CITY OF GRAND JUNCTION LINDEN AVE WATERLINE PHASE 1 IMPROVEMENTS GRAND JUNCTION, COLORADO

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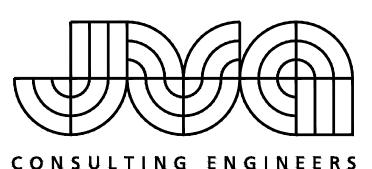
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OCTOBER 2024

DRAWING INDEX

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SHEET NO.	<u>TITLE</u>	
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LEGEND, NOTES, & ABBREVIATIONS

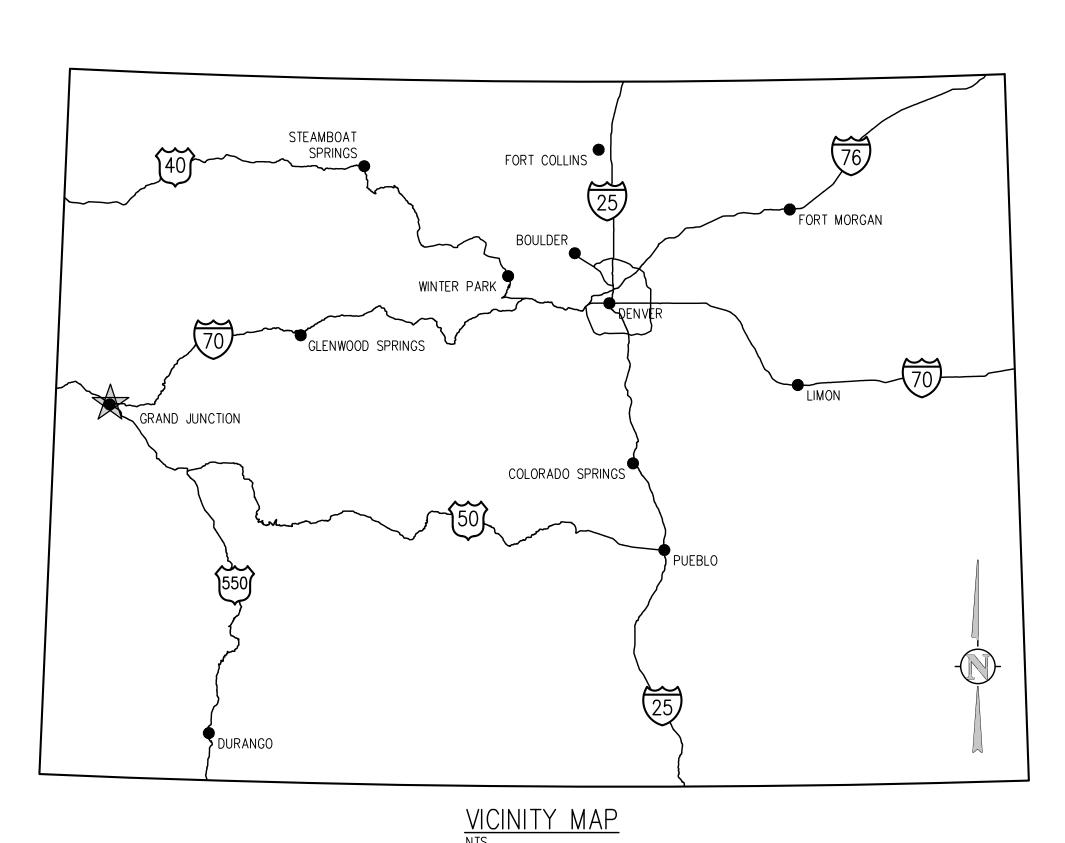
C1.0 OVERALL UTILITY PLAN

LINDEN AVE WATERLINE PLAN AND PROFILE LINDEN AVE WATERLINE PLAN AND PROFILE

LINDEN AVE WATERLINE PLAN AND PROFILE

LINDEN AVE WATERLINE PLAN AND PROFILE C2.4

LINDEN AVE WATERLINE PLAN AND PROFILE



PLAN & PROFILE

SANTA CLARA AVE UNAWEEP AVE PROJECT LOCATION B 1/2 RD

LOCATION MAP

Grand Junction



QUANTITY

RIGHT

RADIUS

ROOF DRAIN

RECTANGULAR

RIGHT OF WAY

STORM DRAIN

SPECIFICATION

SQUARE INCH

SQUARE FOOT

SQUARE YARD

SANITARY SEWER

STAINLESS STEEL

REFERENCE

REQUIRED

SANITARY

SAWCUT

SECTION

SOUARE

STATION

STEEL

STANDARD

STRUCTURAL

SYMMETRICAL

TEMPORARY

TOP OF BANK

TOP OF STEP

TYPICAL

OF WALL

THRUST BLOCK

TOP BACK OF CURB TEMPORARY BENCH MARK

SERVICE

REINFORCED CONCRETE PIPE

REINFORCE (D) (ING) (MENT)

STANDARD PROCTOR DENSITY

STORMWATER MANAGEMENT PLAN

FINISHED GRADE ADJACENT TO TOP

TOP OF CONCRETE OR TOP OF CURB

TOP OF WALL OR CAP OF WALL

POINT OF VERTICAL CURVATURE

WATER QUALITY CONTROL VOLUME

WATER SURFACE ELEVATION

ELECTRICAL TRANSFORMER

SECT CROSS SECTION

UNIFORM BUILDING CODE

UNDERGROUND ELECTRIC

VITRIFIED CLAY PIPE

WIDE OR WIDTH

WITH

WITHOUT

WASTEWATER

YARD HYDRANT

<u>ABBREVIATIONS</u>				
AASHTO ABAN AC ADDL ADDM ADJ AL ALT AMT APPROX ARCH ARV	AMERICAN ASSOC. OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS ABANDON ASPHALTIC CONCRETE PAVING ADDITIONAL ADDENDUM ADJUSTABLE ALUMINUM ALTERNATE AMOUNT APPROXIMATE ARCHITECT(URAL) AIR RELIEF VALVE	G GA GALV GCO GIP GND GPD GPM GR GRTG GSP GV	GAS GAUGE GALLON GALVANIZED GRADE CLEANOUT GALVANIZED IRON PIPE GROUND GALLONS PER DAY GALLONS PER MINUTE GRATE GRATING GALVANIZED STEEL PIPE GATE VALVE	QTY R RAD RCP RD RE RECT REINF REQD ROW SAN SC
ASTM ASPH ASSY ASYM AUTO AVG AWWA BC BFV BG BLDG	AMERICAN SOCIETY FOR TESTING AND MATERIALS ASPHALT ASSEMBLY ASYMMETRICAL AUTOMATIC AVERAGE AMERICAN WATER WORKS ASSOC. BACK OF CURB BUTTERFLY VALVE FINISHED GRADE ADJACENT TO BOTTOM OF WALL BUILDING	H HB HE HDWL HNDRL HORIZ HP HR HVAC HWY HWL HYD	HIGH HOSE BIB HORIZONTAL ELLIPTICAL HEADWALL HAND RAIL HORIZONTAL HIGH POINT HOUR HEATING, VENTILATION, AIR CONDITIONING HIGHWAY HIGH WATER LINE HYDRANT	SD SECT SPD SPEC SQ SQ IN SQ FT SQ YD SS SST STA STD STL STRUCT
BLK BM BMP BS BOS BOT BSMT BVCE BVCS BW	BLOCK BENCH MARK BEST MANAGEMENT PRACTICE BACKSIGHT BOTTOM OF STEP BOTTOM BASEMENT BEGIN VERTICAL CURVE ELEVATION BEGIN VERTICAL CURVE STATION BOTTOM OF WALL	INCL ID IN INSUL INV IRR JTS	INCLUDED INSIDE DIAMETER INLET INSULATION INVERT IRRIGATION JOINTS	SVC SWMP SYM TB TBC TBM TEMP TG
CB CCW CDOT CIP CJ CL CLR CMP CMU CO CONC CONST CONT COR CR CTR CY DEMO DET DIA DIAG DIP	CATCH BASIN COUNTER CLOCKWISE COLORADO DEPARTMENT OF TRANSPORTATION CAST IRON PIPE CONSTRUCTION JOINT CENTER LINE OR CHAIN LINK CLEAR CORRUGATED METAL PIPE CONCRETE MASONRY UNIT CLEANOUT CONCRETE CONSTRUCTION CONTINUOUS(ATION) CORNER CONCENTRIC REDUCER CENTER CUBIC YARDS DEMOLITION DETAIL DIAMETER DIAGONAL DUCTHER IRON PIPE	L LSCAPE LF LP LT LWL MAINT MAN MATL MAX ME MECH MEP MFR MH MIN MISC	KNOCKOUT KICK PLATE KEYWAY LEFT OR LITER LANDSCAPE(ING) LINEAR FOOT LOW POINT OR LIGHT POLE LIGHT LOW WATER LEVEL MAINTENANCE MANUAL MATERIAL MAXIMUM MATCH EXISTING MECHANICAL MECHANICAL, ELECTRICAL, PLUMBING (ARCH) MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MFCHANICAL JOINT	THK TOB TOC TOS TOT TW TYP UBC UGE UTIL VERT VC VCP W W/O W/O WQCV WSE WW X XFMR
DIP DOM DN DR DWG DWL	DUCTILE IRON PIPE DOMESTIC DOWN DRAIN DRAWING DOWEL	MJ N NA NIC NPT NTS	MECHANICAL JOINT NORTH NOT APPLICABLE NOT IN CONTRACT NATIONAL PIPE THREAD NOT TO SCALE	XFMR YH
E EA ECC EJ EL	EAST EACH ECCENTRIC EXPANSION JT ELEVATION	OS OC OD OPP	OFFSET ON CENTER OUTSIDE DIAMETER OPPOSITE	

OPT

PCR

PRELIM

PREP

PROP

PSI

РΤ

PVMT

FI BOW ELECTRICAL ENGINEER

FQUAL

FOUIPMEN1

EQUIVALENT

EASEMENT

ESTIMATE

FACH WAY

EXISTING

FOUNDATION

FINISH FLOOR

FINISH GRADE

FIRE HYDRANT

FACE OF CONCRETE

FEET PER MINUTE

FEET PER SECOND

FOOTING OR FITTING

DESCRIPTION

FLOW LINE

FFNCF

EDGE OF PAVEMENT

JT EXPANSION JOINT

FLARED END SECTION

END VERTICAL CURVE ELEVATION

END VERTICAL CURVE STATION

EOP

EQUIP

EQUIV

ESMT

EST

EVCE

EVCS

ΕW

EXP

FND

FES

FN

FOC

FPM

FPS

FTG

FΤ

REVISION 🛆 .

REVISION 2

REVISION 3

REVISION 🕸

EXIST

OPTIONAL

POINT OF CURVATURE

PRESSURE CLEAN OUT

POINT OF VERTICAL

INTERSECTION

PROPERTY LINE

POLYETHYLENE

PRELIMINARY

PROPOSED

PREPARATION

PLUG VALVE

CURVATURE

PAVEMENT

PREFAB PREFABRICATED

POINT OF CURVE RETURN

PRESSURE REDUCING VALVE

OR PRESSURE RELIEF VALVE

POUNDS PER SQUARE FOOT

POUNDS PER SQUARE INCH

DRAWN BY <u>ZCF/NLM</u> DATE <u>10/18/2024</u>

DESIGNED BY <u>ZCF/AMF </u> date <u>10/18/2024</u>

CHECKED BY <u>JJM</u> date <u>10/18/2024</u>

APPROVED BY _____ DATE .

PLAN & PROFILE

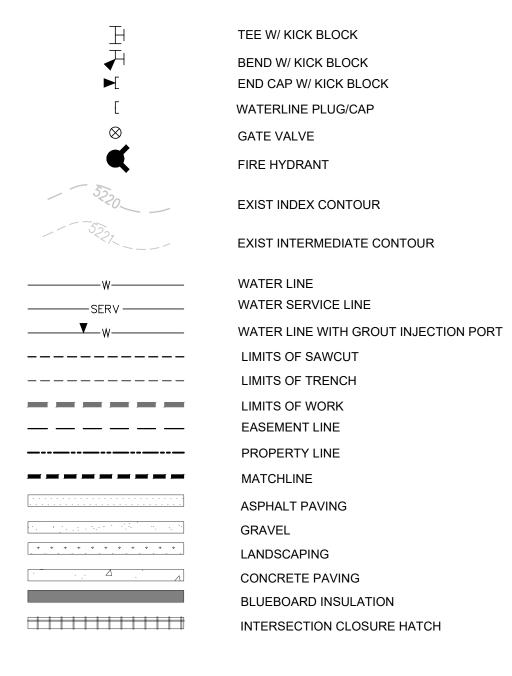
POINT OF TANGENCY

POINT OF VERTICAL

POLYVINYL CHLORIDE OR

POINT OF INTERSECTION

DESIGN LEGEND





SURVEY LEGEND

WATER LINE WATER VALVE WATER METER FIRE HYDRANT SANITARY SEWER LINE SANITARY FORCE MAIN STORM DRAINAGE LINE MANHOLE CURB INLET UNDERGROUND ELECTRICAL LINE OVERHEAD ELECTRICAL LINE GUY WIRE ELECTRICAL POLE GUY WIRE ELECTRICAL TRANSFORMER ELECTRICAL RISER ELECTRIC VAULT LIGHT POLE DECORATIVE LIGHT FIBEROPTIC LINE TELEPHONE RISER GAS LINE INDICATION OF ACCESS BUILDING UTILITY LOCATED FROM MAP MAILBOX SIGN		
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FIBEROPTIC LINE TELEPHONE LINE TELEPHONE RISER GAS LINE INDICATION OF ACCESS BUILDING UTILITY LOCATED FROM MAP MAILBOX	\Diamond	LIGHT POLE
TELEPHONE LINE TELEPHONE RISER GAS LINE INDICATION OF ACCESS BUILDING UTILITY LOCATED FROM MAP MAILBOX	*	DECORATIVE LIGHT
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GAS LINE INDICATION OF ACCESS BUILDING UTILITY LOCATED FROM MAP MAILBOX		TELEPHONE LINE
BUILDING (m) UTILITY LOCATED FROM MAP MAILBOX	TR	TELEPHONE RISER
BUILDING (m) UTILITY LOCATED FROM MAP MAILBOX		GAS LINE
(m) UTILITY LOCATED FROM MAP MAILBOX		INDICATION OF ACCESS
MAILBOX		BUILDING
	(m) MB	MAILBOX

NOTE: SHADED ITEMS REPRESENT EXIST FEATURES

Grand Junction



GENERAL NOTES

- 1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE CITY OF GRAND JUNCTION, COLORADO DEPARTMENT OF TRANSPORTATION, GRAND JUNCTION FIRE PROTECTION REQUIREMENTS, AND APPLICABLE STATE AND LOCAL STANDARDS AND SPECIFICATIONS. THE CONTRACTOR SHALL HAVE IN POSSESSION AT THE JOB SITE AT ALL TIMES ONE (1) SIGNED COPY OF APPROVED PLANS, STANDARDS AND SPECIFICATIONS. CONTRACTOR SHALL CONSTRUCT AND MAINTAIN EMERGENCY ACCESS ROUTES TO THE SITE AND STRUCTURE AT ALL TIMES PER THE APPLICABLE GRAND JUNCTION FIRE PROTECTION DISTRICT REQUIREMENTS. THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FOR ANY VARIANCE TO THE ABOVE DOCUMENTS. NOTIFY ENGINEER OF ANY CONFLICTING STANDARDS OR SPECIFICATIONS. IN THE EVENT OF ANY CONFLICTING STANDARD OR SPECIFICATION. THE MORE STRINGENT OR HIGHER QUALITY STANDARD, DETAIL OR SPECIFICATION SHALL APPLY.
- 2. THE CONTRACTOR SHALL OBTAIN, AT HIS OWN EXPENSE, ALL APPLICABLE CODES, LICENSES, STANDARD SPECIFICATIONS, PERMITS, BONDS, ETC., WHICH ARE NECESSARY TO PERFORM THE PROPOSED WORK, INCLUDING, BUT NOT LIMITED TO A LOCAL AND STATE GROUNDWATER DISCHARGE AND COLORADO DEPARTMENT OF HEALTH AND ENVIRONMENT (CDPHE) STORMWATER DISCHARGE PERMIT ASSOCIATED WITH CONSTRUCTION ACTIVITY.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE REQUIRED PARTY OWNER AND ENGINEER AT LEAST 48 HOURS PRIOR TO START OF ANY CONSTRUCTION, PRIOR TO BACKFILLING, AND AS REQUIRED BY JURISDICTIONAL AUTHORITY AND/OR PROJECT SPECIFICATIONS. THE CONTRACTOR SHALL CONTINUE WITH NOTIFICATIONS THROUGHOUT THE PROJECT AS REQUIRED BY THE STANDARDS AND SPECIFICATIONS.
- 4. THE LOCATIONS OF EXISTING UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION BASED ON INFORMATION BY OTHERS. NOT ALL UTILITIES MAY BE SHOWN. THE CONTRACTOR SHALL DETERMINE THE EXACT SIZE, LOCATION AND TYPE OF ALL EXISTING UTILITIES WHETHER SHOWN OR NOT BEFORE COMMENCING WORK. THE ENGINEER AND/OR OWNER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS SHOWN ON PLANS. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGES AND COSTS WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES. THE CONTRACTOR SHALL NOTIFY ALL PUBLIC AND PRIVATE UTILITY COMPANIES AND DETERMINE THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO PROCEEDING WITH GRADING AND CONSTRUCTION. ALL WORK PERFORMED IN THE AREA OF UTILITIES SHALL BE PERFORMED AND INSPECTED ACCORDING TO THE REQUIREMENTS OF THE UTILITY OWNER. LIKEWISE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND MAPPING ANY EXISTING UTILITY (INCLUDING DEPTH) WHICH MAY CONFLICT WITH THE PROPOSED CONSTRUCTION, AND FOR RELOCATING ENCOUNTERED UTILITIES AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL CONTACT AND RECEIVE APPROVAL FROM UTILITY OWNER AND ENGINEER BEFORE RELOCATING ANY ENCOUNTERED UTILITIES. CONTRACTOR RESPONSIBLE FOR SERVICE CONNECTIONS, AND RELOCATING AND RECONNECTING AFFECTED UTILITIES AS COORDINATED WITH UTILITY OWNER AND/OR ENGINEER, INCLUDING NON-MUNICIPAL UTILITIES (TELEPHONE, GAS, CABLE, ETC., WHICH SHALL BE COORDINATED WITH THE UTILITY OWNER). THE CONTRACTOR SHALL IMMEDIATELY CONTACT ENGINEER UPON DISCOVERY OF A UTILITY DISCREPANCY OR CONFLICT. AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY NOTIFICATION CENTER OF COLORADO (1-800-922-1987, WWW.UNCC.ORG). SEE SURVEY UTILITY LOCATION INFORMATION BELOW.
- 5. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS AT AND ADJACENT TO THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING THE PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN FOR OWNER AND/OR CITY APPROVAL AND PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FENCING, FLAGMEN OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR AGREES TO COMPLY WITH THE PROVISIONS OF THE TRAFFIC CONTROL PLAN AND THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," PART VI, FOR CONSTRUCTION SIGNAGE AND TRAFFIC CONTROL. ALL TEMPORARY AND PERMANENT TRAFFIC SIGNS SHALL COMPLY TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) WITH REGARD TO SIGN SHAPE, COLOR, SIZE, LETTERING, ETC. UNLESS OTHERWISE SPECIFIED. IF APPLICABLE, PART NUMBERS ON SIGNAGE DETAILS REFER TO MUTCD SIGN NUMBERS.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY GROUNDWATER ENCOUNTERED DURING THE CONSTRUCTION OF ANY PORTION OF THIS PROJECT. GROUNDWATER SHALL BE PUMPED, PIPED, REMOVED AND DISPOSED OF IN A MANNER WHICH DOES NOT CAUSE FLOODING OF EXISTING STREETS NOR EROSION ON ABUTTING PROPERTIES IN ORDER TO CONSTRUCT THE IMPROVEMENTS SHOWN ON THESE PLANS. GROUNDWATER TO BE PUMPED SHALL BE TESTED. PERMITTED. AND PUMPED PER THE STATE OF COLORADO AND LOCAL GROUNDWATER DISCHARGING PERMIT REQUIREMENTS.
- 7. RIM AND GRATE ELEVATIONS SHOWN ON PLANS ARE APPROXIMATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. THE CONTRACTOR SHALL ADJUST RIMS AND OTHER IMPROVEMENTS TO MATCH FINAL PAVEMENT AND FINISHED GRADE ELEVATIONS.
- 8. THE EXISTING AND PROPOSED ELEVATIONS OF FLATWORK, SIDEWALKS, CURBS, THRESHOLDS, PAVING, ETC. AS SHOWN HEREON ARE BASED ON EXTRAPOLATION OF FIELD SURVEY DATA, EXISTING CONDITIONS, AND DATA PROVIDED. BY OTHERS. AT CRITICAL AREAS HYDRANT LATERALS AND SITE FEATURES, CONTRACTOR SHALL HAVE FORMWORK INSPECTED AND APPROVED BY OWNER, OWNER'S REPRESENTATIVE, OR ENGINEER PRIOR TO PLACING CONCRETE. MINOR ADJUSTMENTS, AS APPROVED, TO PROPOSED GRADES, INVERTS, ETC. MAY BE REQUIRED TO PREVENT PONDING OR SLOPE NOT IN CONFORMANCE WITH MUNICIPAL STANDARDS. ALL FLATWORK MUST PREVENT PONDING AND PROVIDE POSITIVE DRAINAGE AWAY FROM EXISTING AND PROPOSED BUILDINGS, WALLS, ROOF DRAIN OUTFALLS, ACROSS DRIVES AND WALKS, ETC., TOWARDS THE PROPOSED INTENDED DRAINAGE FEATURES AND CONVEYANCES.
- 9. FINAL LIMITS OF REQUIRED ASPHALT SAWCUTTING AND PATCHING MAY VARY FROM LIMITS SHOWN ON PLANS. CONTRACTOR TO PROVIDE SAWCUT AND PATCH WORK TO ACHIEVE POSITIVE DRAINAGE AND A SMOOTH TRANSITION TO EXISTING ASPHALT WITHIN SLOPES ACCEPTABLE TO THE ENGINEER AND WITHIN MUNICIPAL STANDARDS. CONTRACTOR SHALL PROVIDE ADDITIONAL SAWCUTTING AND PATCHING AT UTILITY WORK, CONNECTION POINTS TO EXISTING PAVEMENT AND FEATURES, ETC. THAT MAY NOT BE DELINEATED ON PLANS.
- 10. ANY EXISTING MONITORING WELLS, CLEANOUTS, VALVE BOXES, ETC. TO BE PROTECTED AND TO REMAIN IN SERVICE. IF FEATURES EXIST, EXTEND OR LOWER TO FINAL SURFACE WITH LIKE KIND CAP WITH STANDARD CAST ACCESS LID WITH SAME MARKINGS. IN LANDSCAPED AREAS PROVIDE A CONCRETE COLLAR (18"x18"x6" THICK) AT ALL EXISTING AND PROPOSED MONITORING WELLS, CLEANOUTS, VALVE BOXES, ETC.
- 11. OWNER TO APPROVE ALL PRIVATE CONCRETE FINISHING, JOINT PATTERNS AND COLORING REQUIREMENTS PRIOR TO CONSTRUCTION. SUBMIT JOINT LAYOUT PLAN TO OWNER FOR APPROVAL PRIOR TO CONSTRUCTION.
- 12. PIPE LENGTHS AND HORIZONTAL CONTROL POINTS SHOWN ARE FROM CENTER OF STRUCTURES, END OF FLARED END SECTIONS, ETC. SEE STRUCTURE DETAILS FOR EXACT HORIZONTAL CONTROL LOCATION. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ACTUAL PIPE LENGTHS TO ACCOUNT FOR STRUCTURES AND LENGTH OF FLARED END SECTIONS.
- 13. ALL SURPLUS MATERIALS, TOOLS, AND TEMPORARY STRUCTURES, FURNISHED BY THE CONTRACTOR, SHALL BE REMOVED FROM THE PROJECT SITE BY THE CONTRACTOR. ALL DEBRIS AND RUBBISH CAUSED BY THE OPERATIONS OF THE CONTRACTOR SHALL BE REMOVED, AND THE AREA OCCUPIED DURING CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ITS ORIGINAL CONDITION, WITHIN 48 HOURS OF PROJECT COMPLETION, UNLESS OTHERWISE DIRECTED BY THE MUNICIPALITY OR OWNER'S REPRESENTATIVE.
- 14. THE CONTRACTOR IS REQUIRED TO PROVIDE AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE LOCAL JURISDICTION, THE STATE OF COLORADO, MILE HIGH FLOOD DISTRICT "URBAN STORM DRAINAGE CRITERIA MANUAL VOLUME 3", THE M-STANDARD PLANS OF THE COLORADO DEPARTMENT OF TRANSPORTATION, AND THE APPROVED EROSION CONTROL PLAN. JURISDICTIONAL AUTHORITY MAY REQUIRE THE CONTRACTOR TO PROVIDE ADDITIONAL EROSION CONTROL MEASURES AT THE CONTRACTOR'S EXPENSE DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE PLANS DO NOT FUNCTION AS INTENDED. THE CONTRACTOR IS RESPONSIBLE FOR PROHIBITING SILT AND DEBRIS LADEN RUNOFF FROM LEAVING THE SITE, AND FOR KEEPING ALL PUBLIC AREAS FREE OF MUD AND DEBRIS. THE CONTRACTOR IS RESPONSIBLE FOR RE-ESTABLISHING FINAL GRADES AND FOR REMOVING ACCUMULATED SEDIMENTATION FROM ALL AREAS INCLUDING SWALES AND DETENTION/WATER QUALITY AREAS. CONTRACTOR SHALL REMOVE TEMPORARY EROSION CONTROL MEASURES AND REPAIR AREAS AS REQUIRED AFTER VEGETATION IS ESTABLISHED AND ACCEPTED BY OWNER AND MUNICIPALITY.
- 15. ADA COMPLIANCE: THE CROSS-SLOPE OF ALL WALKS MUST BE LESS THAN 1:48 (2.0%) PERPENDICULAR TO DIRECTION OF TRAVEL. RUNNING SLOPE OF ACCESSIBLE WALKS MUST BE NOT STEEPER THAN 1:20 (5.0%) IN DIRECTION OF TRAVEL. MAXIMUM GRADE OF ACCESSIBLE CURB RAMPS AND RAMPS IS 1:12 (8.3%). CURB RAMPS SHALL PROVIDE A LANDING AT THE TOP AND RAMP RUNS PROVIDE LANDINGS AT THE BOTTOM AND TOP OF EACH RAMP RUN AT A SLOPE NOT TO EXCEED 1:48. RAMPS RUNS EXCEEDING SIX INCHES SHALL INCLUDE HANDRAILS. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 1:48 IN ALL DIRECTIONS. CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO PLACEMENT OF FLATWORK OF SITE CONDITIONS OR DISCREPANCIES WHICH PREVENT TYPICAL REQUIRED GRADES FROM BEING ACHIEVED. ALL RAMPS, STAIRS, EDGE PROTECTION, AND RAILINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT ADA STANDARDS. ACCESSIBLE CURB RAMPS SHALL CONFORM TO THE CDOT M-STANDARDS (SEE DETAIL M-608-1, ETC). ACCESSIBLE FEATURE WITHIN THE PUBLIC RIGHTS-OF-WAY SHALL BE CONSTRUCTED TO CONFORM TO THE LOCAL AUTHORITY HAVING JURISDICTION REQUIREMENTS.
- 16. PROTECT ALL TREES AND VEGETATION. PLACE CONSTRUCTION FENCING AT DRIP LINE OF TREES AND PLANTS NEAR THE WORK ZONE. DEEP WATER TREES WEEKLY. HAND EXCAVATION REQUIRED AT ROOT ZONES WHERE
- 17. LOCATIONS OF CLEANOUTS, LIGHTS, SIGNAGE, JUNCTION BOXES, AND OTHER SIGNIFICANT SITE FEATURES TO BE STAKED FOR ENGINEER AND OR OWNER APPROVAL PRIOR TO WORK. CLEANOUTS, JUNCTION BOXES, AND ADJACENT GRADES TO BE RAISED ONE-HALF INCH AT ASPHALT/CONCRETE (OR 1" AT LANDSCAPING) TO PROVIDE POSITIVE DRAINAGE AWAY FROM FEATURES.

18. SURVEY INFORMATION:

BENCHMARK INFORMATION: TOPOGRAPHIC INFORMATION WAS PROVIDED BY THE CITY OF GRAND JUNCTION. SEE EXISTING CONDITIONS SURVEY 2021 WATER LINE REPLACEMENTS - PHASE 1 DATED 12/20/2021. CONTROL POINTS SHOWN ON PLANS. THE FIELD SURVEYS AND PROCESSING OF DATA WAS MADE IN THE MESA COUNTY LOCAL COORDINATE SYSTEM (MCLCS) GRAND VALLEY AREA (GVA) ZONE AND NAVD88 VERTICAL DATUM WITH GEOID 12A MODEL TO CONVERT ELLIPSOID HEIGHTS TO ORTHOMETRIC ELEVATIONS. THE MCLCS USED THE IN THE SAID WHS SURVEY ARE BASED UPON REFERENCE FROM:

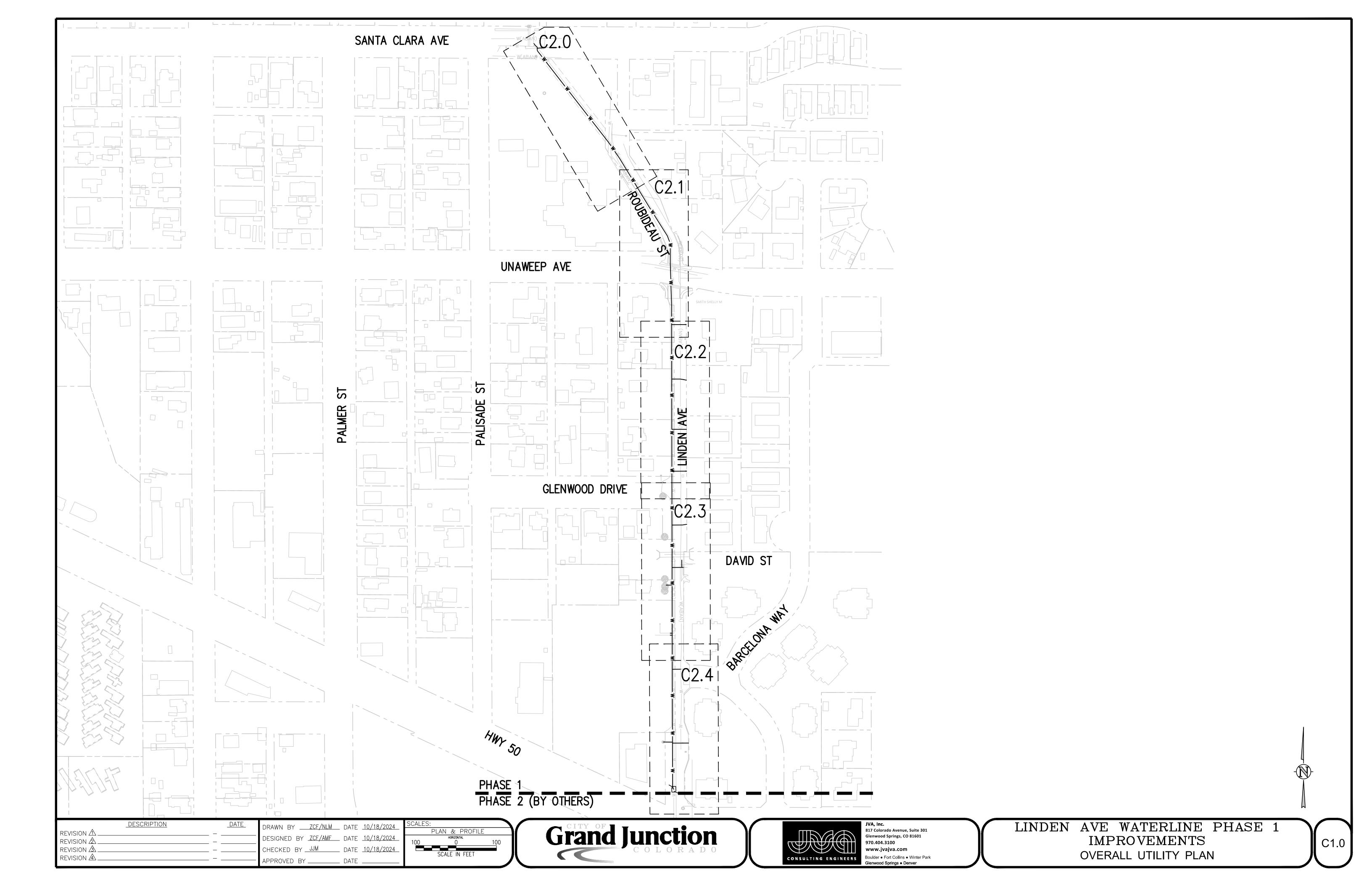
MESA COUNTY CONTROL POINT P310 - PRECISION B-5PPM NORTH 28231.71 SFT (MCGVA) EAST 92054.57 SFT (MCGVA) NAVD 88, G12A ELEVATION: 4631.32 SFT LATITUDE: 39° 02' 47.60643" N

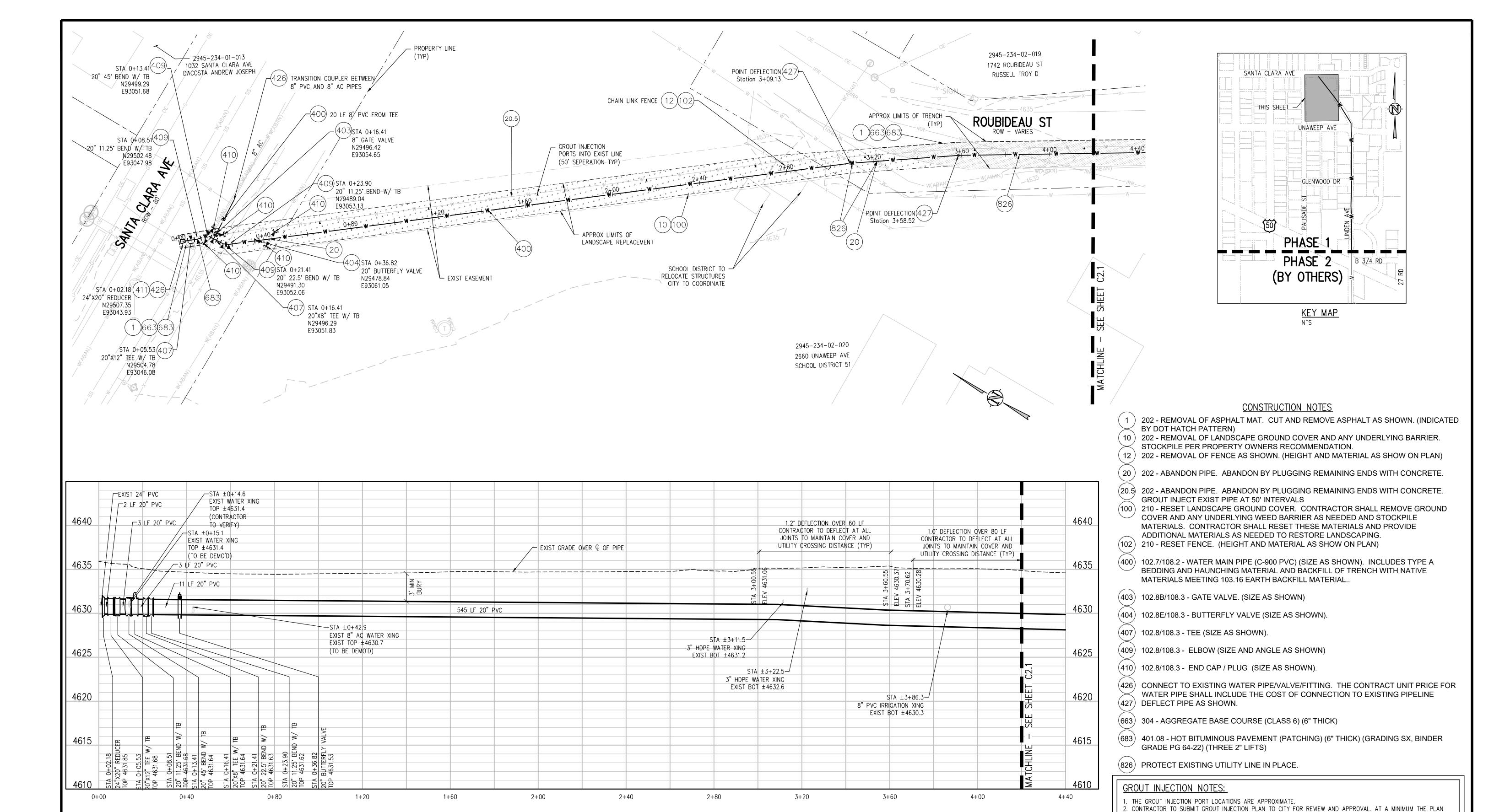
LONGITUDE: 108° 33' 42.12299" W ELLIPSOID HEIGHT: 1394,760 METER MESA COUNTY CONTROL POINT P318 - PRECISION B-5PPM NORTH 19671,32 SFT (MCGVA) EAST 110221.18 SFT (MCGVA) NAVD 88, G12A ELEVATION: 4793.43 SFT LATITUDE: 39° 01' 23.00622" N LONGITUDE: 108° 29' 51.95172" W ELLIPSOID HEIGHT: 1444.23 METERS

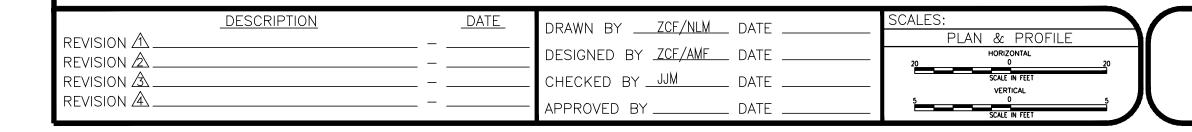
COMMENT: NGS 9/16" STAINLESS STEEL ROD IN MONUMENT WELL COMMENT: NGS 9/16" STAINLESS STEEL ROD IN MONUMENT WELL

- 18.1 BEARINGS ARE BASED ON GRID NORTH OF THE MESA COUNTY LOCAL COORDINATE SYSTEM IN THE GVA ZONE, LOCALLY DETERMINED BY GNSS OBSERVATIONS ON THE SHOWN INTERIOR ALIQUOT CORNER MONUMENTS RECOVERED IN SECTION 18., TOWNSHIP 1 NORTH AT RANGE 1 EAST FOR ITS CENTER NORTH 1/16TH CORNER AND THE NORTH 1/4 CORNER AS HAVING A MEASURED BEARING OF N 0' 00' 57" E AND A MEASURED DISTANCE OF 1319.22'. COORDINATE AND VERIFY ALL VERTICAL AND HORIZONTAL DATA SHOWN IN SURVEY AND REPORT ANY IRREGULARITIES OR DISCREPANCIES TO ENGINEER PRIOR TO CONSTRUCTION.
- 18.2 HORIZONTAL CONTROL INFORMATION: HORIZONTAL CONTROL COORDINATES ARE BASED ON THE REFERENCED SURVEY AND ARE PROVIDED ON SHEET C2.0 OF THE PLANS.
- 18.3 SURVEY UTILITY LOCATION INFORMATION PER THE SURVEYOR: SUBSURFACE UTILITIES ARE SHOWN IN APPROXIMATE HORIZONTAL AND VERTICAL LOCATIONS CONSISTENT WITH ASCE 38-02 QUALITY LEVEL "B" (INFORMATION OBTAINED BY THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND HORIZONTAL POSITION OF VIRTUALLY ALL UTILITIES WITHIN THE PROJECT LIMITS. THE INFORMATION OBTAINED IN THIS MANNER IS SURVEYED TO PROJECT CONTROL.) AND QUALITY LEVEL "C" (INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D; INFORMATION DERIVED FROM EXISTING RECORDS OR ORAL RECOLLECTIONS), AND BASED ON FIELD MEASUREMENTS PROVIDED BY THE OWNER AND THE CONTRACTOR. SUBSURFACE UTILITIES ARE NOT DEPICTED TO THE EXTENT SET FORTH IN ASCE 38-02 QUALITY LEVELS "A" (INFORMATION OBTAINED THROUGH THE NONDESTRUCTIVE EXPOSURE OF UNDERGROUND UTILITIES, AND ALSO PROVIDES THE TYPE, SIZE, CONDITION, MATERIAL AND OTHER CHARACTERISTICS OF UNDERGROUND FEATURES.). TO THE EXTENT DEEMED NECESSARY FOR THE PROTECTION OF PERSONS AND PROPERTY, POTHOLING OR OTHER PRECISE MAPPING MAY BE COMPLETED TO CONFIRM THE EXACT LOCATION OF ANY SUBSURFACE UTILITIES. NOTIFY OWNER AND ENGINEER WITH ALL UTILITY INFORMATION PRIOR TO CONSTRUCTION. VISIT HTTPS: //WWW.FHWA.DOT.GOV/PROGRAMADMIN/SUEINDEX.CFM FOR MORE INFORMATION.
- 18.4 SERVICE TAP LOCATIONS ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND RESTORING ALL SERVICE CONNECTIONS.
- 18.5 ALL SERVICE TAPS THAT DO NOT MEET A FOUR FOOT BURY DEPTH SHOULD BE INSULATED ACCORDING TO CITY STANDARDS
- 19. THE CONTRACTOR AT THE CONTRACTORS EXPENSE SHALL FURNISH THE OWNER AND ENGINEER OF RECORD A COMPLETE SET OF CONSTRUCTION RECORD DRAWINGS ("AS-BUILTS") FOR THE CONSTRUCTED IMPROVEMENTS. THE AS-BUILT SET SHALL SHOW SUFFICIENT DIMENSION TIES TO PERMANENT SURFACE FEATURES OR NORTHING/EASTING POINTS FOR ALL BURIED FACILITIES TO ALLOW FOR FUTURE LOCATING. THE AS-BUILT SET SHALL SHOW AS-BUILT CONTOURS AND ELEVATIONS OF ASPHALT AND CONCRETE FLATWORK, FLOWLINES, GRADE BREAKS, STAIRS, CROSS-SLOPES, HIGH AND LOW POINTS, AND ADDITIONAL ELEVATIONS TO DEMONSTRATE IMPROVEMENTS WERE CONSTRUCTED PER PLANS. THE AS-BUILT SET SHALL SHOW ELEVATIONS OF ALL DETENTION/WATER QUALITY FACILITIES, INCLUDING BUT NOT LIMITED TO BERMS, SPILLWAYS, BASIN BOTTOM, PIPE INVERTS, AND CONTROL STRUCTURE FEATURES (AS SURVEYED AND STAMPED BY A CERTIFIED P.L.S.). THE AS-BUILT SET SHALL ALSO INCLUDE ELEVATIONS OF MANHOLES, PIPES, INLETS, GRATES, AND SIZES OF ALL UTILITIES. THE AS-BUILT SET SHALL SHOW ANY AND ALL VARIATIONS FROM THE APPROVED PLAN. ENGINEER WILL PRODUCE FINAL RECORD DRAWINGS.

LINDEN AVE WATERLINE PHASE **IMPROVEMENTS** LEGEND, NOTES, & ABBREVIATIONS







Grand Junction

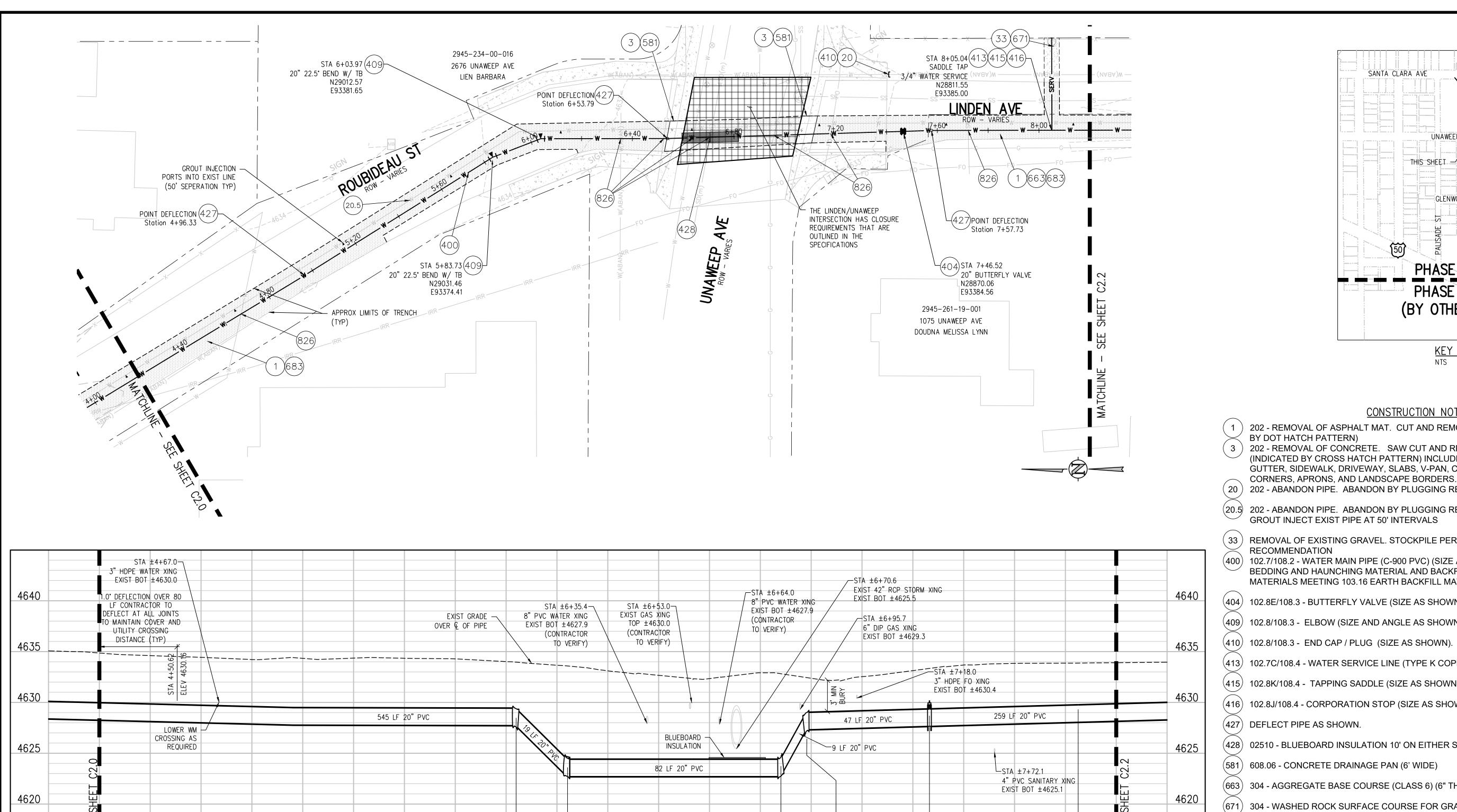


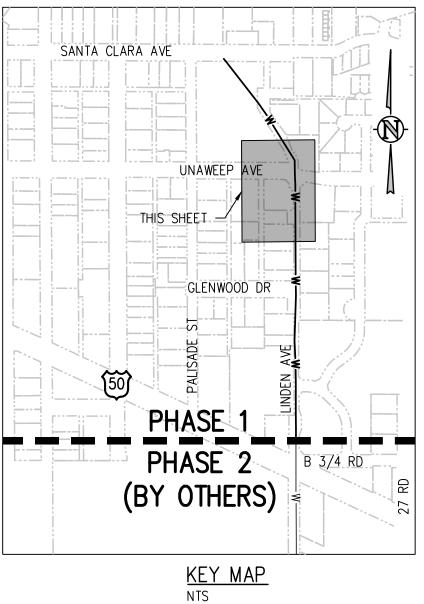
LINDEN AVE TRANSMISSION LINE REPLACEMENT — PHASE 1 LINDEN AVE WATERLINE PLAN AND PROFILE

SHOULD INCLUDE

MATERIAL SPECIFICATIONSSCHEDULE AND GROUTING PLANSUBCONTRACTOR INFORMATION

APPROXIMATE SPACING AND LOCATIONS





- 202 REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED
- 3) 202 REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION
- (20) 202 ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.
- (20.5) 202 ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE. GROUT INJECT EXIST PIPE AT 50' INTERVALS
- (33) REMOVAL OF EXISTING GRAVEL. STOCKPILE PER PROPERTY OWNERS
- (400) 102.7/108.2 WATER MAIN PIPE (C-900 PVC) (SIZE AS SHOWN). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL
- (404) 102.8E/108.3 BUTTERFLY VALVE (SIZE AS SHOWN).
- 409) 102.8/108.3 ELBOW (SIZE AND ANGLE AS SHOWN)
- (413) 102.7C/108.4 WATER SERVICE LINE (TYPE K COPPER) (SIZE AS SHOWN ON PLAN)
- (415) 102.8K/108.4 TAPPING SADDLE (SIZE AS SHOWN ON PLAN)
- (416) 102.8J/108.4 CORPORATION STOP (SIZE AS SHOWN ON PLAN)
- (427) DEFLECT PIPE AS SHOWN.
- (428) 02510 BLUEBOARD INSULATION 10' ON EITHER SIDE OF CROSSING.
- (581) 608.06 CONCRETE DRAINAGE PAN (6' WIDE)
- (663) 304 AGGREGATE BASE COURSE (CLASS 6) (6" THICK)
- (671) 304 WASHED ROCK SURFACE COURSE FOR GRAVEL DRIVEWAYS. MATCH EXISTING TYPE. THICKNESS IS 2" MIN. AND 3" MAX.
- (683) 401.08 HOT BITUMINOUS PAVEMENT (PATCHING) (6" THICK) (GRADING SX, BINDER GRADE PG 64-22) (THREE 2" LIFTS)
- (826) PROTECT EXISTING UTILITY LINE IN PLACE.

GROUT INJECTION NOTES:

4610

8+40

- THE GROUT INJECTION PORT LOCATIONS ARE APPROXIMATE.
- CONTRACTOR TO SUBMIT GROUT INJECTION PLAN TO CITY FOR REVIEW AND APPROVAL. AT A MINIMUM THE PLAN SHOULD INCLUDE
- APPROXIMATE SPACING AND LOCATIONS
- MATERIAL SPECIFICATIONS
- SCHEDULE AND GROUTING PLAN SUBCONTRACTOR INFORMATION

DESCRIPTION DRAWN BY <u>ZCF/NLM</u> DATE PLAN & PROFILE REVISION 🛆 DESIGNED BY <u>ZCF/AMF</u> DATE . REVISION 🛆 CHECKED BY <u>JJM</u> date _ REVISION A REVISION A. APPROVED BY _____ DATE _

4+80

4 + 40

5+20

4615

4610

4+00

Grand Junction

5+83.73 22.5° BEND 4629.50

5+60

6+03.97 22.5° BEND 4624.47

6 + 40

6+00

6+87.92 22.5° BEND 4624.47

6+80

6+98.07 22.5° BEN 4629.05

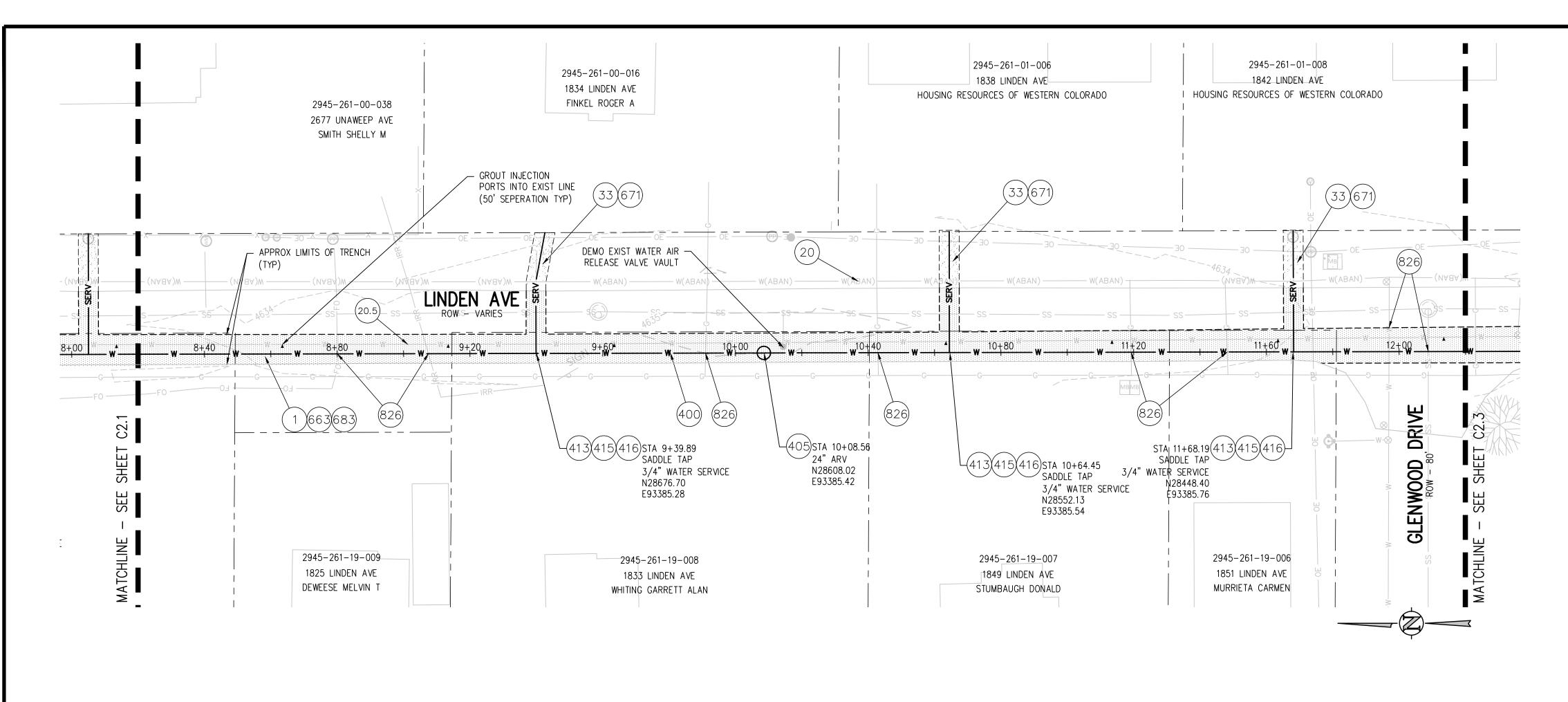
7+20

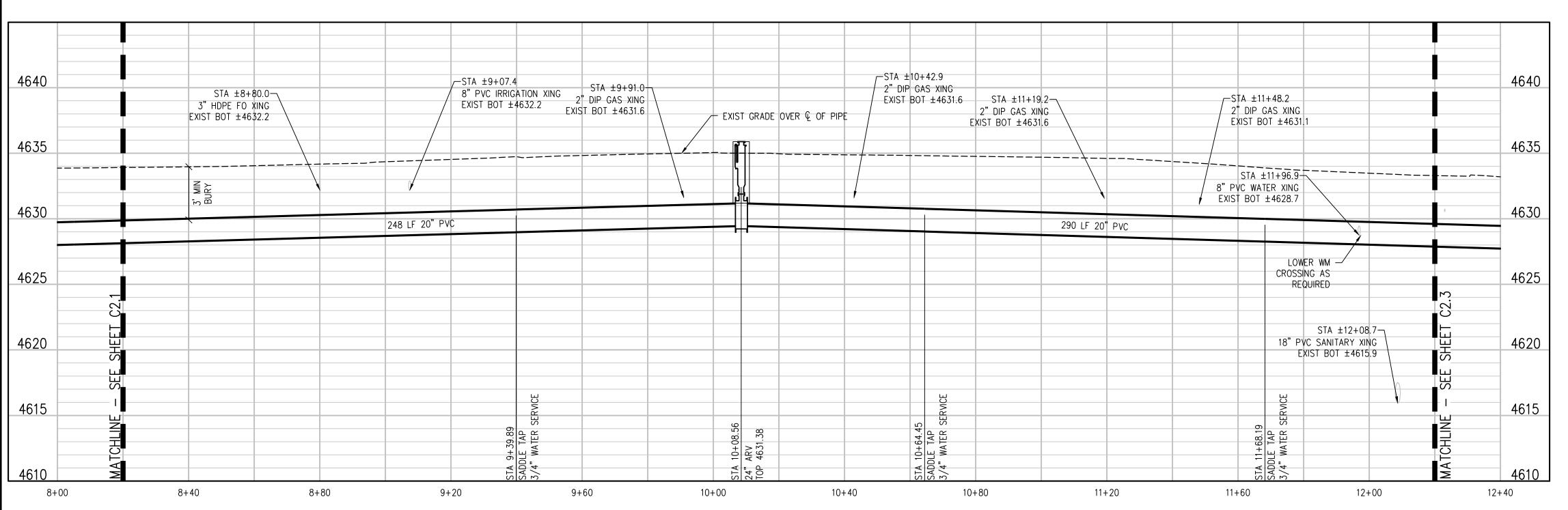


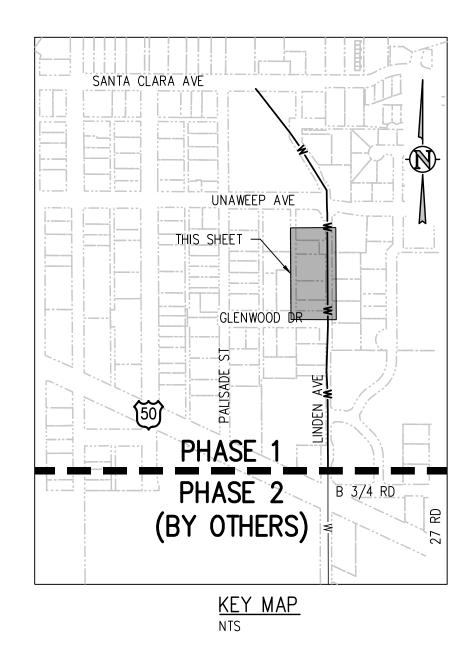
8+00

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LINDEN AVE TRANSMISSION LINE REPLACEMENT - PHASE 1 LINDEN AVE WATERLINE PLAN AND PROFILE



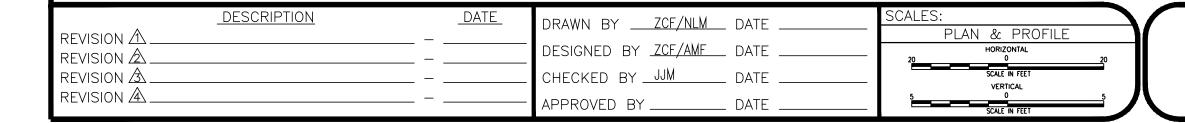




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- (20) 202 ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.
- (20.5) 202 ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE GROUT INJECT EXIST PIPE AT 50' INTERVALS
- (33) REMOVAL OF EXISTING GRAVEL. STOCKPILE PER PROPERTY OWNERS RECOMMENDATION
- (400) 102.7/108.2 WATER MAIN PIPE (C-900 PVC) (SIZE AS SHOWN). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- (405) 102.8G/102.8H/108.3 AIR VALVE AND VAULT (SIZE AS SHOWN).
- (413) 102.7C/108.4 WATER SERVICE LINE (TYPE K COPPER) (SIZE AS SHOWN ON PLAN)
- (415) 102.8K/108.4 TAPPING SADDLE (SIZE AS SHOWN ON PLAN)
- (416) 102.8J/108.4 CORPORATION STOP (SIZE AS SHOWN ON PLAN)
- (663) 304 AGGREGATE BASE COURSE (CLASS 6) (6" THICK)
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GROUT INJECTION NOTES:

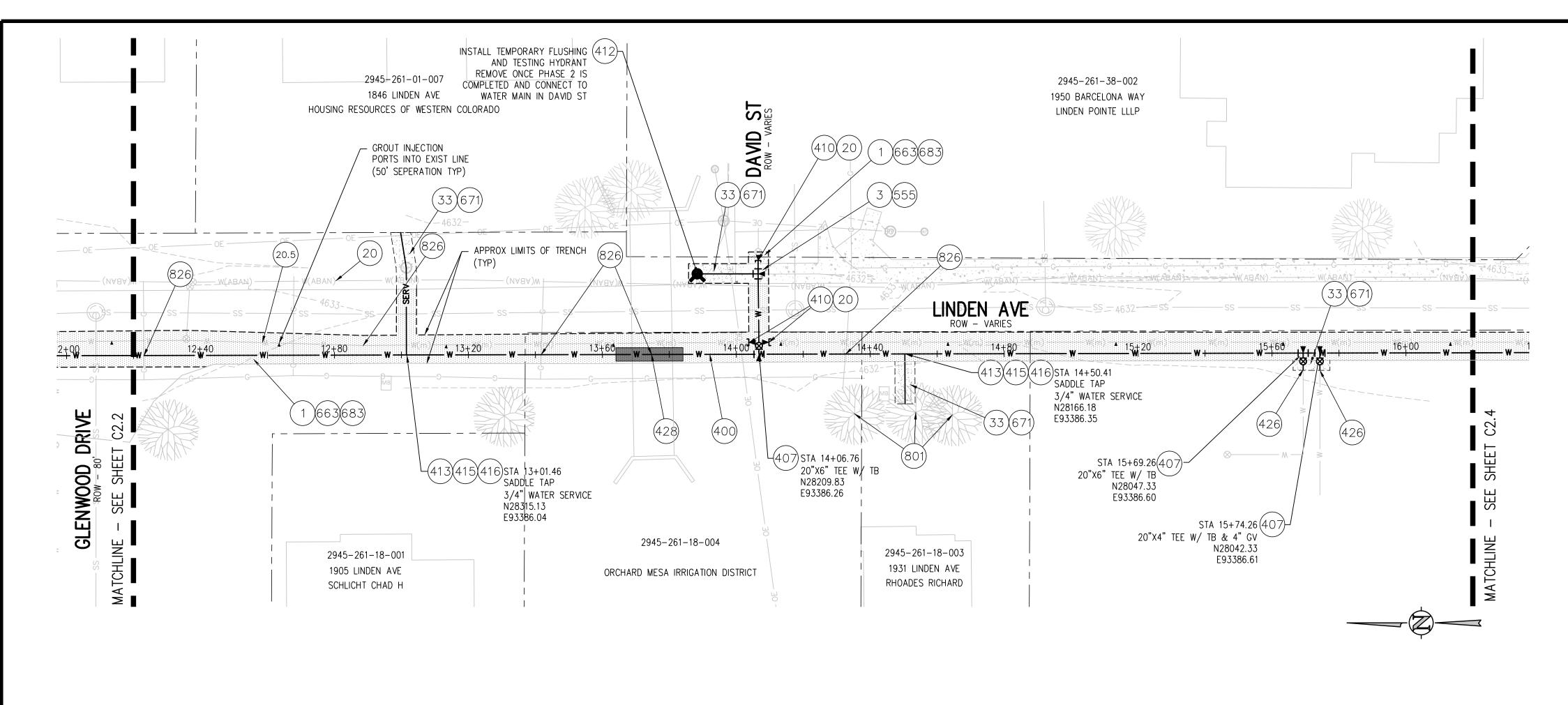
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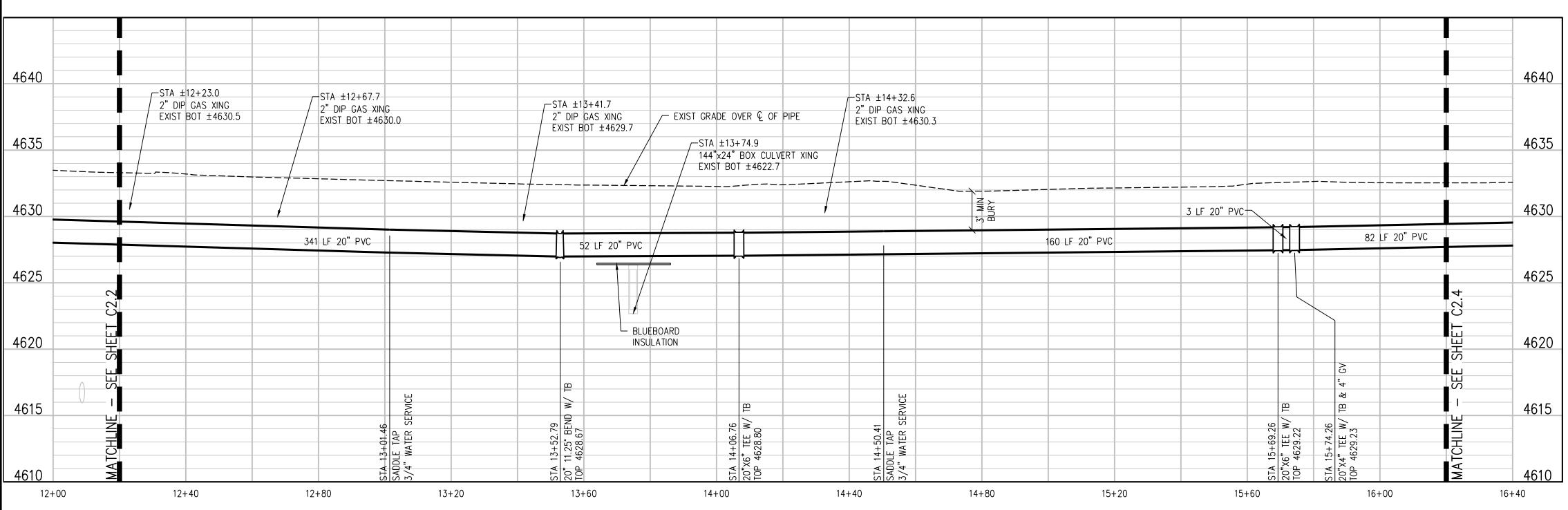


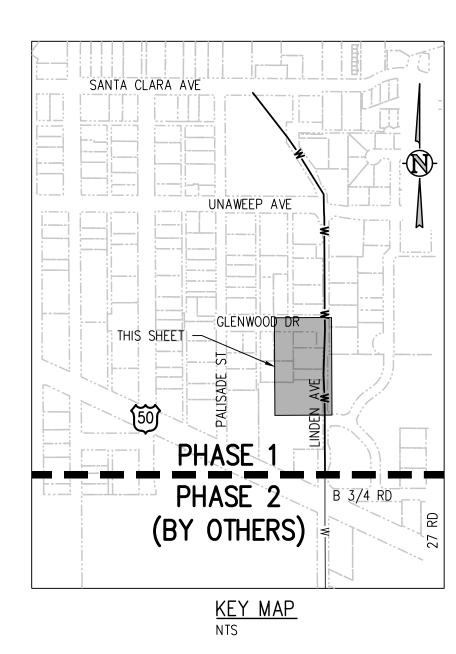




LINDEN AVE TRANSMISSION LINE REPLACEMENT - PHASE 1 LINDEN AVE WATERLINE PLAN AND PROFILE







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- GROUT INJECT EXIST PIPE AT 50' INTERVALS
- (33) REMOVAL OF EXISTING GRAVEL. STOCKPILE PER PROPERTY OWNERS
- RECOMMENDATION
- 400) 102.7/108.2 WATER MAIN PIPE (C-900 PVC) (SIZE AS SHOWN). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- (410) 102.8/108.3 END CAP / PLUG (SIZE AS SHOWN).
- (412) 102.8A/108.3 FIRE HYDRANT
- (413) 102.7C/108.4 WATER SERVICE LINE (TYPE K COPPER) (SIZE AS SHOWN ON PLAN)
- (415) 102.8K/108.4 TAPPING SADDLE (SIZE AS SHOWN ON PLAN)
- (416) 102.8J/108.4 CORPORATION STOP (SIZE AS SHOWN ON PLAN)
- (426) CONNECT TO EXISTING WATER PIPE/VALVE/FITTING. THE CONTRACT UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE
- (428) 02510 BLUEBOARD INSULATION 10' ON EITHER SIDE OF CROSSING.
- (663) 304 AGGREGATE BASE COURSE (CLASS 6) (6" THICK)
- (671) 304 WASHED ROCK SURFACE COURSE FOR GRAVEL DRIVEWAYS. MATCH EXISTING TYPE. THICKNESS IS 2" MIN. AND 3" MAX.
- (683) 401.08 HOT BITUMINOUS PAVEMENT (PATCHING) (6" THICK) (GRADING SX, BINDER GRADE PG 64-22) (THREE 2" LIFTS)
- (801) PROTECT TREE.
- (826) PROTECT EXISTING UTILITY LINE IN PLACE.

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 SCHEDULE AND GROUTING PLAN
- SCHEDULE AND GROUTING PLANSUBCONTRACTOR INFORMATION

DESCRIPTION

REVISION ⚠

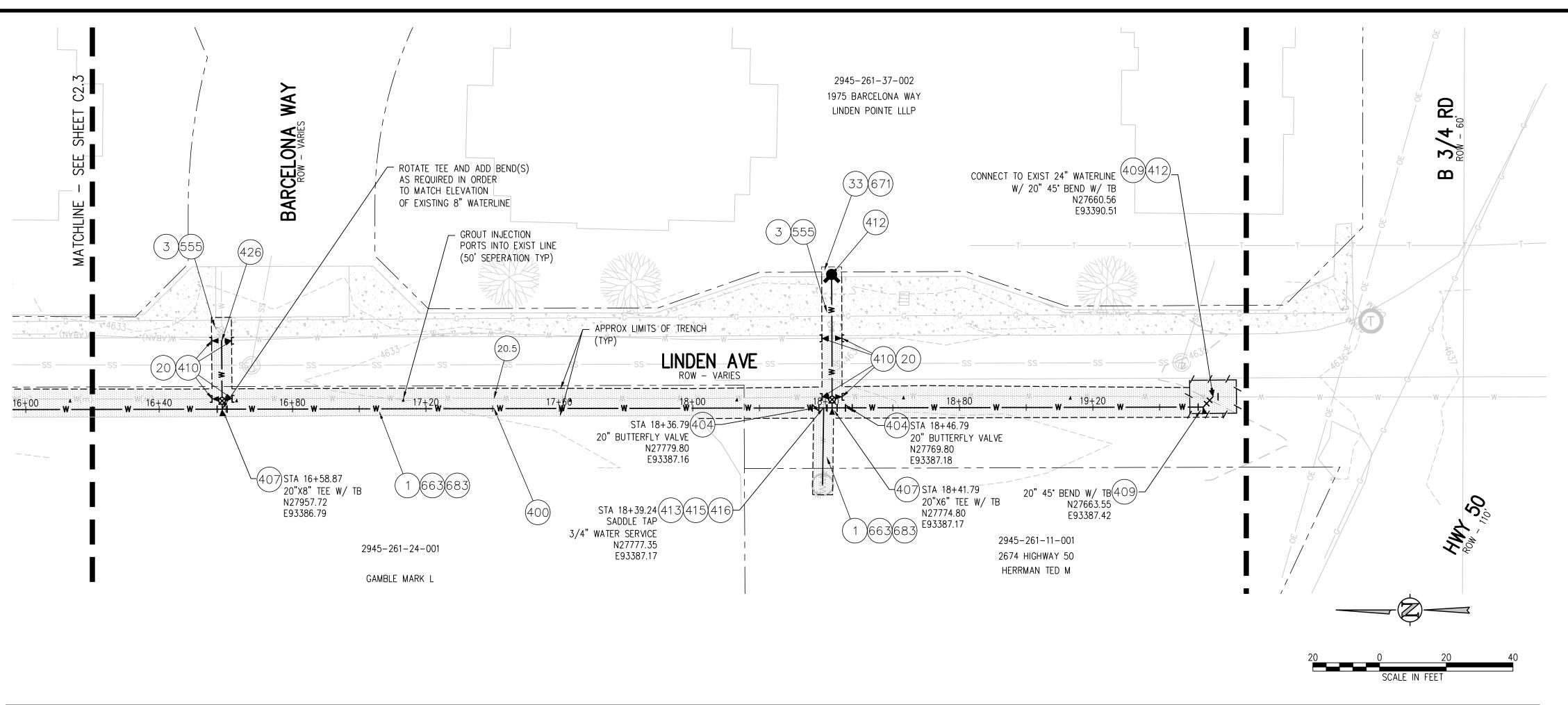
REVISION Æ

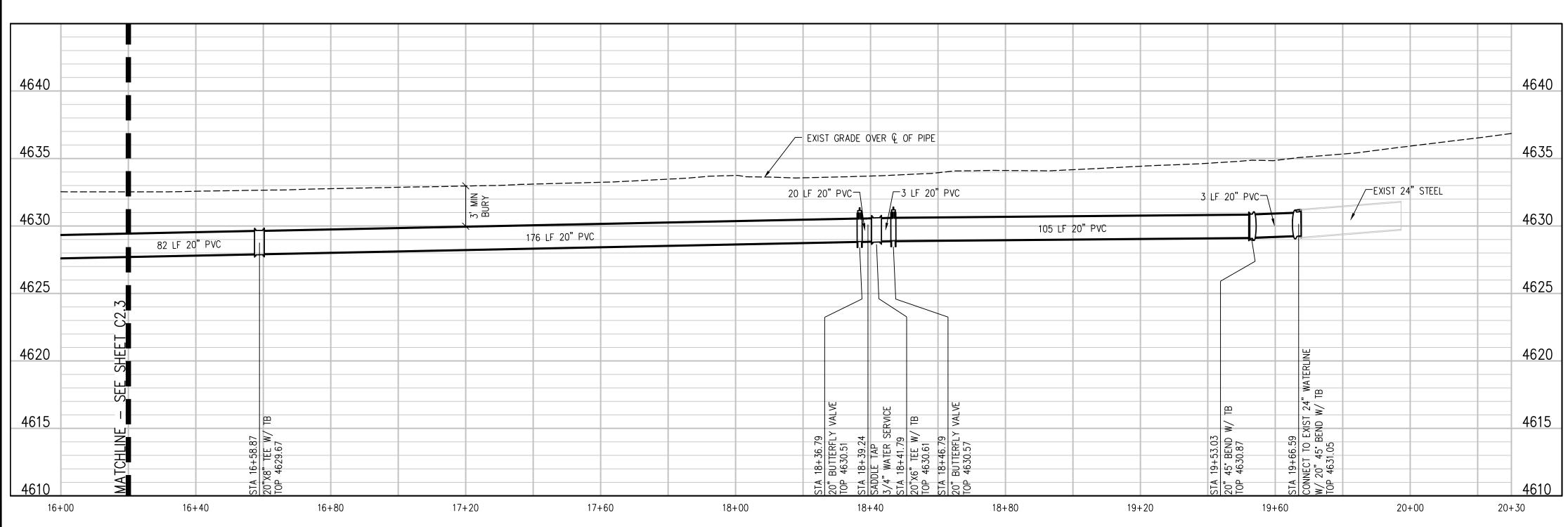
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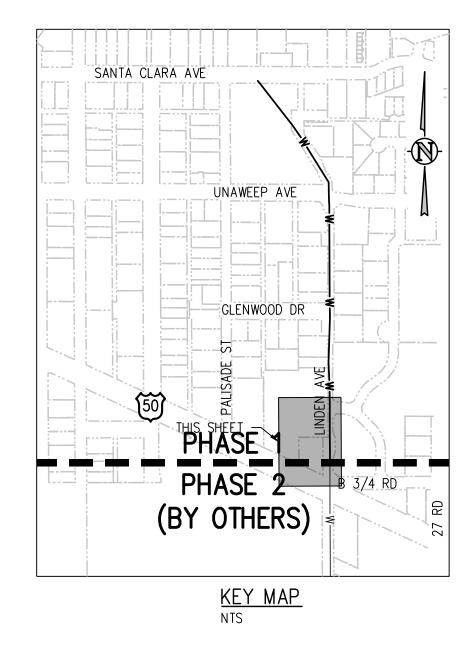




LINDEN AVE TRANSMISSION LINE REPLACEMENT — PHASE 1 LINDEN AVE WATERLINE PLAN AND PROFILE





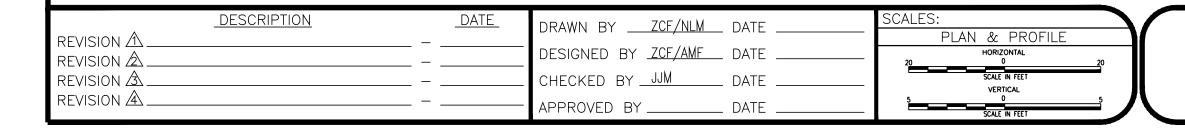


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- (415) 102.8K/108.4 TAPPING SADDLE (SIZE AS SHOWN ON PLAN)
- (416) 102.8J/108.4 CORPORATION STOP (SIZE AS SHOWN ON PLAN)
- CONNECT TO EXISTING WATER PIPE/VALVE/FITTING. THE CONTRACT UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE
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LINDEN AVE TRANSMISSION LINE REPLACEMENT — PHASE 1 LINDEN AVE WATERLINE PLAN AND PROFILE