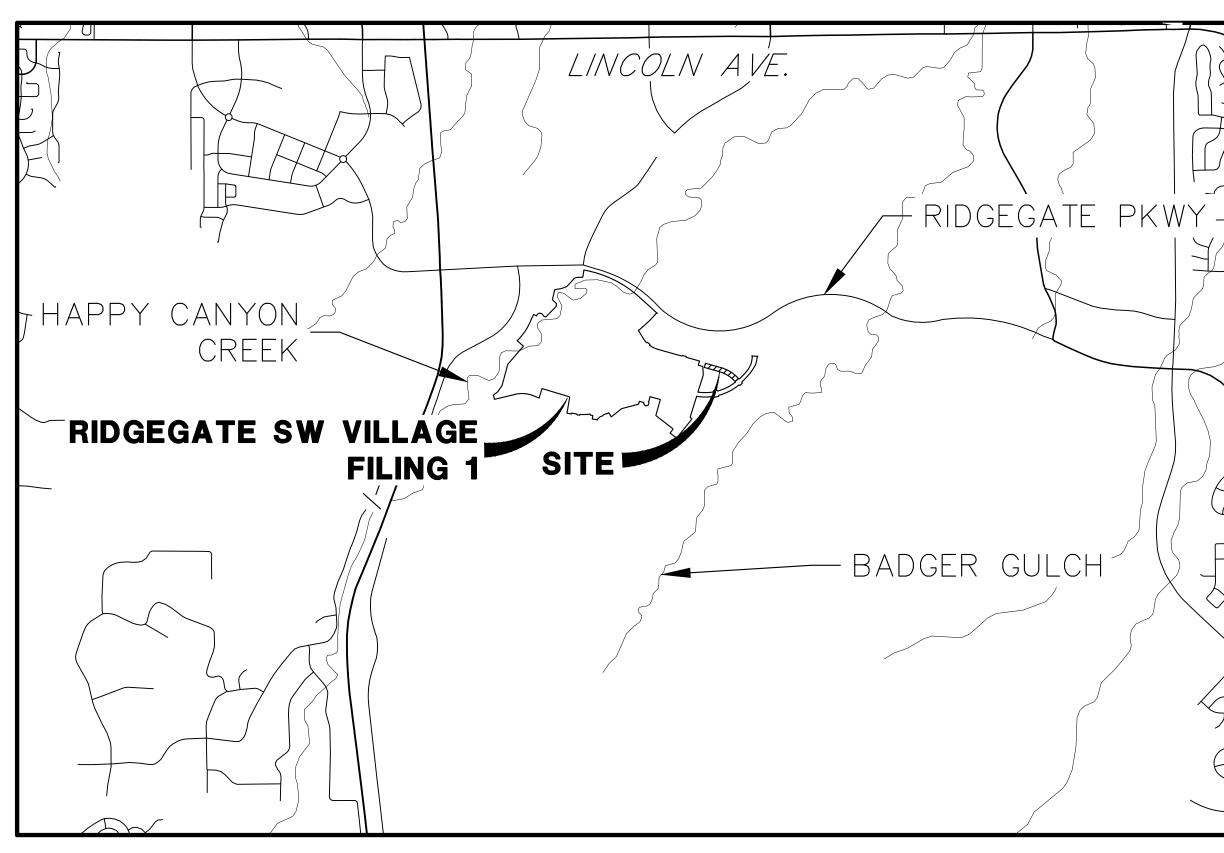
# OCTAVE AVENUE EXTENSION CIVIL CONSTRUCTION PLANS

A PORTION OF THE RIDGEGATE PLANNED DEVELOPMENT DISTRICT, EAST SIDE PROPERTY IN THE NE QUARTER OF SEC. 23 AND TH NW QUARTER OF SEC. 24, TOWNHIP 6 SOUTH, RANGE 67 WEST OF THE 6TH P.M., CITY OF LONE TREE, COUNTY OF DOUGLAS, STATE OF COLORADO

#### **ABBREVIATIONS**

ABE	BREVIATIONS		
AC	ACRE	INT	INTERSECTION
AD	ALGEBRAIC DIFFERENCE	INV	INVERT
AH	AHEAD ARCHITECT	IRR	IRRIGATION
ARCH ASCE	AMERICAN SOCIETY OF CIVIL	KB LB	KICK (THRUST) BLOCK POUND
	ENGINEERS	LE	LANDSCAPE EASEMENT
ASS'Y	ASSEMBLY	LF	LINEAR FOOT
AVE BB	AVENUE BOX BASE	LN LOMR	LANE LETTER OF MAP REVISION
BK	BACK	LP	LOW POINT
BNDY	BOUNDARY	LS	LUMP SUM
BOP	BOTTOM OF PIPE	LT	LEFT
BOV BFV	BLOW OFF VALVE BUTTERFLY VALVE	MAX M/D	MAXIMUM MOISTURE DENSITY
BLVD	BOULEVARD	MDDP	MASTER DEVELOPMENT
BW	BOTTOM OF WALL		DRAINAGE PLAN
C&G	CURB & GUTTER	MH	MANHOLE
CATV CB	CABLE TELEVISION CATCH BASIN	MIN MS	MINIMUM MOUNTABLE SIDEWALK
CBC	CONCRETE BOX CULVERT	N	NORTH
CDOT	COLORADO DEPARTMENT OF	NRCP	NON-REINFORCED CONCRETE
CDS	TRANSPORTATION CUL-DE-SAC	ODP	PIPE OFFICIAL DEVELOPMENT PLAN
CF	CUBIC FOOT	OHE	OVERHEAD ELECTRIC
CFS	CUBIC FEET PER SECOND	OHU	OVERHEAD UTILITY
CIP	COMPLETE IN PLACE	PC	POINT OF CURVATURE
CLOMB	CENTER LINE CONDITIONAL LETTER OF MAP	PCC	POINT OF COMPOUND CURVATURE
CLOWIN	REVISION	PCR	POINT OF CURB RETURN
CLR	CLEAR	PDP	PRELIMINARY DEVELOPMENT
CMP	CORRUGATED METAL PIPE	55	PLAN FLOWER
CO COCS	CLEAN OUT CITY OF COLORADO SPRINGS	PE Pl	PROFESSIONAL ENGINEER POINT OF INTERSECTION
CONC	CONCRETE	PKWY	PARKWAY
CR	CIRCLE	PL	PROPERTY LINE
CSP	CORRUGATED STEEL PIPE	PR	PROPOSED
CSU CT	COLORADO SPRINGS UTILITIES COURT	PRC PT	POINT OF REVERSE CURVATURE POINT OF TANGENCY
CTRB	CONCRETE THRUST REDUCER	PV	PLUG VALVE
	BLOCK	PVC	POLYVINYL CHLORIDE
	CUBIC YARD	R	RADIUS
DBPS	DRAINAGE BASIN PLANNING STUDY	RCBC	REINFORCED CONCRETE BOX CULVERT
DE	DRAINAGE EASEMENT	RCP	REINFORCED CONCRETE PIPE
DIA	DIAMETER	RD	ROAD
DIP DR	DUCTILE IRON PIPE DRIVE	ROW RT	RIGHT OF WAY RIGHT
DRC	DESIGN REVIEW COMMITTEE	S	SOUTH
DU	DWELLING UNITS	STE	STFFI
DΥ	DAY	SAN	SANITARY SEWER
E EA	EAST EACH	SF ST	SQUARE FOOT STREET
EGL	ENERGY GRADE LINE	STA	STATION
EL	ELEVATION	STM	STORM SEWER
ELEC	ELECTRIC	SY	
EOA EPC	EDGE OF ASPHALI	SY-IN TB	SQUARE YARD INCH THRUST BLOCK
ERCP	ELLIPTICAL RCP	TBC	TOP BACK OF CURB
ESMT	EASEMENT	TBW	TOP BACK OF WALK
EST	ESTIMATE	TEL	
EX FDP	DRIVE DESIGN REVIEW COMMITTEE DWELLING UNITS DAY EAST EACH ENERGY GRADE LINE ELEVATION ELECTRIC EDGE OF ASPHALT EL PASO COUNTY ELLIPTICAL RCP EASEMENT ESTIMATE EXISTING FINAL DEVELOPMENT PLAN FINAL DRAINAGE REPORT FLARED END SECTION EINISHED FLOOR FLEVATION	TN TOA	TON TOP OF ASPHALT
FDR	FINAL DRAINAGE REPORT	TOB	TOP OF BOX
FES	FLARED END SECTION	TOC	TOP OF CURB OR CONCRETE
	THRONES TEOOR ELEVITION		TOP OF FOUNDATION
FG FH	FINISHED GRADE FIRE HYDRANT	TOP TW	TOP OF PIPE TOP OF WALL
FL	FLOWLINE	TYP	TYPICAL
FIL	FILING	UDFCD	URBAN DRAINAGE AND FLOOD
FO GB	FIBER OPTIC CABLE GRADE BREAK	UE	CONTROL DISTRICT UTILITY EASEMENT
GE GE	GAS EASEMENT	U&DE	UTILITY & DRAINAGE EASEMENT
GIS	GEOGRAPHIC INFORMATION	UGE	UNDERGROUND ELECTRIC
CI.	SYSTEM	VCP	VITRIFIED CLAY PIPE
GL GPS	GAS LINE GLOBAL POSITIONING SYSTEM	VPC VPI	VERTICAL POINT OF CURVATURE VERTICAL POINT OF
GV GV	GATE VALVE		INTERSECTION
HBP	HOT BITUMINOUS PAVEMENT	VPT	VERTICAL POINT OF TANGENCY
HC	HANDICAP	VTC	VERTICAL POINT OF TANGENCY VEHICLE TRACKING CONTROL WEST
HDC HDPE	HIGH DEFLECTION COUPLING HIGH DENSITY POLYETHYLENE	W WL	WATER LINE
HGL	HYDRAULIC GRADE LINE	WM	WATER MAIN
НМА	HOT MIX ASPHALT	WRD	WATER RESOURCES
HOA	HOME OWNERS ASSOCIATION	WC	DEPARTMENT
HP HR	HIGH POINT HOUR	WS WSE	WATER SURFACE ELEVATION
I	INLET	WTR	WATER
ΙE	IRRIGATION EASEMENT	YR	YEAR



# VICINITY MAP SCALE: 1"=2000'

### SHEET INDEX

TOTAL

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#### **APPLICANT/OWNER**

SH LYRIC, LLC 9380 STATION ST. SUITE 600 LONE TREE, CO 80124 P~303.791.8180

#### **CIVIL ENGINEER**

JR ENGINEERING
7200 SOUTH ALTON WAY, SUITE C400
CENTENNIAL, CO
P~303.267.6220



J·R ENGINEERING

#### **PLANNER**

SAGE DESIGN GROUP 1500 SOUTH PEARL STREET, SUITE 200 DENVER, CO 80210 P~303.470.2855



SAGE DESIGN GROUP

#### TRAFFIC ENGINEER

7200 SOUTH ALTON WAY, SUITE C400 CENTENNIAL, CO



J·R ENGINEERING

#### **GEOTECHNICAL ENGINEER**

CTL THOMPSON, INC 1971 WEST 12TH VAE. DENVER, CO 80204 P~303.825.0777



## SOIL PREPARATION NOTE:

SOIL PREPARATION SHALL BE PER RECOMMENDATIONS FROM THE GEOTECHNICAL REPORT PREPARED FOR THIS SITE:

GEOTECHNICAL ENGINEER: CTL THOMPSON, INC PROJECT NUMBER: DN49,935-115-R2

THE CONTRACTOR IS TO REVIEW THIS REPORT IN FULL PRIOR TO BID. INFORMATION IN THE GEOTECHNICAL REPORT SUPERCEDES ANY CONFLICTING INFORMATION CONTAINED IN THE CONSTRUCTION PLANS AND SPECIFICATIONS

#### **BASIS OF BEARING**

BEARING SHOWN HEREON ARE GRID BEARINGS DERIVED FROM GPS OBSERVATION BASED UPON THE COLORADO COORDINATE SYSTEM OF 1983 CENTRAL ZONE (NAD 83, 2011) REFERENCED TO THE SOUTH LINE OF THE SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 6 SOUTH, RANGE 67 WEST, SIXTH PRINCIPAL MERIDIAN BEING MONUMENTED AS SHOWN HEREON, TAKEN TO BEAR NORTH 89°31'58" EAST, A DISTANCE OF 2635.13 FEET.

### **BENCHMARK**

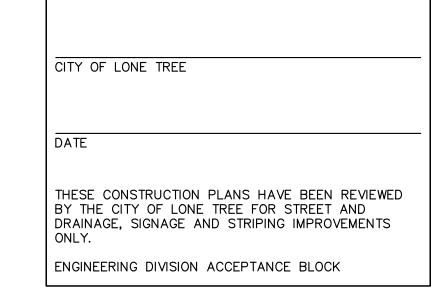
NGS CONTROL POINT UNBEWUST BEING A 3.5 INCH DIAMETER BRASS CAP. LOCATED ABOUT 3.2 MILES SOUTH OF INTERSTATE 25 AND COLORADO STATE HIGHWAY 470 INTERCHANGE, GO SOUTH ON INTERSTATE 25 FOR 2.9 MILES TO EXIT 191. PROCEED ON A PAVED ROAD TO THE SOUTHWEST FOR 0.2 MILES TO THE STATION ON THE LEFT. IN THE NORTHWEST CORNER OF A 24 FOOT BY 16 FOOT ROCK OUTCROP. IT IS 22.5 FEET EAST OF THE CENTERLINE OF THE PAVED ROAD, 123 FEET NORTH OF THE OUTLET OF A 3 FOOT CORRUGATED STEEL PIPE CULVERT AND APPROXIMATELY 350 FEET WEST OF THE WEST EDGE OF OIL OF SOUTHBOUND INTERSTATE 25, ELEVATION: 6125.32 (NAVD88).

#### **NOTICE TO CONTRACTOR:**

1. BY ACCEPTING AND UTILIZING THESE PLANS, THE CONTRACTOR AGREES THAT THEY SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSON AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND CIVIL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE CIVIL ENGINEER.

2. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES, CONDUITS OR OTHER STRUCTURES SHOWN ON THESE PLANS WAS OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THE ENGINEER ASSUMES NO LIABILITY WHATSOEVER FOR THE ACCURACY OR COMPLETENESS OF SUCH DATA. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ALL UTILITY LINES, CONDUITS OR STRUCTURES WHETHER OR NOT SHOWN ON THESE PLANS AND BY ACCEPTING AND UTILIZING THESE PLANS, ASSUMES ALL RESPONSIBILITY FOR THE PROTECTION AND/OR ANY DAMAGE TO SAID FACILITIES.





#### **ENGINEER'S STATEMENT**

COLORADO P.E.

FOR AND ON BEH

PRELIMINAR

NOT FOR

AARON L. CLUT

SHEET 1 OF 18

JOB NO. 15950.03

OCTAVE AVENUE EXTENSION

CIVIL CONSTRUCTION PLANS

COVER SHEET

DESIGN

#### **GENERAL PROJECT NOTES:**

- 1. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION OF IMPROVEMENTS SHALL MEET OR EXCEED THE GOVERNING CITY, COUNTY, AND/OR STATE AND APPLICABLE UTILITY DISTRICT STANDARDS AND SPECIFICATIONS, AND APPLICABLE STATE AND FEDERAL REGULATIONS. WHERE THERE IS A CONFLICT BETWEEN THESE PLANS AND ANY APPLICABLE STANDARDS, THE HIGHER QUALITY STANDARD SHALL APPLY. ALL WORK SHALL BE INSPECTED AND APPROVED BY THE CITY AND APPLICABLE UTILITY DISTRICT(S).
- 2. THE SITE CONSTRUCTION PLANS LISTED WITHIN THIS PLAN SET ARE NOT FOR CONSTRUCTION UNLESS APPROVED BY THE APPROPRIATE GOVERNING JURISDICTION. THE CONTRACTOR SHALL CONFIRM SAID APPROVAL PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL KEEP ONE (1) SIGNED COPY OF THE APPROVED SET OF PLANS, APPROPRIATE SPECIFICATIONS AND STANDARDS, AND APPROVED PERMITS ONSITE AT ALL TIMES.
- 3. NO REVISIONS SHALL BE MADE TO THESE PLANS WITHOUT THE APPROVAL OF THE CITY, COUNTY, STATE OR LOCAL DISTRICT AND THE ENGINEER OF RECORD.
- 4. ALL REFERENCES TO ANY PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARDS, UNLESS SPECIFICALLY STATED OTHERWISE.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETION OF THE INTENDED IMPROVEMENTS SHOWN ON THESE DRAWINGS OR DESIGNATED TO BE PROVIDED, INSTALLED, CONSTRUCTED, REMOVED, OR RELOCATED UNLESS SPECIFICALLY NOTED OTHERWISE.
- 6. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND LICENSES FOR WORK INCLUDING, BUT NOT LIMITED TO DEMOLITION, STREET CUTS, UTILITY INTERFERENCES, TRAFFIC CONTROL, GRADING, AND UTILITY FROM ALL APPLICABLE AGENCIES; AND FOR COMPLYING WITH ALL PROVISIONS INCLUDED THEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL OTHER APPLICABLE PERMITS NOT SPECIFICALLY REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
- 7. THE CONTRACTOR SHALL UTILITY STAKE PROJECT AT LEAST 2 WORKING DAYS PRIOR TO BEGINNING EXCAVATION OR GRADING, TO HAVE ALL REGISTERED UTILITY LOCATIONS MARKED. OTHER UNREGISTERED UTILITY ENTITIES (I.E. DITCH COMPANY) ARE TO BE LOCATED BY CONTACTING THE RESPECTIVE REPRESENTATIVE.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING AND VERIFYING ELEVATIONS OF ALL EXISTING SEWER MAINS, WATER MAINS, CURBS, GUTTERS, AND OTHER UTILITIES AT THE POINTS OF CONNECTION SHOWN ON THE PLANS, AND AT ANY UTILITY CROSSINGS PRIOR TO INSTALLING ANY OF THE NEW IMPROVEMENTS. IF A CONFLICT EXISTS AND/OR A DESIGN MODIFICATION IS REQUIRED, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO MODIFY THE DESIGN. DESIGN MODIFICATION(S) MUST BE APPROVED BY THE APPROPRIATE AUTHORITY PRIOR TO BEGINNING CONSTRUCTION.
- 9. ANY DISRUPTION OF UTILITY SERVICE THAT IS REQUIRED TO ADJUST, EXTEND, RELOCATE OR OTHERWISE REARRANGE ANY UTILITY WITHIN THE PROJECT AREA SHALL BE COORDINATED IN ADVANCE WITH THE AFFECTED UTILITY ENTITY.
- 10. RIM ELEVATIONS SHOWN ARE APPROXIMATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. THE CONTRACTOR SHALL USE PRECAST CONCRETE ADJUSTMENT RINGS, GROUT, AND STEEL SHIMS TO ADJUST THE MANHOLE FRAMES TO FINAL GRADE IN CONFORMANCE WITH THE CITY OR UTILITY COMPANY/DISTRICT STANDARD SPECIFICATIONS. ALL FRAMES SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO THE FINAL LIFT OF ASPHALT.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF PROJECT SAFETY INCLUDING, BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL, AND SECURITY.
- 12. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE M.U.T.C.D. TO THE APPROPRIATE RIGHT—OF—WAY AUTHORITY (CITY, COUNTY, OR STATE) FOR APPROVAL, PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN, OR AFFECTING, THE RIGHT—OF—WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL TRAFFIC CONTROL DEVICES AS MAY BE REQUIRED BY THE CONSTRUCTION ACTIVITIES. ALL WORK WITHIN THE RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH THE GOVERNING AUTHORITY'S STANDARDS AND SPECIFICATIONS.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANING AND RESTORATION OF ANY EXISTING IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO STREET PAVEMENT, FENCES, SOD, LANDSCAPING, SPRINKLER SYSTEMS, AND UTILITIES DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL LOCATION AND CONDITION.
- 14. INCLUDED IN THESE PLANS IS THE DEMOLITION AND DISPOSAL OF ALL EXISTING UTILITIES, SITE IMPROVEMENTS, STRUCTURES, AND SITE FURNISHINGS NEEDED FOR CONSTRUCTION OF THE IMPROVEMENTS SHOWN HEREON. ALL QUESTIONS IN REGARD TO DEMOLITION SHALL BE SUBMITTED TO THE OWNER IN WRITING PRIOR TO BID.
- 15. ALL DEMOLITION, REMOVAL, DISPOSAL, AND ABANDONMENT OF UTILITIES, STRUCTURES, SITE IMPROVEMENTS, AND SITE FURNISHINGS SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL STANDARDS AND SPECIFICATIONS, AND PERMIT REQUIREMENTS.
- 16. ALL DISTURBED SOIL, ON— OR OFF—SITE AND RELATED TO WORK AT THIS PROJECT SITE, IS REQUIRED TO BE PROTECTED FROM WIND AND STORM WATER EROSION. TO MITIGATE EROSION, THE CONTRACTOR SHALL USE STANDARD EROSION CONTROL TECHNIQUES DESCRIBED IN THE GESC PLAN SET AND GESC REPORT FOR THIS PROJECT.
- 17. ALL STRUCTURAL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY GROUND-DISTURBING ACTIVITY. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD REPAIR BY THE CONTRACTOR UNTIL SUCH TIME AS THE ENTIRE DISTURBED AREA IS STABILIZED WITH HARD SURFACE OR PERMANENT LANDSCAPING. THE CONTRACTOR IS RESPONSIBLE FOR REFERRING TO ANY EROSION AND SEDIMENT CONTROL, STORMWATER MANAGEMENT, STORMWATER POLLUTION PREVENTION, OR SIMILAR PLAN AND/OR NARRATIVE AND ASSOCIATED PERMITS INCLUDING, BUT NOT LIMITED TO GRADING PERMITS, AND COMPLYING WITH THE REQUIREMENTS THEREIN.
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK, INSPECTIONS, AND CERTIFICATIONS AS REQUIRED BY THE CITY, STATE OR LOCAL DISTRICTS. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST ASSOCIATED WITH THE INSPECTION AND CERTIFICATION UNLESS OTHERWISE ARRANGED WITH THE OWNER/DEVELOPER. THE CONTRACTOR SHALL COORDINATE ALL CERTIFICATIONS, AND PROVIDE FIELD SURVEYED AS—BUILT INFORMATION FOR REVIEW BY THE OWNER/DEVELOPER AND/OR ENGINEER AS EARLY AS POSSIBLE IN THE CONSTRUCTION SCHEDULE TO AVOID POTENTIAL DELAYS.
- 19. CONTRACTOR IS RESPONSIBLE FOR AS-BUILT DRAWINGS, TESTS, REPORTS, AND/OR ANY OTHER CERTIFICATES OR INFORMATION AS REQUIRED FOR ACCEPTANCE OF WORK FROM CITY, UTILITY DISTRICTS, OR ANY OTHER GOVERNING AGENCY, OR TO THE OWNER/DEVELOPER AS REQUIRED BY AND IN ACCORDANCE WITH THE GOVERNING AUTHORITY OR OWNER/DEVELOPER'S CRITERIA. CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT INFORMATION AN A SET OF RECORD DRAWINGS KEPT AT THE CONSTRUCTION SITE AND AVAILABLE TO THE GOVERNING CITY, COUNTY, AND/OR STATE AND UTILITY DISTRICT INSPECTOR AT ALL TIMES. THE CONTRACTOR SHALL CONFIRM ANY REQUIREMENTS AS EARLY AS POSSIBLE IN THE CONSTRUCTION SCHEDULE TO ACCOUNT FOR PREPARATION AND REVIEW OF THE INFORMATION TO AVOID POTENTIAL DELAYS.
- 20. IF, DURING THE CONSTRUCTION PROCESS, CONDITIONS ARE ENCOUNTERED BY THE CONTRACTOR, HIS SUBCONTRACTORS, OR OTHER AFFECTED PARTIES, WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE OWNER/DEVELOPER AND THE ENGINEER IMMEDIATELY.
- 21. DIMENSIONS FOR LAYOUT AND CONSTRUCTION ARE NOT TO BE SCALED FROM ANY DRAWING. IF PERTINENT DIMENSIONS ARE NOT SHOWN, CONTACT THE CONSULTING ENGINEER FOR CLARIFICATION AND ANNOTATE THE DIMENSION ON THE AS—BUILT RECORD DRAWING.
- 22. <u>BENCHMARK VERIFICATION:</u> THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS AND THE PROPOSED ELEVATIONS IN THIS CONSTRUCTION PLAN SET AGAINST THE PROJECT BENCHMARK, IDENTIFIED HEREIN, PRIOR TO COMMENCING WORK.
- 23. ALL ELEVATIONS ARE ON UNITED STATES COAST AND GEODETIC SURVEY (USC&GS) (NAVD-88) DATUM WITH DATE. THE RANGE POINT OR MONUMENTS SHALL BE SHOWN ON CONSTRUCTION DRAWINGS.
- 24. THE PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF COLORADO, SIGNING THESE PLANS IS RESPONSIBLE FOR ENSURING THAT THE DETAILS INCLUDED ARE COMPATIBLE WITH THE STANDARD DOUGLAS COUNTY DETAILS CONTAINED IN THE LATEST VERSIONS OF THE CRITERIA MANUALS. THIS INCLUDES, BUT IS NOT LIMITED TO:
- CDOT M&S STANDARDS
- MUTCD
  URBAN STORM DRAINAGE CRITERIA MANUAL VOLUMES 1, 2, & 3

#### CITY OF LONE TREE GENERAL NOTES

- 1. THE CITY OF LONE TREE ENGINEER'S SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES THE ENGINEERING DIVISION HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL CONFORMANCE WITH THE CITY OF LONE TREE SUBDIVISION RESOLUTION OR APPROVED VARIANCES TO THOSE REGULATIONS. THE CITY OF LONE TREE ENGINEER, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY, OTHER THAN STATED ABOVE, FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS. THE OWNER AND ENGINEER UNDERSTAND THAT THE RESPONSIBILITY FOR THE ENGINEERING ADEQUACY OF THE FACILITIES DEPICTED IN THIS DOCUMENT LIES SOLELY WITH THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE IS AFFIXED TO THIS DOCUMENT.
- 2. ALL ROADWAY CONSTRUCTION SHALL CONFORM TO CURRENT DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS.
- 3. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE CITY OF LONE TREE ENGINEERING DIVISION. THE CITY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS
- 4. THE CONTRACTOR SHALL NOTIFY THE CITY OF LONE TREE PUBLIC WORKS, INSPECTION SECTION, (303) 662-8112, A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO STARTING CONSTRUCTION, AND/OR BEFORE RESTARTING CONSTRUCTION AFTER A SHUTDOWN OF MORE THAN 10 DAYS.
- 5. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ACTUAL CONSTRUCTION. FOR INFORMATION, CONTACT: UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT (800) 922-1987 OR 811
- 6. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY (SIGNED BY BOTH DESIGN ENGINEER AND CITY OF LONE TREE) OF THE CONSTRUCTION PLANS AND GESC REPORT AND PLAN, AND ONE (1) COPY OF THE DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS AT THE JOB SITE AT ALL TIMES.
- 7. ALL PROPOSED STREET CUTS TO EXISTING PAVEMENTS FOR UTILITIES, STORM SEWER, OR OTHER PURPOSES ARE LISTED AND REFERENCED BELOW:
- RIDGEGATE PARKWAY
- 8. A ROW/CONSTRUCTION PERMIT MUST BE OBTAINED BEFORE ANY WORK WITHIN EXISTING OR PROPOSED PUBLIC ROW. THE PERMIT APPLICATION MUST BE SUBMITTED TO THE CITY OF LONE TREE ENGINEER FOR REVIEW/PROCESSING A MINIMUM OF 7 DAYS PRIOR TO REQUESTED START FOR THE WORK IN THE ROW.
- 9. A PLAN FOR TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE SUBMITTED TO THE CITY OF LONE TREE ENGINEER FOR ACCEPTANCE WITH THE PERMIT APPLICATION. AN EXCAVATION OR PUBLIC IMPROVEMENTS CONSTRUCTION PERMIT WILL NOT BE ISSUED WITHOUT AN APPROVED TRAFFIC CONTROL PLAN FOR TRAFFIC CONTROL DURING CONSTRUCTION.
- 10. THE CONSTRUCTION PLANS SHALL BE CONSIDERED VALID FOR TWO (2) YEARS FROM THE DATE OF CITY OF LONE TREE ACCEPTANCE/APPROVAL. IF APPLICABLE CONSTRUCTION PERMITS HAVE NOT BEEN OBTAINED, AND CONSTRUCTION STARTED WITHIN THAT TIME, THESE PLANS SHALL BE VOID AND WILL BE SUBJECT TO RE—REVIEW AND RE—ACCEPTANCE BY THE CITY OF LONE TREE.
- 11. CONTRACTOR SHALL NOTIFY THE CITY OF LONE TREE ENGINEER INSPECTOR WHEN WORKING OUTSIDE OF THE PUBLIC RIGHT-OF-WAY ON ANY FACILITY WHICH WILL BE CONVEYED TO THE CITY, URBAN DRAINAGE AND FLOOD CONTROL DISTRICT, OR OTHER SPECIAL DISTRICT FOR MAINTENANCE (STORM SEWER, ENERGY DISSIPATERS, DETENTION OUTLET STRUCTURES, OR OTHER DRAINAGE INFRASTRUCTURES). FAILURE TO NOTIFY ENGINEERING INSPECTOR TO ALLOW THEM TO INSPECT THE CONSTRUCTION MAY RESULT IN NON-ACCEPTANCE OF THE FACILITIES/INFRASTRUCTURE BY CITY AND/OR URBAN DRAINAGE.
- 12. A TEMPORARY CONSTRUCTION ACCESS PERMIT FROM THE CITY OF LONE TREE MAY BE REQUIRED FOR ANY PROJECT.
- 13. THE CITY OF LONE TREE SHALL NOT BE RESPONSIBLE FOR MAINTENANCE OF ROADWAY AND APPURTENANT IMPROVEMENTS, INCLUDING STORM DRAINAGE INFRASTRUCTURE, FOR THE FOLLOWING PRIVATE STREETS: VIBRATO LANE AND MONTOSO ROAD

### CITY OF LONE TREE SIGNAGE & STRIPING NOTES

- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT VERSION OF THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE "COLORADO SUPPLEMENTAL MUTCD" AND THE DOUGLAS COUNTY "ROAD AND CONSTRUCTION STANDARDS MANUAL". FURTHER SPECIFICATIONS AND ILLUSTRATIONS ARE LOCATED IN THE COLORADO DIVISION OF HIGHWAYS "M AND S STANDARDS".
- 2. DELINEATION OF ROADWAYS SHALL BE AS SPECIFIED IN THE COLORADO "M AND S MANUAL".
- 3. SPECIAL CARE SHALL BE TAKEN IN SIGN LOCATION TO ENSURE AN UNOBSTRUCTED VIEW OF EACH SIGN. STREET NAME SIGNS SHALL BE MOUNTED SO THAT THEY CAN BE SEEN FROM ALL DIRECTIONS OF TRAVEL.
- 4. INSTALLATION OF SIGNS SHALL CONFORM TO THE MUTCD MOUNTING HEIGHT REQUIREMENTS, INCLUDING A 7-FOOT MINIMUM HEIGHT FROM THE BOTTOM OF THE LOWEST SIGN PANEL TO THE TOP GRADE OF SIDEWALK.
- 5. ALL NEWLY INSTALLED TRAFFIC SIGNS SHALL MEET THE MINIMUM RETRO—REFLECTIVITY AND ILLUMINATION STANDARDS AS SET FORTH BY THE MUTCD (LATEST EDITION). THESE MINIMUM REQUIREMENTS SHALL FALL UNDER THE REQUIREMENTS OF THE TWO (2) YEAR WARRANTY PERIOD FOR NEW CONSTRUCTION.
- 6. DIAMOND GRADE MATERIAL SHALL BE USED ON ALL STOP SIGNS.
- 7. THE CONTRACTOR INSTALLING SIGNS IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES. LONE TREE PUBLIC WORKS SHALL BE CONTACTED A MINIMUM OF 72 HOURS PRIOR TO INSTALLATION AT 303-662-8112.
- 8. FOLLOWING INSTALLATION, THE CONTRACTOR SHALL NOTIFY THE CITY OF LONE TREE PUBLIC WORKS DEPARTMENT, 303-662-8112. A FIELD INSPECTION OF LOCATION AND INSTALLATION OF ALL SIGNS SHALL BE PERFORMED BY PUBLIC WORKS. ALL DISCREPANCIES IDENTIFIED DURING THE FIELD INSPECTION MUST BE CORRECTED BEFORE THE TWO-YEAR WARRANTY PERIOD WILL BEGIN.
- 9. SIGNAGE AND STRIPING HAS BEEN DETERMINED BY INFORMATION AVAILABLE AT THE TIME OF REVIEW.
  PRIOR TO INITIATION OF THE WARRANTY PERIOD, LONE TREE RESERVES THE RIGHT TO REQUIRE MODIFICATIONS TO EXISTING OR INSTALLATION OF ADDITIONAL SIGNAGE AND/OR STRIPING IF THEY DETERMINE THAT AN UNFORESEEN CONDITION WARRANTS SUCH MODIFICATION ACCORDING TO THE MUTCD OR THE CDOT M AND S STANDARDS. ALL SIGNAGE AND STRIPING SHALL FALL UNDER THE REQUIREMENTS OF THE TWO (2) YEAR WARRANTY PERIOD FOR NEW CONSTRUCTION
- 10. FINAL STRIPING AND CROSSWALK LAYOUT TO BE APPROVED BY THE CITY OF LONE TREE PRIOR TO INSTALLATION. LONE TREE PUBLIC WORKS SHALL BE CONTACTED A MINIMUM OF 72 HOURS PRIOR TO INSTALLATION AT 303-662-8112.
- 11. CROSSWALKS SHALL:
  BE CONSTRUCTED USING 125 MIL PREFORMED THERMOPLASTIC.
  LINE UP WITH THE HANDICAP RAMPS AT BOTH ENDS.
  BE CENTERED ON LANE LINES SO AS TO BE STRADDLED BY VEHICLES.
- 12. ALL PAVEMENT MARKINGS SHALL BE AS FOLLOWS:
  FOR CONCRETE SURFACE: METHYL METHACRYLATE OR EPOXY PAINT.
  FOR ASPHALT SURFACE: PAINT, 90 MIL PREFORMED THERMOPLASTIC, INLAID MARKING TAPE, METHYL METHACRYLATE, OR EPOXY PAINT.
  TURN ARROWS AND ONLYS: 125 MIL PREFORMED THERMOPLASTIC.
- 13. ALL PAVEMENT MARKING SHALL BE PRECEDED BY THE APPROPRIATE SURFACE PREPARATION.
- 14. ANY SIGNAGE AND/OR OTHER TRAFFIC CONTROL DEVICES REMOVED SHALL BE RETURNED TO THE CITY OF LONE TREE.
- 15. TYPE III LIGHTED BARRICADES SHALL BE SET AT ENDS OF ROADWAYS, SEPARATING FINISHED AND UNFINISHED CONSTRUCTION AREAS AND WILL BE MAINTAINED BY THE CONTRACTOR/DEVELOPER.
- NOTE: ALSO SEE CITY OF LONE TREE "STREET SIGN DETAILS" FOR ADDITIONAL INTERSECTION STREET SIGNAGE REQUIREMENTS.

#### **ROADWAY NOTES**

- 1. GUTTERS SHALL BE AT LEAST 6" THICK.
- 2. ALL CURBS SHALL USE THE CATCH SECTION UNLESS OTHERWISE NOTED.
- 3. ALL COMBINATION CURB, GUTTER AND SIDEWALKS TO BE 6" THICK (MIN.). SIDEWALKS WITH VERTICAL CURB AND GUTTER TO BE 6" THICK (MIN.).
- 4. NON-LANDSCAPED MEDIAN ISLANDS SHALL BE COVERED WITH AN ACCEPTABLE IMPERMEABLE SURFACE.
- 5. IF ANY SECTION OF A DETACHED SIDEWALK IS TO BE PLACED OUTSIDE OF THE ROAD RIGHT-OF-WAY, THEN A SIDEWALK EASEMENT SHALL BE REQUIRED TO
- MAINTAIN PUBLIC USE.

  6. PLACEMENT, MOISTURE AND DENSITY CONTROL FOR SUBGRADE, SUBBASE, AND SURFACING MATERIALS SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS OF
- CHAPTER 8 OF THE DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS.

7. ALL STATIONING IS BASED ON CENTERLINE OF ROADWAYS UNLESS OTHERWISE NOTED.

- 8. PAVING, INCLUDING CONSTRUCTION OF CURB AND GUTTER (WHEN USED), SHALL NOT START UNTIL A PAVEMENT DESIGN REPORT AND SUBGRADE COMPACTION TESTS ARE ACCEPTED BY THE ENGINEERING INSPECTION DIVISION FOR ALL PUBLIC AND PRIVATE POADS
- 9. STANDARD DOUGLAS COUNTY HANDICAP RAMPS ARE TO BE CONSTRUCTED AT ALL CURB RETURNS AND AT MID-BLOCK LOCATIONS OPPOSITE OF ONE OF THE CURB RETURNS OF ALL "T" INTERSECTIONS AS IDENTIFIED ON THESE PLANS.

#### **STORM SEWER NOTES:**

- SEE COVER SHEET FOR BENCHMARK.
   ALL STATIONING IS PIPE CENTERLINE UNLESS OTHERWISE NOTED.
- 3. INLET STATIONING IS TO CENTER OF INLET.

  4. PIPE LENGTHS ARE FROM INSIDE INLET WALL TO INSIDE INLET WALL, FROM CENTER OF MANHOLE TO INSIDE INLET WALL OR FROM CENTER OF
- CENTER OF MANHOLE TO INSIDE INLET WALL, OR FROM CENTER OF MANHOLE TO CENTER OF MANHOLE. PIPE LENGTHS INCLUDE FES.

  5. ALL ON-GRADE INLETS ARE TO MATCH TBC ELEVATIONS AT EACH END,
- FOLLOWING STREET GRADES.

  6. PIPE BEDDING SHALL CONFORM TO THE DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS.
- 7. ALL INLETS ARE TYPE R INLETS UNLESS OTHERWISE NOTED.

  8. ALL TYPE R INLET RIM ELEVATIONS REFERENCE TBC ELEVATION AT CENTER
- OF INLET UNLESS OTHERWISE NOTED.

  9. COORDINATES FOR RCP END SECTIONS ARE SHOWN AT THE DOWNSTREAM
- END ALONG CENTERLINE OF PIPE

  10. UNLESS OTHERWISE SHOWN, RCP SHALL BE BACKFILLED ACCORDING TO THE
- STANDARD TRENCH SECTION SHOWN ON THE STORM SEWER DETAILS.

  11. LENGTHS SHOWN FOR RCP REPRESENT HORIZONTAL LENGTHS AND NOT FOR LENGTHS ALONG THE PIPE SLOPE.
- 12. ALL RCP STORM SEWER MUST USE ASTM C44S WATERTIGHT GASKETS PER THE CURRENT DOUGLAS COUNTY AND URBAN DRAINAGE DESIGN CRITERIA.

  13. ALL RCP SHALL BE CLASS III STORM SEWER PIPE UNLESS OTHERWISE
- SPECIFIED.

  14. JOINT RESTRAINTS ARE REQUIRED FOR A MINIMUM OF THE LAST TWO PIPE TOWNS AND FLARED FND SECITORS OF AN RCP OUTFALL.
- JOINTS AND FLARED END SECITONS OF AN RCP OUTFALL.

  15. PRECAST INLETS AND MANHOLE BASES ARE NOT ALLOWED.

  16. TOE WALLS ARE REQUIRED ON FLARED END SECTIONS AT THE OUTLET END
- UNDER ALL RIPRAP PADS.

  17. TWO MANHOLE ACCESS POINTS ARE REQUIRED ON ALL TYPE R CURB INLETS GREATER THAN OR EQUAL TO TEN FEET IN LENGTH.

OF CULVERTS AND STORM SEWER OUTFALLS. FILTER FABRIC IS REQUIRED

#### **DRAINAGE STRUCTURE NOTES**

- 1. CONCRETE WORK SHALL CONFORM TO ACI 301, ACI 350.
- 2. ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM-615, GRADE
- 3. ALL EXPOSED CONCRETE SHALL HAVE A CDOT CLASS 2 OR 5 FINISH.
- 4. ALL EXPOSED CONCRETE CORNERS SHALL HAVE 3/4" CHAMFERS.
- 5. DETAILING, FABRICATION, AND PLACING OF REBAR SHALL BE IN ACCORDANCE WITH ACI
- 6. CONSTRUCTION TOLERANCES SHALL BE IN ACCORDANCE WITH ACI 347.
- 7. ALL MANHOLES SHALL BE SLAB BASE UNLESS SPECIFIED OTHERWISE. MANHOLE SHALL BE FABRICATED IN ACCORDANCE WITH CDOT STANDARD M-604-20.
- 8. COORDINATES FOR MANHOLES AND AREA INLETS ARE SHOWN AT THE CENTER OF THE STRUCTURE. COORDINATES FOR MOUNTABLE CURB INLETS ARE SHOWN ALONG THE FLOWLINE AT CENTER OF THE STRUCTURE.
- 9. ALL TYPE C AND D INLETS SHALL HAVE CLOSE MESH GRATES UNLESS SPECIFIED OTHERWISE.
- 10. LENGTH OF FABRICATED BAR GRATING PANELS IS LENGTH OF BEARING BARS, WIDTH REFERS TO DIMENSION PERPENDICULAR TO BEARING BARS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PANEL DIMENSIONS GIVEN PRIOR TO FABRICATION.
- 11. TWO MANHOLE ACCESS POINTS ARE REQUIRED ON ALL TYPE R CURB INLETS GREATER THAN OR EQUAL TO TEN FEET IN LENGTH.
- 12. EPOXY COATED REBAR IS REQUIRED ON ALL DRAINAGE STRUCTURES.
- 13. THE CITY OF LONE TREE REQUIRES CLASS D CONCRETE FOR ALL DRAINAGE STRUCTURES.
- 14. ALL RCP STORM SEWERS MUST USE ASTM C443 WATERTIGHT GASKETS PER THE CURRENT DOUGLAS COUNTY AND URBAN DRAINAGE DESIGN CRITERIA.
- 15. ALL RCP SHALL BE CLASS III STORM SEWER PIPE UNLESS OTHERWISE SPECIFIED.
- 16. JOINT RESTRAINTS ARE REQUIRED FOR A MINIMUM OF THE LAST TWO PIPE JOINTS AND FLARED END SECTIONS OF AN RCP OUTFALL.
- 17. PRECAST INLETS AND MANHOLE BASES ARE NOT ALLOWED.
- 18. TOE WALLS ARE REQUIRED ON FLARED END SECTIONS AT THE OUTLET END OF CULVERTS AND STORM SEWER OUTFALLS. FILTER FABRIC IS REQUIRED UNDER ALL

#### DRAINAGE GENERAL NOTES

- 1. PROJECT FACILITIES ARE TO BE LOCATED BASED ON THE SURVEY COORDINATES, ELEVATIONS, DIMENSIONS, AND/OR GEOMETRIC DESIGN DATA PROVIDED ON THE DRAWINGS.
- 2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING STABLE EXCAVATIONS AND TEMPORARY SLOPES AND FOR SATISFYING ALL APPLICABLE OSHA, FEDERAL, STATE, AND LOCAL REGULATIONS. TEMPORARY EXCAVATIONS SHALL PROVIDE, AT MINIMUM, THE TRENCH DIMENSIONS AND CLEARANCES SHOWN OR SPECIFIED. TEMPORARY CONSTRUCTION SLOPES SHALL BE SLOPED, SHORED, SHEETED, AND/OR BRACED IN ACCORDANCE WITH STABILITY REQUIREMENTS AND APPLICABLE REGULATIONS, AND SHALL BE NO STEEPER THAN THE SLOPES SHOWN OR SPECIFIED WITHOUT THE APPROVAL OF THE ENGINEER. ANY SUCH APPROVALS BY THE ENGINEER WILL NOT RELIEVE THE CONTRACTOR FROM SOLE RESPONSIBILITY FOR PROVIDING STABLE EXCAVATIONS AND TEMPORARY SLOPES.
- 3. EXISTING FACILITIES NOT INDICATED TO BE REMOVED SHALL BE PROTECTED IN PLACE OR REMOVED AND REPLACED IN KIND, AS APPROVED BY ENGINEER.
- 4. THE WORK WILL TAKE PLACE IN AND AROUND DRAINAGE SWALES AND THE HAPPY CANYON CREEK, SUBJECT TO PERIODIC FLOODING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF SURFACE AND SUBSURFACE WATER DURING THE COURSE OF THE WORK. ANY DAMAGE TO THE WORK RESULTING FROM SURFACE FLOWS, BASE FLOWS, OR FLOOD FLOWS INCLUDING BUOYANCY FORCES ON PIPELINES AND OTHER FACILITIES SHALL BE CORRECTED BY THE CONTRACTOR AT THE CONTRACTOR'S SOLE COST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND SATISFYING THE REQUIREMENTS OF ANY APPLICABLE PERMITS PERTAINING TO WATER AND EROSION CONTROL.
- 5. CONTACT THE ENGINEER FOR CLARIFICATIONS OF ANY ABBREVIATIONS SHOWN ON THE DRAWINGS.
- THE SITE WHERE THE WORK IS TO BE PERFORMED SHALL BE OVERLOT GRADED. TOPSOIL SHALL BE SPREAD IN OPEN SPACE AREAS TO A DEPTH OF APPROXIMATELY 6-INCHES. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED, AND SOME AREAS COVERED WITH EROSION CONTROL BLANKETS, UNLESS OTHERWISE DIRECTED IN THE PLANS OR BY THE ENGINEER. CARE SHALL BE TAKEN TO AVOID DISTURBING ANY OPEN SPACE AREAS EXCEPT THE MINIMUM NECESSARY TO PERFORM THE WORK. TOPSOIL IN ANY WORK AREAS OR ACCESS ROADS WITHIN THE OPEN SPACE SHALL BE STRIPPED AND STOCKPILED PRIOR TO THE WORK, PROTECTED FROM MIXING WITH ANY OTHER MATERIALS DURING THE WORK, AND REPLACED TO A LOOSE DEPTH OF 7- TO 8- INCHES (FINAL DEPTH AFTER SETTLEMENT SHALL BE 6- INCHES MINIMUM) AS THE WORK IS BEING COMPLETED. WHERE BLANKETS EXIST, THE MINIMUM AREA OF BLANKET TO ALLOW WORK TO PROGRESS SHALL BE REMOVED AND THEN THE REMOVED OR NEW BLANKET REPLACED AFTER UNDERLYING WORK IS COMPLETE (EXCEPT NO TEMPORARY BLANKET NEEDS TO BE REPLACED OVER ROCK OR COIR BLANKET SHOWN IN THE PLANS). JUST PRIOR TO REPLACEMENT OF TOPSOIL AFTER UNDERLYING WORK IS COMPLETE AND APPROVED. THE UNDERLYING SUBGRADE IN OPEN SPACE AREAS SHALL BE LOOSENED BY TILLING TO A DEPTH OF 12- INCHES UNTIL CLODS ARE NO LARGER THAN 3 INCHES, AND APPROVED BY THE ENGINEER. THIS NOTE ALSO APPLIES TO AREAS WHERE COIR MAT IS TO BE INSTALLED.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ANY COMPLETED WORK FROM DISTURBANCE OR DAMAGE DURING THE COURSE OF THE WORK. IF REQUESTED BY THE CONTRACTOR AND APPROVED BY THE OWNER, SIGNIFICANT COMPLETED SECTIONS OF THE WORK MAY BE ACCEPTED AS FINAL PRIOR TO THE COMPLETION OF THE ENTIRE PROJECT. ANY SUCH EARLY ACCEPTANCE WILL NEED TO BE IN WRITING BY THE ENGINEER AND OWNER AND THOSE PORTIONS OF THE WORK SHALL BE PROTECTED BY THE CONTRACTOR AGAINST VEHICLES RUNNING OVER THE AREA BY ENCIRCLING THE WORK WITH FLAGGING OR FENCING OR BY OTHER MEANS AGREED TO BY THE OWNER AND MAINTAINED BY THE CONTRACTOR UNTIL THE END OF THE PROJECT.
- 8. ALL FINE GRADING REQUIRED TO CONSTRUCT DRAINAGE IMPROVEMENTS AND PROVIDE FINISHED GRADES ADJACENT TO IMPROVEMENTS SHALL BE DONE BY THE DRAINAGE CONTRACTOR AND SHALL BE CONSIDERED PART OF THE WORK, AND NOT PAID FOR SEPARATELY.
  - ALL STORM SEWER IMPROVEMENTS (PUBLIC AND PRIVATE) INCLUDING, BUT NOT LIMITED TO, INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC STRUCTURES, RIPRAP, DETENTION BASINS, FOREBAYS, MICROPOOLS, AND WATER QUALITY FACILITIES REQUIRE PERMITTING AND INSPECTIONS.

UNTIL SUCH TIME AS
THESE DRAWINGS ARE
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ENGINEER'S STATEMENT

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED

DRAINAGE, SIGNAGE AND STRIPING IMPROVEMENTS

BY THE CITY OF LONE TREE FOR STREET AND

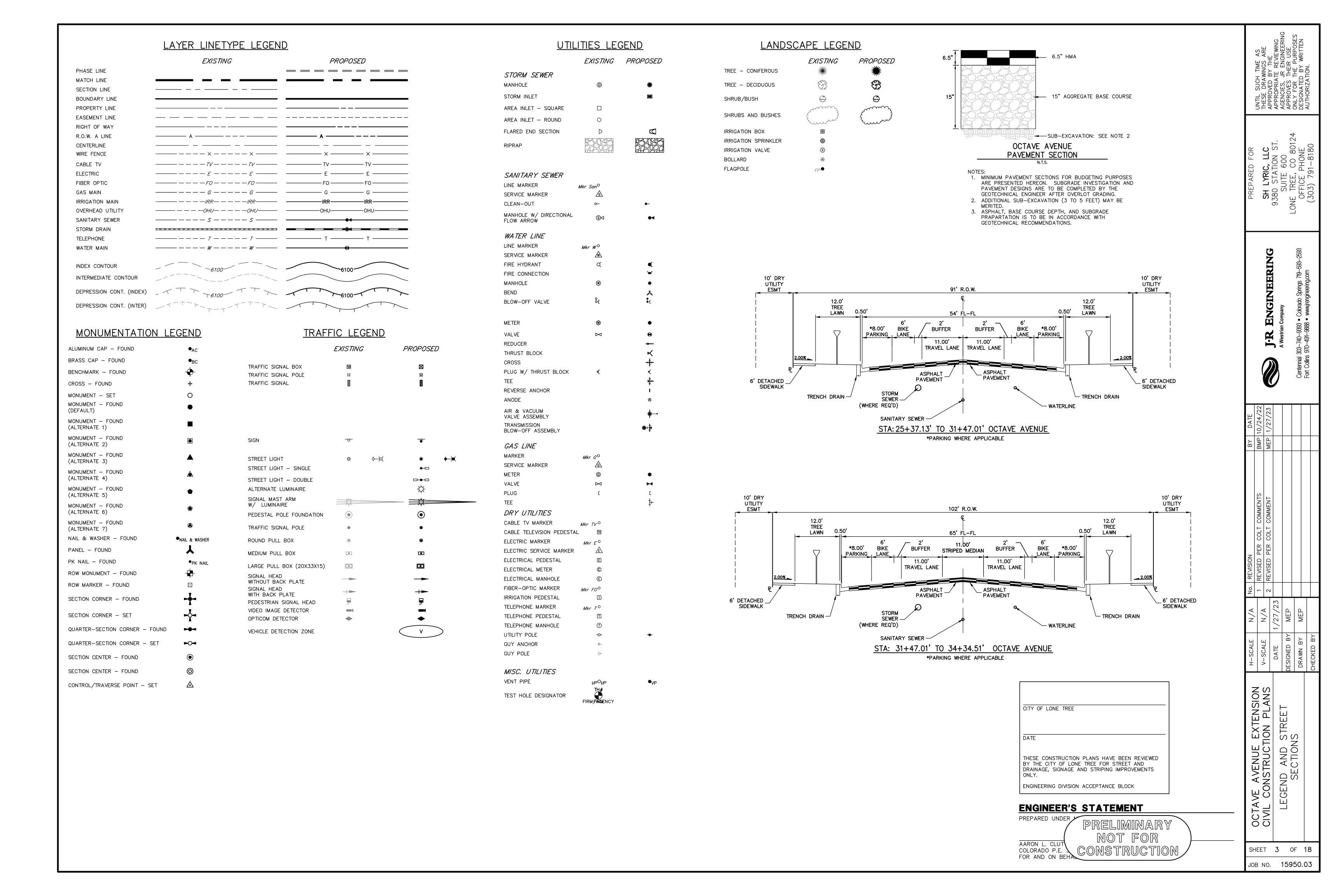
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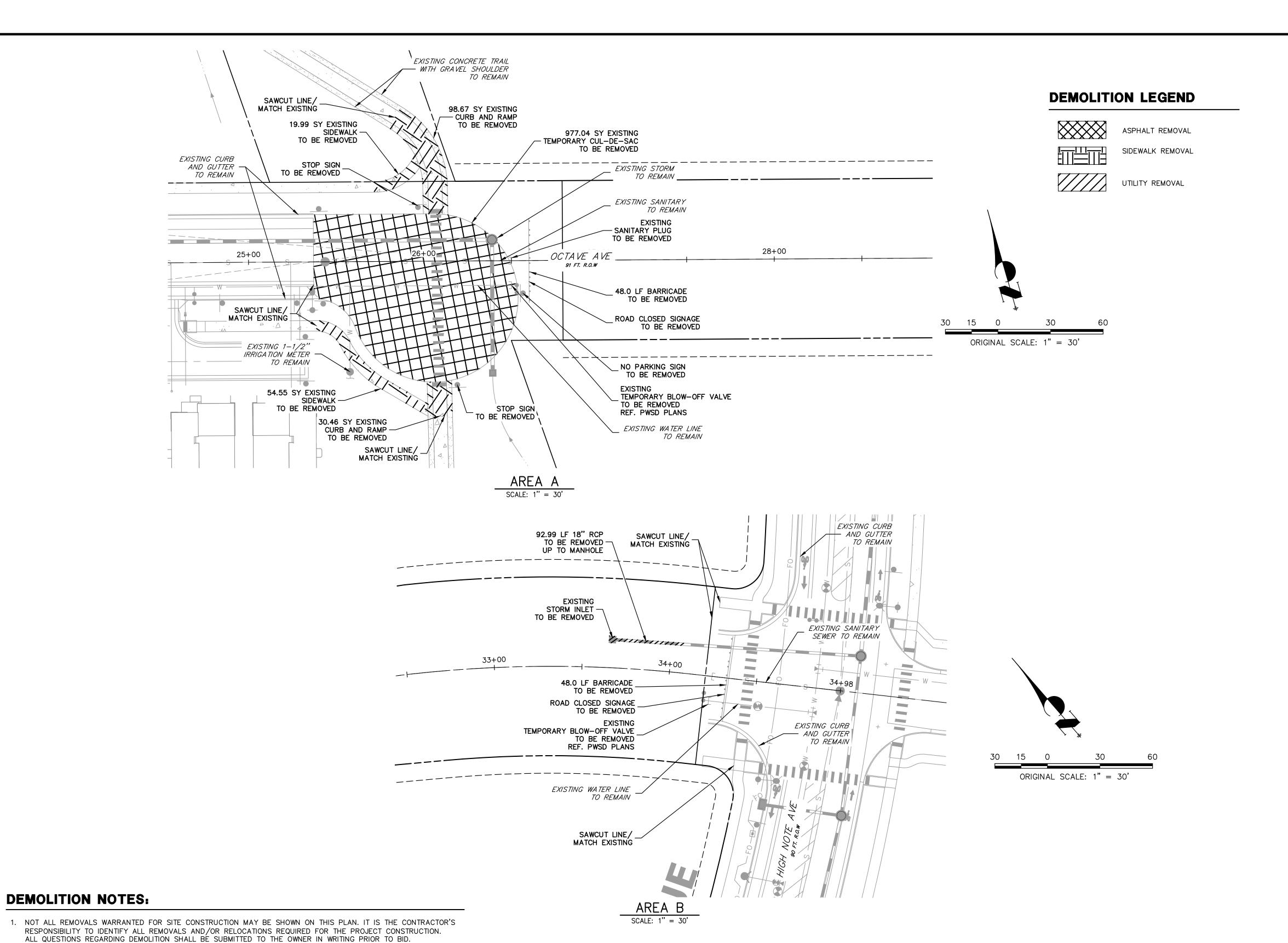
CITY OF LONE TREE

PRELIMINARY

AARON L. CLUT
COLORADO P.E. CONSTRUCTION
FOR AND ON BEHA

SHEET 2 OF 18 JOB NO. 15950.03





2. ALL DEMOLITION, REMOVAL, DISPOSAL AND ABANDONMENT OF UTILITIES, STRUCTURES, SITE IMPROVEMENTS, AND SITE

3. ALL EXISTING LANDSCAPING AND IRRIGATION SYSTEMS WITHIN THE PROJECT LIMITS SHALL BE RESET AND REPAIRED

4. CONTRACTOR SHALL VERIFY ALL UTILITY MAIN AND LATERAL LOCATIONS AND EXISTING SITE CONDITIONS PRIOR TO

PROCEEDING WITH DEMOLITION. ANY SITE CONDITIONS THAT ARE NOT AS SHOWN ON THE DEMOLITION PLAN SHALL

5. CONTRACTOR SHALL REMOVE OR RELOCATE EXISTING UTILITIES PER UTILITY COMPANY REQUIREMENTS. CONTRACTOR SHALL COORDINATE ANY REQUIRED REMOVALS, DISCONNECTIONS, AND/OR RELOCATIONS WITH THE APPROPRIATE

6. CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL (SIGNS, BARRICADES, FLAGMEN, LIGHTS, ETC.) IN

7. CONTRACTOR SHALL DISPOSE OF AND TRANSPORT DEBRIS TO AREA(S) OBTAINED BY CONTRACTOR. CONTRACTOR SHALL NOT STORE OR BURN MATERIALS ON SITE. CONTRACTOR SHALL HANDLE AND DISPOSE OF ALL DEBRIS IN

9. CONTRACTOR SHALL PROTECT ALL SURVEY MONUMENTATION AND BENCHMARK(S). CONTRACTOR SHALL HAVE A

LICENSED SURVEYOR REPLACE ANY DAMAGED OR DISTURBED MONUMENTATION AT THE CONTRACTOR'S COST.

10. CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, FEATURES, IMPROVEMENTS, AND UTILITIES (OVERHEAD OR

UNDERGROUND) AT ALL TIMES DURING DEMOLITION AND CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR

ACCORDANCE WITH ALL LOCAL STATE AND FEDERAL REGULATIONS. DISPOSAL SHALL BE TRANSPORTED TO AN

ACCORDANCE WITH THE MUTCD, CURRENT EDITION AND THE GOVERNING JURISDICTION'S STANDARDS AND

8. CONTRACTOR SHALL OBTAIN ALL PERMITS AND LICENSES REQUIRED FOR DEMOLITION OF WORK SHOWN.

FURNISHINGS SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.

TO EXISTING CONDITIONS OR BETTER.

BE REPORTED TO THE OWNER PRIOR TO BID.

SPECIFICATIONS AS REQUIRED FOR THE WORK.

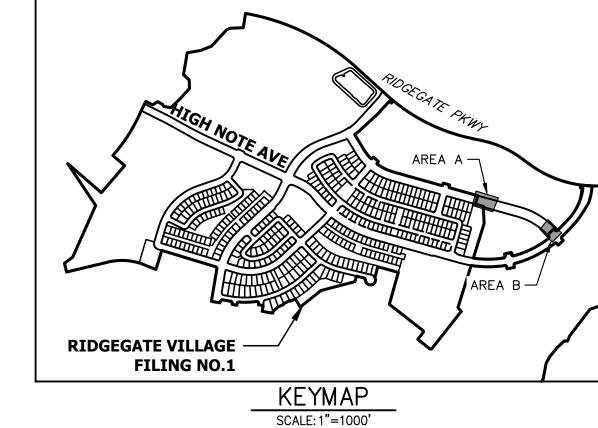
APPROVED LANDFILL OR OTHER APPROVED FACILITY.

ALL RESULTANT COSTS DUE TO SUCH DAMAGES.

UTILITY COMPANY PRIOR TO DEMOLITION.

UTILITIES ARE BASED ON THE RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF THE UTILITIES. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL ABOVE GROUND AND UNDERGROUND UTILITIES.





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**ENGINEER'S STATEMENT** 

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CITY OF LONE TREE

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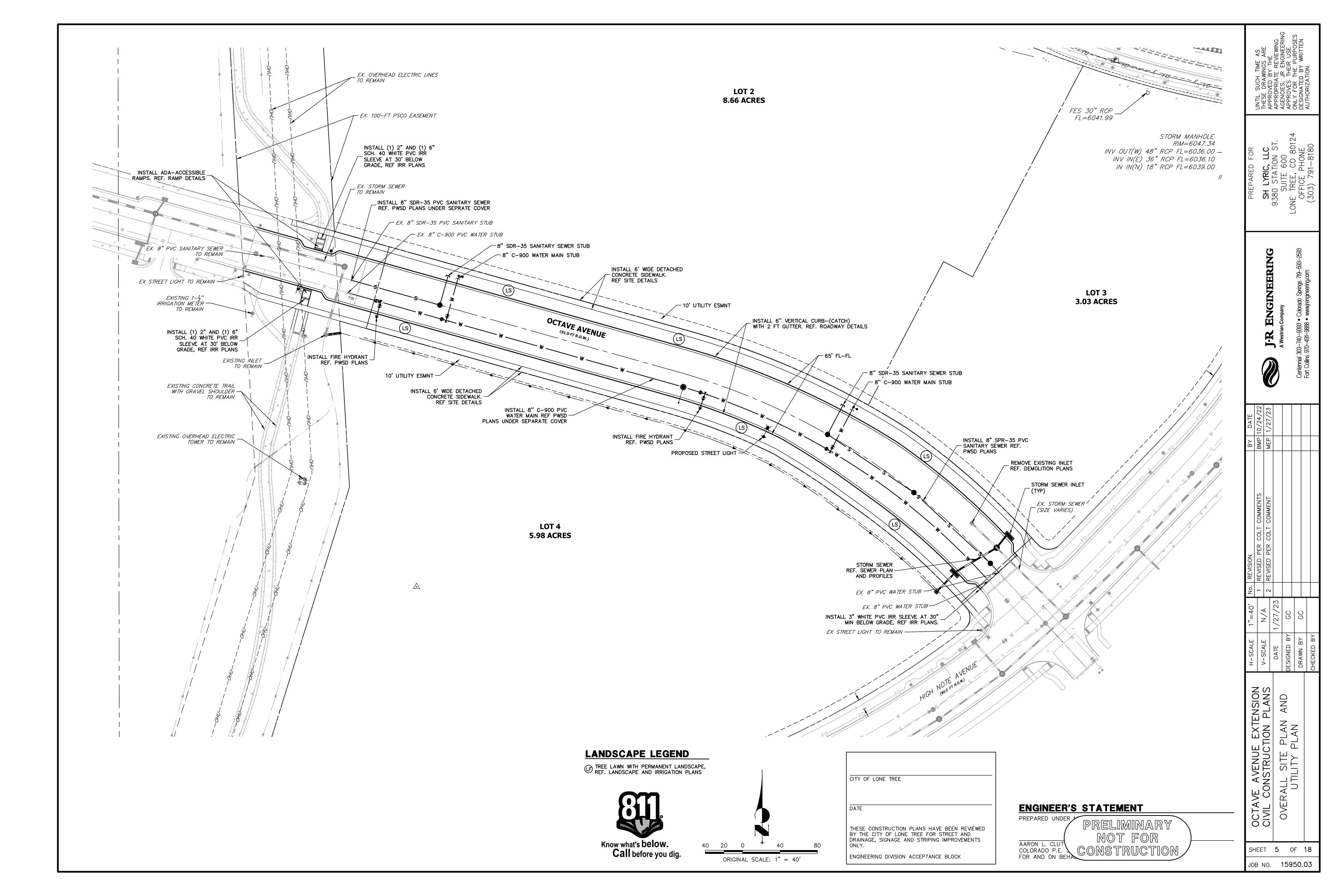
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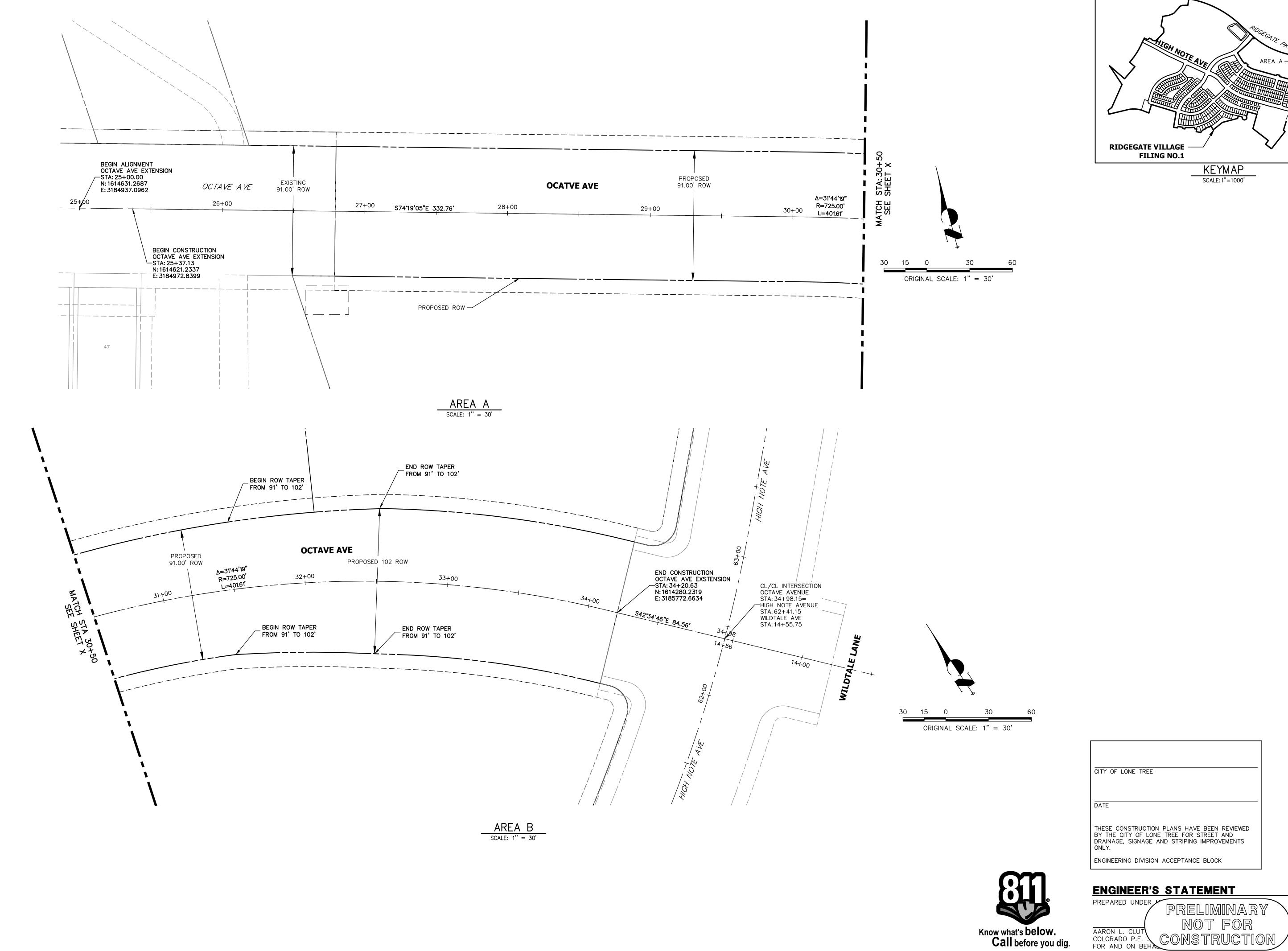
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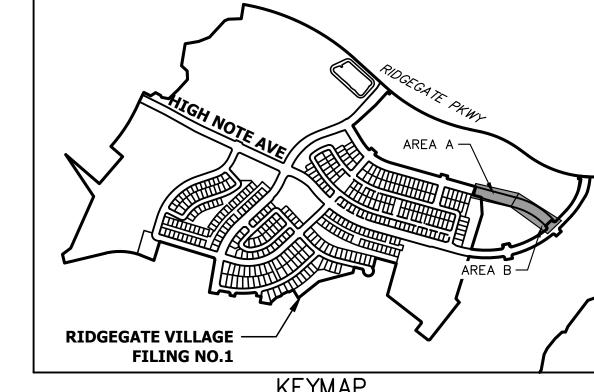
DRAINAGE, SIGNAGE AND STRIPING IMPROVEMENTS

SHEET 4 OF 18 JOB NO. 15950.03

**CAUTION - NOTICE TO CONTRACTOR** THE LOCATIONS OF EXISTING ABOVE GROUND AND UNDERGROUND



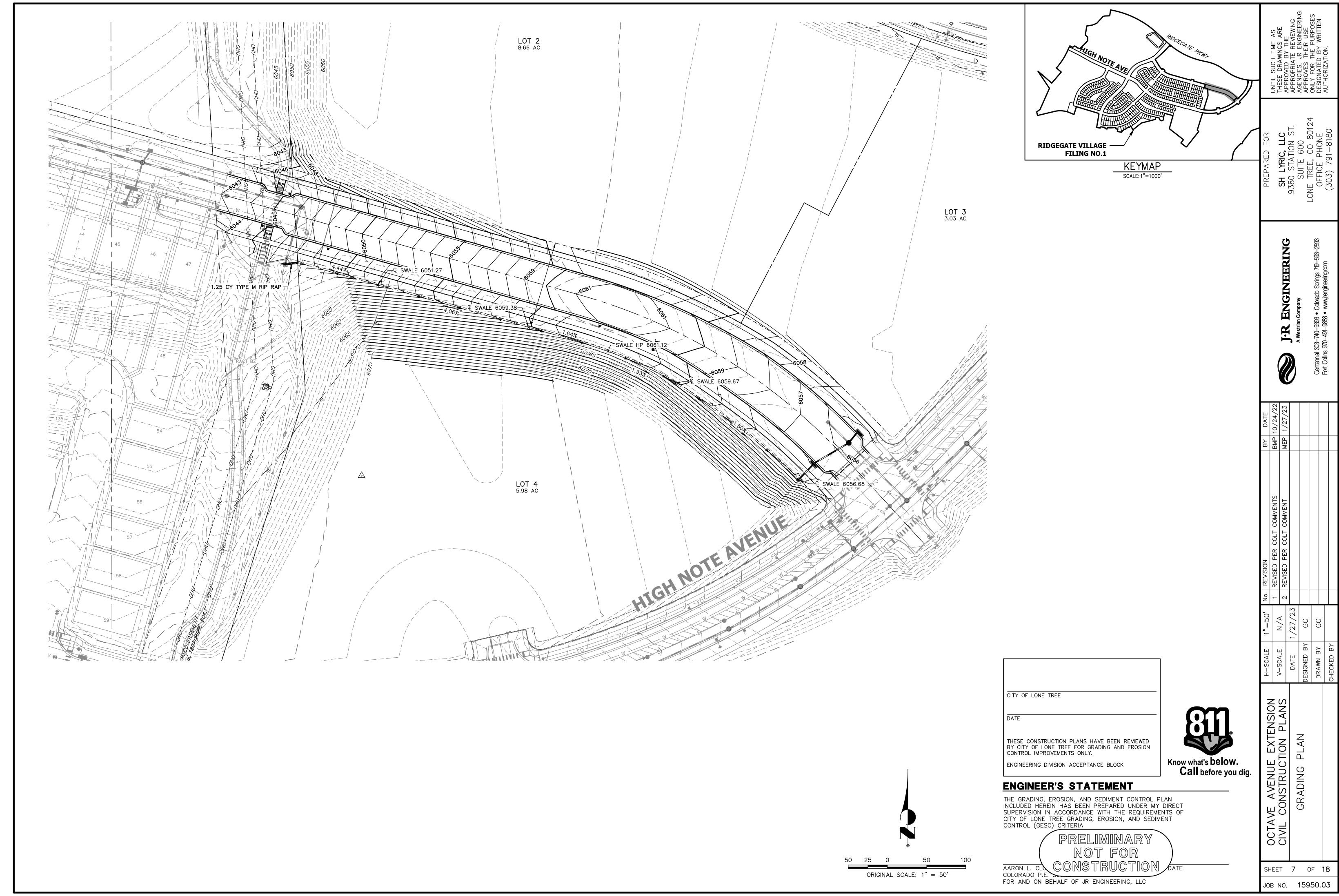


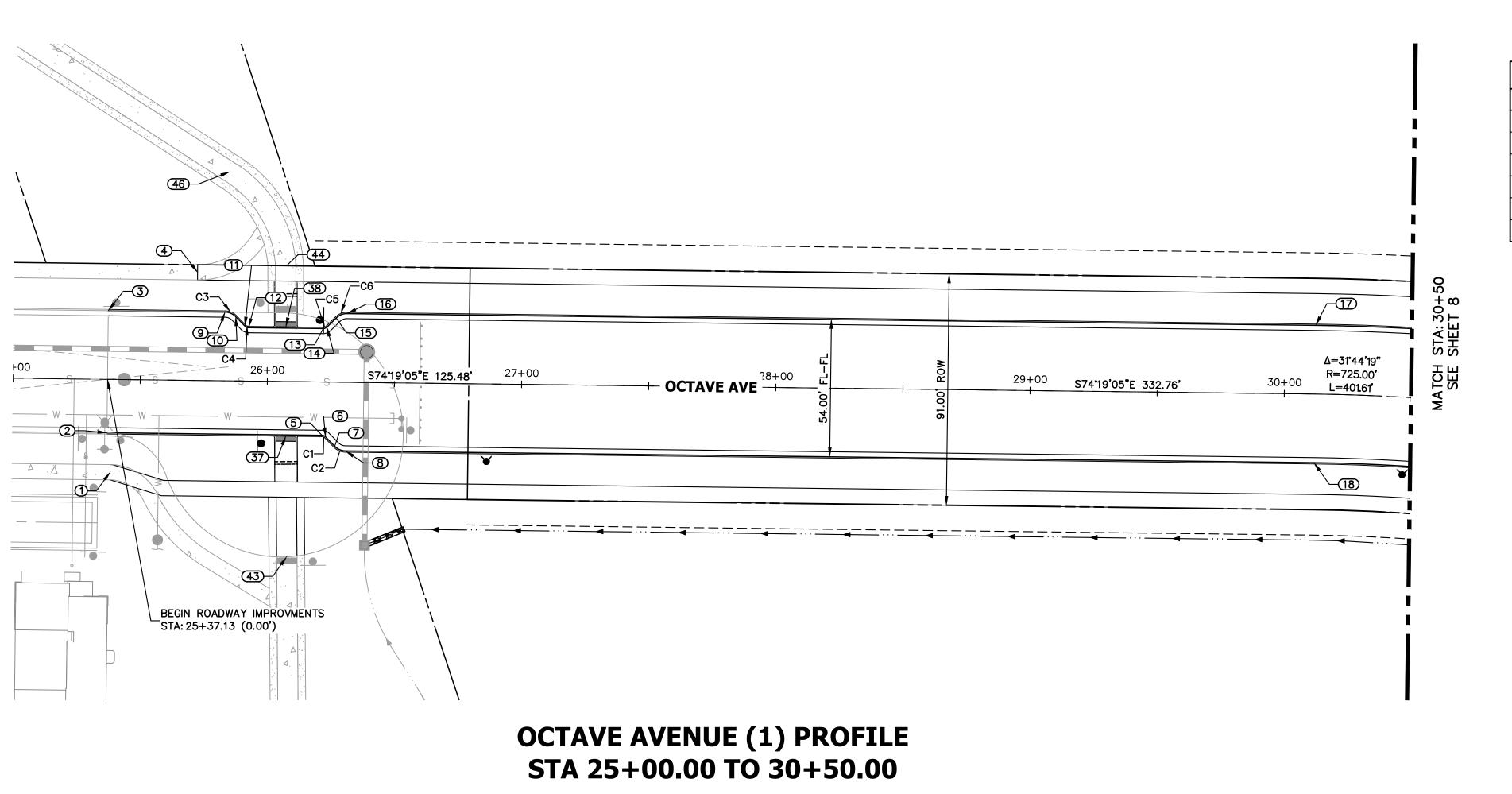


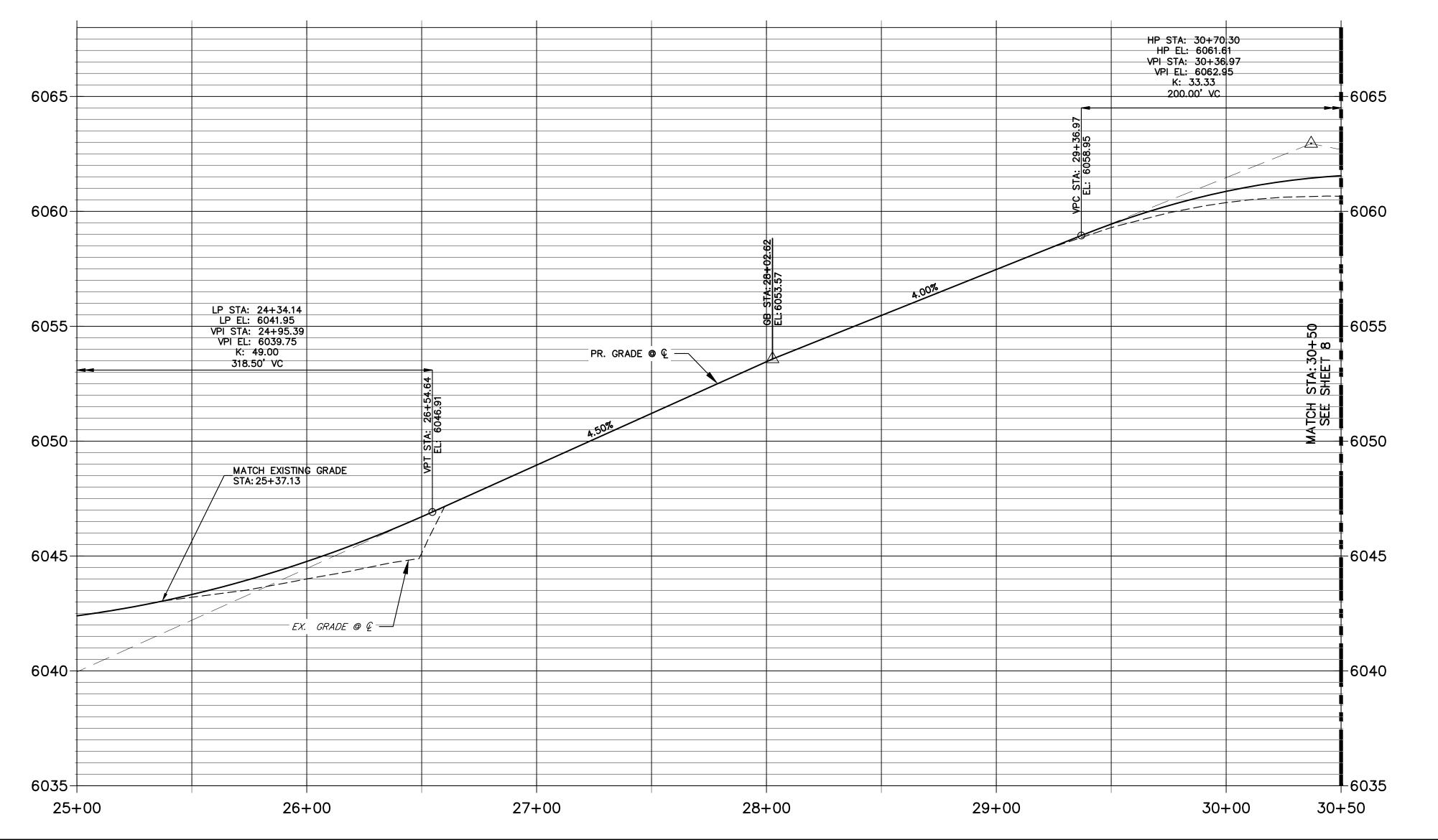
OCTAVE AVENUE EXTENSION CIVIL CONSTRUCTION PLANS HORIZONTAL CONTROL PLAN

SHEET 6 OF 18

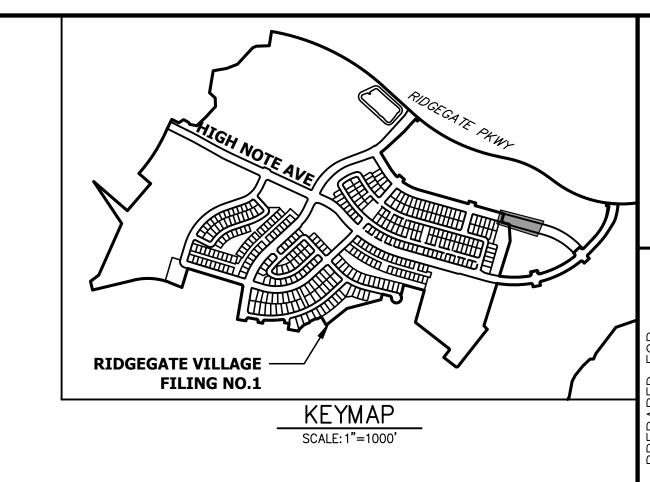
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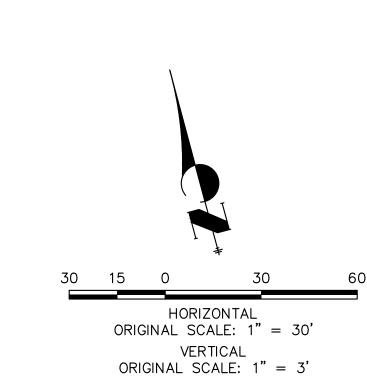




	CURVE	TABLE	
CURVE	DELTA	RADIUS	LENGTH
C1	44°55'53"	1.50'	1.18'
C2	44°55'53"	6.50'	5.10'
C3	45°00'00"	6.50'	5.11'
C4	45°00'00"	1.50'	1.18'
C5	44°55'53"	1.50'	1.18'
C6	44°55'53"	6.50'	5.10'



POINT TABLULATION						
POINT NUMBER	STATION	OFFSET	ALIGNMENT	ELEVATION	NOTES	DESCRIPTION
1	25+38.61	36.50' (RT)	OCTAVE AVENUE (1)	6043.45		MATCH EX SW
2	25+37.13	21.00' (RT)	OCTAVE AVENUE (1)	6042.62		MATCH EX C&G
3	25+37.13	27.00' (LT)	OCTAVE AVENUE (1)	6042.50		MATCH EX C&G
4	25+72.04	42.50' (LT)	OCTAVE AVENUE (1)	6044.16		MATCH EX SW
5	26+21.73	20.98' (RT)	OCTAVE AVENUE (1)	6045.13		PC
6	26+23.14	21.57' (RT)	OCTAVE AVENUE (1)	6045.16		PT
7	26+26.80	25.22' (RT)	OCTAVE AVENUE (1)	6045.27		PC
8	26+31.05	26.97' (RT)	OCTAVE AVENUE (1)	6045.37		PT
9	25+83.03	27.00' (LT)	OCTAVE AVENUE (1)	6043.68		PC
10	25+87.27	25.24' (LT)	OCTAVE AVENUE (1)	6043.84		PT
11	25+90.93	21.59' (LT)	OCTAVE AVENUE (1)	6044.03		PC
12	25+92.34	21.00' (LT)	OCTAVE AVENUE (1)	6044.09		PT
13	26+21.73	20.98' (LT)	OCTAVE AVENUE (1)	6045.13		PC
14	26+23.14	21.57' (LT)	OCTAVE AVENUE (1)	6045.16		PT
15	26+26.80	25.22' (LT)	OCTAVE AVENUE (1)	6045.27		PC
16	26+31.04	26.97' (LT)	OCTAVE AVENUE (1)	6045.37		PT
17	30+11.98	27.00' (LT)	OCTAVE AVENUE (1)	6060.56		PC
18	30+11.98	26.97' (RT)	OCTAVE AVENUE (1)	6060.56		PC
37	26+07.53	21.48' (RT)	OCTAVE AVENUE (1)	6044.69		HC RAMP MID PT
38	26+07.03	21.50' (LT)	OCTAVE AVENUE (1)	6044.61		HC RAMP MID PT
43	26+08.40	68.92' (RT)	OCTAVE AVENUE (1)	0.00		MATCH EX SW
44	26+07.00	45.50' (LT)	OCTAVE AVENUE (1)	6045.45		MATCH EX SW
46	25+84.18	82.16'(LT)	OCTAVE AVENUE (1)	6041.77		MATCH EX SW



Know what's below.

Call before you dig.

CITY	OF LONE TREE
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BY.	SE CONSTRUCTION PLANS HAVE BEEN REVIEWED THE CITY OF LONE TREE FOR STREET AND INAGE, SIGNAGE AND STRIPING IMPROVEMENTS

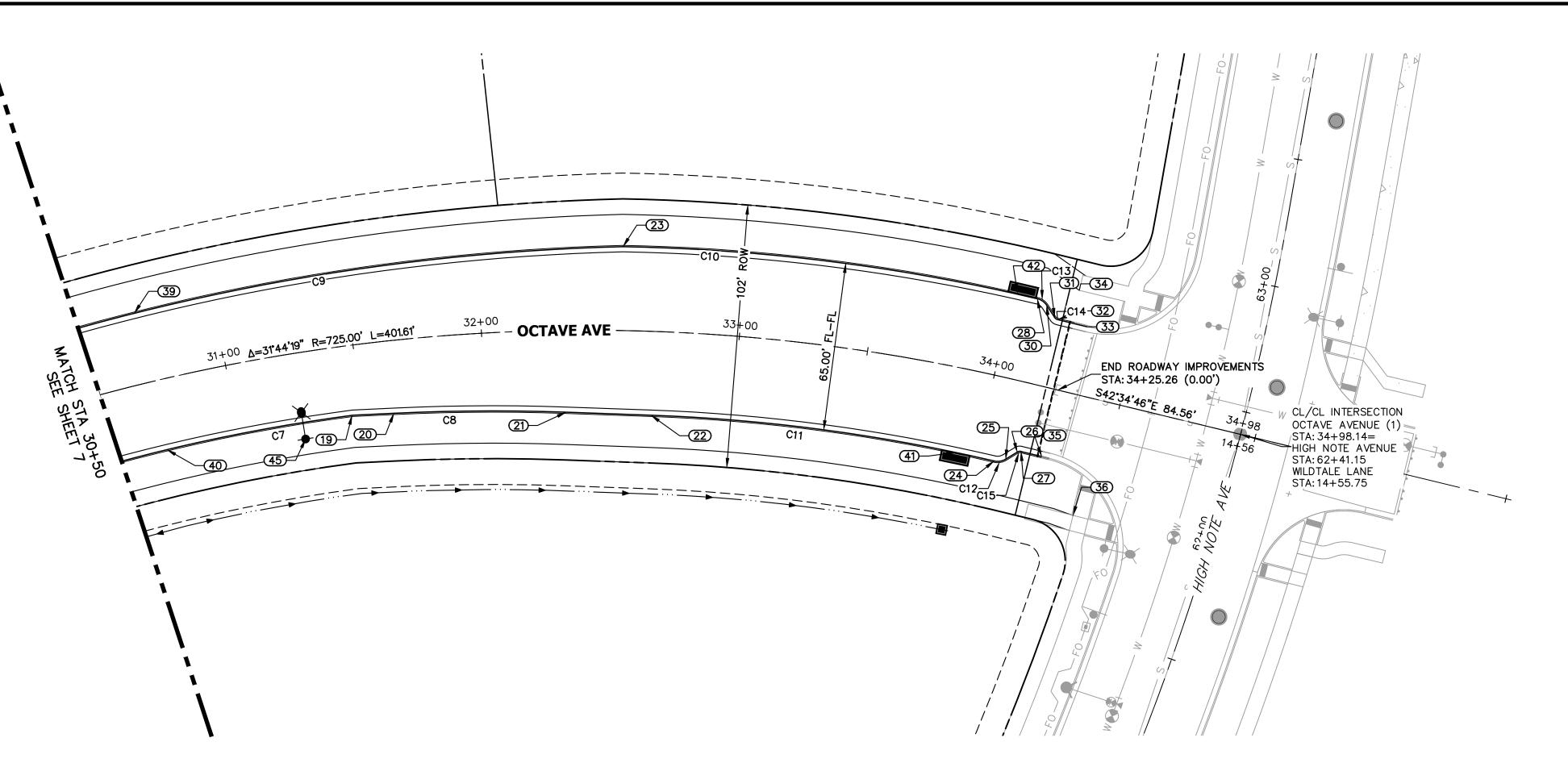
ENGINEERING DIVISION ACCEPTANCE BLOCK

**ENGINEER'S STATEMENT** 

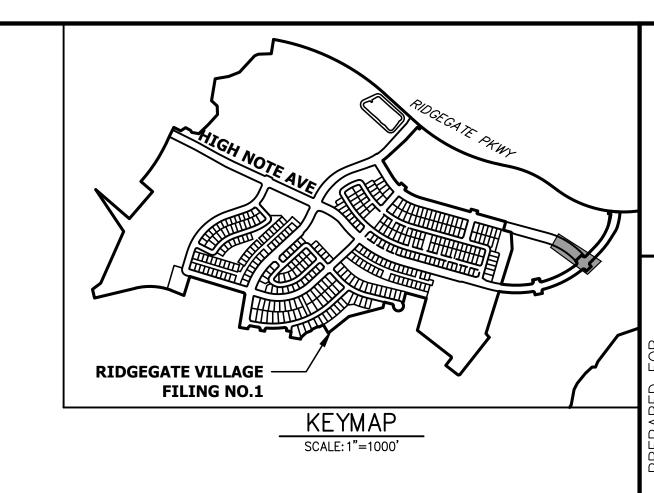
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OCTAVE AVENUE EXTENSION
CIVIL CONSTRUCTION PLANS
ROADWAY PLANS AND
PROFILE SHEET 8 OF 18

JOB NO. 15950.03



	CURVE	TABLE	
CURVE	DELTA	RADIUS	LENGTH
C7	10°37'28"	697.50'	129.34'
C8	4*46'58"	799.50'	66.74
C9	16 <b>°</b> 40'29"	866.50	252.18'
C10	12 <b>°</b> 15'37"	758.00'	162.20'
C11	11 <b>°</b> 06'43"	692.00'	134.21'
C12	44°49'47"	6.50'	5.09'
C13	43°22'39"	6.50'	4.92'
C14	43°02'50"	1.50'	1.13'
C15	45°00'00"	1.50'	1.18'



POINT TABLULATION						
POINT NUMBER	STATION	OFFSET	ALIGNMENT	ELEVATION	NOTES	DESCRIPTION
19	31+46.08	26.97' (RT)	OCTAVE AVENUE (1)	6060.10		PT
20	31+62.91	28.13' (RT)	OCTAVE AVENUE (1)	6059.74		PC
21	32+32.47	31.72' (RT)	OCTAVE AVENUE (1)	6058.28		PT
22	32+66.89	32.50' (RT)	OCTAVE AVENUE (1)	6057.64		PC
23	32+54.28	32.50' (LT)	OCTAVE AVENUE (1)	6057.94		PCC
24	34+07.47	32.50' (RT)	OCTAVE AVENUE (1)	6056.59		PRC
25	34+11.89	30.75' (RT)	OCTAVE AVENUE (1)	6056.72		PT
26	34+15.63	27.09' (RT)	OCTAVE AVENUE (1)	6056.89		PC
27	34+17.04	26.50' (RT)	OCTAVE AVENUE (1)	6056.94		PT
28	34+09.41	32.50' (LT)	OCTAVE AVENUE (1)	6055.06		PCC
30	34+13.36	30.87' (LT)	OCTAVE AVENUE (1)	6055.11		PT
31	34+17.46	27.04' (LT)	OCTAVE AVENUE (1)	6055.17		PC
32	34+18.82	26.50' (LT)	OCTAVE AVENUE (1)	6055.18		PT
33	34+25.26	26.50' (LT)	OCTAVE AVENUE (1)	6055.25		MATCH EX C&G
34	34+24.25	39.50' (LT)	OCTAVE AVENUE (1)	6055.97		MATCH EX SW
35	34+25.26	26.50' (RT)	OCTAVE AVENUE (1)	6057.20		MATCH EX C&G
36	34+42.45	45.84' (RT)	OCTAVE AVENUE (1)	6059.03		MATCH EX SW
39	30+70.30	27.32' (LT)	OCTAVE AVENUE (1)	6060.94		HIGH PT
40	30+70.30	27.00' (RT)	OCTAVE AVENUE (1)	6060.95		HIGH PT
41	33+91.57	32.50' (RT)	OCTAVE AVENUE (1)	6056.42		LOW PT AND INLET
42	34+01.75	33.00' (LT)	OCTAVE AVENUE (1)	6055.53		LOW PT AND INLET
45	31+26.13	33.48' (RT)	OCTAVE AVENUE (1)	0.00		STREET LIGHT

VERTICAL
ORIGINAL SCALE: 1" = 3' CITY OF LONE TREE DATE

Know what's below.

Call before you dig.

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY THE CITY OF LONE TREE FOR STREET AND DRAINAGE, SIGNAGE AND STRIPING IMPROVEMENTS ONLY.

HORIZONTAL ORIGINAL SCALE: 1" = 30'

ENGINEERING DIVISION ACCEPTANCE BLOCK

**ENGINEER'S STATEMENT** 

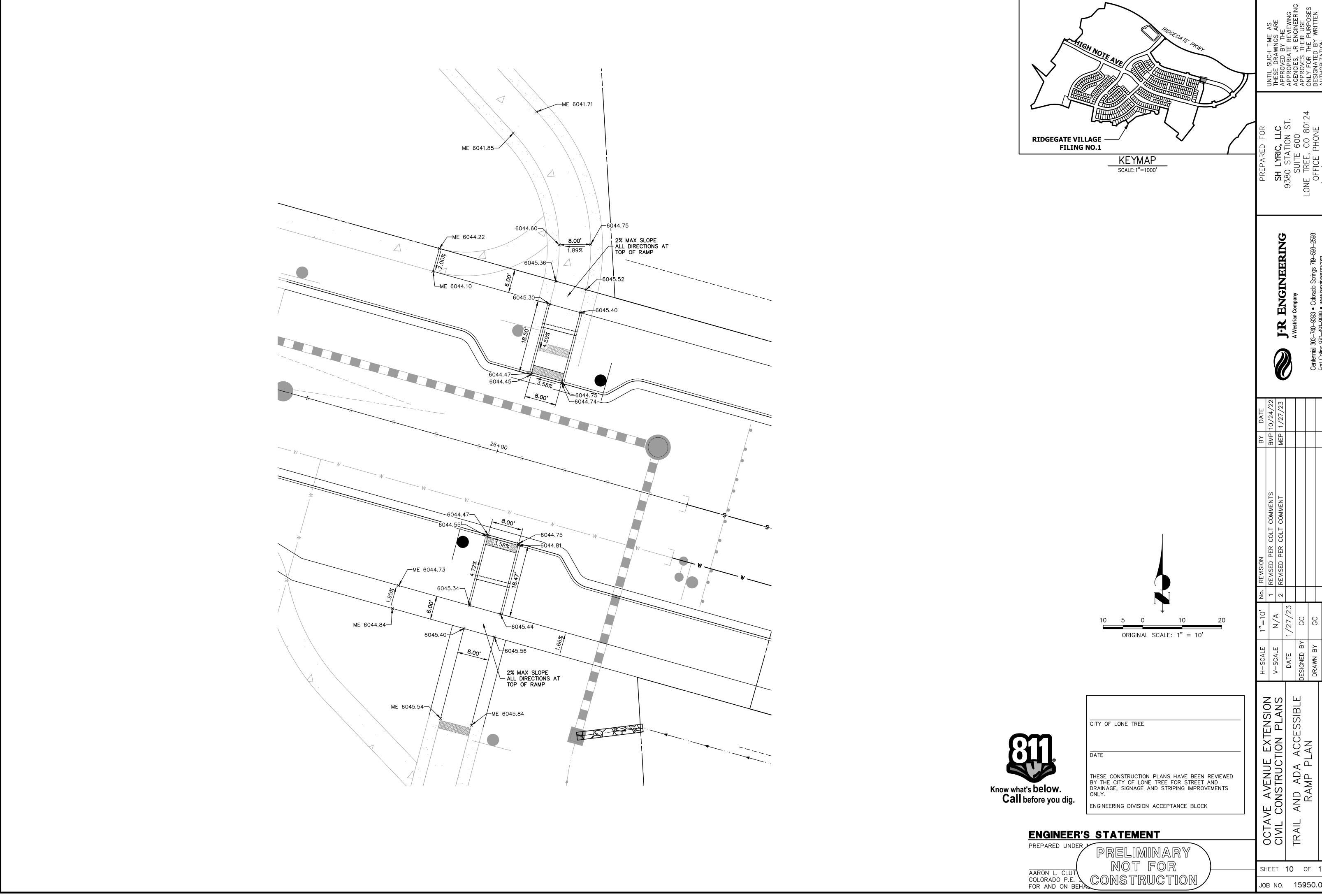
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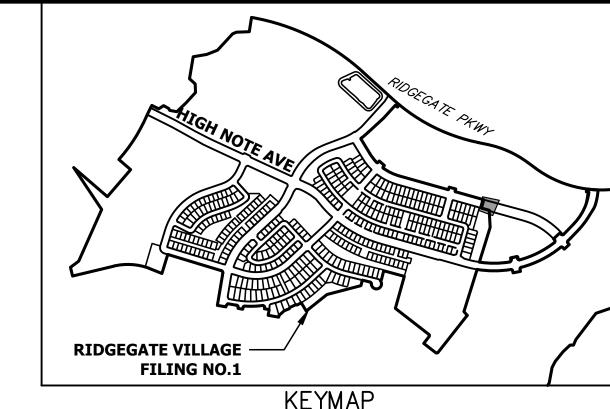
SHEET 9 OF 18 JOB NO. 15950.03

OCTAVE AVENUE EXTENSION
CIVIL CONSTRUCTION PLANS
ROADWAY PLANS AND
PROFILE

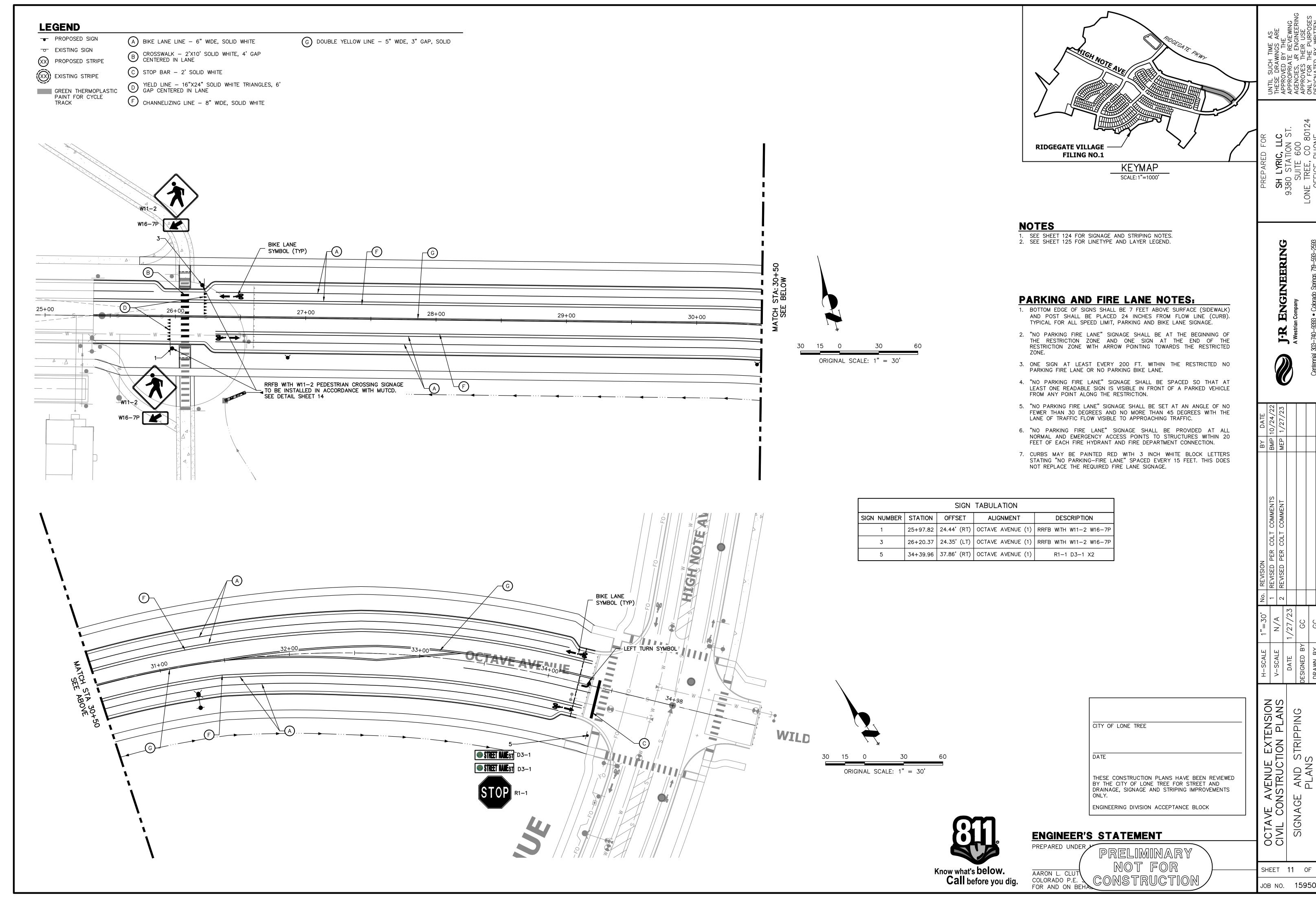
# OCTAVE AVENUE (1) PROFILE (2) STA 30+50.00 TO 34+98.15

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Ī	VPI EL: 6062.95			IP STA.	34+00.00	
ı	K: 33.33			LP EL:	34+00.00 6056.09	
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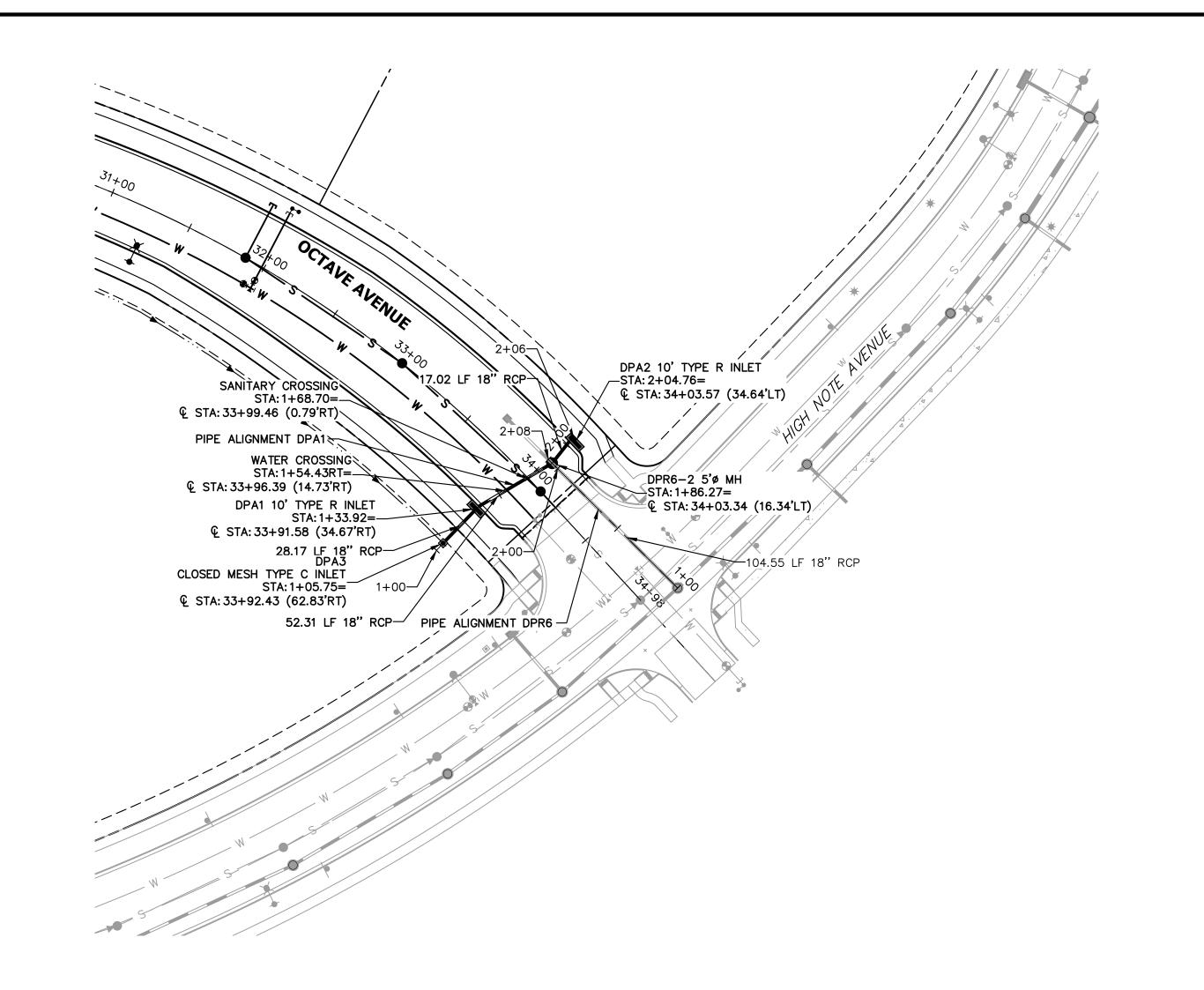


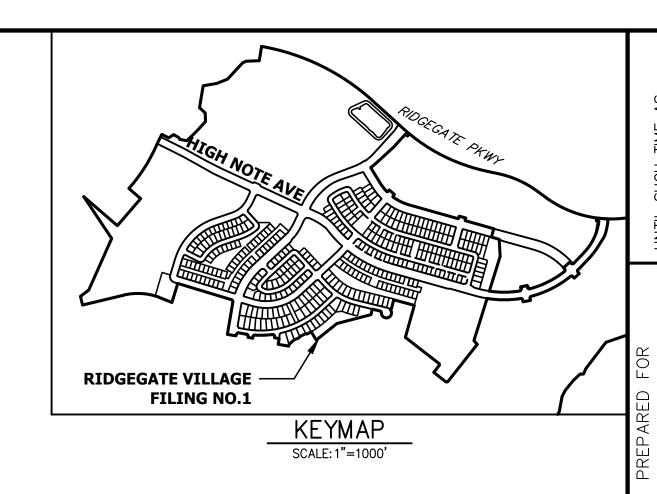


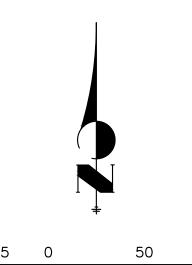
SHEET 10 OF 18 JOB NO. 15950.03



SHEET 11 OF 18 JOB NO. 15950.03







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

Ш	1"=50' No. REVISION	No.	REVISION	ВҮ	BY DA
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SHEET 12 OF 18

JOB NO. 15950.03

**ENGINEER'S STATEMENT** 

ENGINEERING DIVISION ACCEPTANCE BLOCK

PREPARED UNDER AARON L. CLU COLORADO P.E.

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED

DRAINAGE, SIGNAGE AND STRIPING IMPROVEMENTS

BY THE CITY OF LONE TREE FOR STREET AND

**CAUTION - NOTICE TO CONTRACTOR** 

FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT

REQUEST EXACT FIELD LOCATION OF THE UTILITIES. THE CONTRACTOR

SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH

THE LOCATIONS OF EXISTING ABOVE GROUND AND UNDERGROUND

UTILITIES ARE BASED ON THE RECORDS OF THE VARIOUS UTILITY

COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE

OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO

MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND

PRESERVE ANY AND ALL ABOVE GROUND AND UNDERGROUND

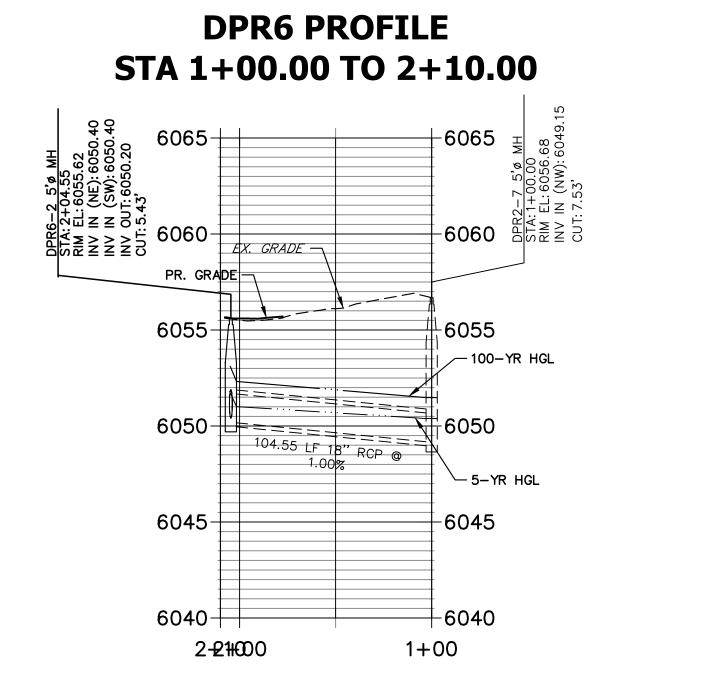
1. SEE COVER SHEET FOR BENCHMARK.

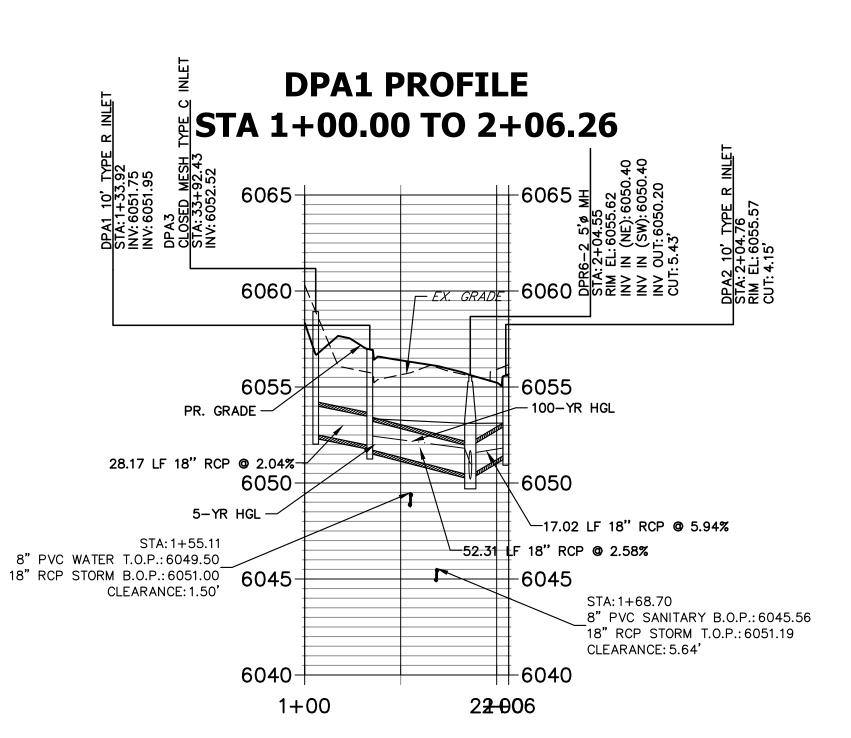
**STORM SEWER NOTES:** 

- 2. ALL STATIONING IS PIPE CENTERLINE UNLESS OTHERWISE NOTED.
- 3. INLET STATIONING IS TO CENTER OF INLET. 4. PIPE LENGTHS ARE FROM INSIDE INLET WALL TO INSIDE INLET WALL, FROM CENTER OF MANHOLE TO INSIDE INLET WALL, OR FROM CENTER OF MANHOLE TO CENTER OF MANHOLE. PIPE LENGTHS INCLUDE FES.
- 5. ALL ON-GRADE INLETS ARE TO MATCH TBC ELEVATIONS AT EACH END, FOLLOWING STREET GRADES. 6. PIPE BEDDING SHALL CONFORM TO THE DOUGLAS COUNTY ROADWAY DESIGN
- AND CONSTRUCTION STANDARDS. 7. ALL INLETS ARE TYPE R INLETS UNLESS OTHERWISE NOTED.
- 8. ALL TYPE R INLET RIM ELEVATIONS REFERENCE TBC ELEVATION AT CENTER OF INLET UNLESS OTHERWISE NOTED. 9. COORDINATES FOR RCP END SECTIONS ARE SHOWN AT THE DOWNSTREAM
- END ALONG CENTERLINE OF PIPE 10. UNLESS OTHERWISE SHOWN, RCP SHALL BE BACKFILLED ACCORDING TO THE
- STANDARD TRENCH SECTION SHOWN ON THE STORM SEWER DETAILS. 11. LENGTHS SHOWN FOR RCP REPRESENT HORIZONTAL LENGTHS AND NOT FOR
- LENGTHS ALONG THE PIPE SLOPE. 12. ALL RCP STORM SEWER MUST USE ASTM C44S WATERTIGHT GASKETS PER THE CURRENT DOUGLAS COUNTY AND URBAN DRAINAGE DESIGN CRITERIA.
- 13. ALL RCP SHALL BE CLASS III STORM SEWER PIPE UNLESS OTHERWISE
- 14. JOINT RESTRAINTS ARE REQUIRED FOR A MINIMUM OF THE LAST TWO PIPE
- JOINTS AND FLARED END SECITONS OF AN RCP OUTFALL. 15. PRECAST INLETS AND MANHOLE BASES ARE NOT ALLOWED.
- 16. TOE WALLS ARE REQUIRED ON FLARED END SECTIONS AT THE OUTLET END OF CULVERTS AND STORM SEWER OUTFALLS. FILTER FABRIC IS REQUIRED UNDER ALL RIPRAP PADS.
- 17. TWO MANHOLE ACCESS POINTS ARE REQUIRED ON ALL TYPE R CURB INLETS GREATER THAN OR EQUAL TO TEN FEET IN LENGTH.

#### **DRAINAGE STRUCTURE NOTES**

- 1. CONCRETE WORK SHALL CONFORM TO ACI 301, ACI 350.
- 2. ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM-615, GRADE
- 3. ALL EXPOSED CONCRETE SHALL HAVE A CDOT CLASS 2 OR 5 FINISH.
- 4. ALL EXPOSED CONCRETE CORNERS SHALL HAVE 3/4" CHAMFERS.
- 5. DETAILING, FABRICATION, AND PLACING OF REBAR SHALL BE IN ACCORDANCE WITH ACI
- 6. CONSTRUCTION TOLERANCES SHALL BE IN ACCORDANCE WITH ACI 347.
- 7. ALL MANHOLES SHALL BE SLAB BASE UNLESS SPECIFIED OTHERWISE. MANHOLE SHALL BE FABRICATED IN ACCORDANCE WITH CDOT STANDARD M-604-20.
- 8. COORDINATES FOR MANHOLES AND AREA INLETS ARE SHOWN AT THE CENTER OF THE STRUCTURE. COORDINATES FOR MOUNTABLE CURB INLETS ARE SHOWN ALONG THE FLOWLINE AT CENTER OF THE STRUCTURE.
- 9. ALL TYPE C AND D INLETS SHALL HAVE CLOSE MESH GRATES UNLESS SPECIFIED OTHERWISE.
- 10. LENGTH OF FABRICATED BAR GRATING PANELS IS LENGTH OF BEARING BARS, WIDTH REFERS TO DIMENSION PERPENDICULAR TO BEARING BARS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PANEL DIMENSIONS GIVEN PRIOR TO FABRICATION.
- 11. TWO MANHOLE ACCESS POINTS ARE REQUIRED ON ALL TYPE R CURB INLETS GREATER THAN OR EQUAL TO TEN FEET IN LENGTH.
- 12. EPOXY COATED REBAR IS REQUIRED ON ALL DRAINAGE STRUCTURES.
- 13. THE CITY OF LONE TREE REQUIRES CLASS D CONCRETE FOR ALL DRAINAGE STRUCTURES.
- 14. ALL RCP STORM SEWERS MUST USE ASTM C443 WATERTIGHT GASKETS PER THE CURRENT DOUGLAS COUNTY AND URBAN DRAINAGE DESIGN CRITERIA.
- 15. ALL RCP SHALL BE CLASS III STORM SEWER PIPE UNLESS OTHERWISE SPECIFIED.
- 16. JOINT RESTRAINTS ARE REQUIRED FOR A MINIMUM OF THE LAST TWO PIPE JOINTS AND FLARED END SECTIONS OF AN RCP OUTFALL.
- 17. PRECAST INLETS AND MANHOLE BASES ARE NOT ALLOWED.
- 18. TOE WALLS ARE REQUIRED ON FLARED END SECTIONS AT THE OUTLET END OF CULVERTS AND STORM SEWER OUTFALLS. FILTER FABRIC IS REQUIRED UNDER ALL





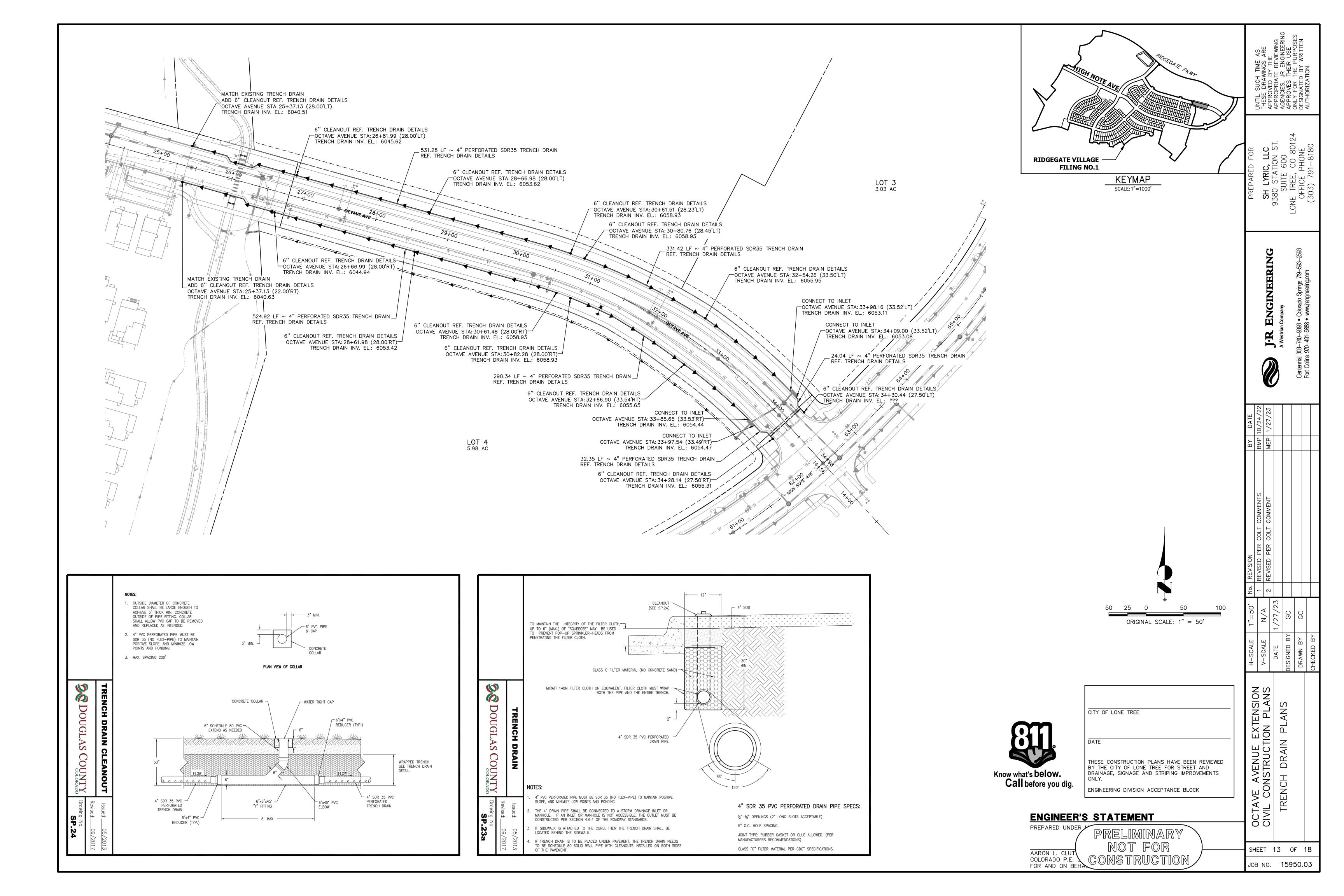
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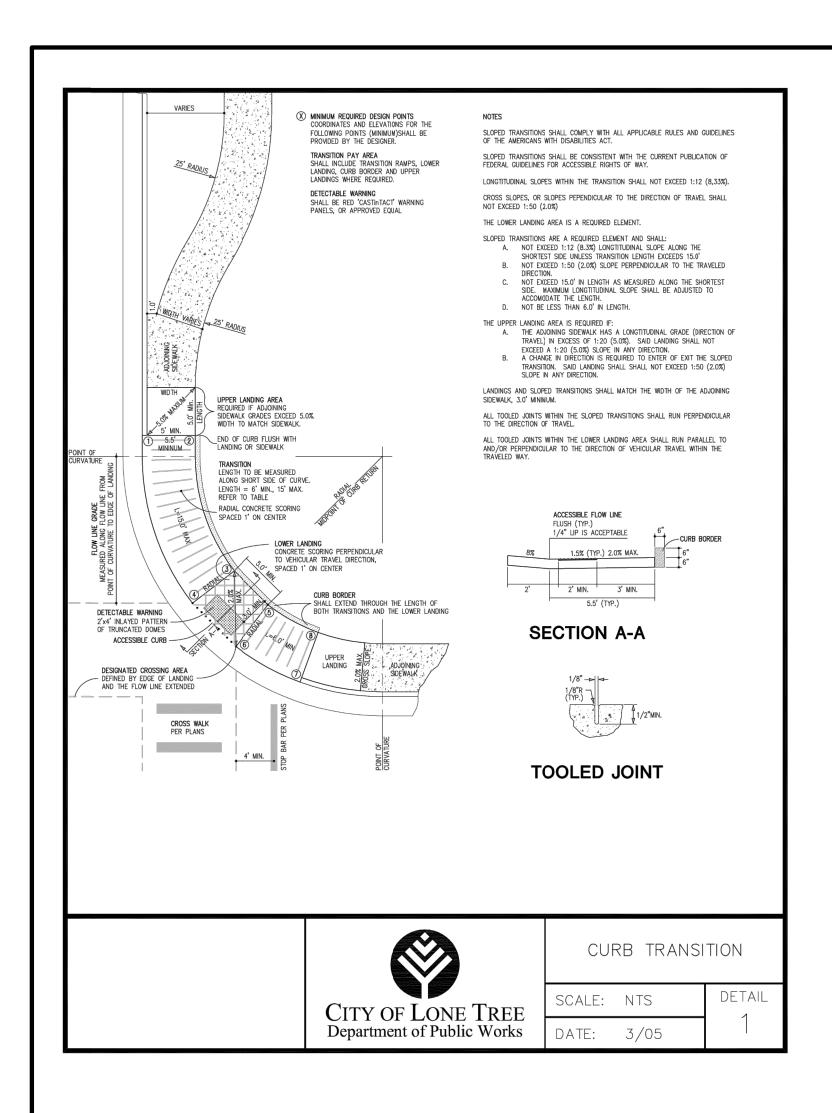
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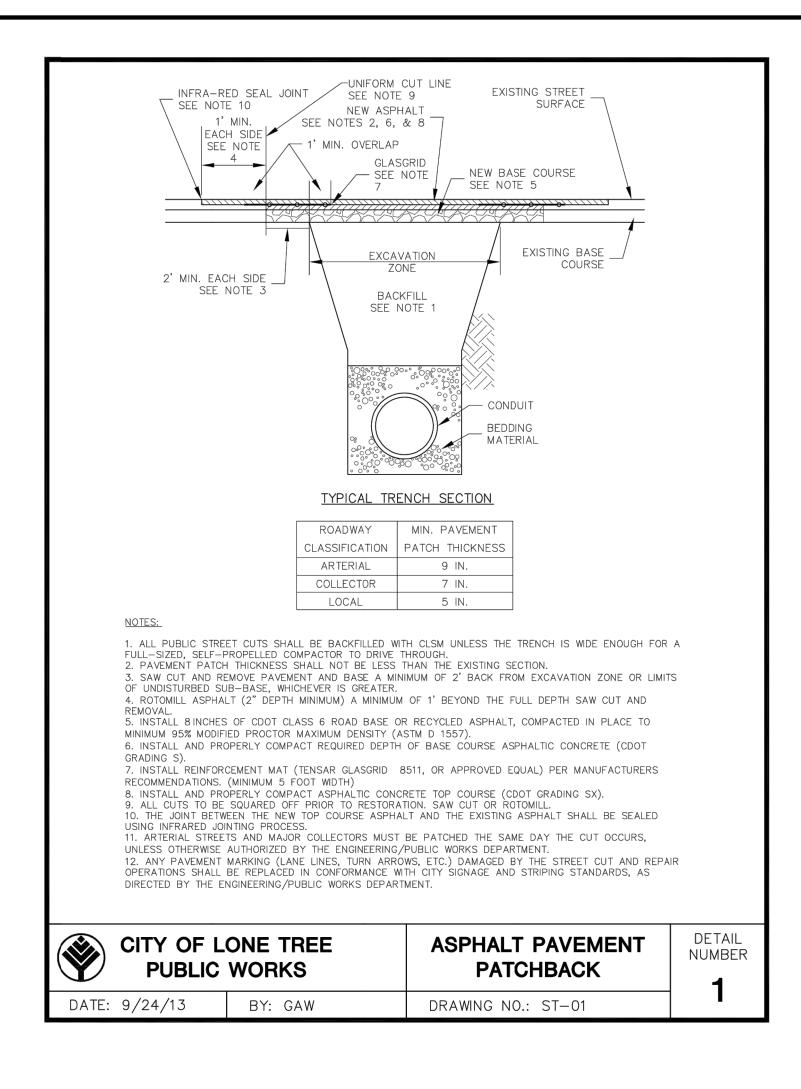
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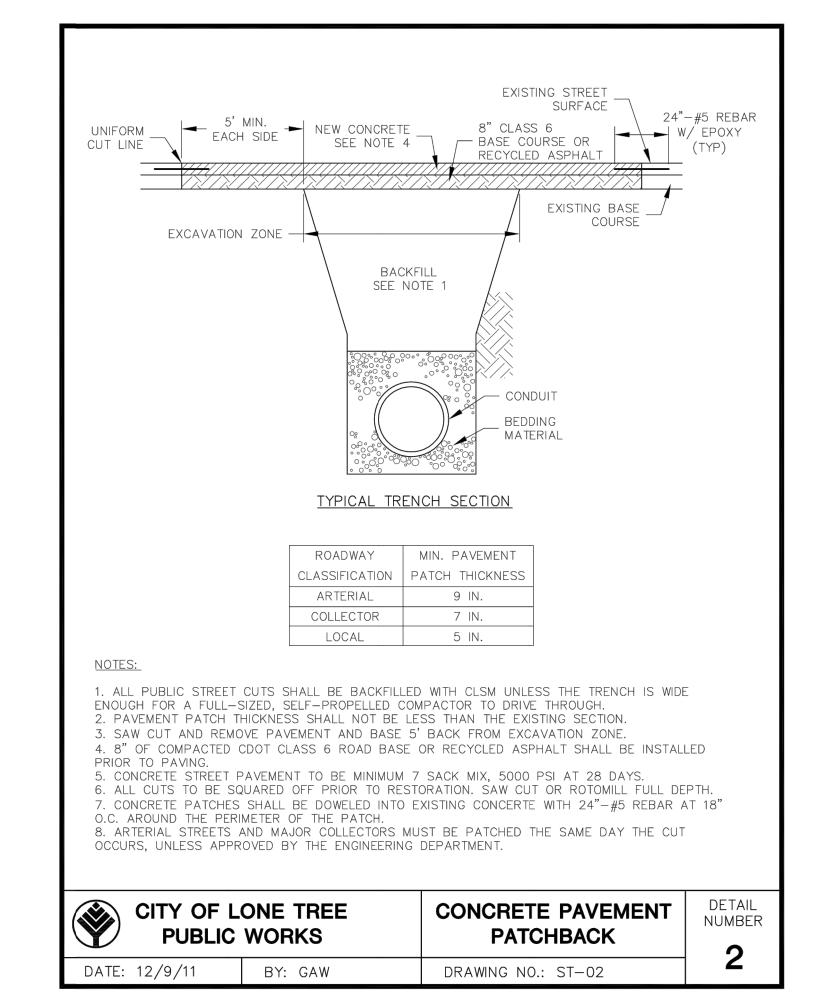
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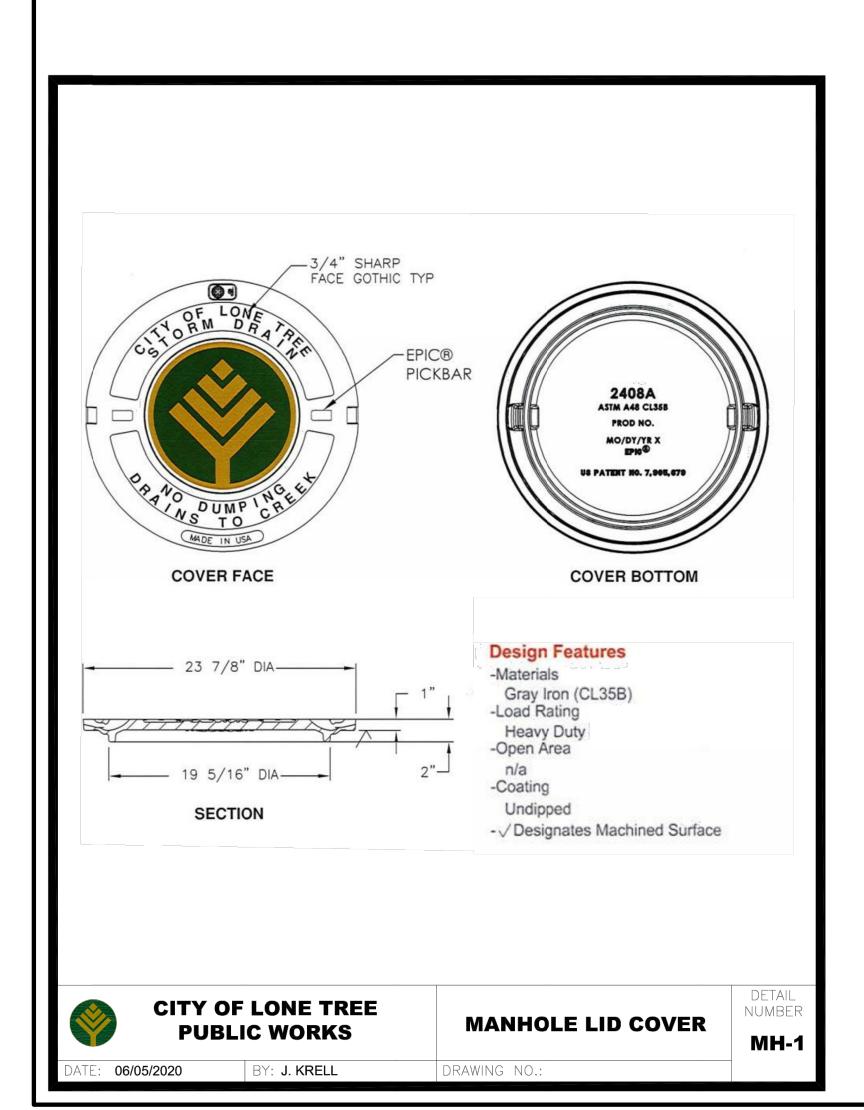
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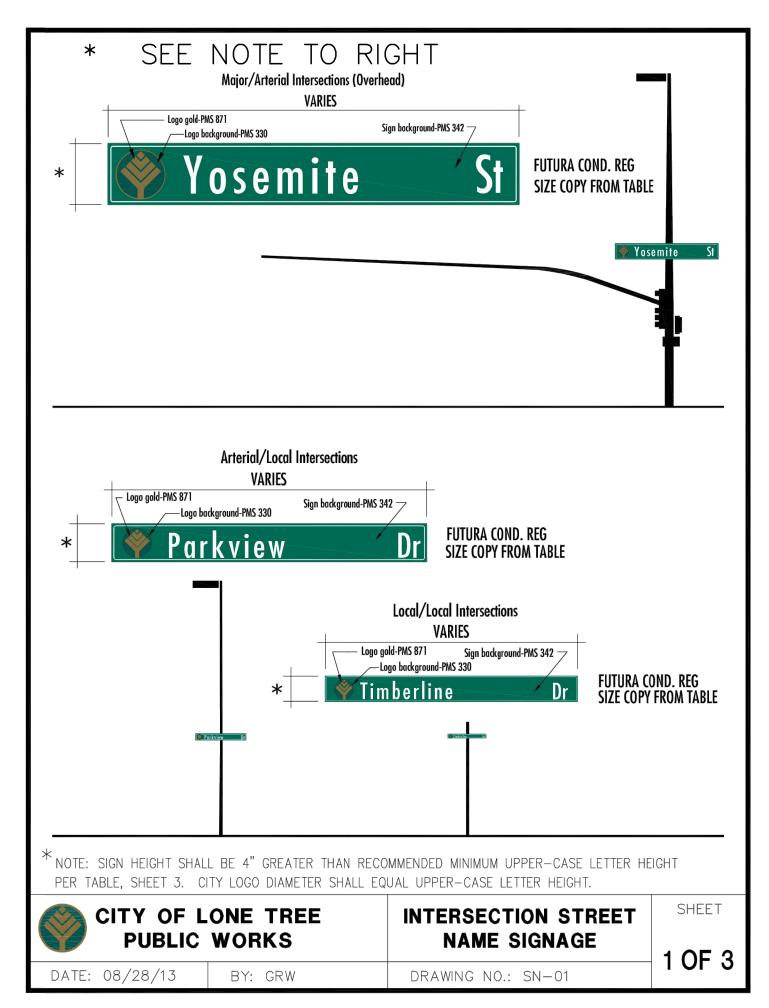












# INTERSECTION STREET NAME SIGNAGE NOTES

- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT VERSION OF THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE "COLORADO SUPPLEMENTAL MUTCD" AND THE DOUGLAS COUNTY "ROAD AND CONSTRUCTION STANDARDS MANUAL". FURTHER SPECIFICATIONS AND ILLUSTRATIONS ARE LOCATED IN THE COLORADO DIVISION OF HIGHWAYS "M AND S STANDARDS".
- 2. DELINEATION OF ROADWAYS SHALL BE AS SPECIFIED IN THE COLORADO "M AND S MANUAL".
- STREET NAME SIGNS SHALL BE MOUNTED SO THAT THEY CAN BE SEEN FROM ALL DIRECTIONS OF TRAVEL.
- INSTALLATION OF SIGNS SHALL CONFORM TO THE MUTCD MOUNTING HEIGHT REQUIREMENTS, INCLUDING A 7-FOOT MINIMUM HEIGHT FROM THE BOTTOM OF THE LOWEST SIGN PANEL TO THE TOP GRADE OF SIDEWALK.
- ALL NEWLY INSTALLED TRAFFIC SIGNS SHALL MEET THE MINIMUM RETRO-REFLECTIVITY AND ILLUMINATION STANDARDS AS SET FORTH BY THE MUTCD (LATEST EDITION). THESE MINIMUM REQUIREMENTS SHALL FALL UNDER THE REQUIREMENTS OF THE TWO (2) YEAR WARRANTY PERIOD FOR NEW CONSTRUCTION.
- 6. NON ILLUMINATED SIGNS SHALL BE USED AT MAJOR/MAJOR AND MAJOR/ARTERIAL INTERSECTIONS. THEY SHALL BE MOUNTED TO THE SIGNAL POLE WITH ASTRO-BRACS ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- 7. THE CONTRACTOR INSTALLING SIGNS IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES. LONE TREE PUBLIC WORKS SHALL BE CONTACTED A MINIMUM OF 72 HOURS PRIOR TO INSTALLATION AT 303-662-8112.
- 8. FOLLOWING INSTALLATION, THE CONTRACTOR SHALL NOTIFY THE CITY OF LONE TREE PUBLIC WORKS DEPARTMENT, 303-662-8112. A FIELD INSPECTION OF LOCATION AND INSTALLATION OF ALL SIGNS SHALL BE PERFORMED BY PUBLIC WORKS. ALL DISCREPANCIES IDENTIFIED DURING THE FIELD INSPECTION MUST BE CORRECTED BEFORE THE TWO-YEAR WARRANTY PERIOD WILL BEGIN.
- SIGNAGE AND STRIPING HAS BEEN DETERMINED BY INFORMATION AVAILABLE AT THE TIME OF REVIEW. PRIOR TO INITIATION OF THE WARRANTY PERIOD, LONE TREE RESERVES THE RIGHT TO REQUIRE MODIFICATIONS TO EXISTING OR INSTALLATION OF ADDITIONAL SIGNAGE AND/OR STRIPING IF THEY DETERMINE THAT AN UNFORESEEN CONDITION WARRANTS SUCH MODIFICATION ACCORDING TO THE MUTCO OR THE CDOT M AND S STANDARDS. ALL SIGNAGE AND STRIPING SHALL FALL UNDER THE REQUIREMENTS OF THE TWO (2) YEAR WARRANTY PERIOD FOR NEW CONSTRUCTION.
- 10. ANY INTERSECTION STREET NAME SIGNAGE REMOVED SHALL BE RETURNED TO THE

CITY OF LONE TREE.

CITY OF L PUBLIC	ONE TREE WORKS	INTERSECTION STREET NAME SIGNAGE	SHEET
DATE: 04/19/12	BY: GRW	DRAWING NO.: SN-02	2 UF 3

\*NOTE TO CONTRACTOR: Colt LOGO ON ALL STREET SIGNS IS NO LONGER GOLD BUT WHITE.



CITY OF LONE TREE THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY THE CITY OF LONE TREE FOR STREET AND DRAINAGE, SIGNAGE AND STRIPING IMPROVEMENTS ENGINEERING DIVISION ACCEPTANCE BLOCK

## **ENGINEER'S STATEMENT**

AARON L. CLU COLORADO P.E. FOR AND ON BEH

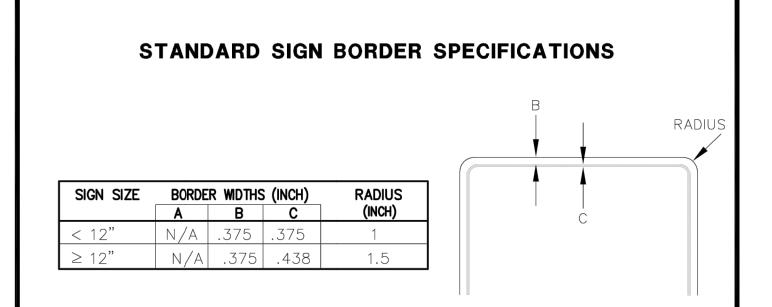
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SHEET 14 OF 18 JOB NO. 15950.03



#### MINIMUM LETTER HEIGHTS ON STREET NAME SIGNS

(MUTCD 2009 EDITION-TABLE 2D-2)

TYPE OF MOUNTING	TYPE OF STREET OR HIGHWAY	SPEED LIMIT	RECOMMENDED LETTER H	
			INITIAL UPPER-CASE	LOWER-CASE
OVERHEAD	ALL TYPES	ALL SPEED LIMITS	12 INCHES	9 INCHES
POST-MOUNTED	MULTI-LANE	MORE THAN 40 MPH	8 INCHES	6 INCHES
POST-MOUNTED	MULTI-LANE	40 MPH OR LESS	6 INCHES	4.5INCHES
POST-MOUNTED	2-LANE	ALL SPEED LIMITS	6 INCHES*	4.5 INCHES*

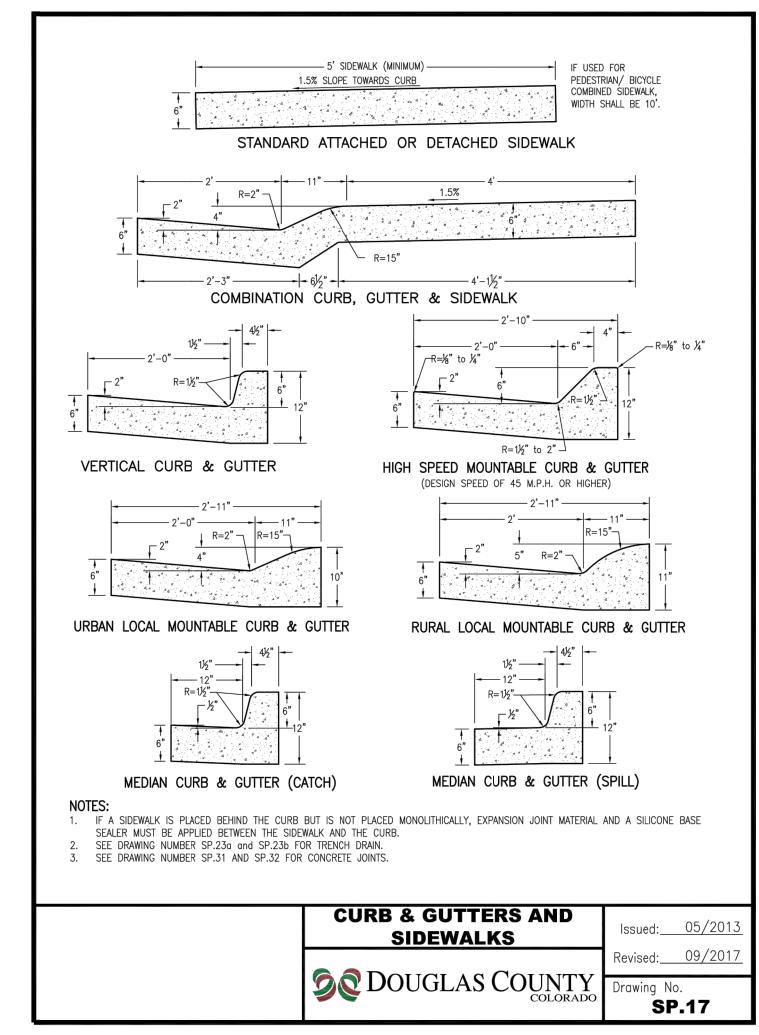
\*ON LOCAL 2-LANE STREETS W/SPEED LIMITS OF 25 MPH OR LESS, 4" INITIAL UPPER-CASE LETTERS WITH 3" LOWER CASE LETTERS MAY BE USED.

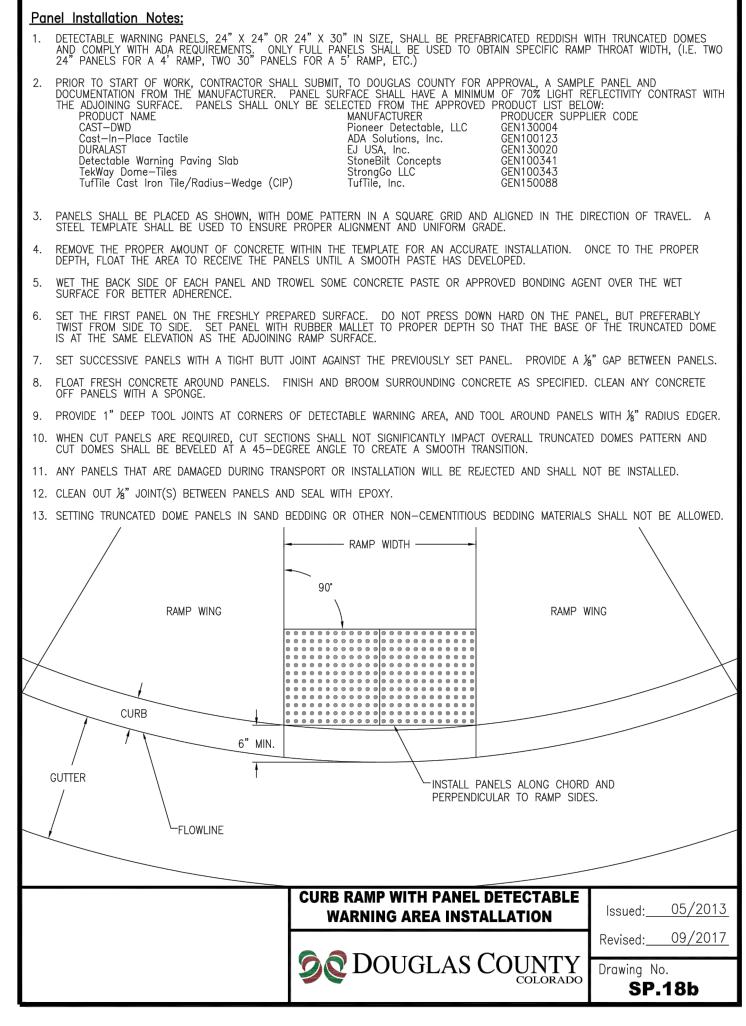
\*\* SUPPLEMENTARY LETTERING (E.G. ST., DR., LN., & NUMBERING) SHALL BE A MINIMUM OF  $\frac{1}{2}$  THE APPLICABLE RECOMMENDED MINIMUM LETTER HEIGHT PER ABOVE TABLE

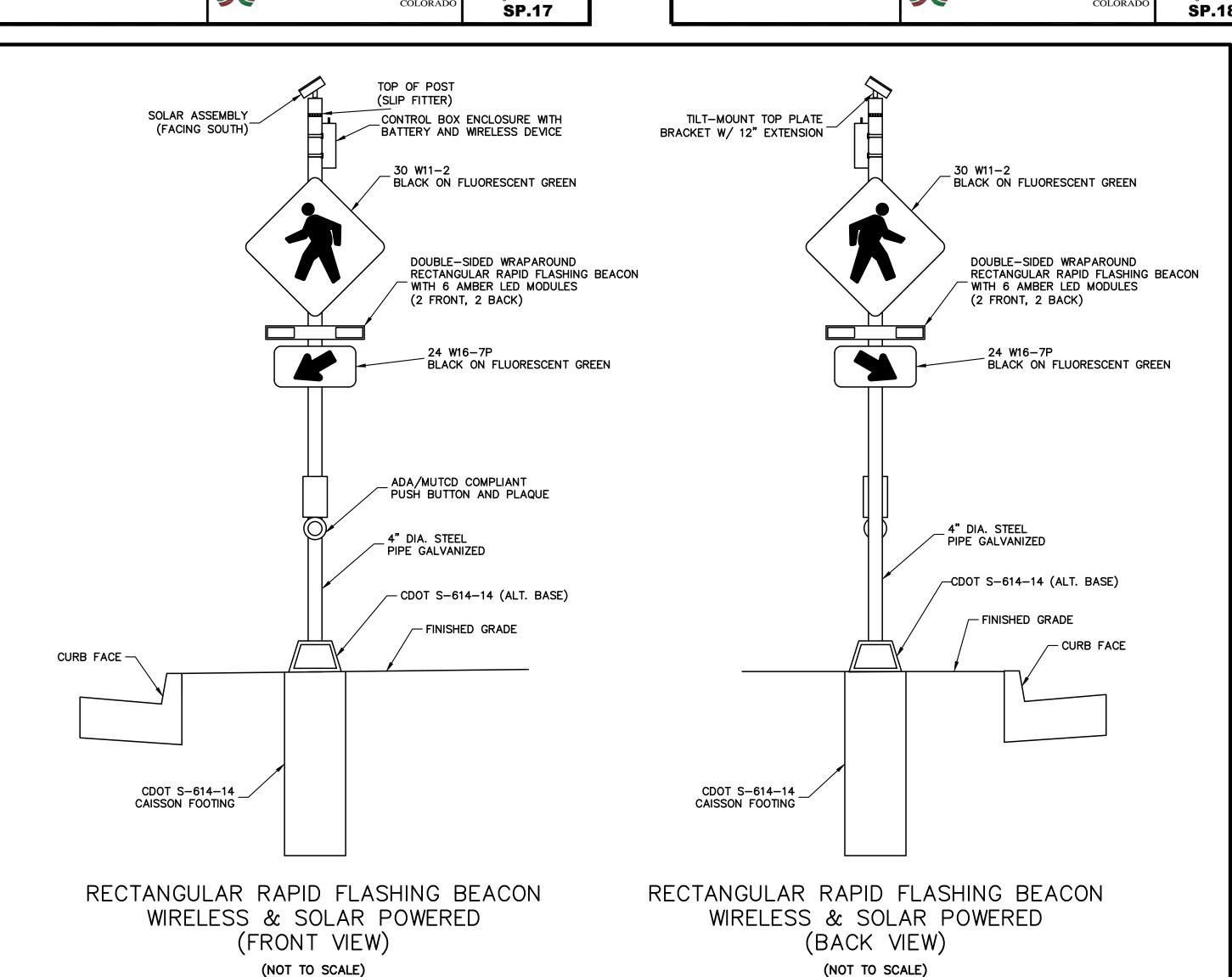
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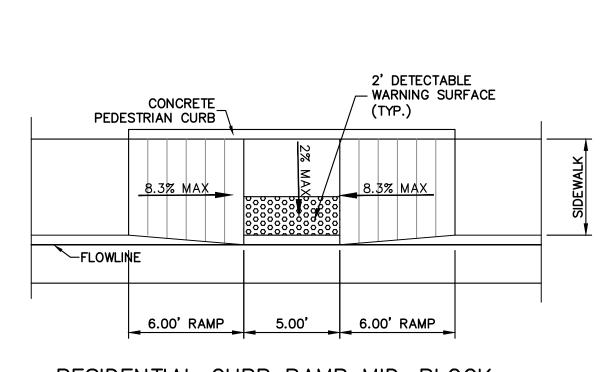
CITY OF L	ONE TREE	INTERSECTION STREET	SHEET
PUBLIC	WORKS	NAME SIGNAGE	3 OF 3
DATE: 04/19/12	BY: GRW	DRAWING NO.: SN-03	3 OF 3

DETECTABLE WARNING PAVERS SHALL BE PREFABRICATED REDDISH INTEGRALLY COLORED TRUNCATED DOMES SURFACED CONCRETE OR MASONRY PAVERS. PAVERS SHALL MEET THE REQUIREMENTS OF ASTM C 902 OR ASTM C 936 AND COMPLY









RESIDENTIAL CURB RAMP MID-BLOCK (ATTACHED WALK)



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CITY OF LONE TREE	7
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DATE	L
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DRAINAGE, SIGNAGE AND STRIPING IMPROVEMENTS ONLY.	
ENGINEERING DIVISION ACCEPTANCE BLOCK	

#### **ENGINEER'S STATEMENT**

PRELIMINARY

AARON L. CLUT
COLORADO P.E. CONSTRUCTION
FOR AND ON BEHA

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APPROPRIATE RE
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DESIGNATED BY
AUTHORIZATION.

SH LYRIC, LLC 9380 STATION ST. SUITE 600 ONE TREE, CO 8012 OFFICE PHONE

> ian Company 3393 • Colorado Springs 719—593—2593 9888 • wwwirencineering com

> A Westrian Com
> Centennial 303–740–9393 • C

AVENUE EXTENSION

N-SCALE

N/A

V-SCALE

N/A

DATE

1 REVISED PER COLT COMMENTS

2 REVISED PER COLT COMMENTS

2 REVISED PER COLT COMMENT

DATE

1/27/23

DESIGNED BY

CHECKED BY

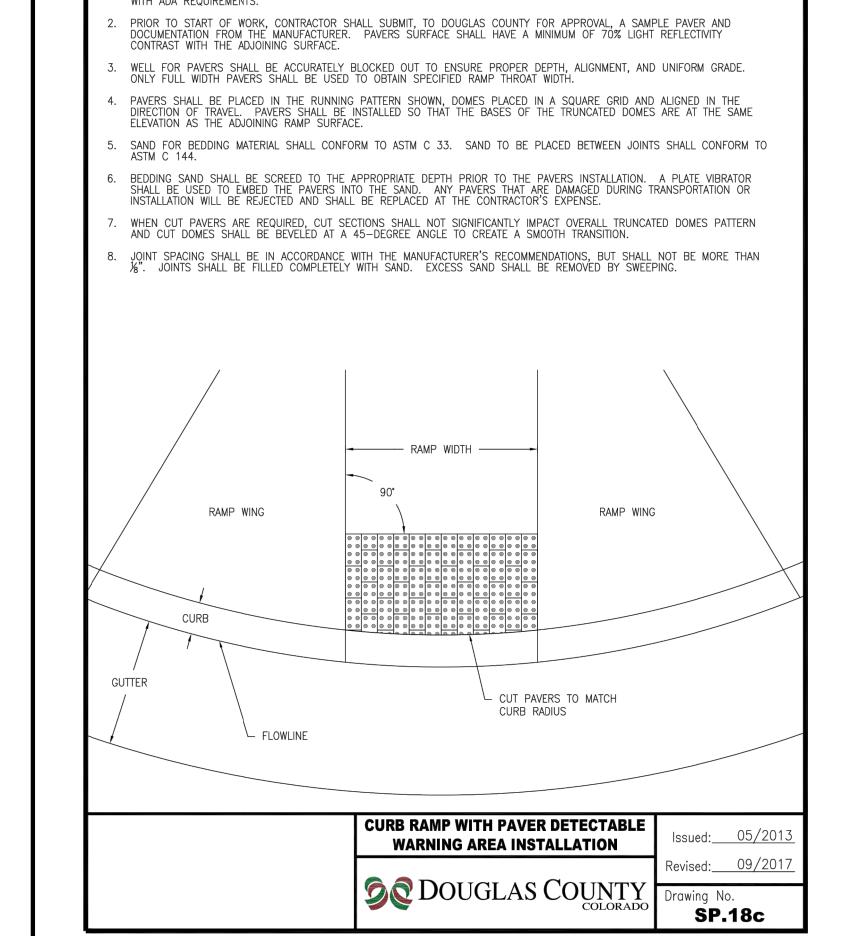
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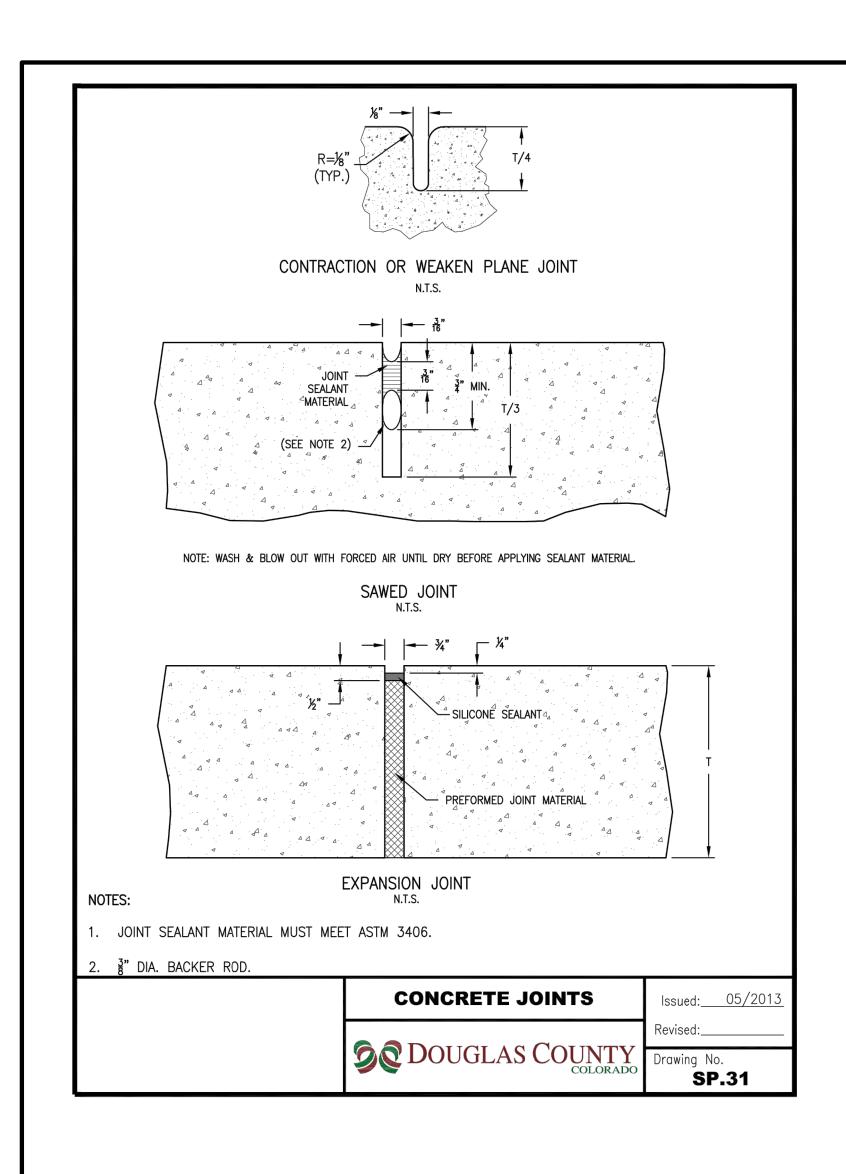
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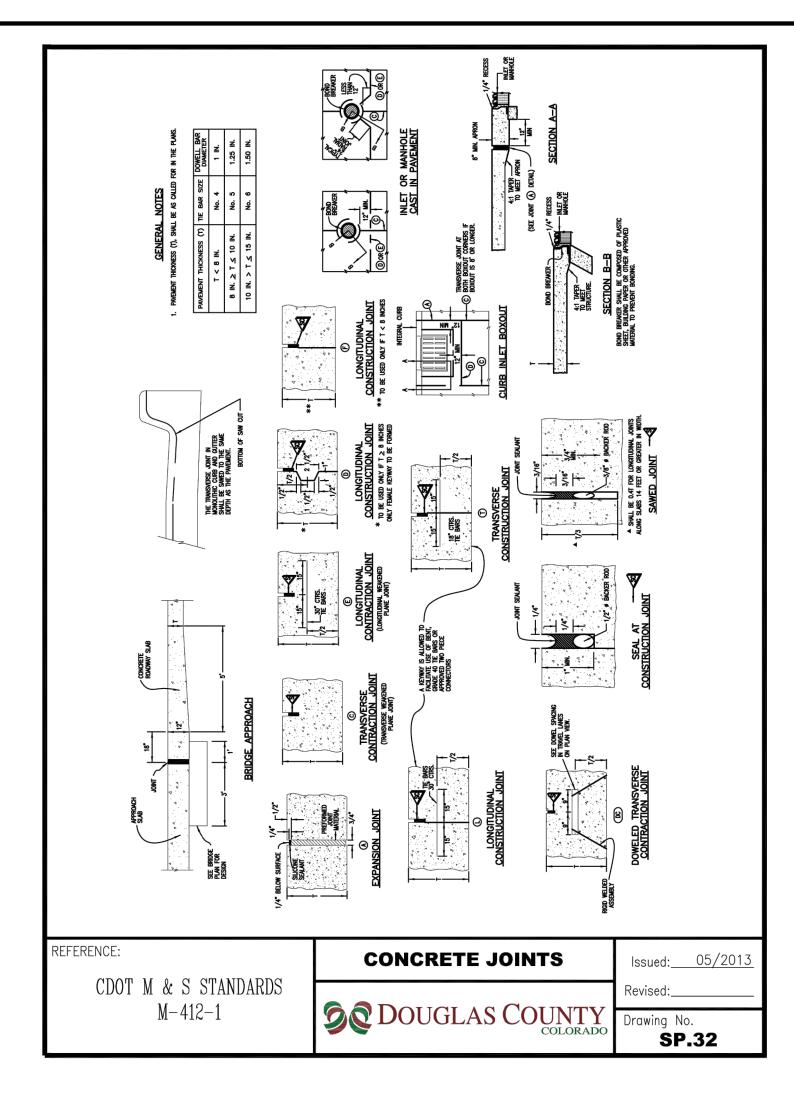
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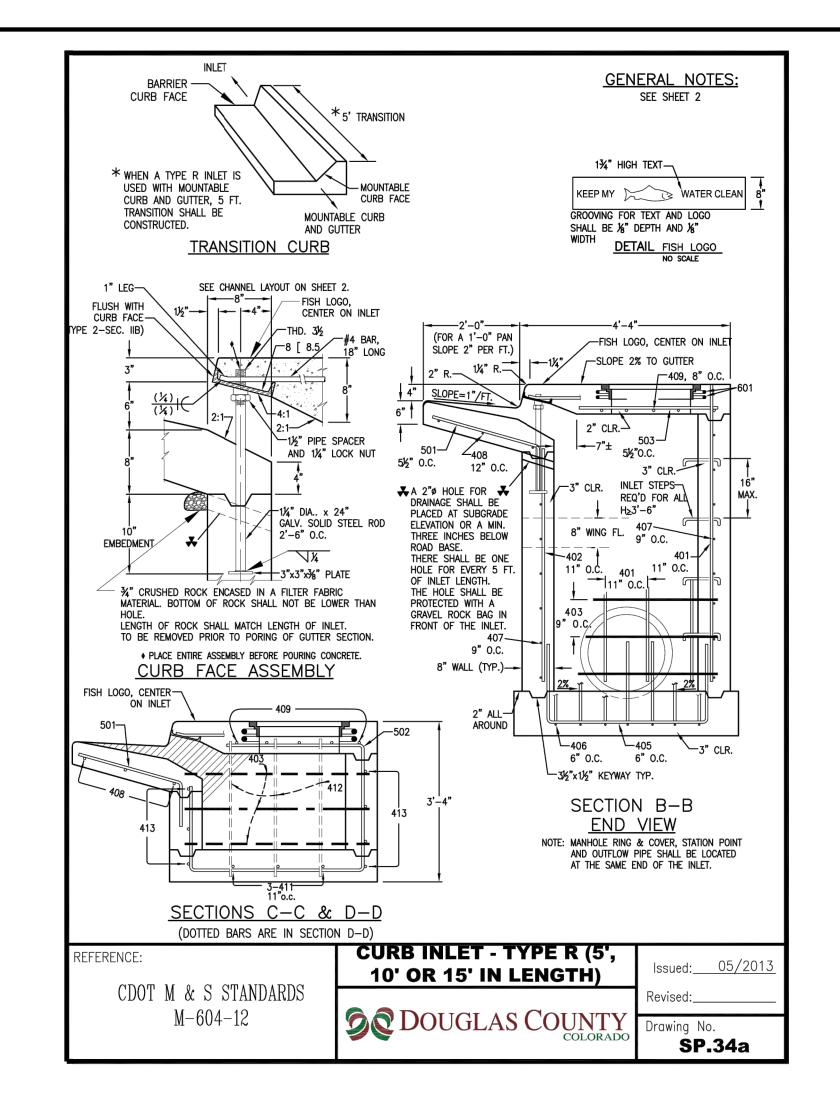
SHEET 15 OF 18

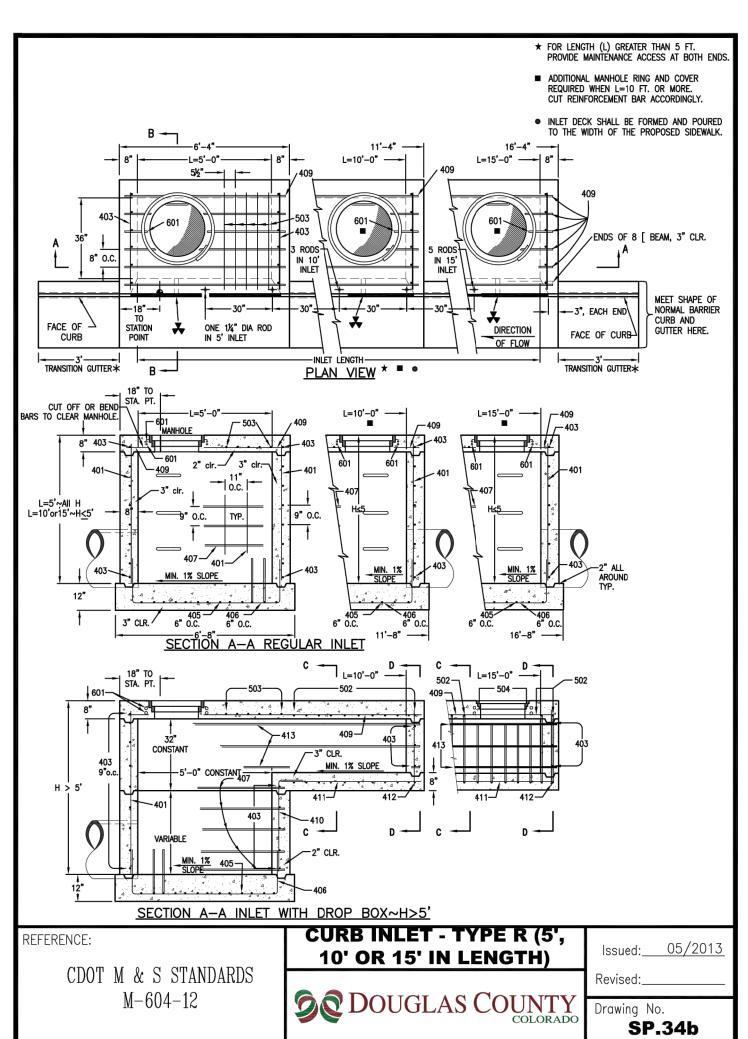
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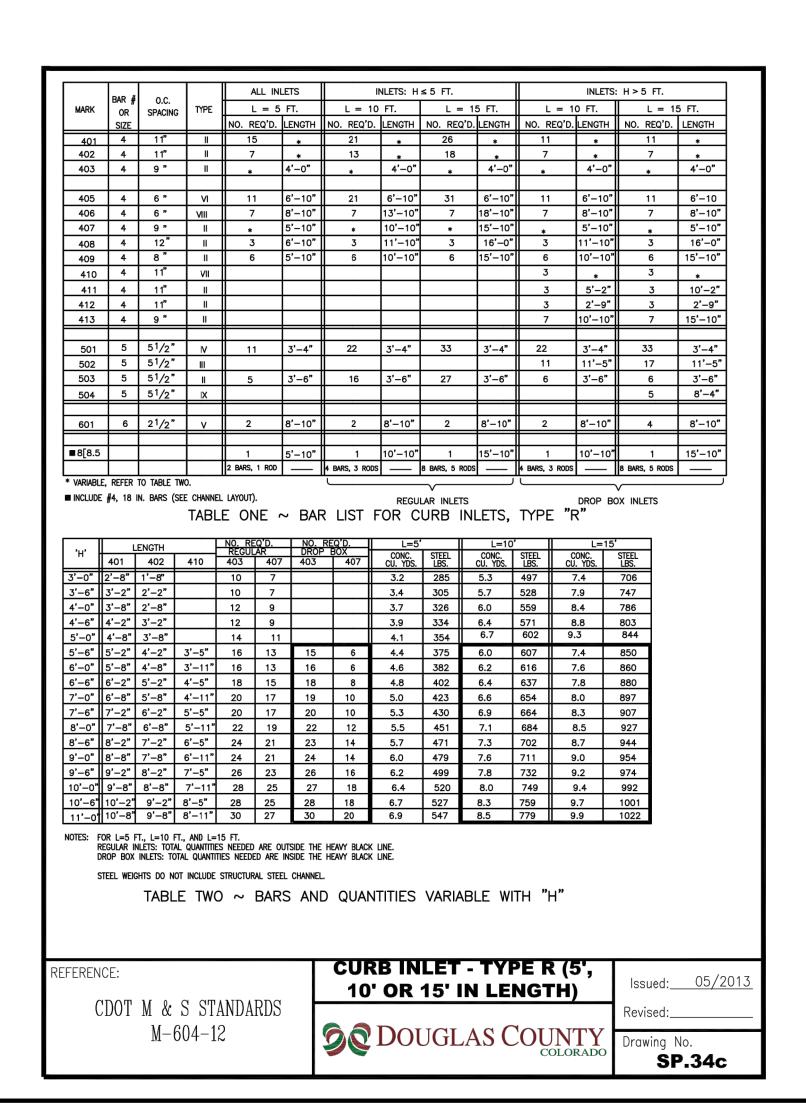


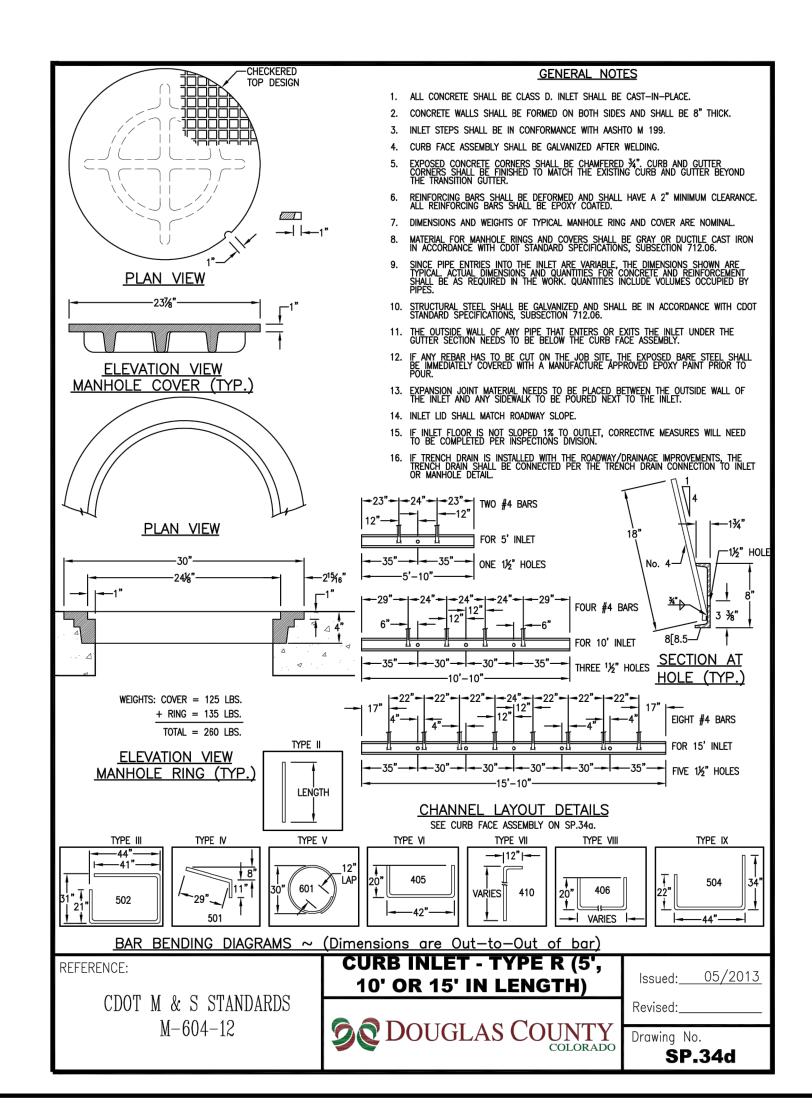


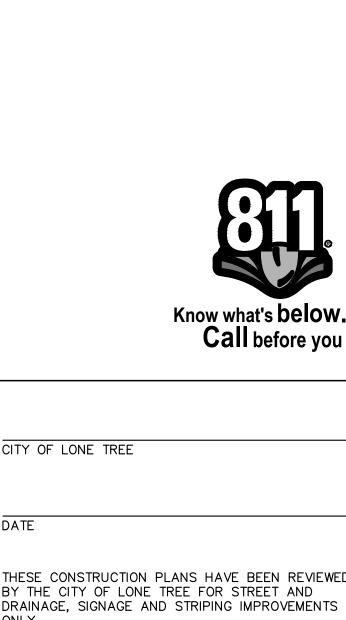












ENGINEERING DIVISION ACCEPTANCE BLOCK

Know what's **below. Call** before you dig. THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY THE CITY OF LONE TREE FOR STREET AND

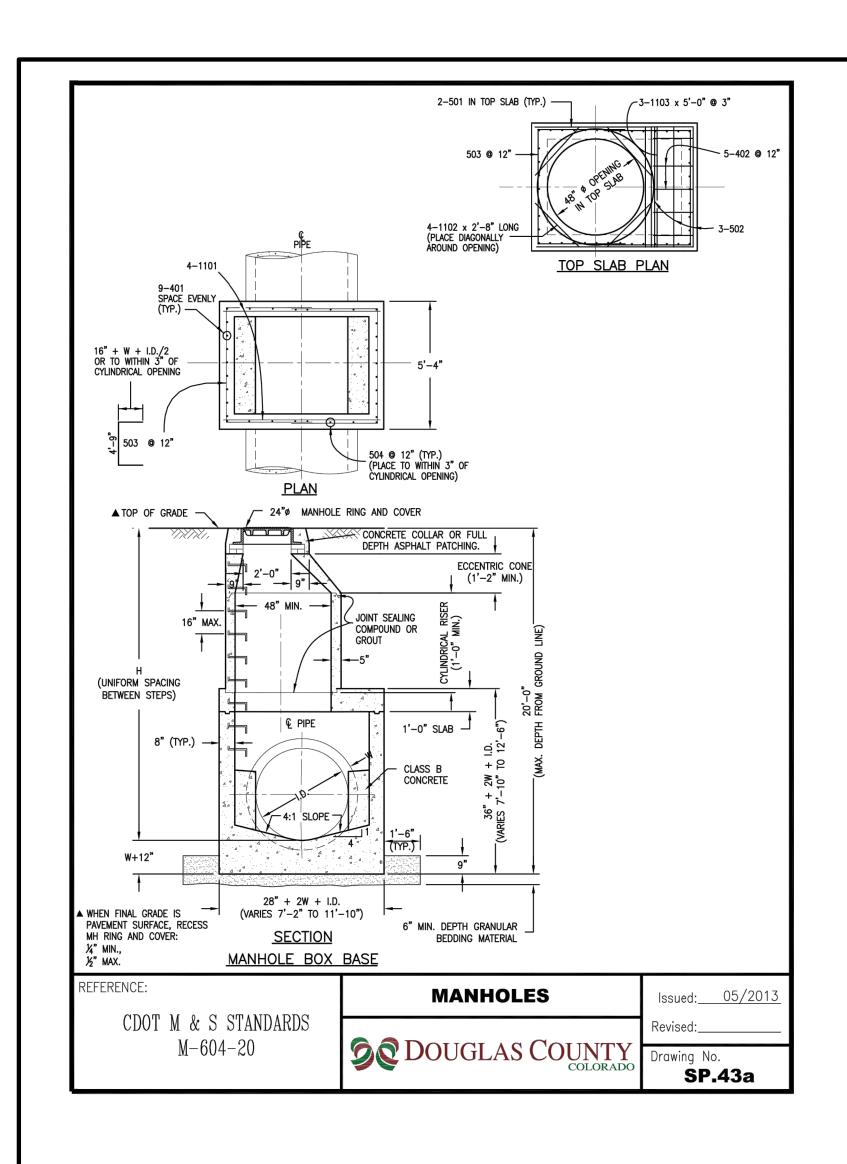
## **ENGINEER'S STATEMENT**

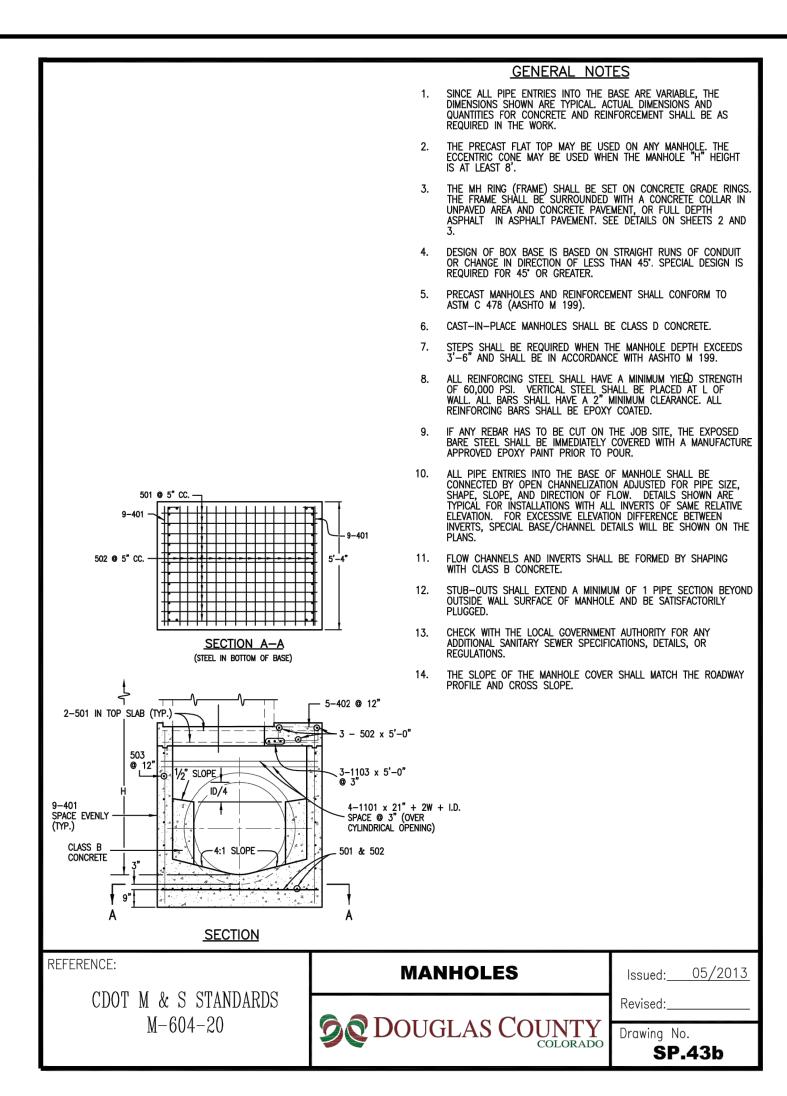
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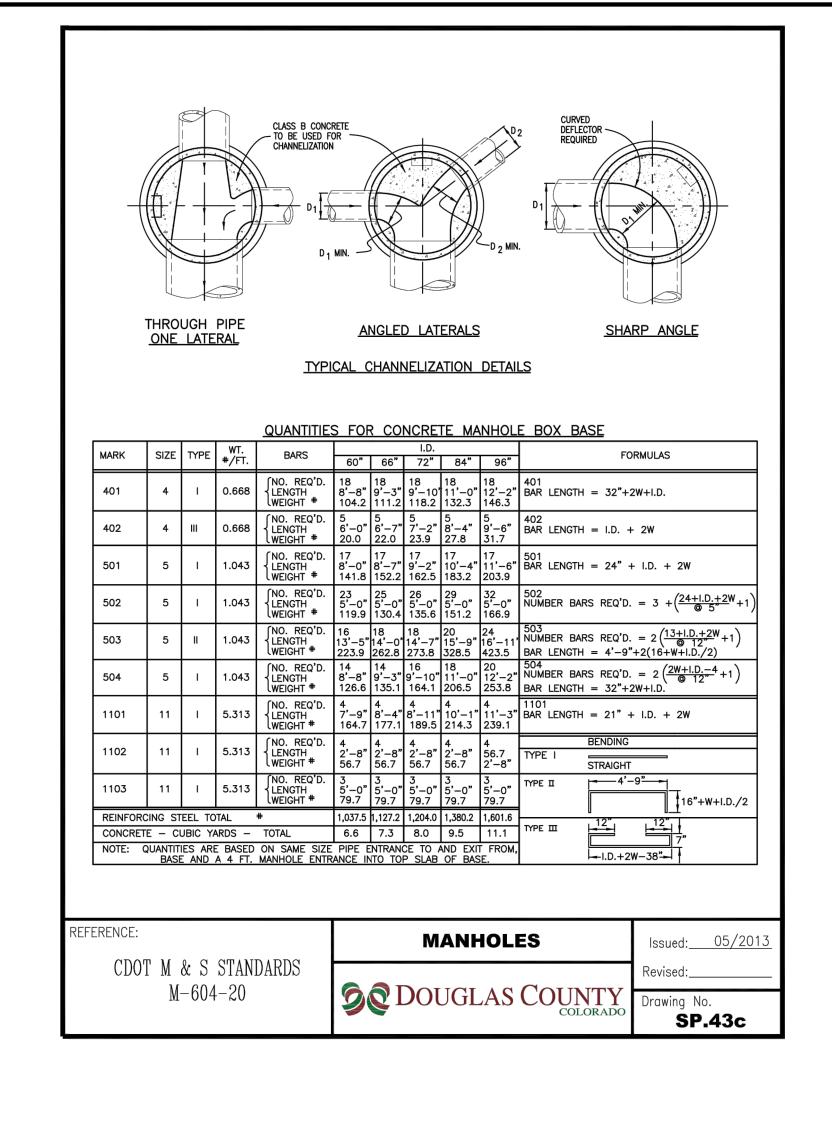
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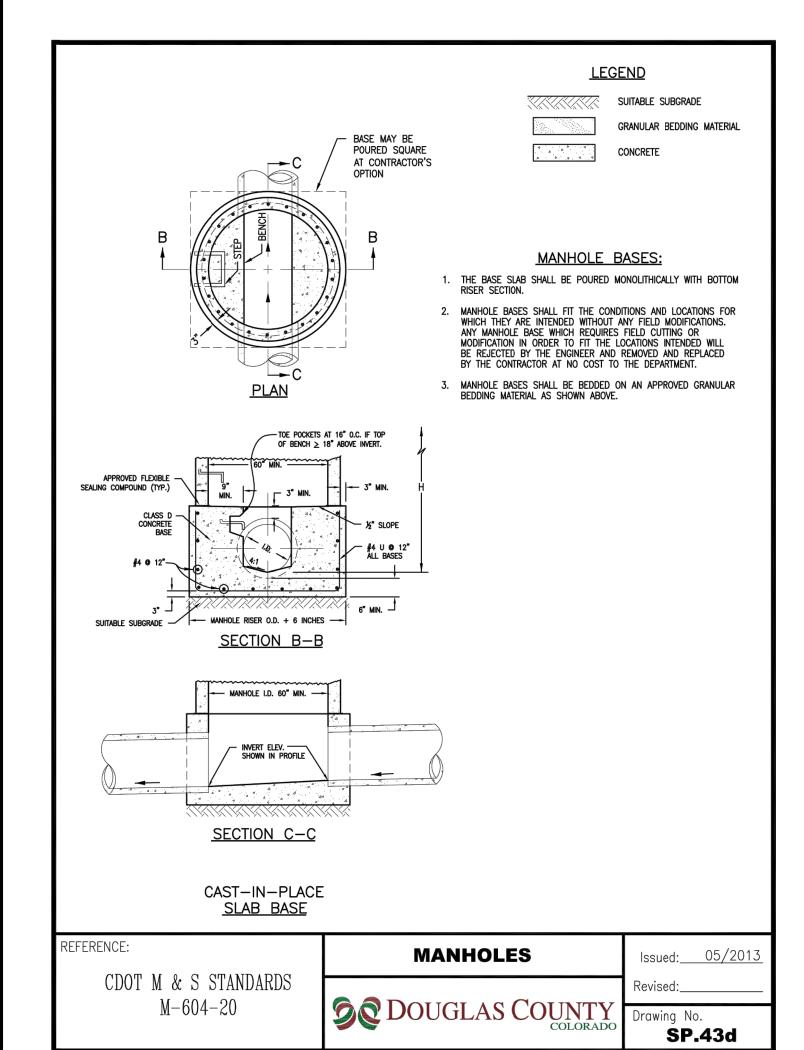
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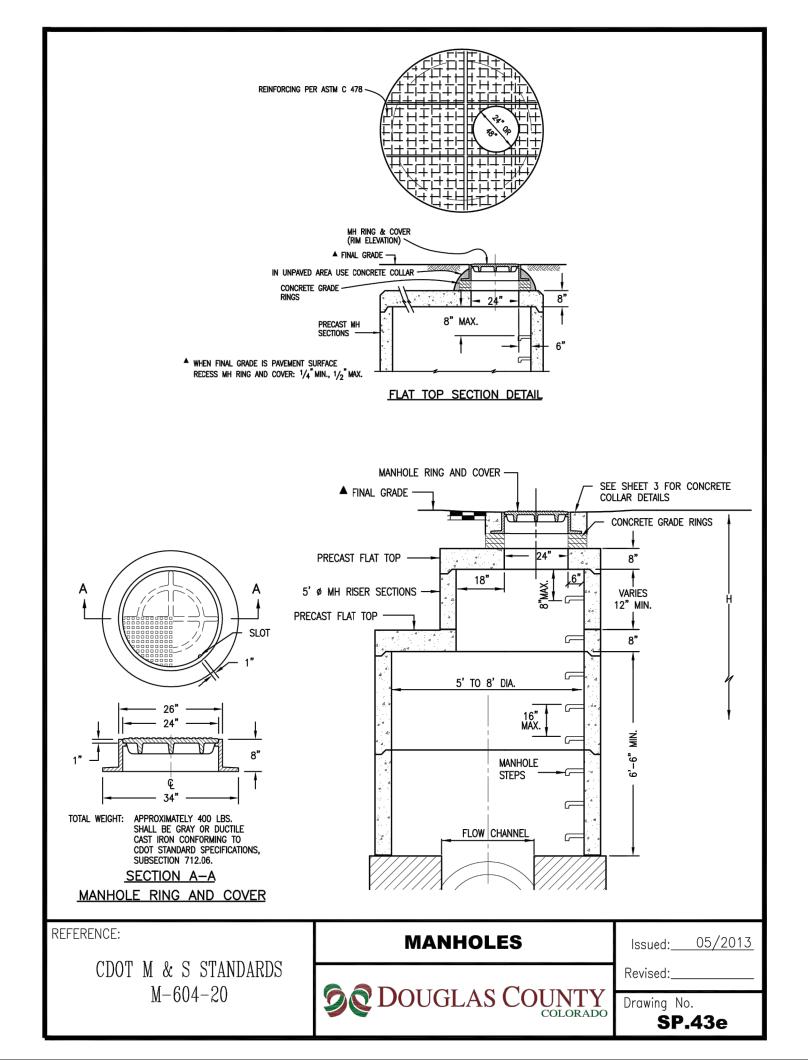
SHEET 16 OF 18 JOB NO. 15950.03

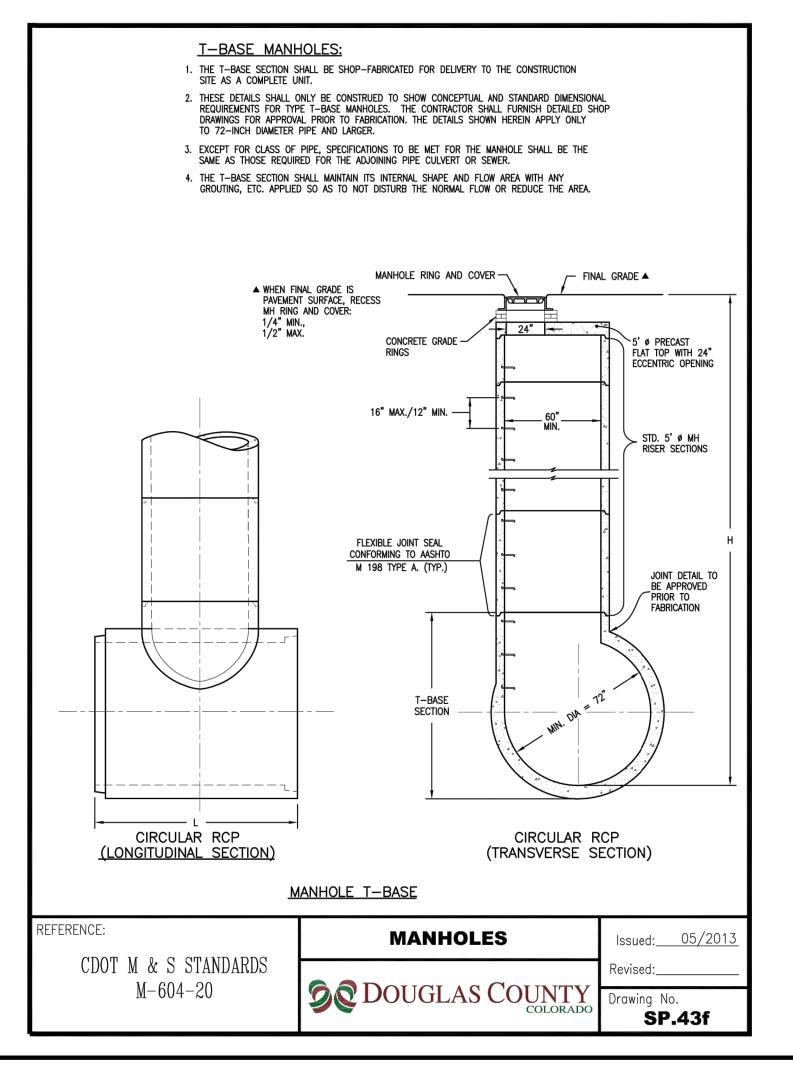


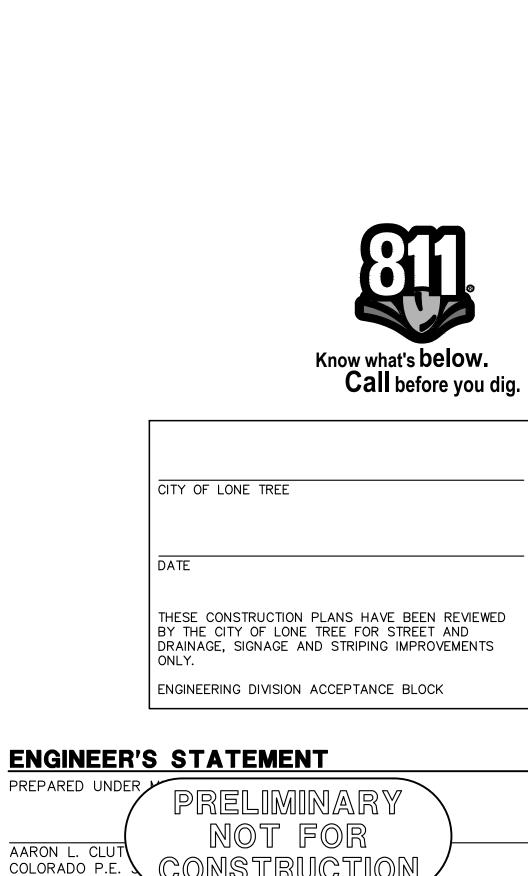












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BMP 10/24/22

MEP 1/27/23

MEP 303-740-93

Centennial 303-740-93

ENGINEERIN

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THESE DRAWING
APPROVED BY
APPROPRIATE I
AGENCIES, JR |
APPROVES THE
ONLY FOR THE
DESIGNATED BY

LLC NN ST.

SH LYRIC, 9380 STATIC SUITE 6 ONE TREE, C OFFICE PH (303) 791-

8012. NE 180

CTAVE AVENUE EXTENSION

IVIL CONSTRUCTION PLANS

TORM SEWER & ROADWAY

DETAILS

CHECKED BY

H—SCALE

N/A

1 REVISED PER CC

DATE

1/27/23

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TORM SEWER & COMMENT

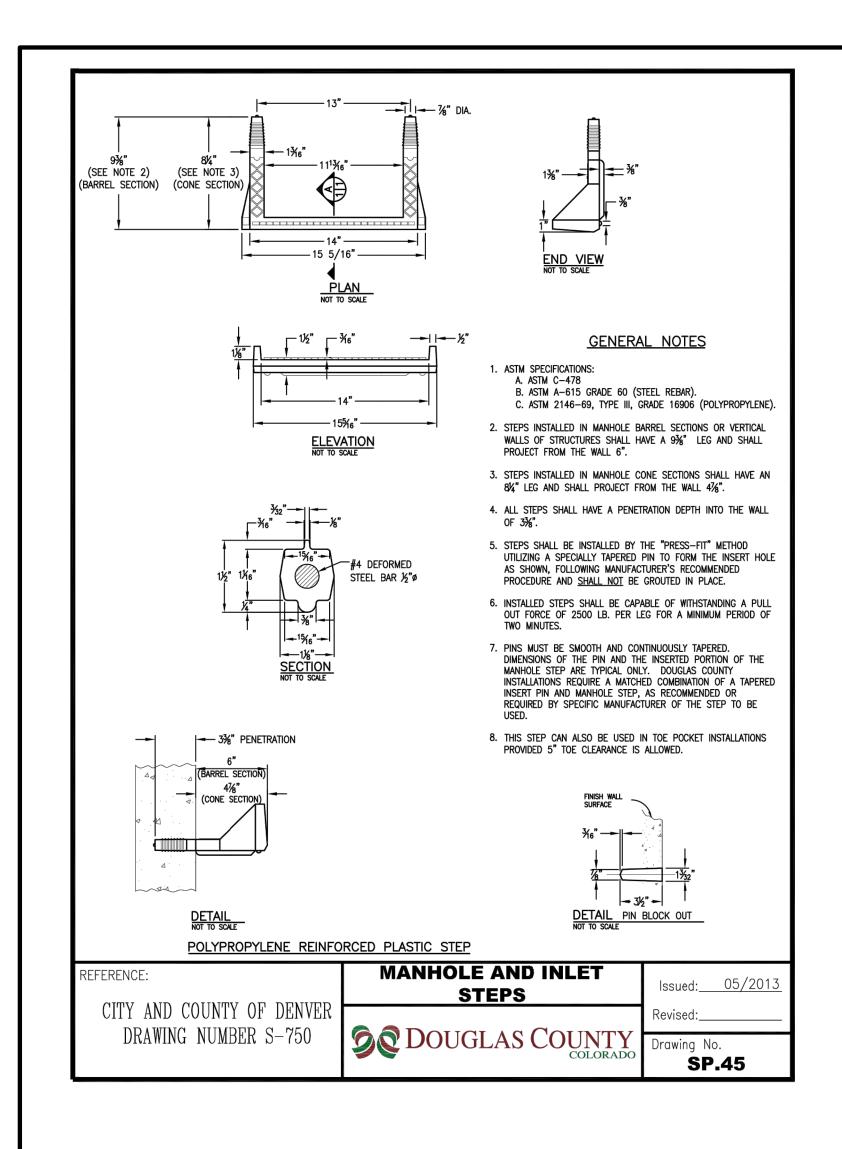
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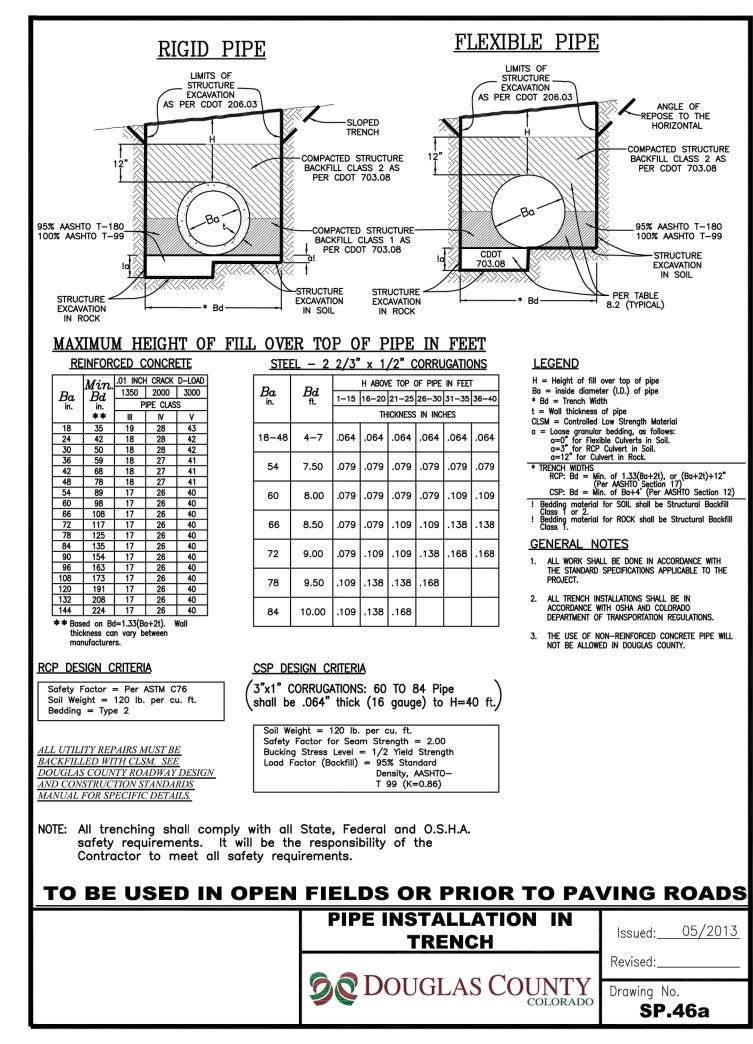
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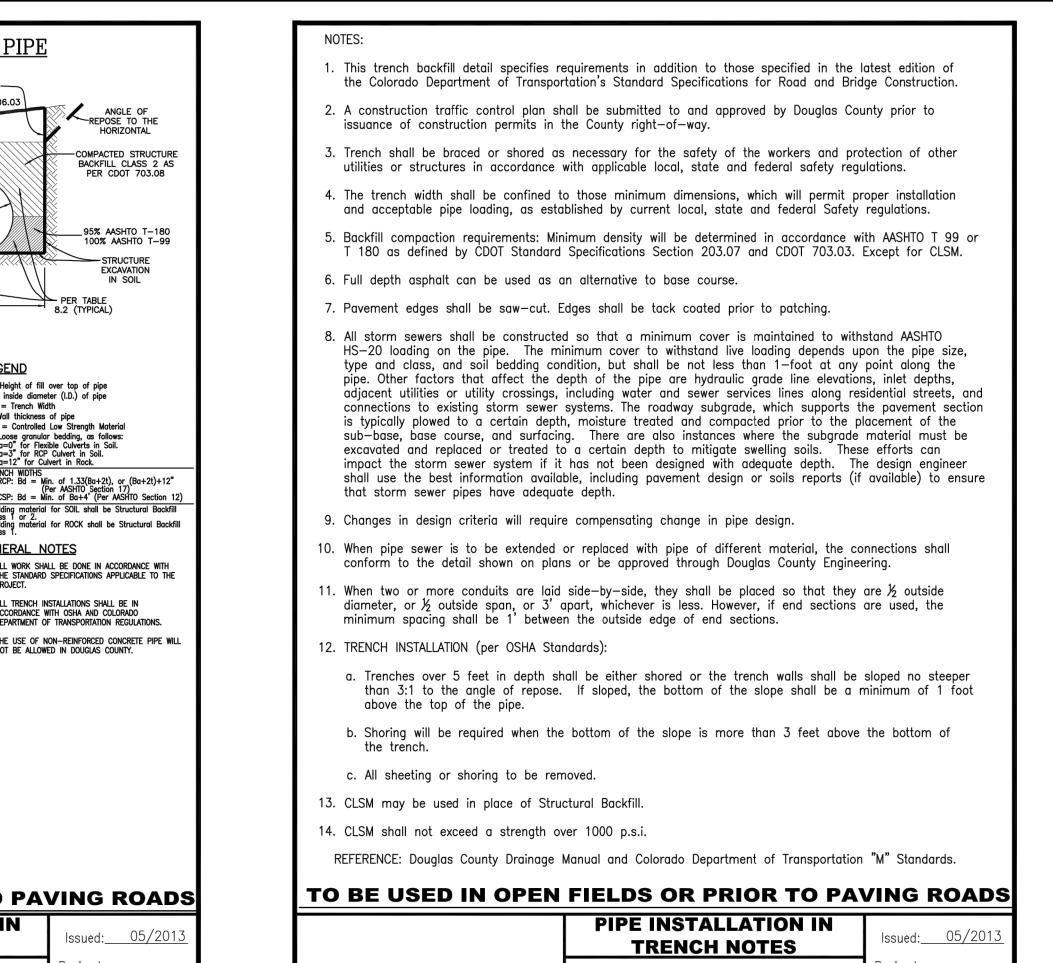
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SHEET 17 OF 18

JOB NO. **15950.03** 

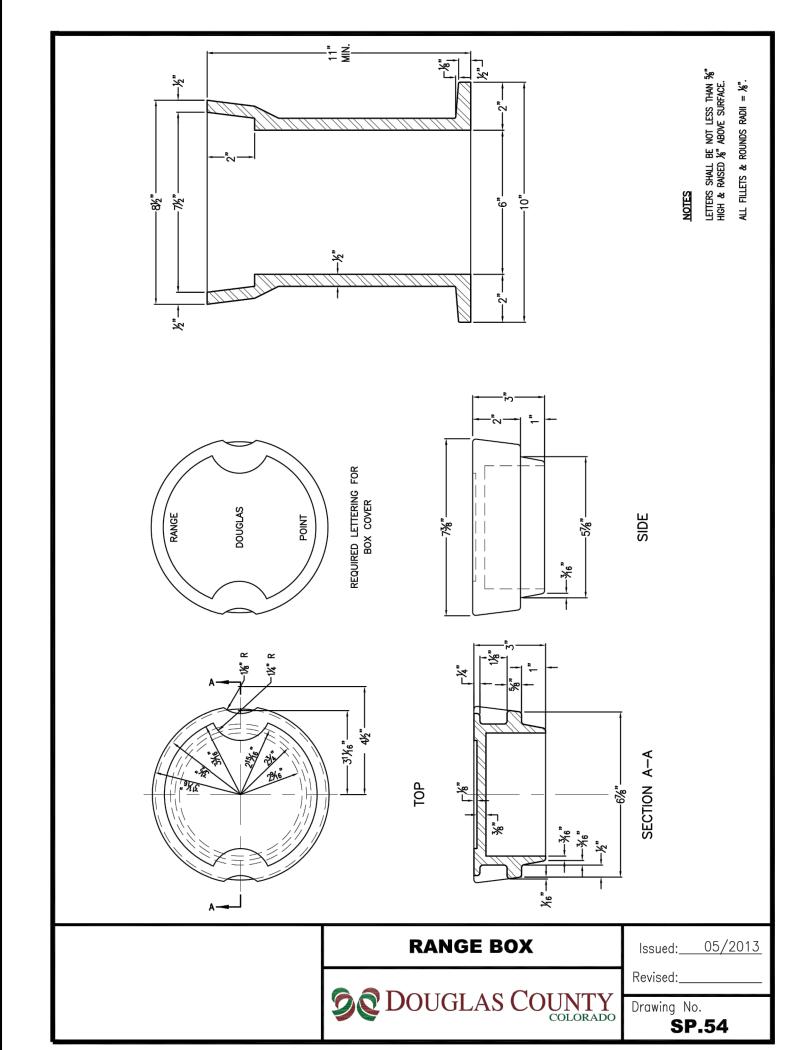






**DOUGLAS COUNTY** 

SP.46b





CITY OF LONE TREE DATE

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY THE CITY OF LONE TREE FOR STREET AND DRAINAGE, SIGNAGE AND STRIPING IMPROVEMENTS

ENGINEERING DIVISION ACCEPTANCE BLOCK

**ENGINEER'S STATEMENT** 

COLORADO P.E.

FOR AND ON BEI

AARON L. CLU

SHEET 18 OF 18 JOB NO. **15950.03** 

OCTAVE AVENUE EXTENSION
CIVIL CONSTRUCTION PLANS
STORM SEWER & ROADWAY

SEWER & ROADWAY DETAILS

8012. VE 180

OR LLC ION ST. 600 CO 8C HONF -81

ENGINEERIN