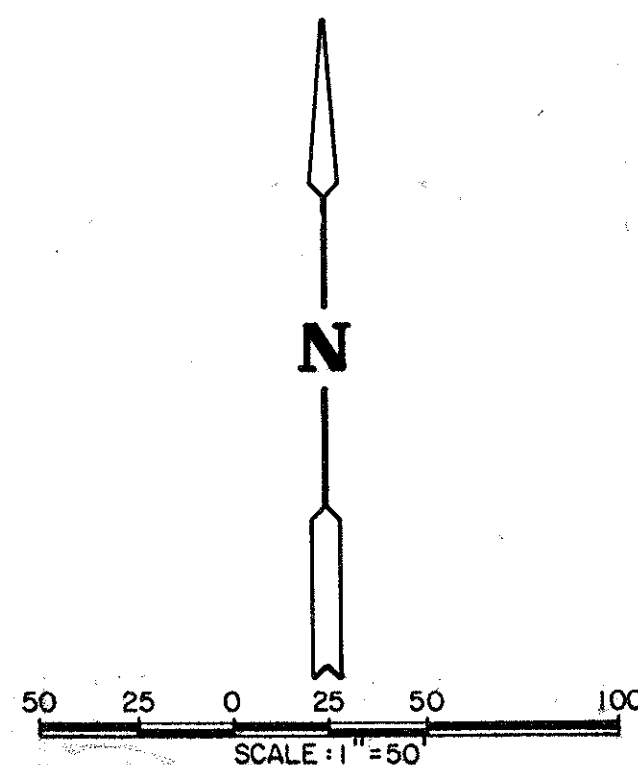
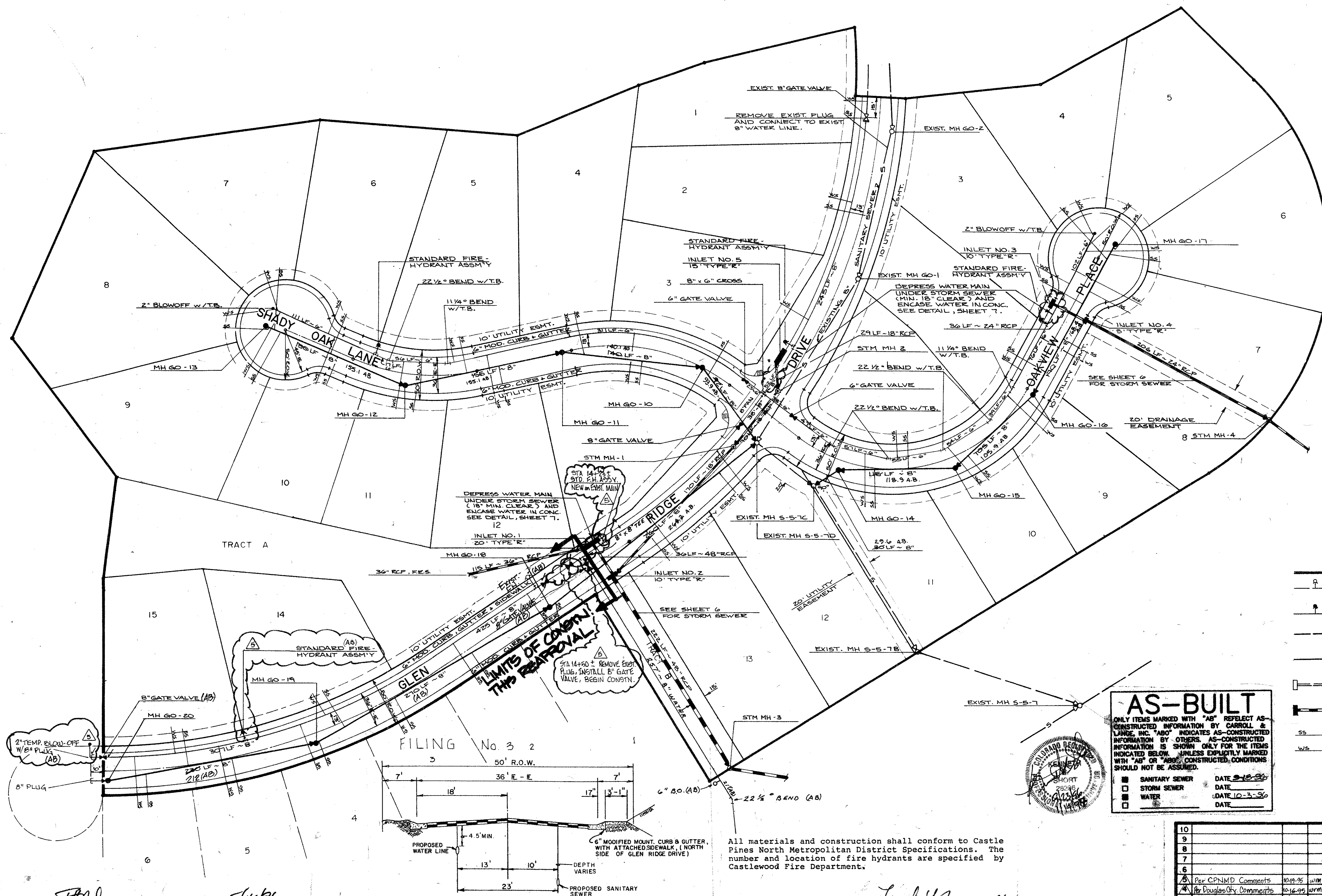
NOTES

1. WATER SERVICES WILL BE LOCATED AT CENTER OF LOT UNLESS OTHERWISE SHOWN ON THIS PLAN.
2. SANITARY SERVICES WILL BE LOCATED 10 FEET FROM CENTER OF LOT ON DOWNHILL SIDE, UNLESS OTHERWISE SHOWN ON THIS PLAN.
3. SANITARY SERVICE INVERTS (AND DISTANCES FROM DOWNSTREAM MANHOLE) ARE SHOWN ON SHEETS 4 AND 5. THE ELEVATION SHOWN IS AT 15 FEET INSIDE OF PROPERTY LINE.



CALL UTILITY NOTIFICATION
CENTER OF COLORADO
1-800-922-1987
OR **534-6700** IN METRO DENVER
CALL 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES.

GLEN OAKS FILING NO. 1



LEGEND

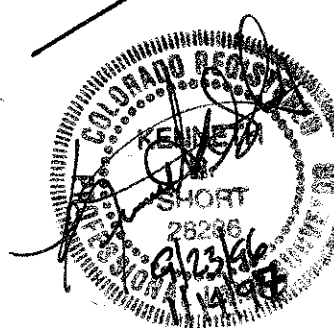
- EXISTING WATER LINE WITH WATER VALVE AND FIRE HYDRANT
- PROPOSED WATER LINE WITH WATER VALVE AND FIRE HYDRANT
- EXISTING SANITARY SEWER WITH MANHOLE
- PROPOSED SANITARY SEWER WITH MANHOLE
- EXISTING STORM SEWER WITH MANHOLE AND INLET
- PROPOSED STORM SEWER WITH MANHOLE AND INLET
- SANITARY SERVICE
- WATER SERVICE

AS-BUILT

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☒ SANITARY SEWER
☐ STORM SEWER
☐ WATER

DATE: 10-3-90
DATE: 10-3-90
DATE:



All materials and construction shall conform to Castle Pines North Metropolitan District Specifications. The number and location of fire hydrants are specified by Castlewood Fire Department.

Fire Marshall

APPROVED: *Thomas H. Anderson*
CASTLE PINES NORTH METROPOLITAN DISTRICT MANAGER
DATE: 5/14/96

TYPICAL STREET & UTILITY CROSS SECTION
N.T.S.

10				Project: GLEN OAKS FILING NO. 2 f3			
9				Title: OVERALL UTILITY PLAN			
8				Designed by: SH			
7				Scale: 1" = 50'			
6				Drawn by: MAP			
5				Job No. 0484			
4				File No. B-12			
3				Revisions			
2				Date			
1				By			
No.				Checked by: TSW			
				Date: OCT. 1988			

REAPPROVED

**CALL 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
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