CIVIL CONSTRUCTION PLANS FOR PAVING, DRAINAGE & UTILITY IMPROVEMENTS FOR

KONRAD RANCH ESTATES

GOOSE REAL ESTATE

PLANS SUBMITTAL/REVIEW LOG

DESIGN DEVELOPMENT SET

1st CITY SUBMITTAL

07/18/2014 10/14/2014

2nd CITY SUBMITTAL

ISSUE RECORD DRAWINGS

12/08/2014

GENERAL CONSTRUCTION NOTES

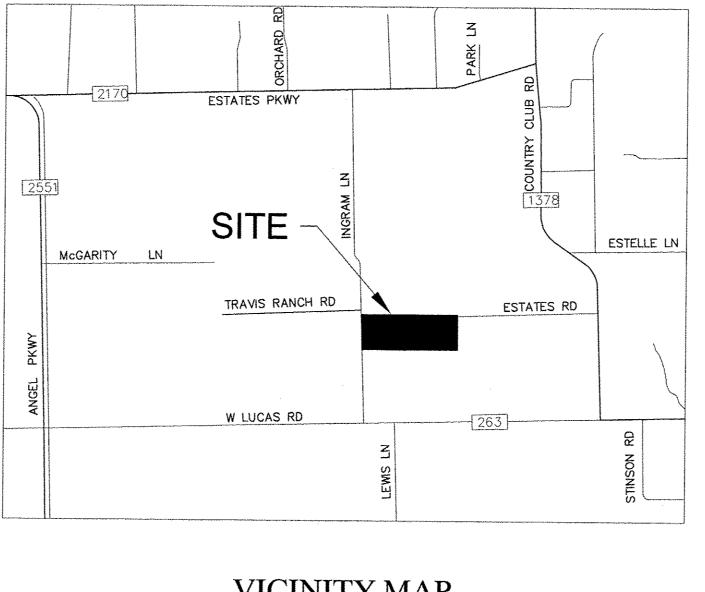
- CONTRACTOR SHALL CONTACT MR. STANTON FOERSTER, DIRECTOR
- UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN. THE CONTRACTOR SHALL DETERMINE THE DEPTH AND LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO TRENCHING AND SHALL BE REQUIRED TO TAKE ANY MEASURES NECESSARY TO PROTECT ALL UTILITIES SHOWN AND/OR ANY OTHER UTILITIES NOT OF RECORD OR NOR SHOWN ON THE PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION.
- 3. ANY CONTRACTOR/SUBCONTRACTOR PERFORMING WORK ON THIS PROJECT SHALL FAMILIARIZE HIMSELF WITH THE SITE AND SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING DIRECTLY OR INDIRECTLY FROM HIS OPERATIONS. EXISTING IMPROVEMENTS SHALL INCLUDE, BUT NOT BE LIMITED TO, ANY UTILITY OR FUEL LINE, BERMS, DITCHES, FENCES, PLANTS, TREES, EX. PAVEMENT OVERHEAD POWER AND FRANCHISE UTILITY LINES, UNDERGROUND POWER AND FRANCHISE UTILITY LINES, ETC., ANY DAMAGE OR REMOVAL TO EXISTING IMPROVEMENTS SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR OR HIS DESIGNEE AT HIS EXPENSE AND SHALL BE APPROVED BY THE CITY OF LUCAS AND ALL **GOVERNING AUTHORITIES.**
- 4. ALL CONSTRUCTION, TESTING, AND CONSTRUCTION MATERIALS SHALL MEET OR EXCEED ALL STANDARDS & SPECIFICATIONS OF THE CITY OF LUCAS.

OWNER/DEVELOPER

GOOSE REAL ESTATE 1200 KEMPTON PARK FAIRVIEW, TEXAS 75069 PH 614.306.4246 **CONTACT: JAMES ROBERTS**

ENGINEER

12750 MERIT DRIVE **SUITE 1000** DALLAS, TEXAS 75251 PH 972.770.1300 CONTACT: JOSEPH E. HELMBERGER, P.E.



VICINITY MAP N.T.S.

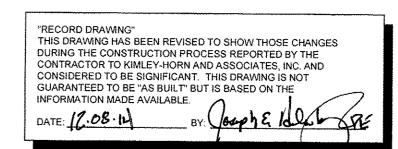
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DESIGN SURVEY AND BOUNDARY VERIFICATION PROVIDED BY THE OWNER UNDER SEPARATE CONTRACT WITH GLAS LAND SURVEYING, 2114 FM 1563. WOLFE CITY, TEXAS 75496, TBPLS FIRM NO. 1019397, PHONE 903-496-2084 (www.glaslandsurveying.com)

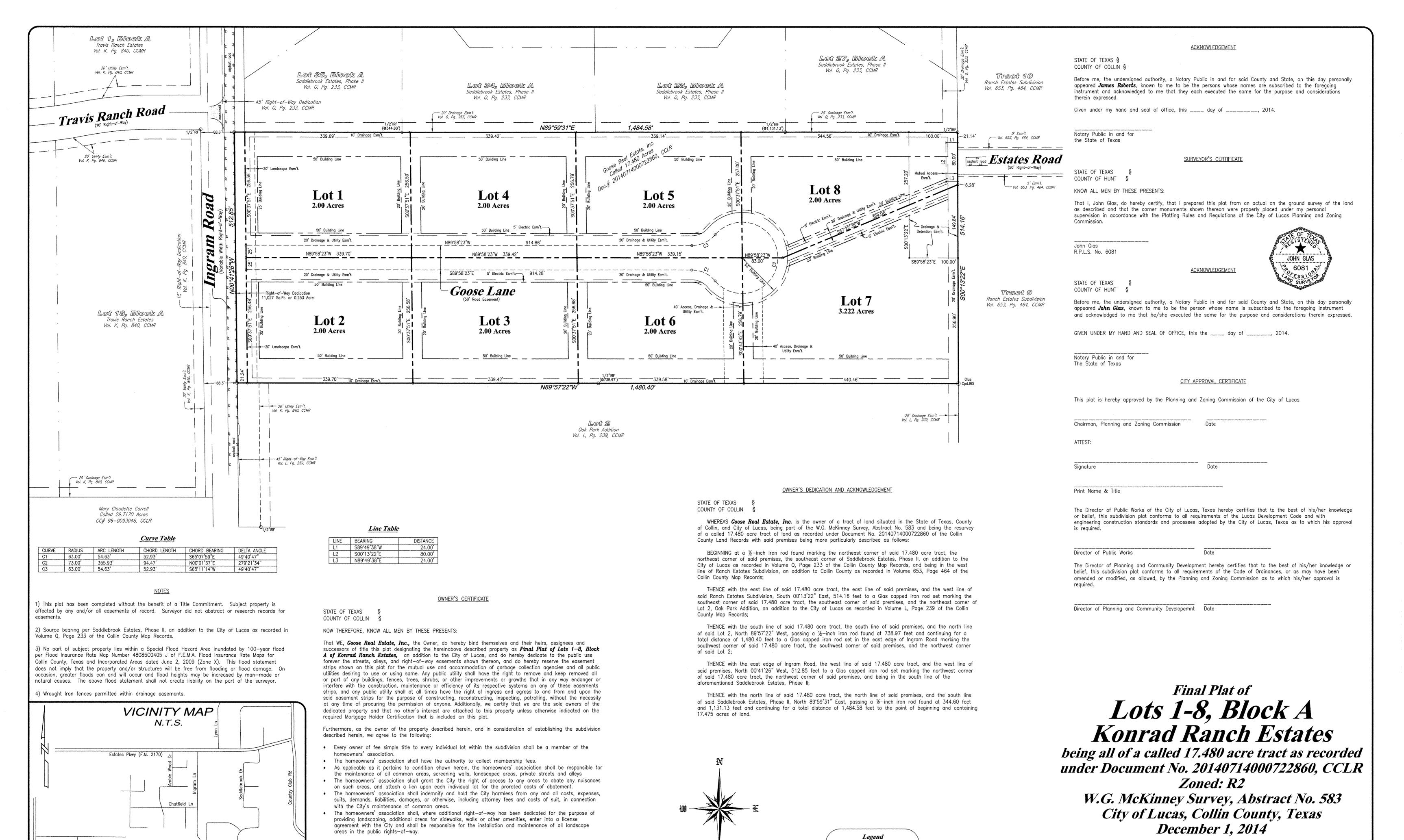
AS-BUILT UTILITIES, PAVING, AND DRAINAGE INFORMATION OBTAINED FROM RECORD DRAWINGS ON FILE WITH THE CITY OF LUCAS.

SOUTHEAST CORNER OF INGRAM LANE AND TRAVIS RANCH ROAD

CITY OF LUCAS, COLLIN COUNTY, TEXAS



SHEET NUMBER C-001



Scale: 1"= 80"

This plat approved subject to all platting ordinances, rules, regulations and resolutions of the City of Lucas,

James Roberts,

of Goose Real Estate, Inc.

Travis Ranch Rd

Revised: __/__/2014 Drawings\2014\AC00195.dwg

Gas Land Surveying

2114 FM 1563, Wolfe City, Texas 75496

Office: (903) 496-2084

www.glaslandsurveying.com TBPLS Firm No. 10193970

Owner: Goose Real Estate, Inc.

1200 Kempton Park Ln

Fairview, Tx 75069

Attn: James Roberts

roberts.james321@gmail.com

(614) 306-4246

Collin County Map Records

Iron Rod Found

Edge of Aspholt

Controlling Monument

Collin County Land Records

C.C.L.R.

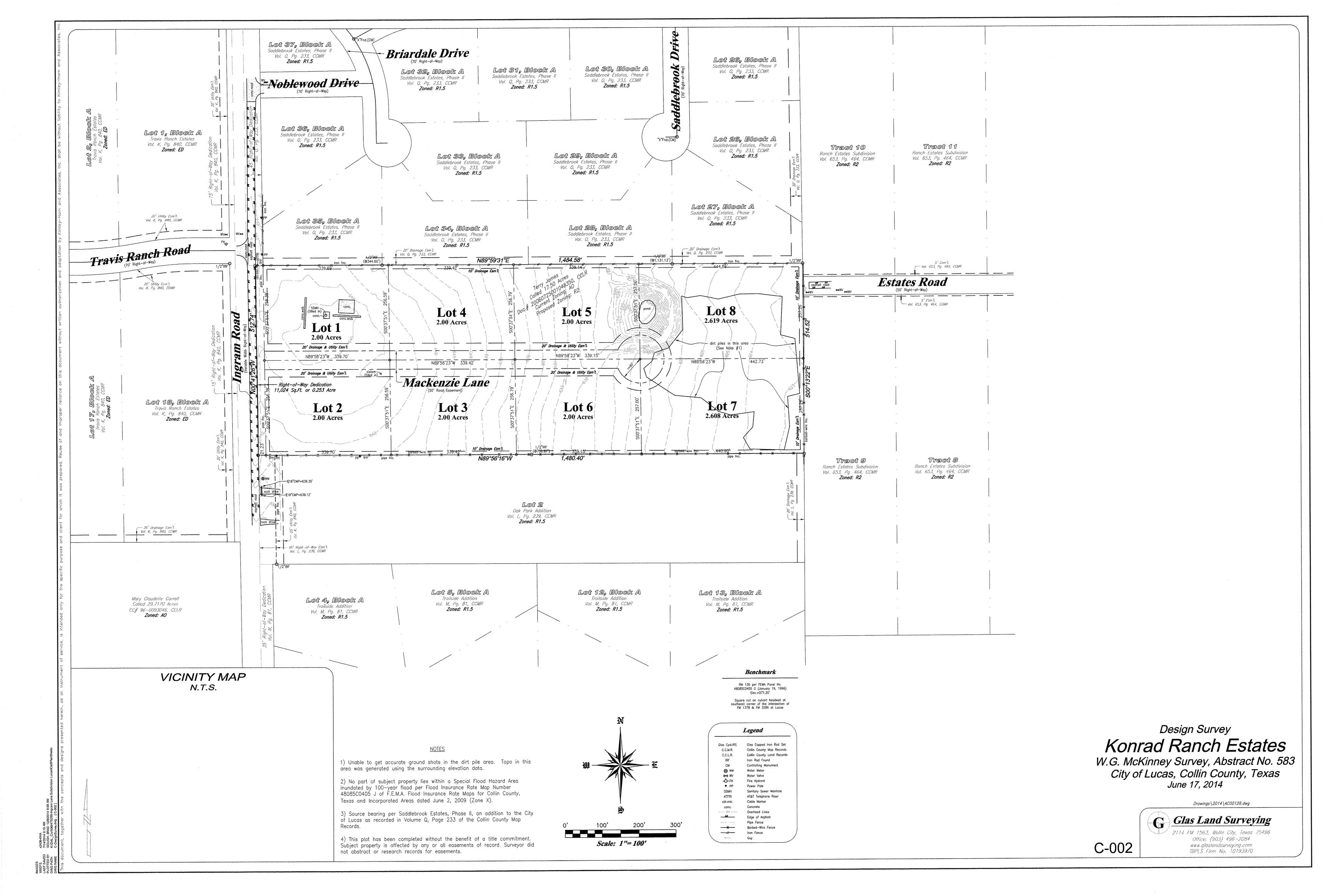
Surveyor: Glas Land Surveying 2114 FM 1563

Wolfe City, Tx 75496

john@glaslandsurveying.com

(903) 496-2084

Àttn: John Glas



GENERAL NOTES

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE PROJECT AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS.
- 2. CONTRACTOR SHALL CONTACT ALL FRANCHISE UTILITY COMPANIES TO HAVE THEM LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION AND DEPTH OF ALL FRANCHISE UTILITY SERVICES AND ANY REQUIRED RELOCATION AND/OR EXTENSIONS. SERVICES SHOWN ON THE PLANS ARE CONCEPTUAL.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RELOCATION AND INSTALLATION OF FRANCHISE UTILITIES NECESSARY FOR ON AND OFF SITE CONSTRUCTION.
- 4. BRACING OF UTILITY POLES MAY BE REQUIRED BY UTILITY COMPANIES WHEN TRENCHING OR EXCAVATION IS IN CLOSE PROXIMITY TO THE POLES. THE COST OF BRACING POLES WILL BE BORNE BY THE CONTRACTOR. THERE IS NO SEPARATE PAY ITEM FOR THIS WORK. THE COST IS INCIDENTAL TO THE VARIOUS PAY ITEMS FOR INSTALLATION OF PIPE.
- 5. THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM AVAILABLE UTILITY COMPANY RECORDS AND PLANS AND ARE CONSIDERED APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ADJACENT AND/OR CONFLICTING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION IN ORDER THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES. THE CONTRACTOR SHALL PRESERVE AND PROTECT PUBLIC AND PRIVATE UTILITIES AT ALL TIMES DURING CONSTRUCTION. ANY DAMAGE TO UTILITIES RESULTING FROM CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT THEIR EXPENSE. THE ENGINEER SHALL BE NOTIFIED WHEN PROPOSED FACILITY GRADES CONFLICT WITH EXISTING UTILITY GRADES.
- 6. CONTRACTOR SHALL USE ALL NECESSARY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND POWER LINES.
- 7. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS SHOWN ON THE PLANS AND REVIEW ALL FIELD CONDITIONS, INCLUDING EXISTING GRADES AND UTILITY FLOW LINES, AND SHOULD DISCREPANCIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO OBTAIN THE ENGINEER'S CLARIFICATION BEFORE COMMENCING WITH CONSTRUCTION.
- 8. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY PHYSICAL DAMAGE TO PRIVATE PROPERTY, INCLUDING, BUT NOT LIMITED TO FENCES, WALLS, PAVEMENT, GRASS, TREES, LAWN SPRINKLER AND IRRIGATION SYSTEMS AT NO COST TO THE OWNER. THIS WORK SHALL BE SUBSIDIARY TO THE CONTRACT (UNLESS OTHERWISE NOTED) AND IS NOT A SEPARATE PAY ITEM.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO CONSTRUCTION.
- 10. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE APPROVED CONTRACT DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, AND SPECIAL CONDITIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, EROSION CONTROL PLANS, SWPPP AND INSPECTION REPORTS.
- 11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN NEAT AND ACCURATE CONSTRUCTION RECORD PLANS.
- 12. CONNECTIONS TO EXISTING FACILITIES SHALL BE ACCOMPLISHED IN A NEAT AND PROFESSIONAL MANNER. WHEN FIELD CONDITIONS INDICATE ANY VARIANCE FROM DETAILED METHODS, THE CONTRACTOR SHALL PROVIDE COMPREHENSIVE AND DETAILED DRAWINGS (FOR APPROVAL) OF METHODS PROPOSED.
- 13. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE OWNER AND ENGINEER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
- 14. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE OWNER AND DESIGN ENGINEER OF RECORD DIRECTLY FROM THE TESTING AGENCY.
- 15. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES, JURISDICTIONAL AGENCIES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO THE FINAL CONNECTION OF SERVICES.
- 16. CONTRACTOR SHALL VERIFY BENCHMARKS AND DATUM PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF IMPROVEMENTS.
- 17. ALL HORIZONTAL DIMENSIONS GIVEN ARE TO FACE OF CURB AND TO PIPE CENTERLINES, UNLESS OTHERWISE NOTED ON PLANS.
- 18. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING. CONSTRUCTION STAKING SHALL BE PERFORMED BY A REGISTERED PUBLIC SURVEYOR IN THE STATE OF TEXAS.
- 19. THE CONTRACTOR SHALL TOPSOIL, SEED AND FERTILIZE ALL AREAS DISTURBED BY CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE WHATEVER MEASURES ARE NEEDED INCLUDING TEMPORARY IRRIGATION TO ENSURE FULL COVERAGE OF GRASSING. UNLESS OTHERWISE NOTED, PRIVATE LAWN AREAS AND PARKWAYS IN FRONT OF PRIVATE LAWN AREAS DISTURBED BY CONSTRUCTION SHALL BE REPLACED WITH BLOCK SOD OF A SIMILAR GRASS TO THAT EXISTING. ALL SEEDED OR SODDED AREAS SHALL RECEIVE SIX(6) INCHES OF TOPSOIL. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 20. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH. THE AREAS SHALL THEN BE SEEDED, IRRIGATED, AND STABILIZED AS SPECIFIED IN THE PLANS, AND MAINTAINED UNTIL SOIL IS STABILIZED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE STABILIZED AND MULCHED AS SHOWN ON THE LANDSCAPE, GRADING, AND EROSION CONTROL PLANS.
- 21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
- 22. SOD MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.
- 23. CONTRACTOR IS TO CONSTRUCT A STABILIZED CONSTRUCTION EXIT AT ALL PRIMARY POINTS OF ACCESS. THIS STABILIZED EXIT SHALL BE
- 24. CONTRACTOR SHALL BE RESPONSIBLE FOR PRODUCING THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE SWPPP MUST BE MADE READILY AVAILABLE AT THE TIME OF AN ON-SITE INSPECTION TO: THE EXECUTIVE DIRECTOR; A FEDERAL, STATE, OR LOCAL AGENCY APPROVING SEDIMENT AND EROSION PLANS, GRADING PLANS, OR STORMWATER MANAGEMENT PLANS; LOCAL GOVERNMENT OFFICIALS; AND THE OPERATOR OF A MUNICIPAL SEPARATE STORM SEWER (MS4) RECEIVING DISCHARGES FROM THE SITE.
- 25. ANY ENTITY THAT MEETS THE DEFINITION OF A "PRIMARY OPERATOR" FOR A LARGE CONSTRUCTION ACTIVITY (FIVE OR MORE ACRES) SHALL BE RESPONSIBLE FOR COMPLETING AND SUBMITTING A NOTICE OF INTENT (NOI) AND A NOTICE OF TERMINATION (NOT) WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ).
- 26. THE CONTRACTOR MUST CONSTRUCT AND MAINTAIN A PERMANENT STABLE PROTECTIVE COVER (GRASS) FOR EROSION AND SEDIMENT CONTROL ON ALL LAND SURFACES EXPOSED OR DISTURBED BY CONSTRUCTION OF THE PERMITTED PROJECT. THE PROTECTIVE COVER MUST BE INSTALLED WITHIN FOURTEEN DAYS AFTER FINAL GRADING OF THE AFFECTED LAND SURFACE. A PERMANENT STABLE COVER MUST BE ESTABLISHED WITHIN 60 DAYS OF IT'S INSTALLATION.
- 27. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL PROVIDE AS-BUILT PLANS IDENTIFYING ALL DEVIATIONS OF VARIATIONS OF ORIGINAL PLANS. AS-BUILT PLANS ARE SUBSIDIARY TO ALL OTHER BID ITEMS AND SHALL NOT BE PAID FOR AS A SEPARATE LINE ITEM.
- 28. DURING CONSTRUCTION, ALL MATERIAL TESTING SHALL BE COORDINATED WITH THE CITY OF LUCAS CONSTRUCTION INSPECTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CITY STANDARD SPECIFICATIONS. ALL SOILS TESTING IS THE RESPONSIBILITY OF AND WILL BE PAID FOR BY THE CONTRACTOR. MATERIAL TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY.
- 29. ALL EXISTING TRAFFIC AND STREET SIGNS DISTURBED SHALL BE REINSTALLED WHERE APPLICABLE BY THE CONTRACTOR.
- 30. ALL EXISTING SHRUBS, TREES, PLANTING, AND OTHER VEGETATION, OUTSIDE OF PROPERTY LIMITS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED WITH EQUIVALENT MATERIAL BY THE CONTRACTOR AT NO ADDITIONAL COST.
- 31. THE CONTRACTOR SHALL SALVAGE AND PROTECT ALL EXISTING POWER POLES, SIGNS, MANHOLES, TELEPHONE RISERS, WATER VALVES, ETC. DURING ALL CONSTRUCTION PHASES.
- 32. CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SILT AND DEBRIS OFFSITE FROM THE EXISTING ROADWAYS AND PROJECT SITE THAT ARE A RESULT OF THE PROPOSED CONSTRUCTION AS REQUESTED BY THE CITY OF LUCAS. AT A MINIMUM, THIS TASK SHOULD OCCUR ONCE A WEEK
- 33. CONNECTIONS TO EXISTING FACILITIES SHALL BE ACCOMPLISHED IN A NEAT AND PROFESSIONAL MANNER. WHEN FIELD CONDITIONS INDICATE ANY VARIANCE FROM DETAILED METHODS, THE CONTRACTOR SHALL PROVIDE COMPREHENSIVE AND DETAILED DRAWINGS (FOR APPROVAL) OF METHODS PROPOSED.
- 34. WATER SHALL NOT BE PERMITTED IN OPEN TRENCHES DURING CONSTRUCTION.

CONSTRUCTED PER CITY DETAILS.

- 35. CONTRACTOR SHALL CONTACT THE DESIGNATED CONSTRUCTION INSPECTOR ASSIGNED TO THIS PROJECT AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION.
- 36. CONTRACTOR TO REVIEW DESIGN INTENT OF THESE PLANS AND SUBMIT REQUESTS-FOR-INFORMATION IN A TIMELY MANNER PRIOR TO COMMENCING THAT WORK.
- 37. ALL APPURTENANCES INSTALLED IN PAVEMENT AREAS SHALL BE ADJUSTED AS REQUIRED TO BE FLUSH WITH FINISHED PAVEMENT.

WATER GENERAL NOTES

- 1. ALL WATER MAIN CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY OR DEDICATED EASEMENT SHALL CONFORM TO THE REQUIREMENTS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) GUIDELINES FOR CONSTRUCTION OF PUBLIC WATER SYSTEMS. WATER SYSTEM SHALL BE TESTED IN ACCORDANCE WITH THE CITY OF LUCAS STANDARDS AND SPECIFICATIONS. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE REFERENCE DOCUMENTS AT THE JOBSITE AT ALL TIMES.
- ALL WATER MAIN CONSTRUCTION SHALL CONFORM TO THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS STANDARD SPECIFICATIONS (N.C.T.C.O.G.) FOR PUBLIC WORKS CONSTRUCTION. IN THE EVENT AN ITEM IS NOT COVERED, THE CONTRACTOR SHALL BRING THE PROBLEM TO THE ATTENTION OF THE ENGINEER FOR A DECISION, APPROVAL OR MODIFICATION. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE DESIGN DOCUMENTS AT THE JOBSITE AT ALL TIMES.
- ALL WATER TESTS TO BE PERFORMED BY NORTH TEXAS MUNICIPAL WATER DISTRICT (NTMWD) AT THEIR LABORATORY IN WYLIE, TEXAS. CONTACT NTMWD FOR FEES ASSOCIATED WITH TESTING. TESTING FEES TO BE INCLUDED IN BID.
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCH SAFETY IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S TRENCH SAFETY STANDARDS.
- 5. CONTRACTOR SHALL MAINTAIN EXISTING WATER SERVICE AT ALL TIMES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE LEGIBLE AND CLEARLY MARKED "AS-BUILT" PLANS TO THE OWNER UPON COMPLETION AND PRIOR TO ACCEPTANCE OF THE IMPROVEMENTS. "AS-BUILT" PLANS TO BE SUBMITTED IN HARD COPY, ELECTRONIC MEDIA (.PDF FILES) AND IN ELECTRONIC MEDIA (AUTOCAD FILE).
- 7. THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES SHOWN ON THESE PLANS WERE OBTAINED FROM AVAILABLE CITY OF LUCAS RECORDS AND ARE CONSIDERED APPROXIMATE AT BEST. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL LOCATIONS, ELEVATIONS AND DIMENSIONS OF ADJACENT AND/OR CONFLICTING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION IN ORDER THAT ADJUSTMENTS CAN BE MADE (IF NECESSARY) TO PROVIDE ADEQUATE CLEARANCES. THE CONTRACTOR SHALL PRESERVE AND PROTECT PUBLIC UTILITIES AT ALL TIMES DURING CONSTRUCTION. ANY DAMAGE TO UTILITIES RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT HIS EXPENSE. THE ENGINEER SHALL BE NOTIFIED WHEN PROPOSED WATER LINE GRADES CONFLICT WITH EXISTING UTILITY GRADES. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES TO LOCATE ALL UNDERGROUND UTILITIES AT LEAST FOURTY-EIGHT (48) HOURS PRIOR TO BEGINNING CONSTRUCTION IN THE VICINITY OF THE EXISTING UTILITIES.
- 8. ALL DIMENSIONS ARE TO THE CENTERLINE OF PIPE UNLESS NOTED OTHERWISE.
- 9. ALL WATER MAINS SHALL BE C900, CLASS 305, DR-14 PVC PIPE (0.493 MWT) FOR 6" PIPE (FIRE HYDRANT LEADS ONLY) AND C900, CLASS 235, DR-18 PVC PIPE FOR 8" PIPE (0.503 MWT).
- 10. ALL GATE VALVES SHALL BE RESILIENT SEAT GATE VALVES (A-2360-2361 SERIES) AS MANUFACTURED BY MUELLER AND SHALL BE DESIGNED FOR A MINIMUM WATER WORKING PRESSURE OF 200 POUNDS PER SQUARE INCH UNLESS OTHERWISE SPECIFIED IN THE PLANS.
- 11. ALL FIRE HYDRANTS MUST HAVE FH SWIVEL OR ANCHOR AND MEET N.C.T.C.O.G. SPECIFICATIONS AS MANUFACTURED BY MUELLER WITH NO SUBSTITUTION ALLOWED.
- 12. FIRE HYDRANT BASES SHALL BE 2" TO 6" ABOVE FINISHED GRADE AND SHALL FACE THE STREET. FIRE HYDRANT SHALL BE PLACED PER OWNER DIRECTION BUT IN NO CASE LESS THAN THAT CALLED OUT FOR ON PLANS.
- 13. ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 48" BELOW FINISHED GRADE.
- 14. ALL PIPE FITTINGS SHALL BE DOMESTIC, MECHANICAL JOINT DUCTILE IRON FITTINGS MEETING THE REQUIREMENTS OF EITHER AWWA C-110 OR C-153. THE FITTINGS SHALL HAVE A WORKING PRESSURE OF 350 POUNDS PER SQUARE INCH AND FLANGED FITTINGS SHALL HAVE A WORKING PRESSURE OF 250 POUNDS PER SQUARE INCH. ALL RETAINING GLANDS SHALL BE MEGA-LUG 2000 PV AS MANUFACTURED BY EBBA IRON, INC. GLANDS SHALL BE MANUFACTURED OF DUCTILE IRON CONFORMING TO ASTM A536-80. NO IMPORTED FITTINGS SHALL BE ALLOWED.
- 15. ALL AIR VALVES SHALL BE THE FLOAT AND LEVER TYPE, OR EQUAL, OR THE VACUUM BREAKER TYPE AS MANUFACTURED BY APCO NO. 145C OR APPROVED EQUAL.
- 16. ALL WATER MAINS SHALL BE PRESSURE TESTED, FLUSHED AND STERILIZED IN ACCORDANCE WITH THE SPECIFICATIONS UPON COMPLETION OF THE WORK AND PRIOR TO FINAL ACCEPTANCE. DOCUMENTATION OF SAME SHALL BE PROVIDED TO THE CITY OF
- 17. ALL BACKFILL SHALL BE COMPACTED TO 90% STANDARD PROCTOR (ASTM-D-698) AT OR SLIGHTLY ABOVE OPTIMUM MOISTURE CONTENT IN NON-PAVED AREAS. ALL BACKFILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR (ASTM-D-698) AT OR SLIGHTLY ABOVE OPTIMUM MOISTURE CONTENT IN PAVED AREAS. ALL BACKFILL SHALL BE PLACED IN 8" LIFTS COMPACTED AS NOTED.
- 18. ALL PIPING SHALL BE INSPECTED BY THE CITY OF LUCAS PRIOR TO COVERING. A MINIMUM OF TWENTY-FOUR (24) HOURS NOTICE SHALL BE GIVEN TO THE CITY OF LUCAS PRIOR TO COVERING THE PIPE.
- 19. ALL CONCRETE BLOCKING AND EMBEDMENT FOR WATER LINES SHALL BE IN ACCORDANCE WITH THE N.C.T.C.O.G. CONSTRUCTION
- 20. EMBEDMENT TO BE CLASS "B+" PER STANDARD DRAWING NO. 3020.
- 21. ANY WATER SERVICE LOCATED OUTSIDE OF A STREET, ALLEY OR EASEMENT SHALL BE INSTALLED BY A PLUMBER AND BE INSPECTED BY THE CITY OF LUCAS.
- 22. WATER SERVICES SHALL BE LOCATED AS SHOWN ON THE PLANS.
- 23. FLUSH VALVES SHALL BE A 2" GATE VALVE WITH 2" GALVANIZED RISER PER NOTE ON PLANS.
- 24. ALL VALVE STACKS SHALL HAVE VALVE BOXES WITH A 2' X 2' CONCRETE PAD IF NOT LOCATED IN PAVEMENT. VALVE LIDS TO BE PAINTED RED FOR FIRE HYDRANT CONTROL AND BLUE FOR IN-LINE VALVES.
- 25. TRACER WIRES TO BE TERMINATED 3" BELOW FINISH GRADE AT ALL VALVE BOXES OR OTHER LOCATIONS WITH WIRE TO BE COILED A MINIMUM OF 6" RADIUS 3 COILS. LOCATOR WIRE SHALL BE A CONTINUOUS INSULATED 12 GAGE COPPER WIRE. THE WIRE SHALL BE CODED BLUE FOR WATER PIPE. THE LOCATOR WIRE SHALL BE INSTALLED IN THE DITCH ALONG WITH THE PIPE AND SHALL BE TERMINATED AS ABOVE. SPLICES SHALL BE KEPT TO A MINIMUM AND ALL SPLICES SHALL BE MADE WITH A DIRECT BURY SPLICE AS MANUFACTURED BY 3M, MODEL DBR. IN CASES WHERE A VALVE STACK OR FIRE HYDRANT IN ENCASED IN A CONCRETE PAD THE TRACER WIRE SHALL BE TERMINATE BY CONNECTING TO A ½" SOLID COPPER CONDUCTOR THAT EXTENDS 1" OUT OF THE CONCRETE PAD. THE COPPER CONDUCTOR SHALL EXTEND A MINIMUM OF 3" BELOW THE CONCRETE PAD AND THE TRACER WIRE SHALL BE CONNECTED TO THE COPPER CONDUCTOR BY A GROUNDING LUG. CONNECTION SHALL BE MADE PRIOR TO POURING THE CONCRETE PAD.
- 26. ALL WATER SERVICES TO BE A MINIMUM 1" NOMINAL PIPE SIZE AS MANUFACTURED BY US POLY P.R./P.C. 200 PSI SIDR 7 (COMPATIBLE WITH IPS FITTINGS). SERVICE TAPS SHALL BE S70 OR S90 SINGLE BRASS STRAP SADDLES AS MANUFACTURED BY FORD OR EQUAL.
- 27. METER BOX AND LID SHALL BE BY DFW PLASTICS, INC. METER BOX TO BE DFW1200TT.12.1R AND METER BOX LID TO BE DFW1200.1R.LID.
- 28. UNLESS OTHERWISE SPECIFIED, ALL CHECK VALVES FOR SERVICE TAPS WILL BE THE SILENT SPRING LOADED DOUBLE CHECK TYPE AS APPROVED BY THE OWNER.
- 29. BRASS CORPORATION STOPS AND BRASS ANGLE METER STOPS SHALL BE BY MUELLER OR FORD AND SHALL BE 1".
- 30. A TWO (2) YEAR MAINTENANCE BOND TOTALING 100% OF THE COST OF CONSTRUCTION SHALL BE SUBMITTED TO THE CITY OF LUCAS BEGINNING THE DAY OF ACCEPTANCE OF THE IMPROVEMENTS AND CONTINUING TWO (2) FULL CALENDAR YEARS THEREAFTER.
- 31. THE CONTRACTOR IS TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY OF LUCAS PRIOR TO BEGINNING CONSTRUCTION.

PAVING AND GRADING GENERAL NOTES

- 1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LUCAS STANDARD SPECIFICATIONS AND CONSTRUCTION DETAILS. IN THE EVENT THAT AN ITEM IS NOT COVERED, THE CONTRACTOR SHALL BRING THE PROBLEM TO THE ATTENTION OF THE ENGINEER FOR APPROVAL OR MODIFICATION.
- 2. THE OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING ALL INSPECTION FEES TO THE CITY OF LUCAS PRIOR
- A TWO (2) YEAR MAINTENANCE BOND TOTALING 100% OF THE COST OF CONSTRUCTION SHALL BE SUBMITTED TO THE CITY OF LUCAS BEGINNING THE DAY OF ACCEPTANCE OF THE IMPROVEMENTS AND CONTINUING TWO (2) FULL CALENDAR YEARS THEREAFTER.
- 4. EXCAVATION OR FILL OPERATIONS SHALL NOT INTERFERE WITH OR OBSTRUCT PRE-CONSTRUCTION DRAINAGE PATTERNS UNTIL SUCH TIME AS ON-SITE DRAINAGE IMPROVEMENTS ARE CONSTRUCTED.
- 5. TOP OF PAVEMENT ELEVATIONS ARE NOTED WITH (TP) FOLLOWING THEM. ALL OTHER SPOT ELEVATIONS SHOWN ARE TO FINISHED GRADE UNLESS OTHERWISE NOTED. THE INTENTION OF THIS GRADING PLAN IS PRECLUDE PONDING WATER ON PAVING OR GRASSED AREAS. IF THE CONTRACTOR FINDS ANY LOCATION THAT WILL RESULT IN PONDING WATER, THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION PRIOR TO PAVEMENT PLACEMENT.
- 6. SAWED TRANSVERSE DUMMY JOINTS SHALL BE INSTALLED IN CONCRETE PAVEMENT ON 15.5' CENTERS. SAWED LONGITUDINAL DUMMY JOINTS SHALL BE INSTALLED ALONG CENTERLINE OF ROADWAY AND OUTSIDES WHERE APPLICABLE. ALL JOINTS SHALL BE FILLED WITH AN APPROVED SEALER.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING ALL FIELD CHANGES TO THE PLANS. THE PROJECT ENGINEER SHALL INCORPORATE THESE CHANGES INTO "AS-BUILT" RECORD DRAWINGS.
- 8. ALL CONDUITS FOR IRRIGATION SLEEVES SHALL BE PER THE LANDSCAPE PLAN AND SHALL BE INSTALLED 24" BELOW THE BOTTOM OF THE CONCRETE PAVEMENT AND EXTEND 2' OUTSIDE OF BACK OF CURB.
- CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL, WARNING AND SAFETY DEVICES UNTIL ALL WORK HAS BEEN ACCEPTED BY THE CITY OF LUCAS AND THE OWNER.
- 10. THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. ALL UTILITIES MAY NOT BE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE CITY OF LUCAS AND ALL AREA UTILITIES THAT MAY CONFLICT WITH CONSTRUCTION PRIOR TO BEGINNING WORK. CONTACT DIGTESS, 1-800-DIG-TESS, AND ALL APPROPRIATE ENTITIES PRIOR TO BEGINNING WORK.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING EROSION CONTROL IN ACCORDANCE WITH THE EROSION CONTROL PLAN PREPARED BY THE ENGINEER AND THE CITY OF LUCAS'S CODE OF ORDINANCES.
- 12. EROSION CONTROL SHALL CONFORM TO THE NORTH TEXAS COUNCIL OF GOVERNMENT DETAILS AS APPROVED BY THE CITY OF LUCAS.
- 13. HANDICAP ACCESS NOTE: ACCESSIBLE PEDESTRIAN ROUTES ON PUBLIC RIGHTS-OF-WAY AND PRIVATE PROPERTY SHALL COMPLY WITH AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) AND TEXAS ACCESSIBILITY STANDARDS (TAS). DESIGN AND CONSTRUCTION OF ALL CURB RAMPS ON PUBLIC RIGHTS-OF-WAY SHALL BE IN ACCORDANCE WITH TEXAS DEPARTMENT OF TRANSPORTATION STANDARD DETAIL PED-05, SHEETS 1 THROUGH 4. DESIGN AND CONSTRUCTION OF ALL SIDEWALKS SHALL BE IN ACCORDANCE WITH CITY OF LUCAS STANDARD DETAILS WITH PASSING AREAS HAVING A MINIMUM 5-FOOT BY 5-FOOT SIZE AT INTERVALS NOT EXCEEDING 200 FEET. CURB RAMPS THAT ARE PART OF ACCESSIBLE ROUTES ON PRIVATE PROPERTY MAY BE CONSTRUCTED IN ACCORDANCE WITH TXDOT STANDARD DETAIL PED-05, SHEETS 1 THROUGH 4, OR MAY BE CONSTRUCTED IN ACCORDANCE WITH A DESIGN SUBMITTED AND APPROVED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION. THE CONTRACTOR IS TO ENSURE COMPLIANCE WITH THIS HANDICAP ACCESS NOTE.
- 14. TRAFFIC CONTROL NOTE: CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLAN, AT LEAST 48 HOURS PRIOR TO ANY WORK IN A CITY STREET. TRAFFIC CONTROL MEASURES SHALL CONFORM TO PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. TRAFFIC CONTROL MEASURES SHALL BE INSTALLED FOR ANY WORK ACTIVITY THAT TAKES PLACE ON OR ADJACENT TO ANY CITY STREET OR ROADWAY. THE CITY ENGINEER MAY REQUIRE THE TRAFFIC CONTROL PLAN TO BE DESIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE OF TEXAS.
- 15. TRAFFIC CONTROL DEVICE NOTE: CONTACT ENGINEERING DIVISION AT LEAST 48 HOURS PRIOR TO WORK REQUIRING THE REMOVAL OR RELOCATION OF TRAFFIC SIGNS, TRAFFIC CONTROL EQUIPMENT OR OTHER TRAFFIC CONTROL APPURTENANCES.
- 16. FRANCHISE UTILITY LOCATOR SERVICE NOTE: FOR FRANCHISE UTILITY LOCATOR SERVICES CALL TEXAS ONE CALL AT 1-800-344-8377 OR UTILITY LOCATOR AT 811.
- 17. THE CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY OF LUCAS AND PARTICIPATE IN A PUBLIC WORKS PRE-CONSTRUCTION MEETING PRIOR TO MOBILIZATION AND CONSTRUCTION.
- 18. CONTRACTOR SHALL COMPLETE ALL FILL OPERATIONS PRIOR TO INSTALLING ANY UTILITIES (I.E. WATER OR STORM SEWER). AFTER FILL OPERATIONS ARE COMPLETED, CONTRACTOR SHALL EXCAVATE UTILITY TRENCH, INSTALL UTILITIES, COMPACT TRENCH AND ENSURE ALL PUBLIC WORKS INSPECTIONS ARE PROPERLY PERFORMED.

GENERAL CONSTRUCTION NOTES

- 1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LUCAS STANDARD SPECIFICATIONS AND CONSTRUCTION DETAILS. IN THE EVENT THAT AN ITEM IS NOT COVERED, THE CONTRACTOR SHALL BRING THE PROBLEM TO THE ATTENTION OF THE ENGINEER FOR APPROVAL OR MODIFICATION.
- 2. THE OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING ALL INSPECTION FEES TO THE CITY OF LUCAS PRIOR TO ENGINEERING PLAN "RELEASE".
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A TWO (2) YEAR, 100% MAINTENANCE BOND TO THE CITY OF

LUCAS FOR ALL CITY MAINTAINED WATER IMPROVEMENTS WITHIN RIGHT-OF-WAYS OR EASEMENTS.

- 4. THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS IS APPROXIMATE. ALL UTILITIES MAY NOT BE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE CITY OF LUCAS AND ALL AREA UTILITIES THAT MAY CONFLICT WITH CONSTRUCTION PRIOR TO BEGINNING WORK. CONTACT 811, AND ALL APPROPRIATE ENTITIES PRIOR TO BEGINNING WORK.
- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCH SAFETY IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S TRENCH SAFETY STANDARDS.
- 6. ANY WATER SERVICE LOCATED OUTSIDE OF A STREET, ALLEY OR EASEMENT SHALL BE INSTALLED BY A PLUMBER AND BE INSPECTED BY THE CITY OF LUCAS.
- 7. CONTRACTOR SHALL COMPLETE ALL FILL OPERATIONS PRIOR TO INSTALLING ANY UTILITIES (I.E. WATER, SEWER, STORM SEWER). AFTER FILL OPERATIONS ARE COMPLETED, CONTRACTOR SHALL EXCAVATE UTILITY TRENCH, INSTALL UTILITIES, COMPACT TRENCH AND ENSURE ALL PUBLIC WORKS INSPECTIONS ARE PROPERLY PERFORMED.
- 8. FRANCHISE UTILITY LOCATOR SERVICE. FOR FRANCHISE UTILITY LOCATOR SERVICES CONTACT TEXAS ONE CALL AT 1-800-344-8377 OR UTILITY LOCATOR AT 811.

"RECORD DRAWING"

THIS DRAWING HAS BEEN REVISED TO SHOW THOSE CHANGES

DURING THE CONSTRUCTION PROCESS REPORTED BY THE

CONTRACTOR TO KIMLEY-HORN AND ASSOCIATES, INC. AND

CONSIDERED TO BE SIGNIFICANT. THIS DRAWING IS NOT

GUARANTEED TO BE "AS BUILT" BUT IS BASED ON THE

INFORMATION MADE AVAILABLE.

DATE: 12.08.114

BY: DATE: 12.08.114

DESIGN SURVEY AND BOUNDARY VERIFICATION PROVIDED BY THE OWNER UNDER SEPARATE CONTRACT WITH GLAS LAND SURVEYING, 2114 FM 1563, WOLFE CITY, TEXAS 75496, TBPLS FIRM NO. 1019397, PHONE 903-496-2084. (www.glaslandsurveying.com)

AS-BUILT UTILITIES, PAVING, AND DRAINAGE INFORMATION OBTAINED FROM RECORD DRAWINGS ON FILE WITH THE CITY OF LUCAS.

75251 No. REVISIONS

> 12750 MERIT DRIVE, SUITE 1000, DALLAS, T PHONE: 972-770-1300 FAX: 972-239-38



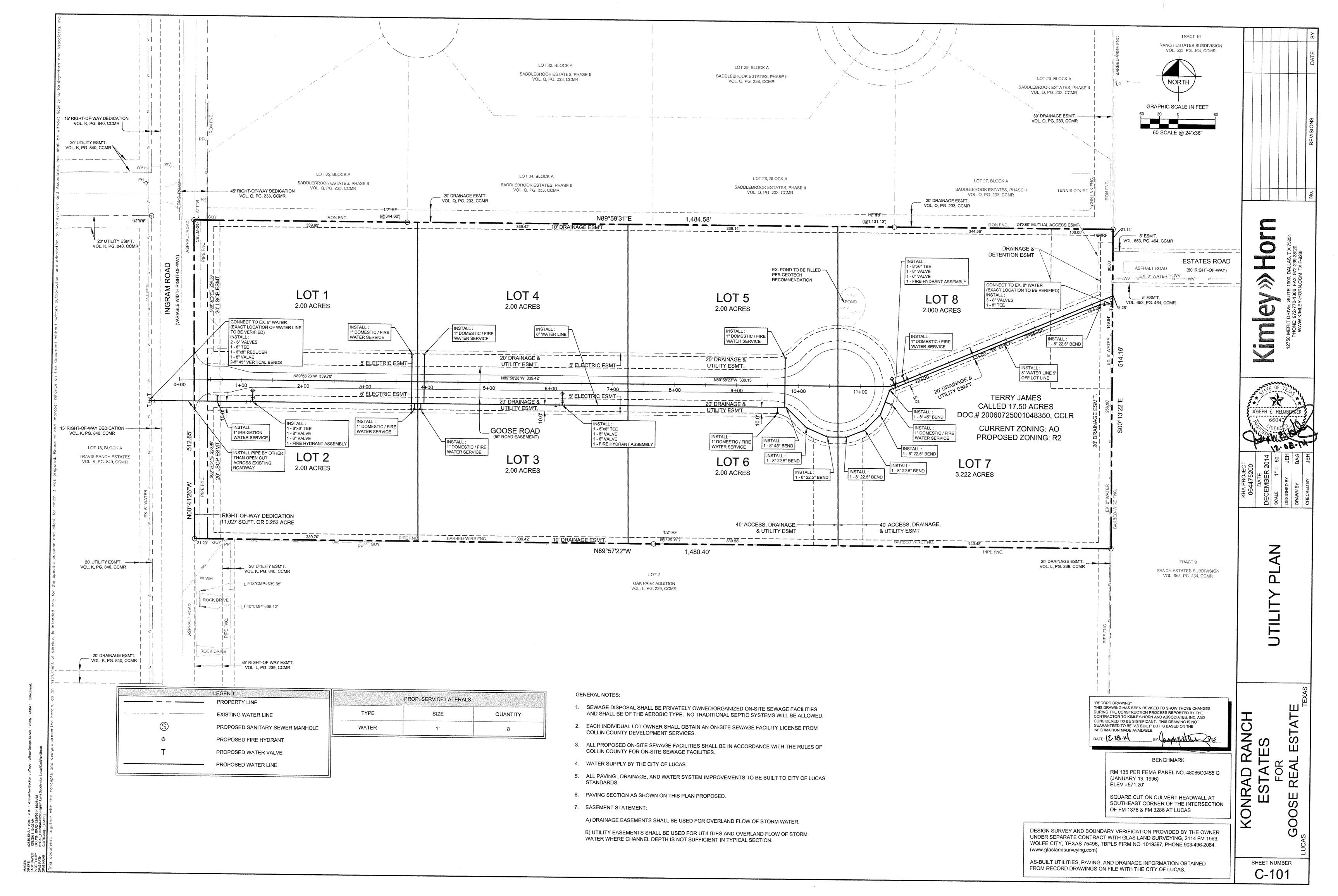
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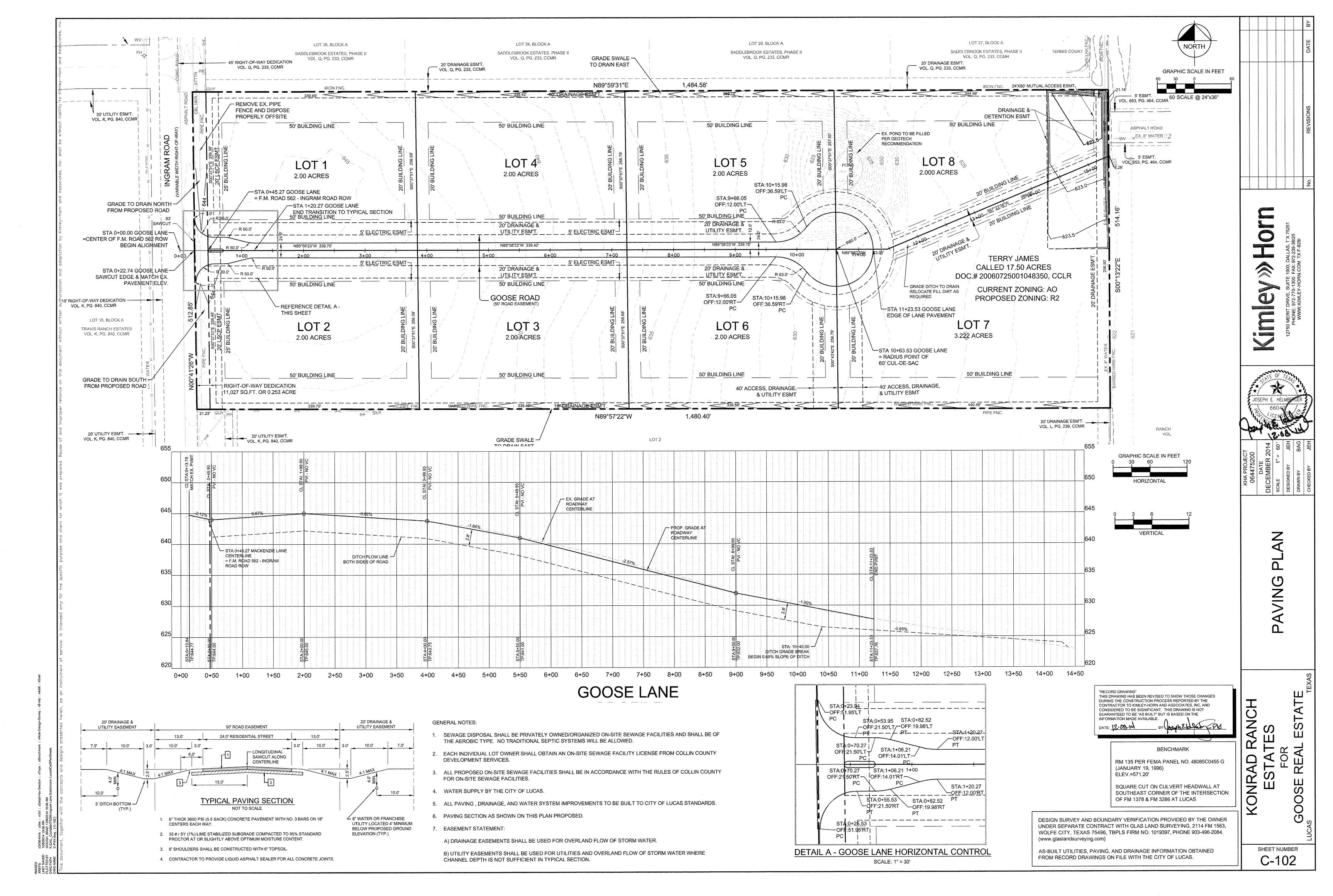
ENERAL NOTES

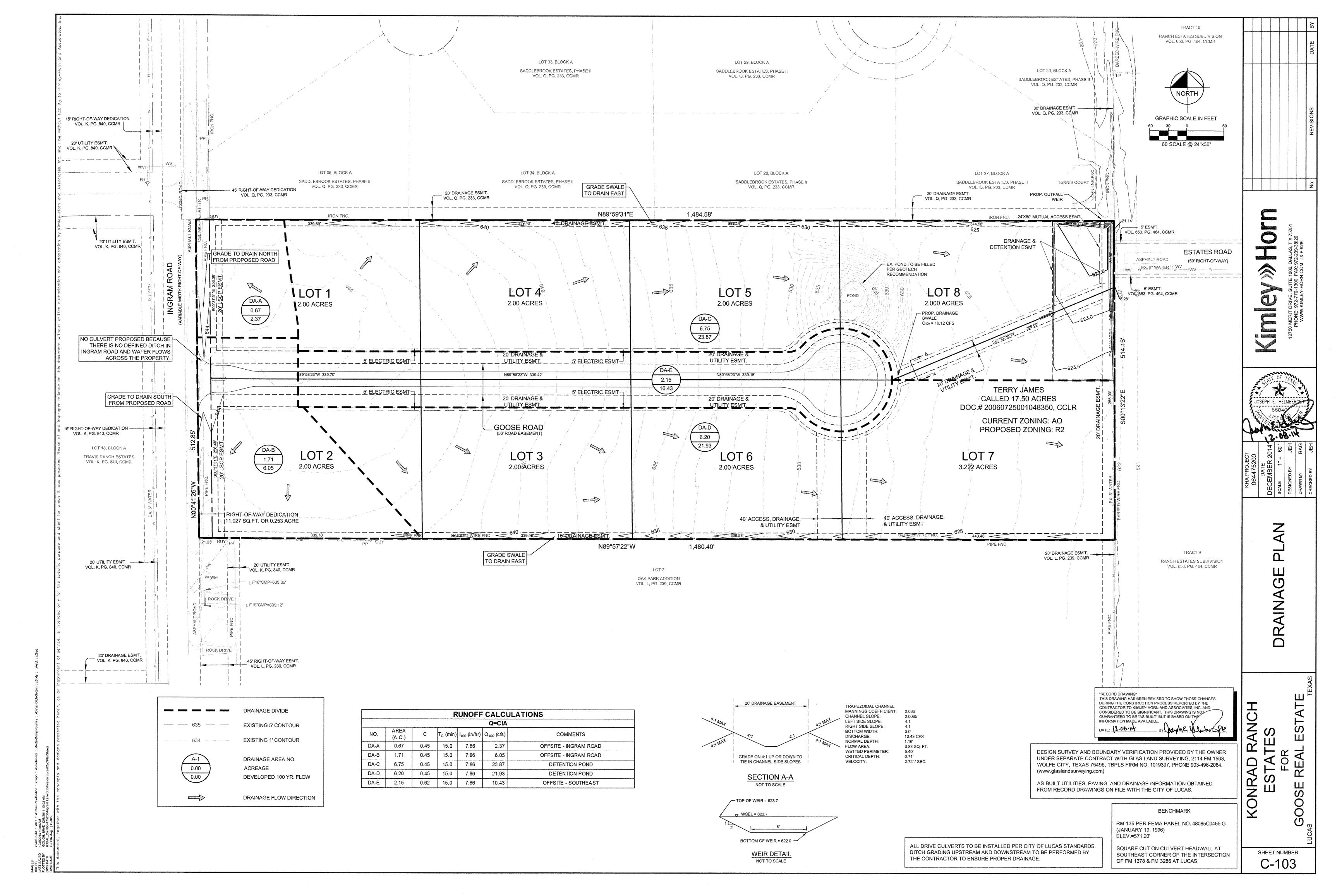
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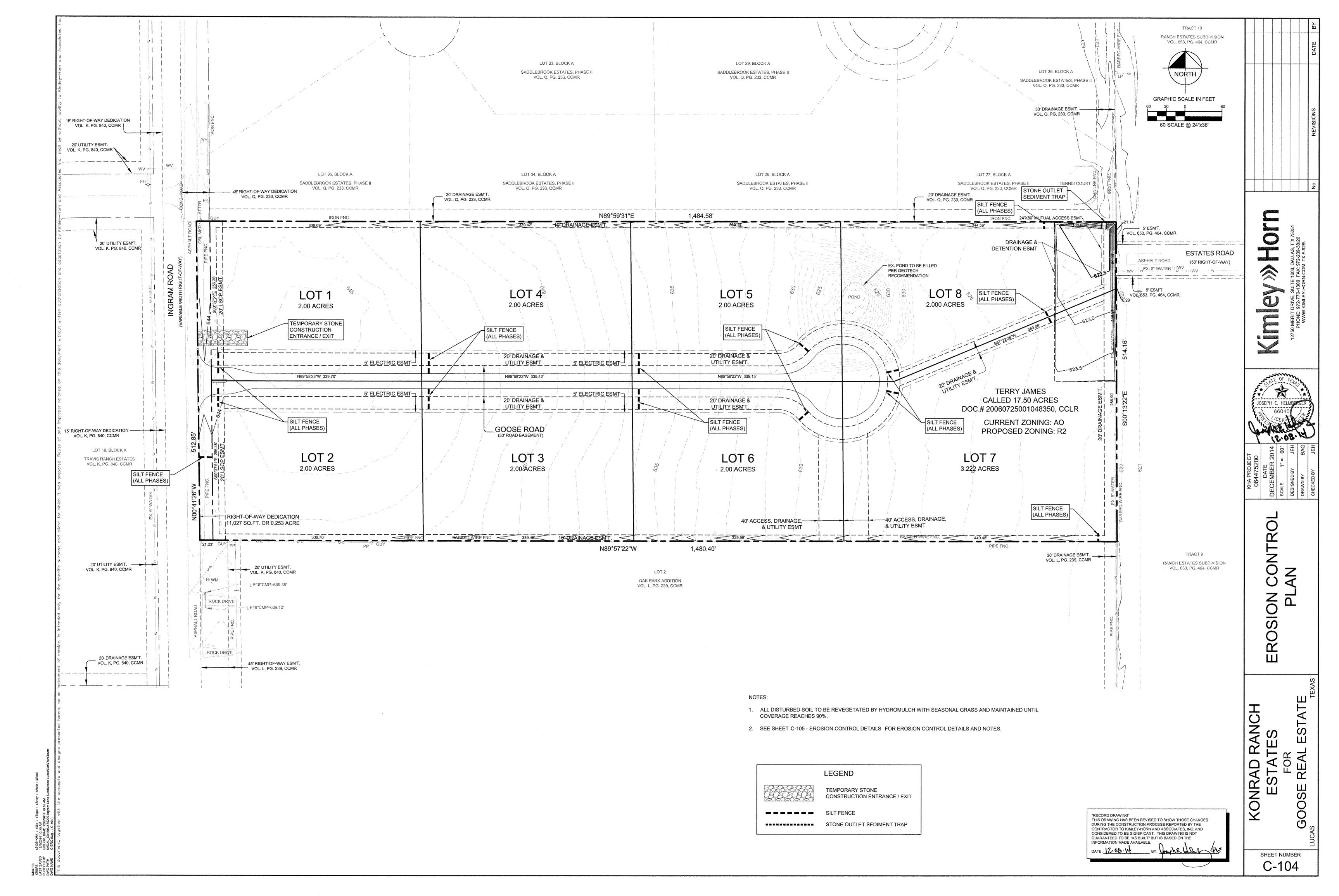
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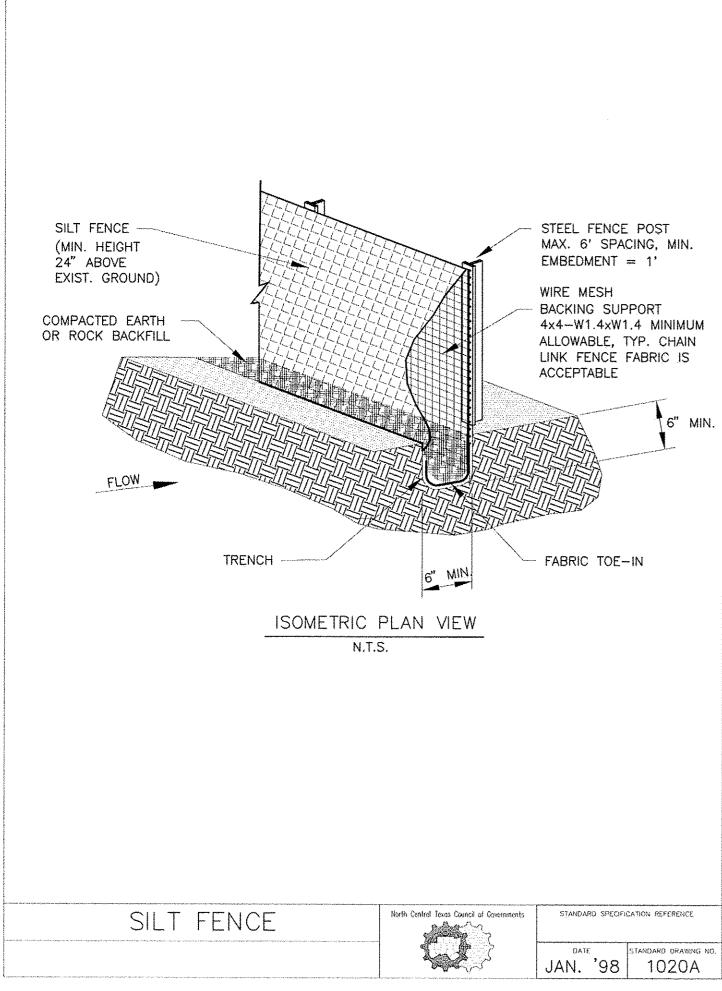
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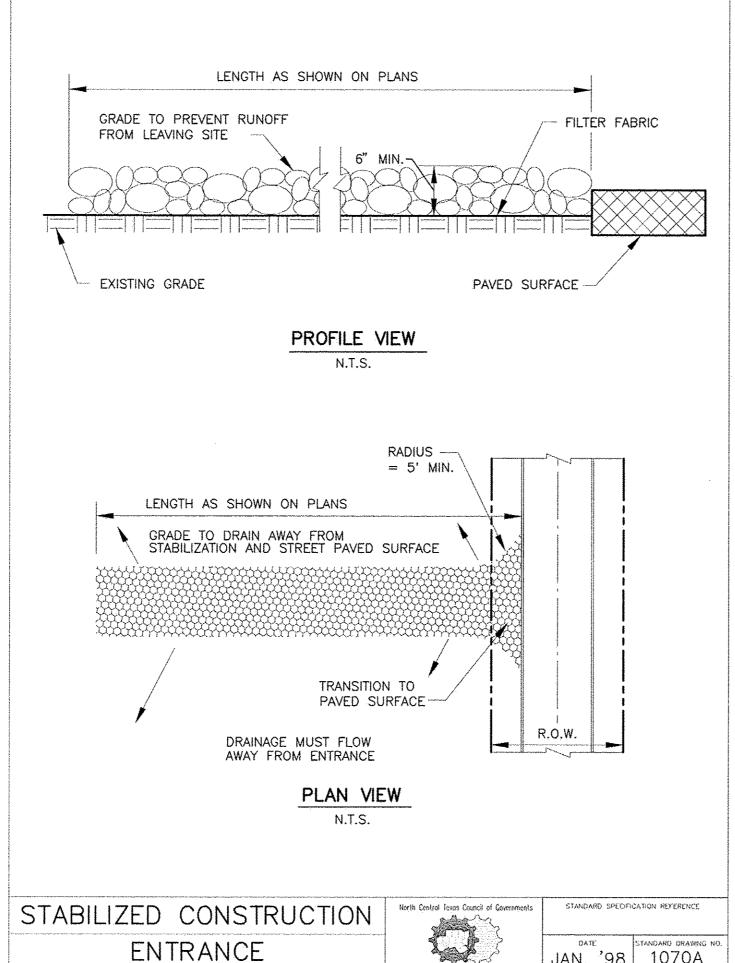


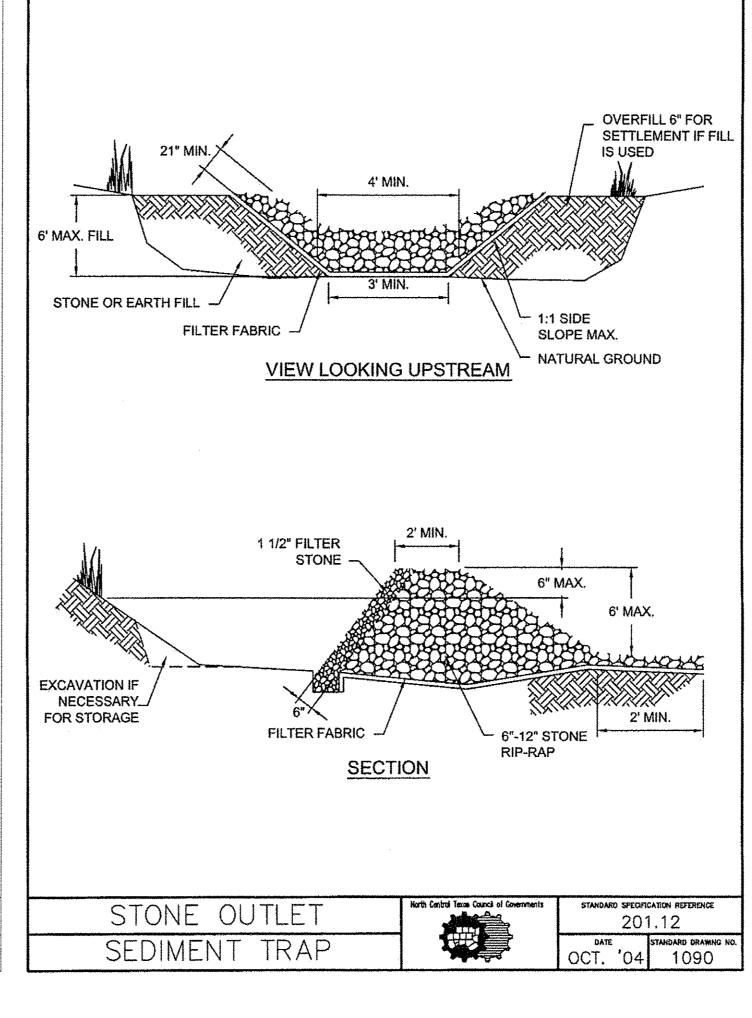












EROSION CONTROL NOTES:

- EROSION CONTROL DEVICES SHOWN ON THIS PLAN SHALL BE INSTALLED PRIOR TO THE START OF LAND DISTURBING ACTIVITIES ON THE PROJECT.
- ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS FOR THE PROJECT. CHANGES ARE TO BE APPROVED BEFORE CONSTRUCTION BY THE DESIGN ENGINEER AND COLLIN COUNTY.
- IF THE EROSION CONTROL PLAN AS APPROVED CANNOT CONTROL EROSION AND OFF-SITE SEDIMENTATION FROM THE PROJECT THE EROSION CONTROL PLAN WILL BE REQUIRED TO BE REVISED AND/OR ADDITIONAL EROSION CONTROL DEVICES WILL BE REQUIRED ON SITE.
- OFF-SITE SOIL BORROW OR SPOIL AREAS ARE CONSIDERED AS PART OF THE PROJECT SITE AND MUST ALSO COMPLY WITH THE EROSION CONTROL REQUIREMENTS FOR THIS PROJECT. THIS INCLUDES THE INSTALLATION OF BMPS TO CONTROL OFFSITE SEDIMENTATION AND THE ESTABLISHMENT OF PERMANENT GROUND COVER ON DISTURBED AREAS PRIOR TO FINAL APPROVAL OF THE PROJECT. THESE AREAS SHALL BE STABILIZED WITH PERMANENT GROUND COVER PRIOR TO FINAL APPROVAL OF THE PROJECT.
- INSPECTIONS SHALL BE MADE WEEKLY AND AFTER RAIN STORM EVENTS TO INSURE THAT THE DEVICES ARE FUNCTIONING PROPERLY. WHEN SEDIMENT OR MUD HAS CLOGGED THE VOID SPACES BETWEEN STONES OR MUD IS TRACKED ONTO A PUBLIC ROADWAY THE AGGREGATE PAD MUST BE WASHED DOWN OR REPLACED. RUNOFF FROM THE WASHDOWN OPERATION SHALL NOT BE ALLOWED TO DRAIN DIRECTLY OFF SITE WITHOUT FIRST FLOWING THROUGH ANOTHER BMP TO CONTROL OFF SITE SEDIMENTATION. PERIODIC RE-GRADING OR THE ADDITION OF NEW STONE MAY BE REQUIRED TO MAINTAIN THE EFFICIENCY OF THE INSTALLATION.
- CONTRACTOR SHALL HAVE A COPY OF THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS EROSION AND SEDIMENT CONTROL MANUAL ON SITE AT ALL TIMES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTAL OF N.O.I., N.O.T., AND ANY ADDITIONAL INFORMATION REQUIRED BY THE E.P.A. CONTRACTOR SHALL COMPLY WITH ALL E.P.A. STORMWATER POLLUTION PREVENTION REQUIREMENTS.

- A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND BE TRENCHED IN (e.g. PAVEMENT), WEIGHT FABRIC FLAP WITH
- 3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
- 4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS ATTACHED TO THE STEEL FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC
- 5. INSPECTION SHALL BE MADE EVERY TWO WEEKS AND AFTER EACH 1/2" RAINFALL. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- 6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- 7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

SILT FENCE	North Central Texas Council of Governments	STANDARD SPECIFI	cation reference
		JAN. '98	STANDARD DRAWING NO. 1020B

- POINTS OF INGRESS OR EGRESS.
- 5. WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
- 6. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES MUST BE REMOVED IMMEDIATELY.
- 7. THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

CONSTRUCTION	Horlh Central Jexas Council of Coveraments	STANDARD	SPECIFI	Cation referençe
TRANCE		JAN.	98	STANDARD DRAWING NO. 1070B

STABILIZED

BMP	MAINTENANCE FREQUENCY	ВҮ
CONSTRUCTION ENTRANCE	WEEKLY / AFTER RAINS	CONTRACTOR
SILT FENCE	WEEKLY / AFTER RAINS	CONTRACTOR
STONE OUTLET SEDIMENT TRAP	WEEKLY / AFTER RAINS	CONTRACTOR

TYPE:	INSTALLATION:	REMOVAL:
CONSTRUCTION ENTRANCE	PRIOR TO STARTING	PRIOR TO PAVEMENT PLACEMENT
SILT FENCE	AFTER SHAPING DITCH	AFTER ESTABLISHING GRASS COVER
STONE OUTLET SEDIMENT TRAP	AFTER SHAPING DITCH	AFTER ESTABLISHING GRASS COVER

"RECORD DRAWING" THIS DRAWING HAS BEEN REVISED TO SHOW THOSE CHANGES DURING THE CONSTRUCTION PROCESS REPORTED BY THE CONTRACTOR TO KIMLEY-HORN AND ASSOCIATES, INC. AND CONSIDERED TO BE SIGNIFICANT. THIS DRAWING IS NOT GUARANTEED TO BE "AS BUILT" BUT IS BASED ON THE INFORMATION MADE AVAILABLE DATE: 12.08.14

KONRAD ESTA-FOF OOSE REA

SHEET NUMBER C-105

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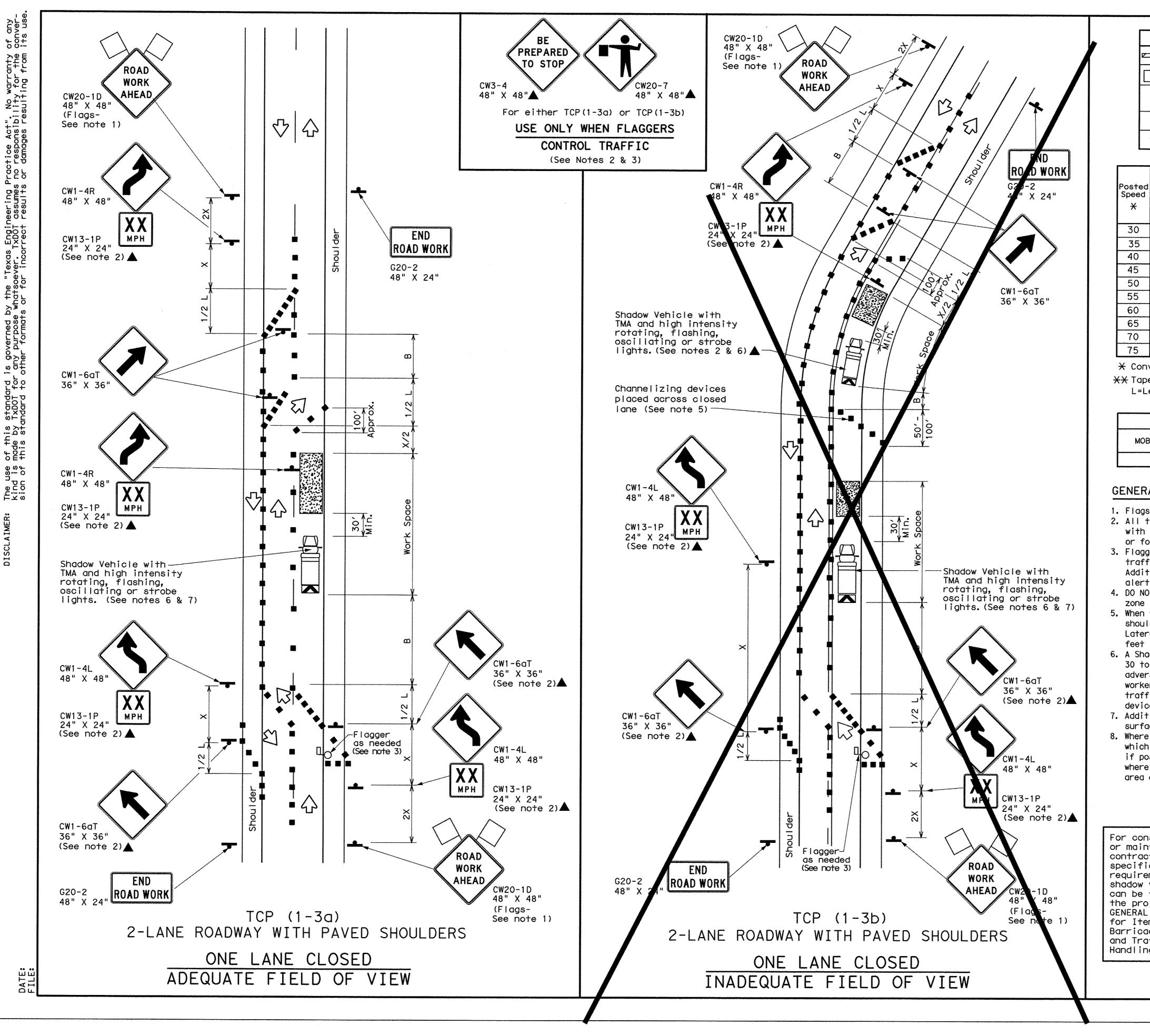
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JAN. '98 | 1070A SILT FENCE GENERAL NOTES: **EROSION CONTROL CONSTRUCTION PHASING:** 1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE STABILIZED CONSTRUCTION ENTRANCE GENERAL NOTES: INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED PHASE 1 - INSTALL BMP'S 1. STONE SHALL BE 3 TO 5 INCH DIAMETER CRUSHED ROCK OR RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ACCEPTABLE CRUSHED PORTLAND CEMENT CONCRETE. PHASE 2 - TOP SOIL REMOVAL AND ROUGH GRADING ONE FOOT. 2. LENGTH SHALL BE SHOWN ON PLANS, WITH A MINIMUM PHASE 3 - UTILITY INSTALLATION 2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH LENGTH OF 30 FEET FOR LOTS WHICH ARE LESS THAN 150 FEET PHASE 4 - ROAD CONSTRUCTION FROM EDGE OF PAVEMENT. THE MINIMUM DEPTH IN ALL OTHER CASES SHALL BE 50 FEET. PHASE 5 - INSTALLATION OF PERMANENT GROUND COVER PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT 3. THE THICKNESS SHALL NOT BE LESS THAN 6 INCHES. PHASE 6 - REMOVAL OF BMP'S ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER 4. THE WIDTH SHALL BE NO LESS THAN THE FULL WIDTH OF ALL FENCE.



	LEGE	ND	
V 7 7 7 7	Type 3 Barricade	E E	Channelizing Devices
Image: Control of the	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	∑	Portable Changeable Message Sign (PCMS)
-4-	Sign	\\ \	Traffic Flow
\Diamond	Flag	ПО	Flagger

Posted Speed	Formula	D	Minimur esirab er Lend XX	le	Spaci: Channe		Minimum Sign Spacing "X"	Suggested Longitudinal Buffer Space
*		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent	Distance	"B"
30	, <u>WS</u> 2	150′	165′	180′	30′	60′	120′	90′
35	$L = \frac{WS}{60}$	205′	225′	245′	35′	70′	160′	120′
40	00	265′	295′	320′	40′	80′	240′	155′
45		450′	495′	540′	45′	90′	320′	195′
50		500′	550′	600′	50′	100′	400′	240′
55	L=WS	550′	605′	660′	55′	110′	500′	295′
60	L "O	600′	660′	720′	60′	120′	600′	350′
65		650′	715′	780′	65′	130′	700′	410′
70		700′	770′	840′	70′	140′	800′	475′
75		750′	825′	900′	75′	150′	900′	540′

* Conventional Roads Only

** Taper lengths have been rounded off.

L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

		TYPICAL L	JSAGE	
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	1	1		

GENERAL NOTES

1. Flags attached to signs where shown are REQUIRED.

2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.

3. Flagger control should NOT be used unless roadway conditions or heavy traffic volume require additional emphasis to safely control traffic. Additional flaggers may be positioned in advance of traffic queues to alert traffic to reduce speed.

4. DO NOT PASS, PASS WITH CARE and construction regulatory speed

zone signs may be installed downstream of the ROAD WORK AHEAD signs. 5. When the work zone is made up of several work spaces, channelizing devices should be placed laterally across the closed lane to re-emphasize closure. Laterally placed channelizing devices should be repeated every 500 to 1000

feet in urban areas and every 1/4 to 1/2 mile in rural areas. 6. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the

traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA. 7. Additional Shadow Vehicles with TMAs may be positioned off the paved

surface, next to those shown in order to protect wider work spaces.

8. Where traffic is directed over a yellow centerline, channelizing devices which separate two-way traffic should be spaced on tapers at 20', or 15' if posted speed are 35 mph or slower, and for tangent sections, at 1/2S where S is the speed in mph. This tighter device spacing is intended for the area of conflicting markings not the entire work zone.

For construction or maintenance contract work. specific project requirements for shadow vehicles can be found in the project GENERAL NOTES for Item 502, Barricades, Signs and Traffic Handling.

Texas Department of Transportation Traffic Operations Division

TRAFFIC CONTROL PLAN TRAFFIC SHIFTS ON TWO LANE ROADS

TCP(1-3)-12

© TxDOT December 1985	DN: TX	DOT	CK: TXDOT D		TXDOT	CK: TXDOT
REVISIONS	CONT	SECT	JOB		ні	GHWAY
2-94 2-12 8-95						
1-97	DIST		COUNTY			SHEET NO.
4-98						
153						

THIS DRAWING HAS BEEN REVISED TO SHOW THOSE CHANGES DURING THE CONSTRUCTION PROCESS REPORTED BY THE CONTRACTOR TO KIMLEY-HORN AND ASSOCIATES, INC. AND CONSIDERED TO BE SIGNIFICANT. THIS DRAWING IS NOT GUARANTEED TO BE "AS BUILT" BUT IS BASED ON T

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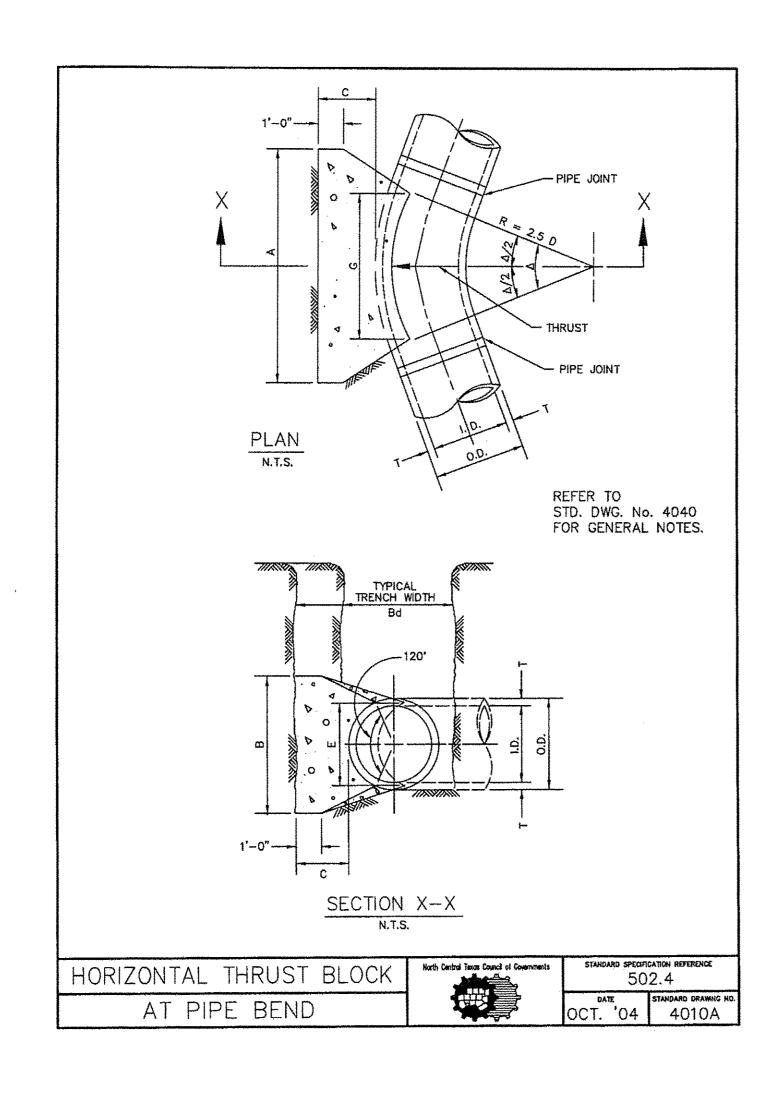
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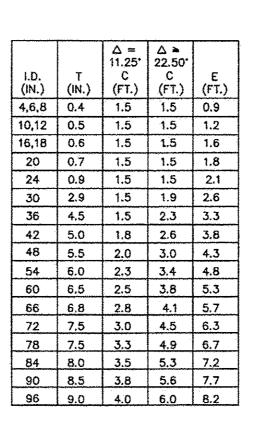
GOOSE

RANCH

KONRAD

SHEET NUMBER C-106





:			Δ	= 11.	25'							Δ=	22.5	0.			
				EARTH	1		ROCK						EART	H		ROCH	
I.D. (IN.)		THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	A (FT.)	B (FT.)	VOL. (C.Y.)	I.D. (IN.)	G (FT.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	A (FT.)	B (FT.)	VOL. (C.Y.)
1,6,8	0.4	1.0	1.0	1.5	0.1	1.0	1.0	0.1	4,6,8	8.0	2.0	1.5	1.5	0,1	1.0	1.0	0.1
0,12	0.6	2.2	1.5	1.5	0.1	1.0	1.5	0.1	10,12	1.1	4.4	2.0	2.5	0.3	1.5	1.5	0.1
6,18	0.8	5.0	2.0	2,5	0.3	1.5	2.0	0,2	16,18	1.6	9.9	3.0	3.5	0.6	2.0	2.5	0.3
20	0.9	6.2	2.0	3.5	0.4	1.5	3.0	0,3	20	1.8	12.3	3.5	3.5	0.7	2.0	3.0	0.4
24	1.1	8.9	3.0	3,5	0.5	1.5	3.0	0.3	24	2.2	17.7	4.0	4.5	1.0	3.0	3.5	0.5
30	1.4	10.4	3.0	3.5	0.6	2,0	3.5	0.4	30	2.7	20.7	5.0	4.5	1.5	3.0	4.0	0.8
36	1.7	15.0	3.5	4.5	0.9	2.0	4.0	0.5	36	3.3	29.8	5,5	5.5	2.3	4.0	4.0	1.3
42	1.9	20.4	4.5	5.0	1.5	2.5	5.0	0.8	42	3.8	40.5	7.0	6.0	3.9	4.5	5.0	2.1
48	2.2	26.6	4.5	6.0	2.0	2.5	6.0	1.1	48	4.4	52.9	8.0	7.0	5.7	4.5	6.0	2.8
54	2.5	33.7	6.0	6.0	3.0	3.0	6.0	1.4	54	4.9	67.0	9,0	8.0	8.0	6.0	6.0	4.1
60	2.7	41.6	6.0	7.0	3.8	3.0	7.0	1.8	60	5.5	82.7	9.5	9.0	10,6	6.0	7.0	5.3
66	3.0	50.3	6.5	8.0	5.1	3.5	8.0	2.7	66	6.0	100.1	10.5	10.0	14.1	6.5	8.0	7.2
72	3.3	59.9	7.5	8.0	6.3	4.0	8.0	3.3	72	6.6	119.1	11.0	11.0	17.6	7.5	8.0	9.1
78	3,6	70.2	8.0	9.0	8.1	4.0	9.0	3.9	78	7.1	139.8	12.0	12.0	22.5	8.0	9.0	11.7
84	3.8	81.5	8.5	10.0	10.3	4.5	10.0	5.3	84	7.6	162.1	13.0	12.5	27.2	8.5	10.0	14.8
90	4.1	93.5	9.5	10.0	12.2	5.0	10.0	6.3	90	8.2	186.1	14.0	13.5	33,7	9.5	10.0	17.7
96	4.4	106.4	10.0	11.0	15.0	5.0	11.0	7,4	96	8.7	211.7	15.0	14,5	41.2	10.0	11,0	21.8
			TAE	BLES	S OF	- D	IME	NSI	SNC	AN	D QU	ANT	ITIE	<u>s_</u>			

IORIZONTAL THRUST BLOCK

AT PIPE BEND

North Central Texas Council of Government

502.4

	10.1	215.3	15.5	14.0	37.1	105	10.5	19.5	84	15.0	318.4	230	140	61.2	15.5	105	32.6	
84	+	1	1	1	1				90	16.1	365.5	1	1	1	17.5		39.6	
90	10.9	247.1	16.5	1	45.0			23.9					 					
96	11.6	281.2	18.0	16.0	55.5	12.5	11,5	28.9	96	17.1	415,6	26,0	16.0	89.5	18.5	11.51	48.5	
:	r									,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
:			Δ	= 67	.50*					Δ = 90'								
	EARTH ROCK										EAR	H		ROCK	K			
I.D. (IN.)		THRUST (TONS)		B (FT.)	VOL. (C.Y.)	A (FT.)	B (FT.)	VOL. (C.Y.)	I.D. (IN.)		THRUST (TONS)	A (FT.)	(FT.)	VOL. (C.Y.)	Ä (FT.)	B (FT.)	VOL. (C.Y.	
4,6,8	2.1	5.6	3.0	2.0	0.3	2.0	1.5	0.2	4,6,8	2.7	7.1	5.0	1,5	0.4	2.0	2.0	- 0.2	
10,12	3.1	12.6	5.5	2.5	8.0	3.5	2.0	0.4	10,12	4.0	16.0	6.5	2.5	1.0	3.5	2.5	0.5	
16,18	4.7	28.3	7.5	4.0	1.9	5.5	3.0	0.9	16,18	6.0	36,0	9.0	4.0	2.4	4.5	4.0	1.0	
20	5.2	34.9	9.0	4.0	2.3	5.5	3,5	1.2	20	6.6	44.4	10.0	4.5	3.1	6.0	4.0	1.5	
24	6.2	50.3	11.5	4,5	3.5	6.5	4.0	1.6	24	7.9	64.0	14.5	4.5	5.0	8.0	4.0	2.1	
30	7.8	58.9	12.0	5.0	4.8	7.5	4.0	2.2	30	9.9	75.0	15.0	5.0	6.7	10.0	4.0	3.3	
36	9.4	84.9	14.5	6.0	8.2	9,5	4,5	3.8	36	11.9	108.0	18.0	6.0	11.4	12.0	4.5	5.3	
42	10.9	115.5	17.0	7.0	12.8	11.0	5.5	6.3	42	13.9	147.0	21.0	7.0	17.8	14.0	5.5	8.7	
48	12.5	150.9	19.0	8.0	18.4	13.0	6.0	9.2	48	15.9	192.0	24.0	8.0	26.2	16.0	6.0	12.4	
54	14.0	191.0	21.5	9.0	26,0	15.0	6.5	12.9	54	17.9	243.0	27.0	9.0	36.9	18.0	7.0	18.	
60	15.6	235.8	24.0	10.0	35.6	16.0	7.5	17.6	60	19.9	299.8	30.0	10.0	50.3	20.0	7.5	24.0	
66	17.1	285,3	26.0	11.0	46.0	18.0	8.0	23.0	66	21.8	362.8	33.0	11.0	66.2	22.0	8.5	32.5	
72	18.7	339.5	28.5	12.0	57,8	19.0	9.0	28.4	72	23.8	431.8	36.0	12.0	85.6	24.0	9.0	41.0	
78	20.2	398.5	31.0	13.0	75.7	21.0	9.5	37.4	78	25.7	506.7	39,0	13.0	108.2	26.0	10.0	53.2	
84	21.8	462.1	33.5	14.0	94.7	22.0	10.5	46.5	84	27.7	587.7	42.0	14.0	134.4	28.0	10.5	64.8	
90	23.3	530.5	35.5	15.0	114.4	24.5	11.0	58.2	90	29.0	674.6	45.0	15.0	164.9	30.0	11.5	81.2	
	24.9	603.6	38.0	160	138.9	25.5	12.0	70.0	96	31,6	767,5	48.0	16.0	199.0	32.0	12,0	95.	

HORIZONTAL THRUST BLOCK

Hartin Central Texas Council of Governments

OCT. '04

| I.D. | G | THRUST | A | B | VOL. | C.Y. |

16,18 2.2 13.2 3.5 4.0 0.8 2.5 3.0 0.4 16,18 3.2 19.5 4.5 4.5 1.2 3.0 3.5 0.6

20 2.4 16.3 4.5 4.0 1.0 3.0 3.0 0.5 20 3.6 24.1 5.5 4.5 1.5 3.5 3.5 0.7

30 3.6 27.5 6.5 5.0 1.9 3.5 4.0 0.9 30 5.4 40.6 8.5 5.0 3.2 5.5 4.0 1.6

42 5.1 53.8 8.0 7.0 5.1 5.5 5.0 2.5 42 7.5 79.6 11.5 7.0 8.1 8.0 5.0 4.2

48 5.8 70.3 9.0 8.0 7.4 6.0 6.0 3.7 48 8.6 104.0 13.0 8.0 11.9 9.0 6.0 6.3 54 6.5 89.0 10.0 9.0 10.3 7.0 6.5 5.3 54 9.7 131.5 15.0 9.0 17.1 10.5 6.5 8.9

60 7.3 110.0 11.0 10.0 13.9 7.5 7.5 7.3 60 10.7 162.4 16.5 10.0 23.1 11.0 7.5 12.0

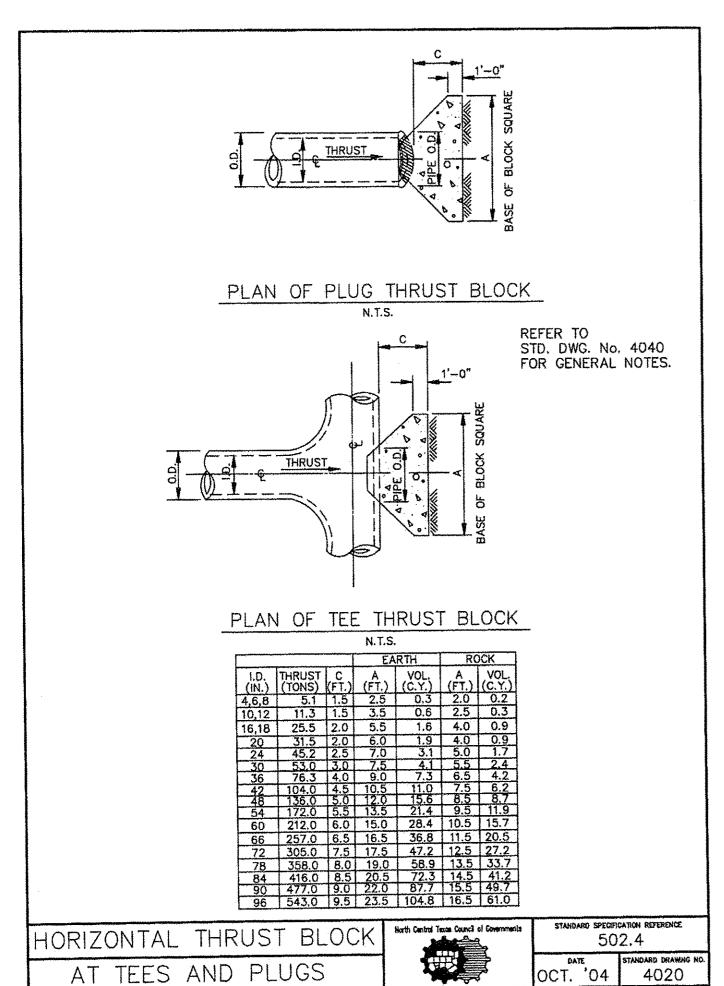
66 8.0 132.9 12.5 11.0 18.9 8.5 8.0 9.6 66 11.8 196.5 18.0 11.0 30.1 12.0 8.5 16.2

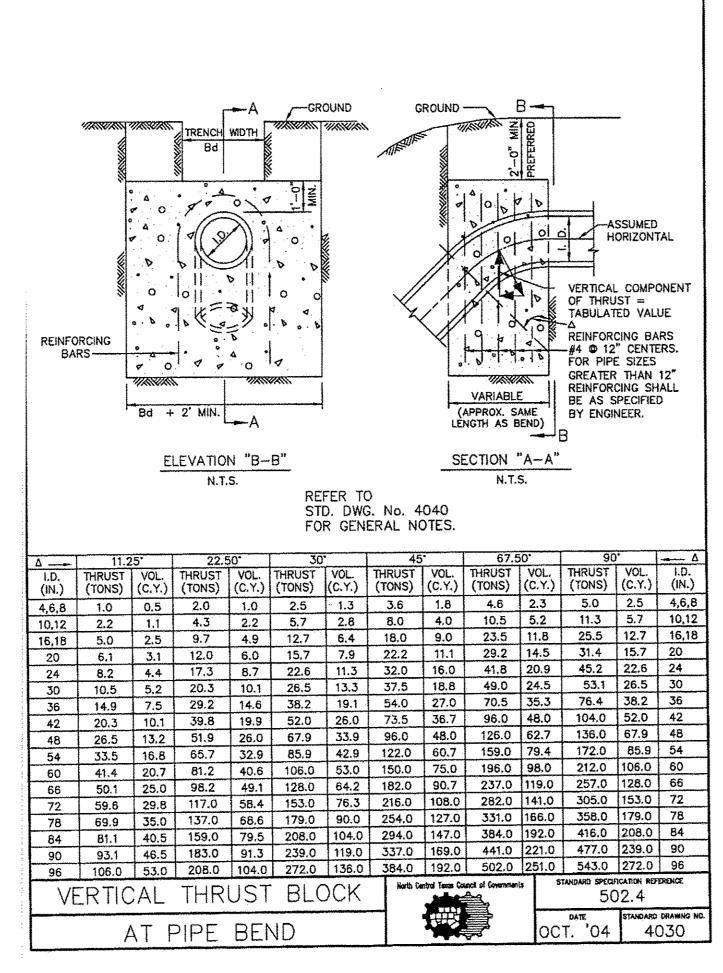
72 8.7 158.2 13.5 12.0 24.0 9.0 9.0 12.3 72 12.9 233.9 19.5 12.0 38.6 14.0 8.5 20.7 78 9.4 185.6 14.5 13.0 30.0 10.0 9.5 15.6 78 13.9 274.5 21.5 13.0 49.8 14.5 9.5 25.9

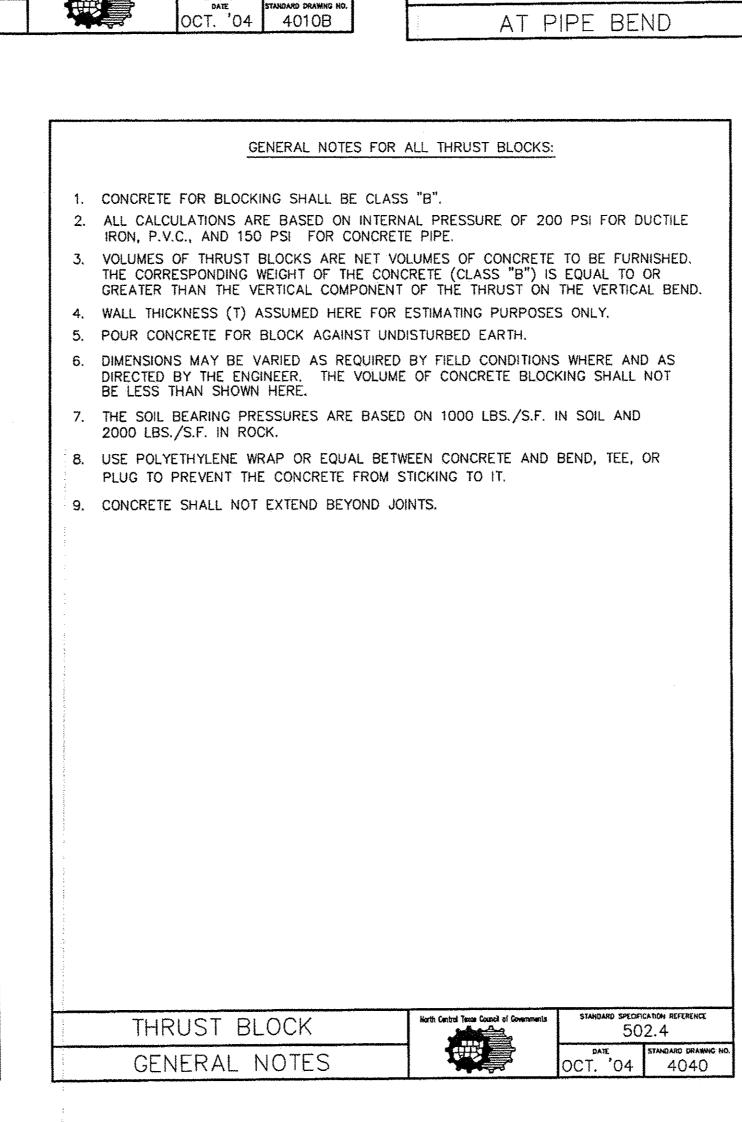
36 4.4 39.5 7.0 6.0 3.4 4.5 4.5 1.6 36 6.5 58.5 10.0 6.0 5.3 6.5 4.5 2.6

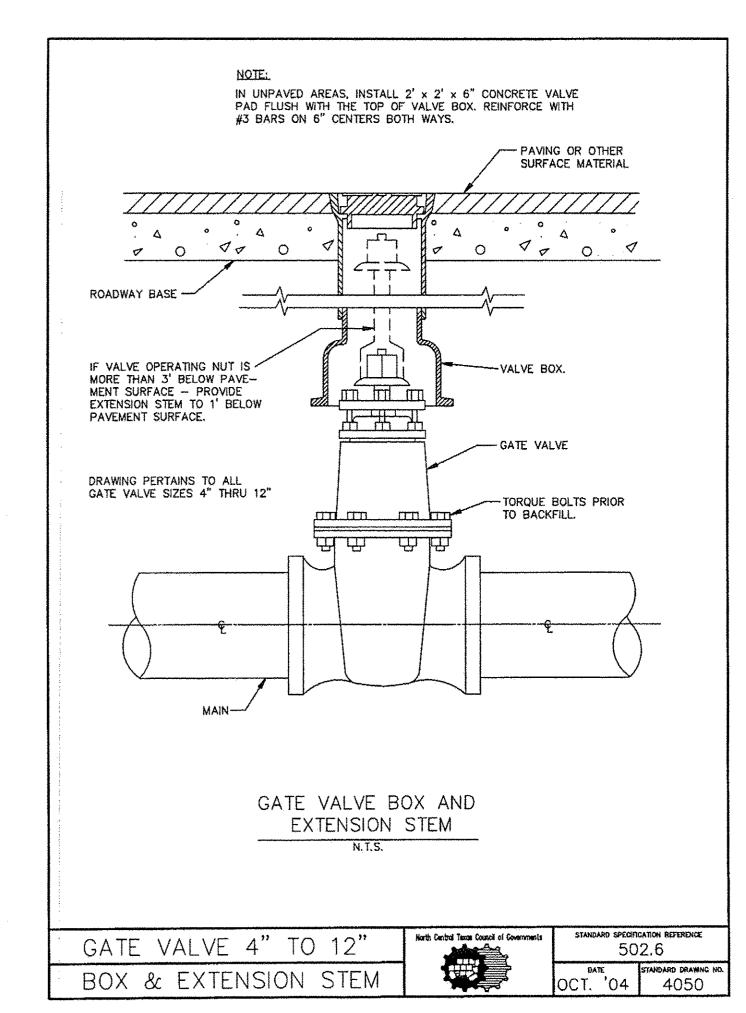
24 2.9 23.4 6.0 4.0 1.4 3.5 3.5 0.7 24 4.3 34.6 8.0 4.5 2.3 4.5 4.0

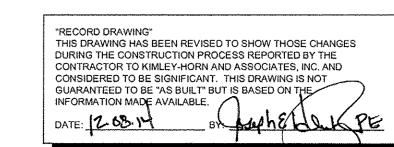
 $\Delta = 45^{\circ}$











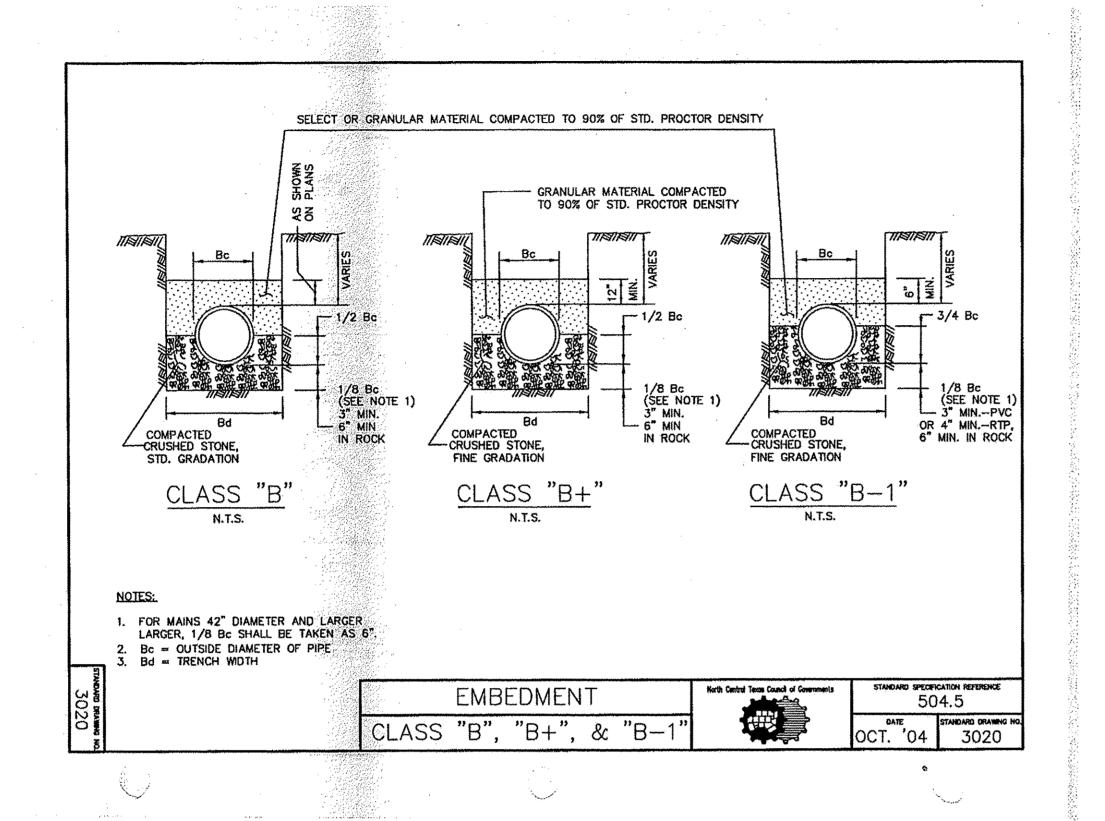
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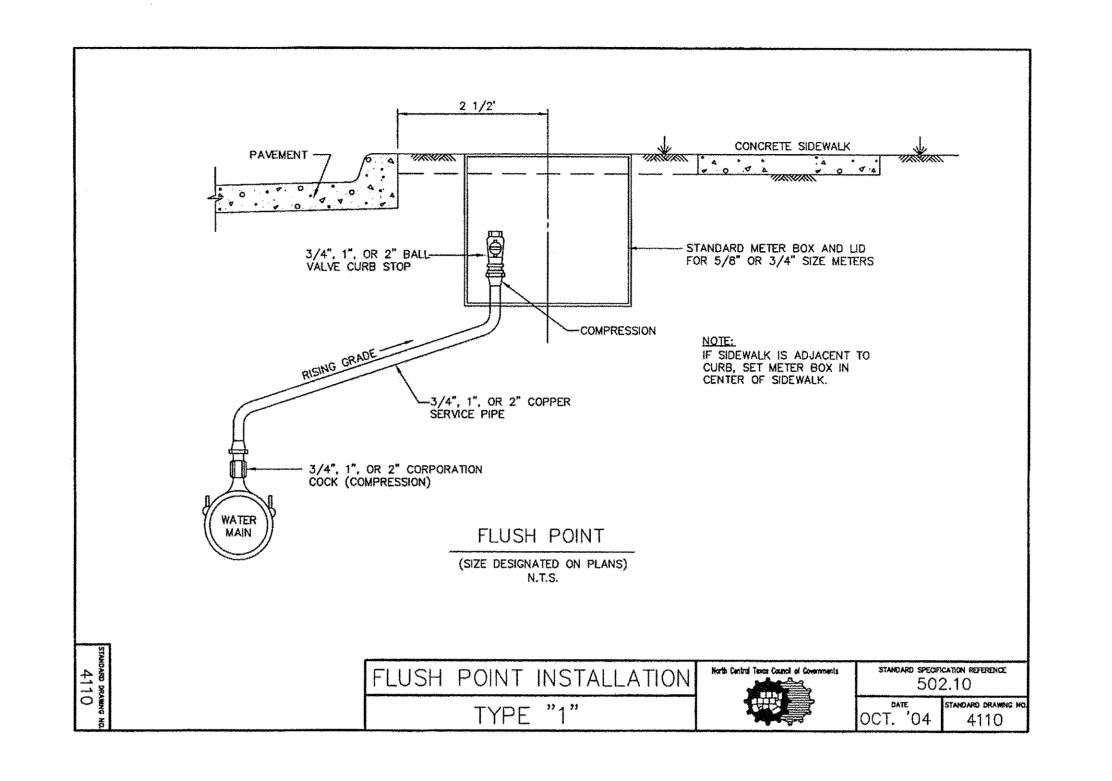
A SHE

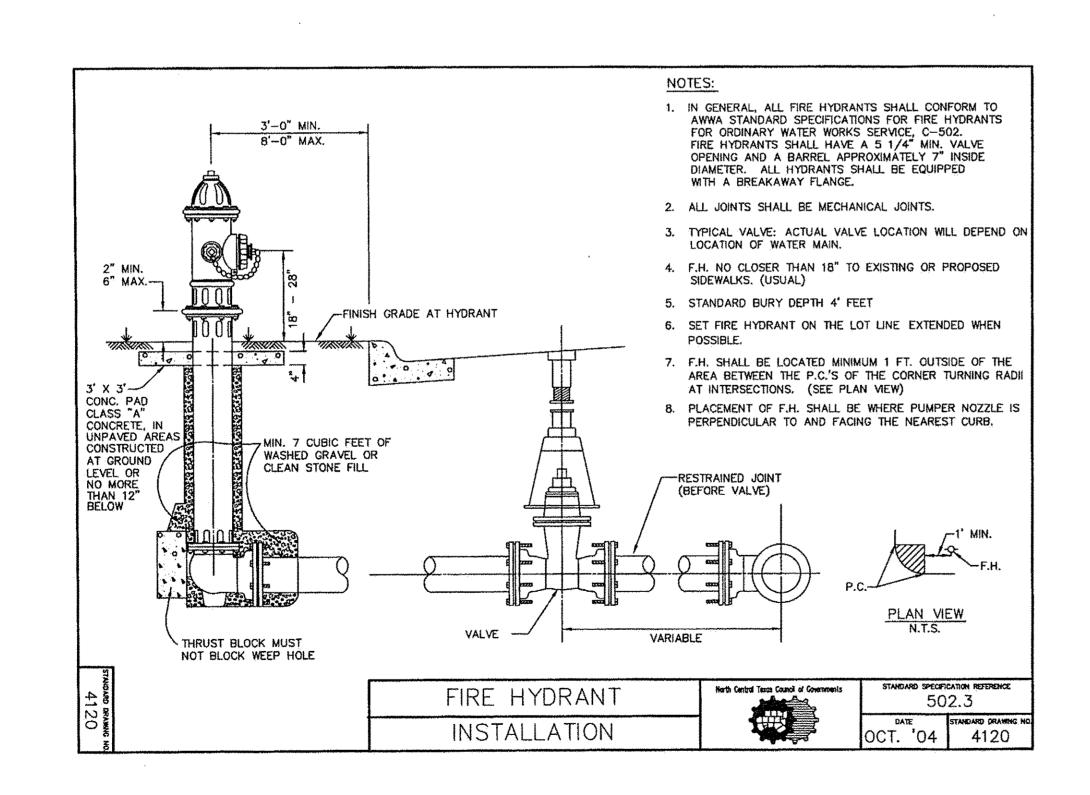
RANCH TES TA KONRAD S Ш

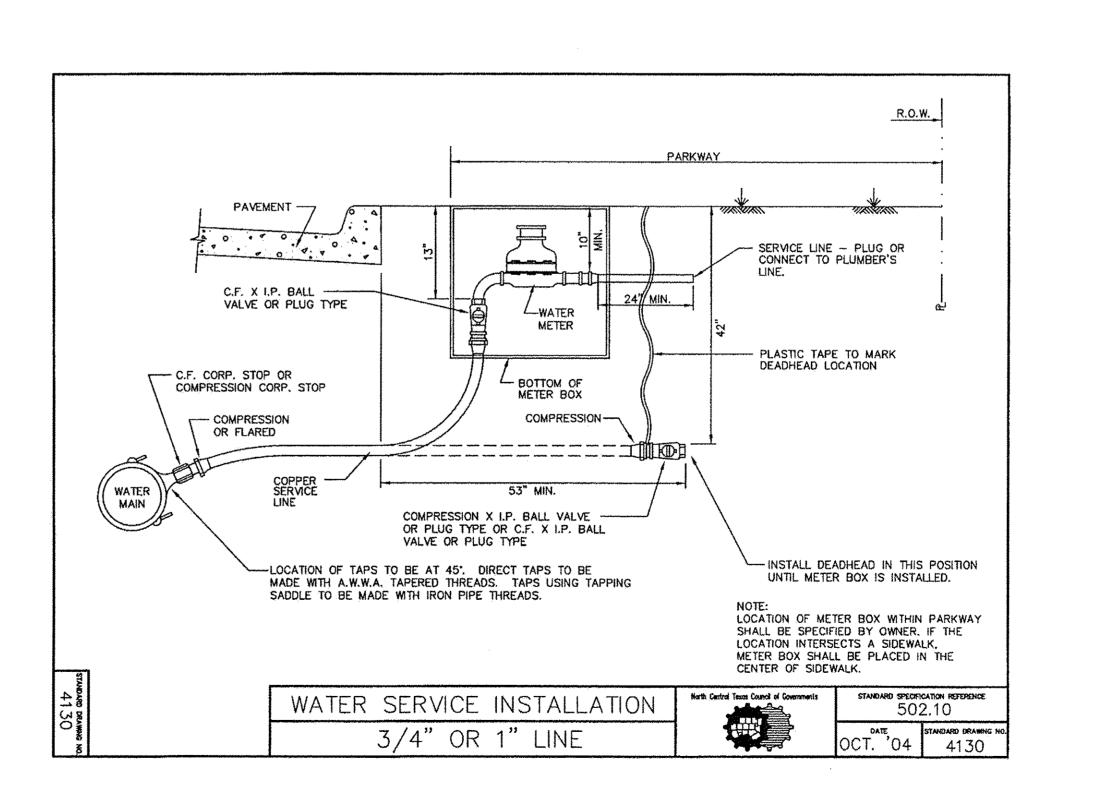
> SHEET NUMBER C-107

009









"RECORD DRAWING"
THIS DRAWING HAS BEEN REVISED TO SHOW THOSE CHANGES
DURING THE CONSTRUCTION PROCESS REPORTED BY THE CONTRACTOR TO KIMLEY-HORN AND ASSOCIATES, INC. AND CONSIDERED TO BE SIGNIFICANT. THIS DRAWING IS NOT GUARANTEED TO BE "AS BUILT" BUT IS BASED ON THE

SHE

KONRAD RANCH ESTATES

Ğ G

SHEET NUMBER