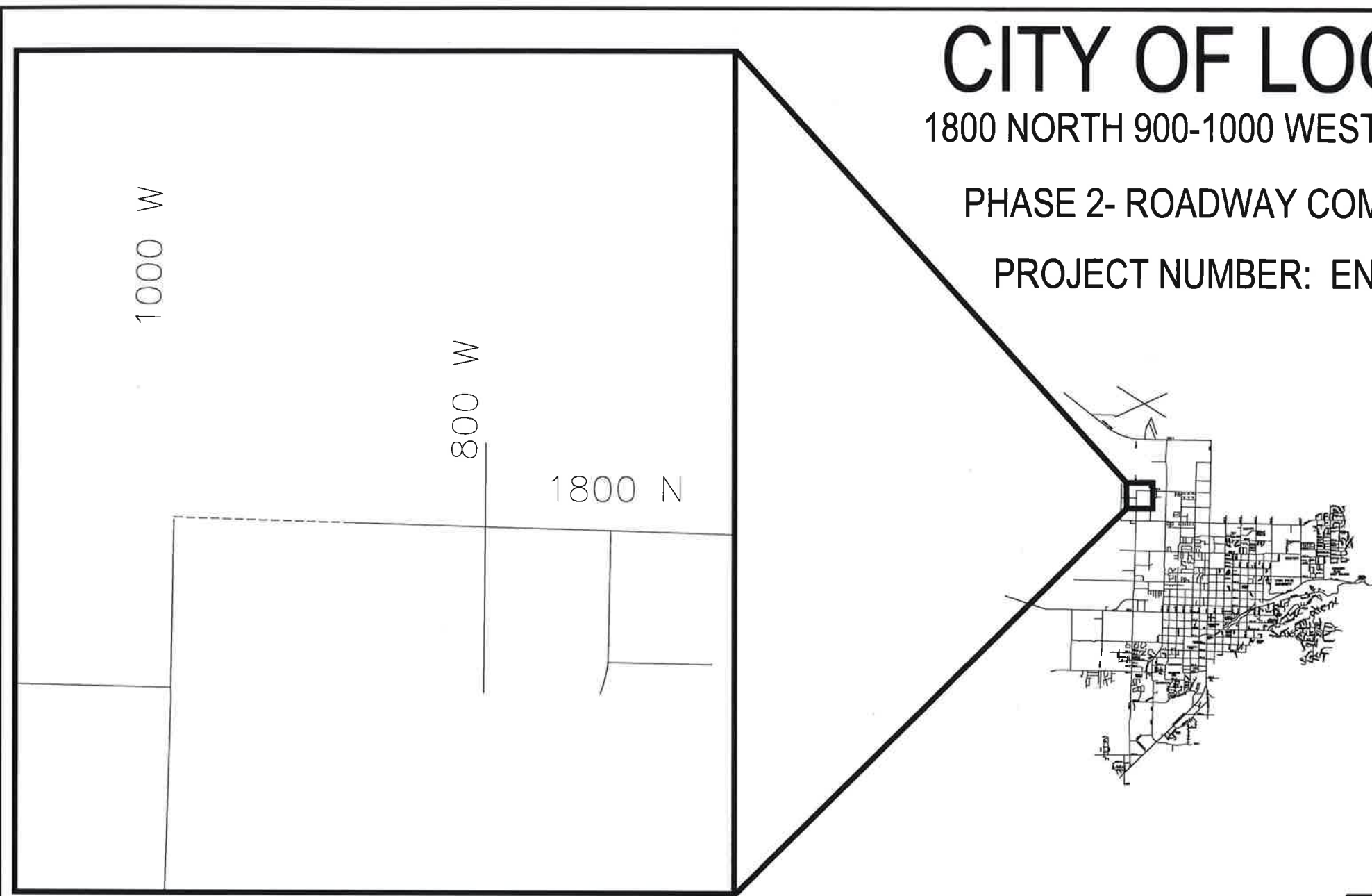
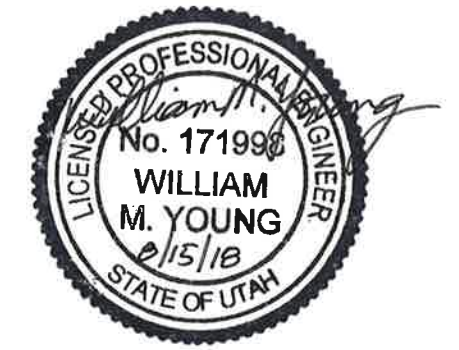


CITY OF LOGAN

1800 NORTH 900-1000 WEST ROADWAY
 PHASE 2- ROADWAY COMPLETION
 PROJECT NUMBER: ENG 09020



PROJECT LOCATION



THESE PLANS HAVE BEEN REVIEWED AND APPROVED BY THE FOLLOWING:

PUBLIC WORKS DIRECTOR:	<i>Paul Zolt</i>	8-14-18
	PAUL LINDHARDT, P.E.	DATE
WATER/WASTEWATER DIR.:	<i>Cameron Draney</i>	8-14-2018
	CAMERON DRANEY, P.E.	DATE
STREETS/STORMWATER DIVISION MANAGER:	<i>Paul Zolt</i>	8-14-18
	JED AL-IMARI	DATE
CITY ENGINEER:	<i>Bill Young</i>	8/15/18
	BILL YOUNG, P.E.	DATE

LEGEND AND SYMBOLS

LEGEND	
WETLANDS BOUNDARY	
EXISTING SEWER MAIN	
PROPOSED SEWER MAIN	
PROPOSED WATER MAIN	
EXISTING FENCE	
EXISTING STORM DRAIN	
PROPOSED STORM DRAIN	
ELEVATION DATUM	MAD 83
PROPOSED MANHOLE	
PROPOSED STORM DRAIN	
ASPHALT	
FILL	
GAS	
TELEPHONE	
EXISTING OVER HEAD POWER	
RIGHT OF WAY	

LOGAN CITY ENGINEERING
 290 NORTH 100 WEST
 LOGAN, UTAH 84321

DESIGNED: TDICKINSON	DATE: August 2, 2018
DRAFTED: TDICKINSON	PROJECT: ENG 09020
CHECKED: BYOUNG	REVISION: PHASE 2- ROADWAY COMPLETION

PRINT DATE/TIME: 8/7/18 4:38 PM

PROJECT FILE LOCATION: G:\public\Engineering\1000 West Design\DWG\DWGPhase 2\Roadway\1800 N COVER & GEN NOTES 6-14-18.dwg

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UT-DT-1	UTILITIES DETAILS- JOINT RESTRAINTS
UT-DT-2	UTILITIES DETAILS- COLLARS
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TS-7	SR-252 SHOULDER DETAIL
DT-14	SR-252 ROAD DETAILS
DT-15	SR-252 INTERSECTION DETAILS
SV-1	SURVEY CONTROL 1800 NORTH
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GENERAL NOTES

STANDARDS AND SPECIFICATIONS

- ALL CONSTRUCTION SHALL MEET CITY OF LOGAN STANDARDS AND SPECIFICATIONS (APWA 2007, AS AMENDED BY LOGAN CITY AS OF DATE APPROVED FOR CONSTRUCTION BY ENGINEER). STANDARDS AND SPECIFICATIONS CAN BE VIEWED AND PRINTED AT: [HTTP://WWW.LOGANUTAH.ORG/GOVERNMENT/DEPARTMENTS/PUBLIC_WORKS/ENGINEERING/ENGINEERING_DOCS.PHP](http://www.loganutah.org/government/departments/public_works/engineering/engineering_docs.php)
- ALL CONSTRUCTION WITHIN THE UDOT RIGHT-OF-WAY SHALL CONFORM TO THE MOST CURRENT UDOT STANDARDS, FOUND AT [WWW.UDOT.UTAH.GOV](http://www.udot.utah.gov)>INSIDE UDOT>PROJECT DEVELOPMENT>STANDARDSAND SPECIFICATIONS.
- ANY AMBIGUITIES OR CONFLICTS IDENTIFIED BY THE CONTRACTOR, CONTRACTOR'S REPRESENTATIVE, ENGINEER, OR ENGINEER'S REPRESENTATIVE SHALL BE IDENTIFIED TO THE ENGINEER IMMEDIATELY. THESE SHALL BE RESOLVED AT NO ADDITIONAL COST TO THE CITY BASED ON THE FOLLOWING ORDER OF PRECEDENCE (PER APWA 2007 SECTION 00 72 00, PART 3, SECTION 3.3) EXCEPT AS NOTED HEREIN:
 - CONTRACT FOR CONSTRUCTION (FROM BID DOCUMENTS)
 - MODIFICATIONS, ADDENDUMS, OR CHANGE ORDERS SHALL TAKE PRECEDENCE OVER ALL PREVIOUS MODIFICATIONS, ADDENDUMS, OR CHANGE ORDERS.
 - APWA 2007 GENERAL CONDITIONS SECTION 00 72 00 AS AMENDED BY LOGAN CITY
 - SPECIAL OR SUPPLEMENTAL SPECIFICATIONS
 - PLANS (DRAWINGS)
 - WRITTEN DIMENSIONS OVER MEASURED DIMENSIONS
 - SPECIAL DETAILS OVER PLANS AND PROFILES EXCEPT THAT LOGAN CITY STANDARD DETAILS SHALL TAKE PRECEDENCE OVER CONSTRUCTION DETAILS UNLESS STATED OTHERWISE BY CITY ENGINEER.
 - STORM WATER POLLUTION PREVENTION PLAN AND OTHER PERMITS
 - LOGAN CITY AMENDMENTS TO APWA 2007 STANDARD DRAWINGS
 - LOGAN CITY AMENDMENTS TO APWA 2007 STANDARD SPECIFICATIONS
 - APWA 2007 STANDARD DRAWINGS
 - APWA 2007 STANDARD SPECIFICATIONS
 - UDOT STANDARD AND SPECIFICATIONS LATEST VERSION
- CONTRACTOR IS SOLELY RESPONSIBLE TO REVIEW AND FULLY UNDERSTAND THE PLANS DURING BIDDING. DEVIATIONS OR DISCREPANCIES ARE TO BE IDENTIFIED DURING BIDDING IF AND WHEN IDENTIFIED.

SAFETY IN THE WORK ZONE

- ALL PERSONNEL ARE REQUIRED TO WEAR A MINIMUM OF HARD-HATS, STEEL TOE BOOTS AND SAFETY GLASSES WITHIN THE WORK ZONE.
- ORANGE OR FLORESCENT YELLOW VESTS OR CLOTHING SHALL BE WORN WHILE WORKING ON THIS PROJECT COMPLIANT WITH THE FOLLOWING:
 - CLASS 3 WHILE WORKING WITHIN UDOT RIGHT-OF-WAY OR WHERE VEHICLE VELOCITIES MAY EXCEED 50 MPH.
 - CLASS 2 WHILE WORKING WITHIN LOGAN CITY RIGHT-OF-WAY AND WHERE VEHICLE VELOCITIES ARE LESS THAN 50 MPH.
- ALL TRENCHING SHALL BE IN COMPLIANCE WITH OSHA 29 CFS, PART 1926. ALL SOILS SHALL BE CONSIDERED TYPE C WHILE PREPARING TRENCH SHORING CALCULATIONS UNLESS GEOTECHNICAL REPORT SPECIFIES A TYPE D.
- CONFORM TO ALL OTHER APPLICABLE OSHA RULES AND REGULATIONS WHILE WORKING ON THIS PROJECT.

EXISTING UTILITIES

- UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE ONLY.
- CONTRACTOR SHALL FIELD VERIFY ALL UTILITY LOCATIONS BY CONTACTING BLUE STAKES AT 1-800-662-4111 OR 811 AND OTHER APPLICABLE UTILITIES PRIOR TO EXCAVATION.
- UTILITY CONTACTS ARE AS FOLLOWS:
 - WATER AND SANITARY SEWER: CAMERON DRANEY (435) 770-5033, KASEY ERICKSON (435) 994-0316 OR JARED PRATT (435) 760-4728.
 - STORM WATER: JED AL-IMARI (435) 881-4327 OR SHAWN HANSEN (435) 994-0526.
 - LOGAN CITY LIGHT AND POWER: STEVE CROSBY (435) 716-9745 OR (435) 757-8530.
 - COMCAST: ALEX VASQUEZ (801) 245-5314
 - CENTURY LINK: PAUL HIGBY (435) 232-3916
 - QUESTAR: NICK WHITE (435) 213-5662 OR (435) 755-2205
- CONTRACTOR SHALL POT-HOLE AND LOCATE EXISTING UTILITIES WHEN NECESSARY TO ENSURE CONSTRUCTION DOES NOT IMPACT EXISTING UTILITIES AND THAT THE LOCATION OF EXISTING UTILITIES DOES NOT AFFECT CONSTRUCTION. POT-HOLING SHALL BE DONE AT THE BEGINNING OF THE PROJECT IN ORDER TO PROVIDE UTILITY OWNERS ADEQUATE TIME TO RELOCATE SERVICES IF NECESSARY OR TO ALLOW ENGINEER TO REDESIGN PRIOR TO FABRICATION OF PRE-CAST STRUCTURES.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COSTS AND REPAIRS DUE TO DAMAGE OF EXISTING UTILITIES. ALL UTILITIES MAY NOT BE SHOWN ON PLANS.
- ALL UTILITIES SHALL BE KEPT IN WORKING ORDER EXCEPT FOR THE MINIMUM TIME NEEDED FOR EXCAVATION, TRENCHING, CONNECTIONS, ETC.
- APPROVAL FROM THE ENGINEER IS REQUIRED PRIOR TO IRRIGATION, WATER, POWER, AND SEWER SHUT-DOWNS IF REQUIRED TO COMPLETE THIS PROJECT. ALL AFFECTED ENTITIES AND PROPERTY OWNERS SHALL BE NOTIFIED 48 HOURS PRIOR TO APPROVED SHUTDOWNS.

PERMITS

- CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT (CITY OF LOGAN) PRIOR TO INITIATING ANY SITE DISTURBANCE OR CONSTRUCTION.
- CONTRACTOR SHALL OBTAIN REQUIRED UDOT ENCROACHMENT PERMITS INCLUDING ALL LABOR AND ASSOCIATED DOCUMENTS AND COST.
- CONTRACTOR SHALL OBTAIN A LOGAN CITY LAND DISTURBANCE PERMIT.
- CONTRACTOR SHALL COMPLY WITH THE TERMS OF ALL PERMITS REQUIRED FOR THIS PROJECT.
- THE CONTRACTOR SHALL PREPARE AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE CITY WILL DELEGATE AUTHORITY TO THE CONTRACTOR TO INSTALL AND MAINTAIN BMPs, INSPECT AND MANAGE THE SITE, AND UPDATE AND MANAGE THE SWPPP DURING CONSTRUCTION. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE SWPPP. ANY CHANGES TO THE SWPPP MUST BE SUBMITTED TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL. CONTRACTOR SHALL MAINTAIN A COPY OF THE SWPPP AT THE PROJECT SITE. SWPPP SHALL BE AVAILABLE FOR REVIEW DURING NORMAL WORK HOURS.
- THE CONTRACTOR SHALL OBTAIN THE NOTICE OF INTENT (NOI) FROM THE STATE OF UTAH DEQ DWQ. THE SELECTED CONTRACTOR WILL BE LISTED AS THE OPERATOR ON THE PERMIT AND WILL BE EXPLICITLY RESPONSIBLE FOR MANAGEMENT OF ALL SWPPP RESPONSIBILITIES.
- CONTRACTOR SHALL OBTAIN AND KEEP COPIES OF ALL REQUIRED PERMITS AT PROJECT LOCATION DURING REASONABLE WORKING HOURS.
- DEWATERING IS EXPECTED. CONTRACTOR SHALL OBTAIN DEWATERING PERMITS FROM THE STATE AND COMPLY WITH ALL STATE REQUIREMENTS. NO DISCHARGE SHALL ENTER WETLANDS.

CONSTRUCTION NOTES

SURVEY AND CONSTRUCTION STAKING

- CONTRACTOR SHALL PROVIDE ALL SURVEY FOR THE PROJECT BY A LICENSED PROFESSIONAL SURVEYOR WHO IS LICENSED IN THE STATE OF UTAH. SURVEY WILL INCLUDE, BUT IS NOT LIMITED TO:
 - CONSTRUCTION STAKING, INCLUDING CREATING ALL STAKE OUT FILES.
 - UTILITY LOCATIONS
 - PROVIDE SURVEY FOR UTILITY RELOCATION FOR UTILITY PROVIDERS
 - ROW AND ROAD CENTERLINE MARKERS (CITY PROVIDED PER CITY SURVEYOR)
 - LIMIT OF DISTURBANCE
 - SURVEY AND MARKING OF BOUNDARY OF WETLANDS TO BE PROTECTED
 - AREAS AND LIMITS OF DEMOLITION
 - VERIFICATION OF QUANTITIES FOR EACH PAYMENT REQUEST
- SURVEYOR SHALL PROVIDE COMPLETE RECORD DRAWINGS (INCLUDING RED LINE DRAWINGS WITH SURVEY POINTS VERIFYING LOCATIONS) SHOWING WHERE ANY CHANGES IN THE ORIGINAL DESIGN WHERE REQUIRED. FINAL PUNCH LISTS AND FINAL PAYMENTS SHALL NOT BE MADE UNTIL RECORD DRAWINGS HAVE BEEN RECEIVED, REVIEWED, CORRECTED WHERE REQUIRED, AND APPROVED BY ENGINEER.
- ALL SURVEY CONTROL DATA ARE INCLUDED ON SV SHEETS. DIGITAL FILES WILL **NOT** BE MADE AVAILABLE TO SURVEYOR FROM CITY.

ACCESS AND IRRIGATION IMPACTS

- PROPERTY OWNERS SHALL BE GIVEN 48-HOURS NOTICE OF DRIVEWAY ACCESS RESTRICTIONS DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING PROPERTY AND BUSINESS OWNERS AS ASPHALT, NEW PIPING, AND CONCRETE ARE INSTALLED WHERE IMPACTING ACCESS.
- CAMPBELL SCIENTIFIC INC. LOCATED AT 815 WEST 1800 NORTH RECEIVES DAILY DELIVERIES BETWEEN 8:00 AND 10:00 A.M. ON WEEKDAYS. DAILY SHIPMENT PICKUPS ARE MADE BETWEEN 3:00 AND 5:00 P.M. ON WEEKDAYS. WORK SHALL BE SCHEDULED TO ALLOW THE WEST MOST DRIVEWAY TO REMAIN OPEN AND AVAILABLE FOR DELIVERY AND PICK UPS AT THE NOTED TIMES.
- DAMAGE OF EXISTING IRRIGATION SYSTEMS AND BOXES WILL BE REPAIRED BY CONTRACTOR.
- CONTRACTOR SHALL ENSURE IRRIGATION WATER IS AVAILABLE TO ALL USERS OF THE SYSTEM AT TIMES OF THEIR SCHEDULED USE. COORDINATE INTERRUPTIONS WITH USERS. AUTHORIZED USERS OF THE IRRIGATION SYSTEM SHALL BE GIVEN 48 HOURS NOTICE PRIOR TO INTERRUPTIONS TO IRRIGATION SYSTEM.

REVEGETATION

- DISTURBED PARKSTRIPS (EXISTING) SHALL BE STABILIZED WITH SOD FROM A LOCAL VENDOR AND MONITORED MONTHLY UNTIL THE GRASS IS ESTABLISHED.
- SHOULDERS SHALL BE BACKFILLED WITH 6-INCHES OF TOP SOIL TO TOP BACK OF CURB AND REVEGETATED BY BROADCAST SEED APPLICATION OF ENGINEER APPROVED WILD SEED MIXTURE IN ACCORDANCE WITH MANUFACTURER'S APPLICATION INSTRUCTIONS. SEE SN-2
- RESTORE LANDSCAPING: DISTURBED LANDSCAPING SHALL BE RESTORED TO ORIGINAL CONDITION BY GRADING, SHAPING, AND INSTALLING SOD GRASS PURCHASED FROM A LOCAL VENDOR.

PIPE MATERIALS

- ALL PIPE LABELED AS HDPE SHALL BE POLYETHYLENE PIPE (PE) WITH CORRUGATED EXTERIOR WALL WITH SMOOTH INTERIOR WALL (PE TYPE S PER APWA SECTION 33 05 06). CONTRACTOR HAS THE OPTION TO INSTALL REINFORCED CONCRETE PIPE (CP) FOR IRRIGATION AND STORM DRAIN PIPING AT CONTRACTOR'S EXPENSE. REINFORCED CONCRETE PIPE SHALL BE ASTM C 76 CLASS III PIPE AS PER APWA SECTION 33 05 03.
- PIPING SHALL BE INSTALLED IN ACCORDANCE WITH LOGAN CITY STANDARD AND APWA STANDARDS AND SPECS AS AMENDED BY LOGAN CITY. REFERENCE APWA PLAN NO.382S.

CLEANOUT BOXES/VAULTS/JUNCTION STRUCTURES/IRRIGATION STRUCTURES/CATCH BASINS ETC. (LOGAN CITY R.O.W.)

- ALL STRUCTURES LOCATED WITHIN THE LOGAN CITY RIGHT OF WAY SHALL BE PER LOGAN CITY STANDARD .
- DIMENSIONS OF STRUCTURES ARE BASED ON INSIDE DIMENSIONS.
- ALL STRUCTURES SHALL BE HS-20 LOAD RATED.
- ALL STRUCTURES IN PARK-STRIPS SHALL BE CONSTRUCTED PER APWA 2007, CLEANOUT BOX, PLAN NO. 341. SIZES ARE AS SPECIFIED ON PLANS.
- ALL CATCH BASINS LOCATED WITHIN THE CURB AND GUTTER SHALL BE CONSTRUCTED TO ALLOW INSTALLATION OF D&L MODEL I-3517 TYPE L GRATE WITH FRAME AND HOOD (OR EQUIVALENT).
- IRRIGATION AND JUNCTION STRUCTURES SHALL HAVE FLAT GRATES AS DIMENSIONED ON PLANS. GRATES SHALL BE FLUSH WITH FRAME.
- WHEN GRATE OR LID IS IN GRASS AREA, INSTALL GRATE FLUSH WITH EXISTING SOIL UNLESS INSTRUCTED OTHERWISE.
- GROUT ALL WALL PENETRATIONS WITH CEMENT BASED SHRINKAGE RESISTANT GROUT PER APWA 2007, SECTION 03 61 00.
- INSTALL CONCRETE COLLARS AT THE EXTERIOR SIDE OF ALL PIPE PENETRATIONS.

CLEANOUT BOXES/VAULTS/JUNCTION STRUCTURES/IRRIGATION STRUCTURES/CATCH BASINS ETC. (UDOT R.O.W.)

- ALL STRUCTURES, GRATES, AND COVERS LOCATED WITHIN THE UDOT RIGHT OF WAY SHALL CONFORM TO UDOT STANDARDS AND SPECIFICATIONS.
- GROUT ALL WALL PENETRATIONS WITH CEMENT BASED SHRINKAGE RESISTANT GROUT PER APWA 2007, SECTION 03 61 00.
- INSTALL CONCRETE COLLARS AT THE EXTERIOR SIDE OF ALL PIPE PENETRATIONS

QUALITY CONTROL TESTING

- CONTRACTOR SHALL EMPLOY AN APPROVED AGENCY TO PROVIDE TESTING AND OBSERVATION FOR PLACEMENT OF UNTREATED BASE COURSE, SUBGRADE PREPARATION , PLACEMENT OF TRENCHING AND BACKFILL, PLACEMENT OF GRANULAR BORROW MATERIAL, AND ASPHALT FOR THE PROJECT IN ACCORDANCE WITH THE APPROPRIATE SECTIONS OF APWA MANUAL OF STANDARDS AND SPECIFICATIONS AS AMENDED BY LOGAN CITY.
- CONTRACTOR SHALL EMPLOY AN AGENCY APPROVED BY UDOT TO PERFORM TESTING AND SAMPLING OF MATERIALS LOCATED WITHIN THE UDOT RIGHT OF WAY.
- QUALITY CONTROL TESTING SHALL PROVIDE PROCTOR. GRADATION, AND CBR VALUES FOR UNTREATED BASE COURSE MATERIAL PROPOSED AS PART OF THIS PROJECT.
- QUALITY CONTROL TESTING SHALL PROVIDE FIELD TESTING AND LAB SAMPLING OF ASPHALT COLLECTED IN THE FIELD..
- FIELD TEST RESULTS SHALL BE IMMEDIATELY SUBMITTED TO THE PROJECT MANAGER FOR THE CITY OF LOGAN, UDOT, THE DESIGNATED PUBLIC WORKS INSPECTOR FOR THE PROJECT, AND A COPY OF EACH REPORT KEPT ONSITE. EACH FAILED FIELD TEST AND ITS CORRESPONDING PASSING TEST SHALL BE CLEARLY IDENTIFIED IN EACH FIELD TEST REPORT.
- LABORATORY TEST RESULTS SHALL BE SUBMITTED TO THE PROJECT MANAGER FOR THE CITY OF LOGAN AND UDOT WITHIN 48 HOURS OF DETERMINATION.
- A FINAL SUMMARY REPORT, IN TABULAR FORM, SHALL BE SUBMITTED TO THE PROJECT MANAGER FOR THE CITY OF LOGAN AND UDOT PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. THE FINAL SUMMARY REPORT SHALL INCLUDE TABULAR RESULTS SHOWING EACH FAILED TEST AND ITS CORRESPONDING PASSING TEST.

EXCAVATION


- OTHER THAN 3-INCH MINUS GRANULAR BORROW MATERIAL THAT WAS PLACED IN PHASE I AND EXCAVATED MATERIAL FROM UDOT 4-FT ASPHALT SHOULDER, EXCAVATED MATERIALS SHALL NOT BE REUSED. THE CONTRACTOR IS RESPONSIBLE FOR ALL EQUIPMENT, LABOR, AND MATERIALS NEEDED TO EXCAVATE AND HAUL MATERIALS FROM SITE.
- GROUND WATER HAS BEEN OBSERVED ON THE SURFACE AND UP TO 12-INCHES BELOW THE ORIGINAL GROUND SURFACE. DEWATERING IS EXPECTED. DISCHARGE SHALL NOT ENTER WETLANDS. CONTRACTOR IS RESPONSIBLE FOR MATERIALS, EQUIPMENT AND LABOR NECESSARY TO DEWATER EXCAVATED AREAS WHERE NECESSARY.

EXISTING GRANULAR BORROW FROM PHASE I

- 3-INCH MINUS GRANULAR BORROW WAS PLACED TO A DEPTH OF APPROXIMATELY 44-INCHES AS PART OF PHASE I OF THIS PROJECT. THE GRANULAR BORROW MATERIAL WAS PLACED FROM THE TOP OF SUITABLE SUBGRADE MATERIAL TO THE BOTTOM OF THE TEMPORARY ASPHALT SURFACING.
- SUBSEQUENT TO REMOVAL OF TEMPORARY ASPHALT SURFACE MATERIALS, GRANULAR BORROW MATERIALS SHALL BE EXCAVATED/GRADED A SUFFICIENT DEPTH TO ALLOW FOR THE INSTALLATION OF 8-INCHES OF UNTREATED BASE COURSE AND 8 1/2- INCHES OF ASPHALT. EXCAVATED/GRADED GRANULAR BORROW MATERIAL SHALL BE FREE OF DEBRIS AND WILL BE REUSED AS NEEDED FOR THE UDOT SHOULDER/ASPHALT SECTION AND FOR BACKFILLING OTHER AREAS AS NEEDED. EXCESS GRANULAR BORROW MATERIAL SHALL BE SALVAGED TO THE CITY OF LOGAN AND HAULED TO A DESIGNATED STORAGE AREA WITHIN THE LOGAN PUBLIC WORKS YARD LOCATED NEAR 450 NORTH 1000 WEST IN LOGAN.
- IF SOFT SPOTS ARE ENCOUNTERED, REMOVE MATERIAL AND REPLACE WITH GRANULAR BORROW.

EXISTING ASPHALT SURFACE (MILL TAILINGS)

- ASPHALT MILL TAILINGS WERE INSTALLED AND COMPACTED AS PART OF PHASE I OF THIS PROJECT. 4-INCHES OF TAILINGS WERE PLACED ON TOP OF GRANULAR BORROW MATERIAL.
- CONTRACTOR SHALL REMOVE THE EXISTING ASPHALT MILL TAILING SURFACE AND SALVAGE TO THE CITY OF LOGAN. SALVAGED MATERIAL SHALL BE REMOVED, AND HAULED TO A DESIGNATED AREA LOCATED AT THE CITY OF LOGAN PUBLIC WORKS STORAGE YARD LOCATED NEAR 450 NORTH 1000 WEST.

SHEET NO: GN-1	
SCALE: NO SCALE	VERIFY SCALE: 1" = 12' SHOWN SCALE IF PLOTTED ON B SIZE PAPER
REVISION BLOCK: PHASE 2: ROADWAY COMPLETION	
DESIGNED: TIDCKINSON	CHECKED: BYOUNG
DRAFTED: TIDCKINSON	DATE: August 2, 2018
DATE: August 2, 2018	ENG'G: ENG 08020
1800 NORTH 900-1000 WEST ROADWAY	
GENERAL NOTES	
LOGAN CITY ENGINEERING 290 NORTH 100 WEST LOGAN, UTAH 84321	
	

GENERAL NOTES (CONT.)

SHAPE AND FINISH SHOULDER OF ROADWAY (LOGAN R.O.W.)

1. USING "CUT TO FILL" MATERIAL, CONTRACTOR SHALL INSTALL AND COMPACT GRANULAR BORROW TO SHAPE AND CONTOUR NEW ROADWAY SHOULDERING TO THE EXTENT SHOWN IN PLAN SHEETS. THE SHOULDER OF THE ROADWAY SHALL BE INSTALLED TO THE EXTENTS SHOWN ON PLAN SHEETS.
2. 6-INCHES OF TOPSOIL SHALL BE APPLIED TO SHOULDER. UPON ACCEPTABLE APPLICATION OF TOPSOIL, BROADCAST SEED MEETING THE MIX AND CONSISTENCY NOTED IN PROJECT SPECIFIC NOTES.
3. GRANULAR BACKFILL BORROW AT SHOULDER SHALL BE COMPACTED IN PLACE IN ORDER TO MEET THE DEFINITION OF "STABILIZED" AS DEFINED IN THE DEQ STORMWATER CONSTRUCTION GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES (UTRC00000).

SHAPE AND FINISH SHOULDER OF ROADWAY (UDOT)

1. USING "CUT TO FILL" MATERIAL AND/OR MATERIAL EXCAVATED FOR THE INSTALLATION OF "UDOT 4-FT PAVED SHOULDER", CONTRACTOR SHALL INSTALL AND COMPACT GRANULAR BORROW TO SHAPE AND CONTOUR NEW ROADWAY SHOULDERING TO THE EXTENT SHOWN IN PLAN SHEETS. THE SHOULDER OF THE ROADWAY SHALL BE INSTALLED TO THE EXTENTS SHOWN ON PLAN SHEETS AT A MAXIMUM 3:1 SLOPE..
2. GRANULAR BORROW AT SHOULDER SHALL BE COMPACTED IN PLACE IN ORDER TO MEET THE DEFINITION OF "STABILIZED" AS DEFINED IN THE DEQ STORMWATER CONSTRUCTION GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES (UTRC00000).

ROAD AND LANE CLOSURES

1. CONTRACTOR SHALL COORDINATE LANE CLOSURES AND PARTIAL AND COMPLETE ROAD CLOSURES WITH THE ENGINEER. CONTRACTOR SHALL PROVIDE NOTICE OF ROAD CLOSURE TO LOCAL AREA BUSINESSES AT LEAST 48-HOURS IN ADVANCE OF CLOSURE. CONTRACTOR SHALL NOTIFY EMERGENCY SERVICES, CACHE VALLEY TRANSIT AUTHORITY, LOGAN CITY ENVIRONMENTAL DEPARTMENT (COLLECTIONS), AND THE SCHOOL DISTRICT OF EACH SCHEDULED CLOSURE AT LEAST 48- HOURS PRIOR TO CLOSURE. PROVIDE ACCESS TO LOCAL BUSINESSES WITHIN THE PROJECT AREA AT ALL TIMES.
2. ACCESS TO ALL BUSINESSES WITHIN THE PROJECT AREA SHALL BE COORDINATED WITH BUSINESS OWNERS AND REASONABLY MAINTAINED DURING CONSTRUCTION.
3. ROAD CLOSURES SHALL BE KEPT TO A MINIMUM. CONTRACTOR SHALL PROVIDE AND MAINTAIN A SAFE WORK ZONE TO THE TRAVELING PUBLIC UPON CESSATION OF WORK FOR MORE THAN 3-DAYS. THE WORK ZONE SHALL BE MADE SAFE IN ALL DIRECTIONS WITHIN 3 DAYS OF CESSATION OF WORK (WHEN CREWS ARE NOT ONSITE AND ACTIVELY WORKING). UPON CESSATION OF WORK, THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL THAT ALLOWS THE TRAVELING PUBLIC TO CONTINUE TO PASS THROUGH THE WORK ZONE IN ALL DIRECTIONS.

TRAFFIC CONTROL

1. CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN, ADEQUATE TRAFFIC CONTROL, SIGNING, BARRICADING, MAINTENANCE, AND PEDESTRIAN DIRECTION THROUGH AND AROUND THE CONSTRUCTION WORK ZONE IN COMPLIANCE WITH THE MOST CURRENT EDITION OF THE UDOT MUTCD AS REQUIRED BY STATE LAW.
2. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL FOR UTILITY RELOCATIONS AND MODIFICATIONS REQUIRED AS PART OF THIS PROJECT.
3. CONTRACTOR, AT HIS/HER EXPENSE, SHALL UPDATE AND MAINTAIN TRAFFIC CONTROL IN RESPONSE TO REOPENINGS AND CLOSURES OF ROADWAY AT TIMES OF CESSATION OF WORK ON THE PROJECT.

WETLANDS

1. WETLANDS AT THIS SITE HAVE BEEN REMOVED TO THE EXTENT SHOWN IN THE CONSTRUCTION DRAWINGS AND THE ACOE VERIFICATION DATED OCTOBER 7, 2014.
2. ALL WORK ON THE SITE SHALL COMPLY WITH TERMS AND CONDITIONS OF THE UTAH DEQ SECTION 401 WATER QUALITY CERTIFICATION DATED APRIL 16, 2012.
3. CONTRACTOR SHALL AVOID DISTURBING WETLANDS THAT ARE NOT APPROVED FOR MITIGATION OR DISTURBANCE. PLANS DENOTE AREAS THAT SHALL NOT BE DISTURBED, DRIVEN UPON, DISTURBED, ETC.
4. CONTRACTOR SHALL PROVIDE BMPs AND CONSTRUCTION FENCING AS SHOWN IN PLAN SHEETS THAT WILL DELINEATE AND PROTECT WETLAND AREAS THAT ARE NOT TO BE DISTURBED AND TO PREVENT CONSTRUCTION TRAFFIC AND MATERIALS STORAGE IN PROTECTED AREAS.
5. WETLANDS SHALL BE PROTECTED FROM UNTREATED DISCHARGES FROM CONSTRUCTION SITE AND CONSTRUCTION ACTIVITIES.



LOGAN CITY ENGINEERING
290 NORTH 100 WEST
LOGAN, UTAH 84321

1800 NORTH 900-1000 WEST ROADWAY
GENERAL NOTES

DESIGNED: TDICKINSON	DATE: August 2, 2018	REVISION BLOCK: PHASE 2- ROADWAY COMPLETION
DRAFTED: TDICKINSON	ENG'G: ENG 08020	
CHECKED: BYOUNG		

SCALE
NO SCALE
1"
VERIFY SCALE
SCALE = 1/2" SHOWN SCALE
IF PLOTTED ON B SIZE PAPER

SHEET NO:
GN-2

PRINT DATE/TIME: 8/7/18 4:38 PM

PROJECT FILE LOCATION: G:\public\Engineering File System\PROJECTS 2009\ENGR020 - 1800N_800 to 1000 West\Design DWG\DWG\Phase 2_Roadway\1800 N COVER & GEN NOTES 6-14-18.dwg

PROJECT SPECIFIC NOTES

PROJECT BACKGROUND

THIS PROPOSED PROJECT IS TO EXTEND LOGAN CITY'S 1800 NORTH ROADWAY FROM APPROXIMATELY 900 WEST TO 1000 WEST. THIS PHASE OF THE PROJECT WILL COMPLETE THE ROADWAY EXTENSION AND INCLUDES THE INSTALLATION OF A NEW 4-FT WIDE SHOULDER AND STRIPING FOR TURN LANES ON SR-252 (1000 WEST). ALSO INCLUDED ARE NEW WATER, SEWER, STORM DRAIN LINES, CURB, GUTTER, SHOULDERING, FINAL STABILIZATION, AND PERMANENT ASPHALT SURFACE. THE TEMPORARY ROAD SURFACE AND A PORTION OF THE GRANULAR BORROW INSTALLED IN SPRING 2017 (PHASE I) WILL BE REMOVED TO ALLOW PLACEMENT OF UTBC, CURB, GUTTER, AND PERMANENT ASPHALT SURFACE. ALSO TO BE COMPLETED IN THIS PHASE IS THE CONTINUATION OF THE STORM DRAIN SYSTEM TO THE NORTH SIDE OF THE ROAD.

A "CUT TO FILL EXISTING 3-INCH MINUS GRANULAR BORROW" IS INCLUDED IN THIS PROJECT. THERE IS SUFFICIENT CUT TO FILL MATERIAL AVAILABLE TO ACCOUNT FOR ALL GRANULAR BORROW MATERIAL NECESSARY FOR THIS PROJECT FOR INSTALLATION OF UDOT SUB-BASE MATERIAL, UNDERGROUND UTILITIES, SHAPING OF SHOULDERS, TRENCH BACKFILL, ETC. EXCESS 3-INCH MINUS GRANULAR BORROW SHALL BE SALVAGED TO LOGAN CITY AT CONTRACTOR'S EXPENSE.

ALL UNTREATED BASE COURSE MATERIAL NECESSARY FOR COMPLETION OF THIS PROJECT SHALL BE PROVIDED BY THE CONTRACTOR. UTBC NECESSARY FOR THE ROAD SECTION IS INCLUDED AS A MEASUREMENT AND PAYMENT ITEM. UTBC MATERIALS FOR PIE ZONE AND PIPE BEDDING IS NOT INCLUDED AS A MEASUREMENT AND PAYMENT ITEM AND CONTRACTOR ACKNOWLEDGES THAT MATERIAL SHALL BE INCLUDED IN PRICE TO INSTALL SAID UNDERGROUND UTILITY AND ASSOCIATED STRUCTURES.

SITE SOIL CONDITIONS ARE VERY WET AND VERY SOFT. WETLANDS HAVE BEEN DOCUMENTED THROUGHOUT THE SITE AND ON BOTH SIDES OF THE PROPOSED ROADWAY. GROUNDWATER IS DOCUMENTED ON THE SURFACE AND NO LOWER THAN 12-INCHES BELOW THE SURFACE. ARTESIAN PRESSURES HAVE BEEN DOCUMENTED AS NOTE IN THE SOILS REPORT PERFORMED BY AGEK IN 2013 (AVAILABLE ON REQUEST). THE SELECTED CONTRACTOR ACKNOWLEDGES SOFT SOILS AND POSSIBLE ISSUES OF CONSTRUCTIBILITY.

STORM DRAIN STRUCTURES ON THE SOUTH SIDE AND 3 IRRIGATION PIPE CROSSINGS TO THE NORTH WERE PLACED DURING CONSTRUCTION OF PHASE I. ADDITIONALLY, UNDERGROUND PERFORATED DRAINAGE PIPE SURROUNDED BY FILTER FABRIC AND 1-INCH ROCK WAS PLACED 6-FEET EACH SIDE OF CENTERLINE OF THE PROPOSED ROADWAY. CONTRACTOR ACKNOWLEDGES THE PIPING AND AGREES TO MAKE REPAIRS IN CASE OF DAMAGE TO THE PIPE OR SURROUNDING DRAINAGE AND FILTRATION MEDIA AT CONTRACTOR'S EXPENSE.

EXISTING UTILITIES

- CONTRACTOR SHALL POTHOLE THE EXISTING SEWER LINE STUB ON SR-252 TO VERIFY SIZE AND DEPTH PRIOR TO ORDERING THE MANHOLE SSMH (1) AT NEAR STA: 0+81.90 (1800 N CL). COORDINATE WITH PROJECT ENGINEER AND SUPPLIER.
- CONTRACTOR SHALL POTHOLE WATERLINE AT EACH CONNECTION POINT TO VERIFY LOCATION, CONDITION OF PIPING AND CONNECTIONS, AND TO VERIFY THE PARTS NECESSARY FOR MAKING THE CONNECTIONS PRIOR TO ORDERING PARTS.
- CONTRACTOR SHALL POTHOLE UNDERGROUND COMMUNICATIONS UTILITY TO VERIFY DEPTH AND LOCATION AS SHOWN IN PLANS.
- OTHER UTILITY CROSSINGS SHALL BE POTHOLED AT CONTRACTOR'S EXPENSE.

PRE-CAST MANHOLES, JUNCTION BOXES, AND CATCH BASINS, ETC.

- CONTRACTOR SHALL PROVIDE PRE-CAST SHOP DRAWINGS WITH ASSOCIATED CALCULATIONS TO ENGINEER.
- DURING PRE-CONSTRUCTION MEETING FOR REVIEW AND APPROVAL PRIOR TO PURCHASE. ANY REQUIRED CHANGES SHALL BE INCORPORATED PRIOR TO FABRICATION.
- DIMENSIONS OF STRUCTURES ARE BASED ON INSIDE DIMENSIONS. WALL THICKNESS, REBAR REINFORCEMENT, AND PLACEMENT OF FRAMES AND GRATES ARE THE RESPONSIBILITY OF THE PRE-CAST MANUFACTURER AND SHALL BE INCLUDED IN THE PRE-CAST SHOP DRAWINGS.
- ALL CONCRETE SHALL BE CLASS 4000 AT A MINIMUM PER APWA SECTION 03 30 04.
- ALL STEEL REINFORCEMENT SHALL BE 60,000 PSI STEEL.
- EPOXY COATING IS NOT REQUIRED FOR THIS PROJECT.
- ALL PRE-CAST STRUCTURES SHALL BE DESIGNED FOR HL-93 LOADING.
- CONCRETE KNOCKOUT WALLS SHALL BE ALLOWED FOR PRECAST JUNCTION BOXES AND CATCH BASINS EXCEPT UNDER THE FOLLOWING CONDITIONS:
 - BOX DEPTH EXCEEDS 8 FEET.
 - WALL WILL HAVE OTHER ITEMS ATTACHED TO IT SUCH AS A STORM WATER BMP, LADDER, HEADGATE, ETC.
 - SPECIFIED OTHERWISE IN THESE PLANS.
- ALL CATCH BASINS LOCATED WITHIN THE CURB AND GUTTER SHALL BE CONSTRUCTED TO ALLOW INSTALLATION OF A D&L SUPPLY BRAND MODEL I-3517 TYPE L GRATE WITH FRAME AND HOOD (OR EQUIVALENT) UNLESS SPECIFIED OTHERWISE.
- ALL CATCH BASINS AND IRRIGATION STRUCTURES WITHIN UDOT ROW SHALL COMPLY WITH UDOT STANDARDS AND SPECIFICATIONS.
- ALL FRAMES AND GRATES FOR SANITARY SEWER MANHOLES AND STORM DRAIN MANHOLES SHALL BE 30" FRAME AND COVER - TYPE A PER APWA PLAN NO. 301. STORM DRAIN LIDS SHALL BE LABELED "STORM DRAIN". SANITARY SEWER LIDS SHALL BE LABELED "SEWER".
- ALL FRAMES AND LIDS INSTALLED IN SIDEWALK SHALL BE SOLID LIDS WITHOUT AIR VENT HOLES.
- ALL SANITARY SEWER AND STORM DRAIN MANHOLES SHALL BE ADJUSTED TO MATCH LONGITUDINAL AND LATERAL SLOPES OF FINISHED SURFACES. TOP OF FRAME SHALL BE ¼" TO ½" BELOW FINISHED ASPHALT AND CONCRETE SURFACES. CONCRETE SURFACES SHALL BE TRANSITIONED TO FINISHED SURFACE OVER A 4" WIDTH.
- WHEN GRATE OR LID IS IN GRASSED AREA, INSTALL LID FLUSH WITH EXISTING SOIL UNLESS INSTRUCTED OTHERWISE ON THE DESIGN PLAN OR DETAILS.
- ALL SANITARY SEWER MANHOLE BASES SHALL BE POURED WITH TROUGHS PER APWA PLAN NO. 411. DEVIATION FROM THIS DUE TO SPECIFIC SITE CONDITIONS SHALL BE IDENTIFIED AND COORDINATED WITH ENGINEER PRIOR TO CONSTRUCTION.
- GROUT ALL WALL PENETRATIONS WITH CEMENT BASED SHRINKAGE RESISTANT GROUT PER APWA SECTION 03 61 00.
- INSTALL CONCRETE COLLARS AT THE EXTERIOR SIDE OF ALL PIPE PENETRATIONS SIMILAR TO MANHOLES AS SHOWN ON APWA PRECAST MANHOLE, PLAN NO. 341.

CURB AND GUTTER

- CURB AND GUTTER ON THIS PROJECT SHALL BE APWA TYPE A OR TYPE D PER APWA PLAN NO 205, AS AMENDED BY LOGAN CITY AND SPECIFIED IN THESE PLANS.
- ALL CURB AND GUTTER TRANSITION AREAS TO EXISTING CURB AND GUTTER SHALL BE A MINIMUM OF 5 FEET. TRANSITIONS BETWEEN TYPE A AND TYPE D CURB AND GUTTER SHALL BE PER APWA PLAN NO. 216.
- ALL CONCRETE SHALL BE CLASS 4000 AT A MINIMUM PER APWA SECTION 03 30 04.

- CONCRETE CURING AGENT SHALL BE APPLIED. AGENT SHALL BE A TYPE ID CASS A (CLEAR WITH FUGITIVE DYE), MEMBRANE FORMING COMPOUND PER APWA SECTION 03 39 00. SPECIFIC AGENT TO BE USED AND MANUFACTURER LITERATURE CONCERNING THE AGENT SHALL BE PROVIDED IN THE PRE-CONSTRUCTIO MEETING.
- ALL FINISHES SHALL BE A MEDIUM TO HEAVY BROOM FINISH UNLESS SPECIFIED OTHERWISE IN THESE PLANS.
- APPLICABLE.
- ALL FINISHED GRADES AT THE LIP OF THE GUTTER SHALL INCLUDE HOT MIX ASPHALT BEING FINISHED ¼ INCH TO ½ INCH ABOVE THE CONCRETE LIP.
- CONCRETE PAVEMENT SHALL BE FINISHED FLUSH WITH THE LIP OF GUTTER AND SHALL BE GRADED SO THERE ARE NO AREAS FOR WATER TO PUDDLE AT OR NEAR THE CONCRETE JOINTS.
- ALL CURB AND GUTTER AND NEIGHBORING PAVEMENT SHALL BE FLOW TESTED TO ENSURE THERE ARE NO PUDDLES FORMING LOW SPOTS. PUDDLE FORMING LOW SPOTS SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.

DRIVEWAYS APPROACH

- ASIDE FROM TYPE D CURB AT TWO LOCATIONS, THERE ARE NO DRIVEWAY ACCESSES PLANNED AS PART OF THIS PROJECT.

PEDESTRIAN ACCESS RAMPS

- THERE ARE NO PEDESTRIAN ACCESS RAMPS PLANNED AS PART OF THIS PROJECT.

GRANULAR BORROW

- IMPORTED GRANULAR BORROW (IF NECESSARY) USED FOR TRENCH/UTILITIES BACKFILL, UDOT SHOULDER, OR OTHER SHALL BE IN ACCORDANCE WITH APWA MANUAL OF STANDARDS AND SPECIFICATIONS AS AMENDED BY LOGAN CITY AND/OR UDOT AS APPLICABLE. GRANULAR BORROW SHALL BE 3-INCH MINUS PER CITY STANDARD, CONSISTING OF WELL GRADED GRAVEL (PIT RUN OR CRUSHED GRAVEL) AND NON-PLASTIC FINE MATERIAL WITH A MINIMUM CBR VALUE OF 50.
- GRANULAR BORROW SHALL BE PROOF ROLLED AND DISTURBED AREAS SHALL BE COMPACTED TO 95% OF MAXIMUM LABORATORY DENSITY OR TO UDOT SPECIFICATION WHERE LOCATED WITHIN UDOT ROW.

CUT TO FILL EXISTING 3-INCH MINUS GRANULAR BORROW

- AS STATED IN THE GENERAL NOTES SECTION, EXISTING GRANULAR BORROW WILL BE USED WHERE NECESSARY TO COMPLETE THE PROJECT. EXISTING GRANULAR BORROW SHALL BE GRADED/EXCAVATED TO ALLOW INSTALLATION OF UTBC AND ASPHALT SURFACING. THERE IS APPROXIMATELY 1350 CY OF MATERIAL THAT WILL BE EXCAVATED TO ALLOW INSTALLATION OF UTBC MATERIALS, LOGAN ROADWAY, AND CURB & GUTTER.
- EXISTING 3-INCH MINUS GRANULAR BORROW EXCAVATED FOR THE INSTALLATION OF UNDERGROUND UTILITIES MAY BE REUSED IF FREE OF DEBRIS AND OTHER CONTAMINANTS. EXCAVATION AND REUSE OF GRANULAR BORROW MATERIAL FOR UNDERGROUND UTILITIES HAS NOT BEEN QUANTIFIED AS A MEASUREMENT AND PAYMENT ITEM. CALCULATIONS SHOW THERE IS A SUFFICIENT VOLUME OF EXCAVATED MATERIALS AVAILABLE FROM ACTIVITIES LISTED IN ITEM #1 ABOVE AND REUSED FROM UTILITY EXCAVATIONS THAT NO IMPORT OF GRANULAR BORROW MATERIAL IS EXPECTED.
- CONTRACTOR SHALL BE RESPONSIBLE TO EXCAVATE MATERIAL, STORE IT WHERE NECESSARY FOR FUTURE USE ON THE PROJECT, PLACEMENT AND COMPACTION WHERE REUSED IN AREAS SPECIFIED, AND SALVAGE OF EXCESS MATERIAL TO OWNER.

HAUL- SALVAGE TO OWNER

- EXCESS 3-INCH MINUS GRANULAR BORROW MATERIAL AND MATERIALS EXCAVATED FOR INSTALLATION OF UDOT 4-FOOT ASPHALT SHOULDER AND NOT REUSED ELSEWHERE ON THIS PROJECT SHALL BE SALVAGED TO THE CITY, HAULED AND UNLOADED TO AN AREA WITHIN THE STREETS STORAGE YARD LOCATED AT 450 NORTH 1000 WEST. PRODUCT SHALL BE FREE OF DEBRIS AND CONTAMINANTS. UNACCEPTABLE AND CONTAMINATED PRODUCT IS NOT INCLUDED IN THIS ITEM AND SHALL BE HAULED TO A LOCATION SPECIFIED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

SEWER ROCK OR WASHED ROCK

- SEWER ROCK OR WASHED ROCK SHALL BE CRUSHED AND WASHED CLASS 5 SEWER ROCK PER APWA 31 05 13.
- SEWER ROCK OR WASHED ROCK MAY ONLY BE USED WHERE SPECIFIED IN THESE PLANS OR AS DIRECTED BY THE ENGINEER.

UNTREATED BASE COURSE

- PIPE ZONE AND BEDDING AND BACKFILL SHALL BE UNTREATED BASE COURSE MATERIAL CLASS A, OR B GRADE ¾ IN COMPLIANCE WITH APWA SECTION 32 11 23.
- UNTREATED BASE COURSE MATERIAL USED FOR ROADWAY, CURB AND GUTTER, AND SIDEWALKS LOCATED WITHIN THE LOGAN CITY R.O.W. SHALL BE WELL GRADED CLASS A, GRADE ¾ OR GRADE 1, WITH A MINIMUM CBR VALUE OF 70 WHEN COMPACTED TO 95% OF MAXIMUM LABORATORY DENSITY. IN COMPLIANCE WITH APWA SECTION 32 11 23.

HOT MIX ASPHALT

- PROVIDE LOGAN CITY WITH SPECIFIED AND SELECTED ASPHALT MIX DESIGNS, AND SELECTED PRIME COAT AND TACK COAT AT PRE-CONSTRUCTION MEETING.
- ALL HOT MIX ASPHALT IN LOGAN CITY RIGHT OF WAY AND WITHIN THE NEW UDOT 4-FOOT ASPHALT SHOULDER SHALL BE PG 58-28, DM-1/2, MARSHALL MIX PER APWA 32 12 05.
- APPLY TACK COAT, COMPLIANT WITH APWA SECTION 32 12 14, AT ALL VERTICAL SURFACES IN CONTACT WITH NEW ASPHALT.
- APPLY TACK COAT, COMPLIANT WITH APWA SECTION 32 12 14, BETWEEN LAYERS OR LIFTS IF THE PREVIOUS PAVEMENT LAYER IS DIRTY OR OLDER THAN 24 HOURS PER APWA SECTION 32 12 16.
- ASPHALT SHALL BE COMPACTED IN PLACE TO 94% (+2%) MAXIMUM RELATIVE DENSITY.

ASPHALT AND CONCRETE SAW CUTS AND PATCHES

- ALL ASPHALT AND CONCRETE CUT LOCATIONS REPRESENT FINISHED LOCATIONS. CUTS ARE TO BE NEAT, CLEAN, AND VERTICAL PRIOR TO PATCHING ASPHALT OR CONCRETE.
- SAW CUTS AND FINISHED EDGES, INCLUDING CONCRETE, SHALL BE CLEANED OF OIL, DIRT, AND DEBRIS PRIOR TO APPLICATION OF TACK COAT.
- ANY SAW CUTS REQUIRED PRIOR TO THE FINAL PATCH TO FACILITATE CONSTRUCTION ARE CONTRACTOR WAYS AND MEANS AND WILL NOT BE PAID IN ADDITION TO THE FINAL CUTS. ADDITIONALLY, ANY DAMAGE TO THE SAW CUT EDGE SHALL BE REPAIRED TO MEET LOGAN CITY REQUIREMENTS AT NO ADDITIONAL EXPENSE TO THE CITY.
- ALL SAW CUT EDGES AND FINISHED EDGES SHALL BE TREATED WITH A TACK COAT PRIOR TO THE PLACEMENT OF ASPHALT IN ACCORDANCE WITH APWA SECTION 32 12 14.

ROADWAY STANDARD SECTION.

- REMOVE EXISTING ASPHALT.
- SCARIFY AND EXCAVATE AWAY EXISTING MATERIAL TO PROVIDE FOR THE FINISHED ROAD SECTION AS LISTED IN ITEM 4 BELOW.
- ROLLER COMPACT TO FIRM AND UNYIELDING EXISTING MATERIAL. PROOF ROLL TEST EXISTING MATERIAL AFTER COMPACTION PER APWA SECTION 32 05 10, SECTION 3.8 PRIOR TO PLACEMENT OF UNTREATED BASE COURSE.
- ROAD SECTION SHALL CONSIST OF 8 INCHES OF COMPACTED IN PLACE UNTREATED BASE COURSE FOR ROADWAY, AND 6-INCHES (OR 8-INCHES) UNDER CURB AND GUTTER WITH 8.5-INCHES OF COMPACTED IN PLACE ASPHALT (PLACED IN THREE LAYERS). PROPER PLACEMENT OF UNTREATED BASE COURSE AND PROPER THICKNESS AND COMPACTION SHALL BE VERIFIED BY SURVEYOR PRIOR TO PLACEMENT OF ASPHALT. A PROOF ROLL TEST IS REQUIRED ON FINISHED UNTREATED BASE COURSE.
- HOT MIX ASPHALT SHALL BE PLACED SUCH THAT FINISHED GRADE IS BETWEEN 1/4 AND 1/2 INCH ABOVE LIP OF GUTTER. PROVIDE AND INSTALL TOP SOIL TO SHAPE AND CONTOUR LAWNS, LANDSCAPED AREAS, AND OTHER LANDS TO MATCH NEW GRADES TO RESTORE AREAS TO PRE-CONSTRUCTION CONDITIONS.
- UNTREATED BASE COURSE AND ASPHALT COMPACTION TESTS BY NUCLEAR DENSITY TESTING DURING PLACEMENT TO ENSURE A HIGH QUALITY ROAD.

UDOT 9-INCH CONCRETE PANEL (PCCP INTERSECTION)

- UDOT 9-INCH CONCRETE PANEL INTERSECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOWN ON SHEET DT-15. REINFORCING STEEL, PLACEMENT, DOWELS, CONCRETE, AND OTHER ELEMENTS SHALL MEET REQUIREMENTS OF UDOT STANDARD SPECIFICATIONS.

UDOT CONCRETE

- IN UDOT RIGHT OF WAY ALL CONCRETE ROAD, CURB & GUTTER SHALL MEET THE REQUIREMENTS OF UDOT STANDARD SPECIFICATIONS.

UDOT 4-FT ASPHALT SHOULDER

- UDOT 4-FT ASPHALT SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAIL SHOWN ON SHEET TS-7.
- MATERIAL EXCAVATED FOR INSTALLATION OF UDOT 4-FT ASPHALT SHOULDER SHALL BE USED TO SHAPE AND CONTOUR SHOULDER AREAS. EXCESS MATERIAL SHALL BE HAULED TO OWNER SPECIFIED LOCATION.
- UNTREATED BASE COARSE SHALL MEET UDOT STANDARDS AND SPECIFICATIONS.
- ASPHALT SHALL MEET SPECIFICATION FOR HOT MIX ASPHALT ON THIS SHEET.

UDOT UNTREATED BASE COURSE (UDOT CRUSHED AGGREGATE BASE)

- IN UDOT RIGHT OF WAY ALL PIPE ZONE AND BEDDING AND BACKFILL SHALL BE UNTREATED BASE COURSE MATERIAL CLASS A GRADE ¾ IN COMPLIANCE WITH APWA SECTION 32 11 23.
- IN UDOT RIGHT OF WAY UNTREATED BASE COURSE MATERIAL USED FOR ROADWAY, CURB AND GUTTER, AND SIDEWALKS IN UDOT RIGHT OF WAY SHALL MEET THE REQUIREMENTS OF UDOT STANDARD SPECIFICATION 02721 WITH THE FOLLOWING GRADATIONS.
 - 100 PERCENT PASSING 1 - ½ INCH SIEVE.
 - 90 - 100 PERCENT PASSING 1 INCH SIEVE.
 - 70 - 85 PERCENT PASSING ¾ INCH SIEVE.
 - 65 - 80 PERCENT PASSING ½ INCH SIEVE.
 - 55 - 75 PERCENT PASSING ⅜ INCH SIEVE.
 - 40 - 65 PERCENT PASSING NO. 4 SIEVE.
 - 25 - 40 PERCENT PASSING NO. 16 SIEVE.
 - 7-11 PERCENT PASSING NO. 200 SIEVE.
- ALL UDOT UNTREATED BASE COURSE SHALL HAVE A MINIMUM CBR VALUE OF 70 WHEN COMPACTED TO 97% OF MAXIMUM LABORATORY DENSITY PER UDOT SECTION 02721.

STORM WATER INSTALLATION

- SHOP DRAWINGS AND CUT SHEETS OF ALL STORM WATER MATERIALS SHALL BE PROVIDED TO THE ENGINEER AT THE PRE-CONSTRUCTION MEETING.
- ALL POLYETHYLENE PIPE (PE) SHALL BE CORRUGATED EXTERIOR WALL WITH SMOOTH INTERIOR WALL (PE TYPE S PER APWA SECTION 33 05 06).
- ALL CATCH BASINS AND REGULATING STRUCTURES SHALL BE MANUFACTURED PER PRECAST IRRIGATION DIVERSION BOX AND CATCH BASINS, ETC. ON THIS SHEET.
- ALL STORM WATER PIPE SHALL HAVE 12 GAUGE TRACER WIRE INSTALLED AND SECURED TO THE TOP CENTER LINE OF THE PIPE WITH CONNECTIONS AT EACH CATCH BASIN IN ACCORDANCE WITH LOGAN CITY STANDARDS AND SPECIFICATIONS.
- ALL IRRIGATION PIPE SHALL HAVE "IRRIGATION" WARNING TAPE INSTALLED DIRECTLY OVER THE TOP CENTERLINE OF THE PIPE, THE DEEPER OF 6 INCHES BELOW FINISHED GRADE OR 18 INCHES ABOVE TOP OF PIPE.
- PIPING SHALL BE INSTALLED IN ACCORDANCE WITH APWA STANDARDS AND SPECS AS AMENDED BY LOGAN CITY PLAN NO 382S.
- ALL GRAVITY FLOW PIPES (SANITARY SEWER, IRRIGATION, AND STORM DRAIN) SHALL HAVE WATER FLUSHED DOWN THE LINE, AND THEN BE CCTV INSPECTED TO ENSURE NO LOW POINTS.
- ALL GRAVITY FLOW PIPES 24 INCHES OR LARGER SHALL BE MANDREL TESTED TO ENSURE NO PIPE FLEXURE OR DEFLECTION.

GRAVITY SANITARY SEWER INSTALLATION (OPEN TRENCH)

- SHOP DRAWINGS AND CUT SHEETS OF ALL SANITARY SEWER MATERIALS SHALL BE PROVIDED TO THE ENGINEER AT THE PRE-CONSTRUCTION MEETING.
- ALL POLYVINYL CHLORIDE (PVC) PIPE SHALL BE IN ACCORDANCE WITH APWA SECTION 33 05 07 AND SECTION 33 31 00.
- ALL PVC SHALL BE SDR 35 FOR DEPTHS LESS THAN 14 FEET AND SDR 26 FOR DEPTHS GREATER THAN 14 FEET.
- CAP ALL SEWER LATERALS RELOCATED OR REMOVED AT THE MAIN USING ROMAC OR EQUIVALENT STAINLESS STEEL RAP AROUND SADDLE.
- ALL NEW SEWER LATERAL CONNECTIONS SHALL BE BY ROMAC STAINLESS STEEL SANITARY SEWER TAPPING SADDLE WITH STAINLESS STEEL STRAPS PER APWA PLAN NO. 431 AS AMENDED BY LOGAN CITY. PIPING SHALL BE INSTALLED IN ACCORDANCE WITH APWA STANDARDS AND SPECS AS AMENDED BY LOGAN CITY PLAN NO 382S.
- TRACER WIRE SHALL BE INSTALLED PER LOGAN CITY STANDARDS AND SPECIFICATIONS AND SECURED TO THE TOP CENTER OF PIPE FROM VALVE TO VALVE, MANHOLE TO MANHOLE, OR OTHER RISER TYPE.
- GREEN WARNING TAPE LABELED SEWER SHALL BE INSTALLED ABOVE SEWER PIPE PER LOGAN CITY STANDARDS AND SPECIFICATIONS.
- ALL GRAVITY FLOW PIPES (SANITARY SEWER, IRRIGATION, AND STORM DRAIN) SHALL HAVE WATER FLUSHED DOWN THE LINE, AND THEN BE CCTV INSPECTED TO ENSURE NO LOW POINTS.
- ALL GRAVITY FLOW PIPES 24 INCHES OR LARGER SHALL BE MANDREL TESTED TO ENSURE NO PIPE FLEXURE OR DEFLECTION.

SHEET NO:

SN-1

SCALE

NO SCALE

REVISION BLOCK:

PHASE 2-ROADWAY COMPLETION

DESIGNED:

TUCKERSON

DRAWN:

TUCKERSON

CHECKED:

BYOUNG

1800 NORTH 900-1000 WEST ROADWAY

PROJECT SPECIFIC NOTES

LOGAN CITY ENGINEERING

290 NORTH 100 WEST
LOGAN, UTAH 84321



PROJECT SPECIFIC NOTES- CONTINUED

CULINARY WATER INSTALLATION

- SHOP DRAWINGS AND CUT SHEETS OF ALL CULINARY WATER MATERIALS SHALL BE PROVIDED TO THE ENGINEER AT THE PRE-CONSTRUCTION MEETING.
- ALL POLYVINYL CHLORIDE (PVC) PIPE SHALL BE IN ACCORDANCE WITH APWA SECTION 33 05 07. ALL POLYVINYL CHLORIDE (PVC) PIPE SHALL BE RIGID, THERMOPLASTIC PRESSURE CLASS 305 (DR14) AND MEET THE REQUIREMENTS OF ANSI/AWWA STANDARD C900 FOR WATER DISTRIBUTION PIPE.
- ALL FITTINGS FOR POLYVINYL CHLORIDE (PVC) PIPE SHALL BE DUCTILE IRON (DI) AND SHALL MEET THE REQUIREMENTS OF NSF 61 AND ANSI/AWWA C-153.
- ALL POLYETHYLENE SERVICE LINES (CULINARY WATER) SHALL BE IN ACCORDANCE WITH AWWA C901.
- ALL DUCTILE IRON PIPE (DI OR DIP) AND METALLIC FITTINGS SHALL BE CLASS 350.
- ALL DI PIPE AND METALLIC FITTINGS SHALL BE WRAPPED WITH 8 MIL VINYL WRAP AND GREASE ALL NUTS AND BOLTS WITH A POLY FM GREASE OR EQUIVALENT FOOD GRADE GREASE PER APWA SECTION 33 05 05.
- ALL CULINARY OR DRINKING WATER PIPE SHALL BE EITHER DI (CLASS 350) OR PVC (MINIMUM PRESSURE RATING OF 230 PSI) FOR ALL MAINS, FIRE LINES, AND SERVICES LARGER THAN 3 INCHES. ALL SERVICES 3 INCHES AND SMALLER SHALL BE C901 PE TUBING RATED FOR THE 230 PSI. ALL PVC AND PE USED IN CULINARY WATER SYSTEMS SHALL BE DYED BLUE AT THE TIME OF MANUFACTURE.
- ALL FIRE HYDRANTS SHALL BE MUELLER SUPER CENTURION, CLOW MEDALLION, OR EAST JORDAN 5BR250. NO EQUIVALENTS ARE EXCEPTED TO THESE THREE HYDRANT TYPES.
- ALL VALVES (GATE VALVES AND BUTTERFLY VALVES) SHALL BE CLASS 250.
- BUTTERFLY VALVES 12-INCHES AND LARGER SHALL BE CLOW VALVE CO. BRAND WITH NO SUBSTITUTIONS ALLOWED.
- ALL FIRE HYDRANT ASSEMBLIES SHALL BE INSTALLED PER LOGAN CITY STANDARDS AND SPECIFICATIONS WITH 6" DI (OR LARGER IF SPECIFIED) FROM THE WATER MAIN TO THE HYDRANT, A HOT TAP SADDLE AND GATE VALVE ON THE MAIN, AND THE GATE VALVE USED TO HOT TAP BEING THE HYDRANT ISOLATION VALVE PER APWA PLAN NO. 511 AS AMENDED BY LOGAN CITY .
- CAP ALL LINES RELOCATED OR REMOVED AT THE MAIN LINE PER LOGAN CITY STANDARDS AND SPECIFICATIONS AND AS SPECIFIED IN THESE DRAWINGS.
- CAP ALL RELOCATED OR REMOVED SERVICES AT THE MAIN BY REMOVING THE CORP STOP VALVE AND INSTALLING A BRASS THREADED PLUG. NO ALTERNATIVES ALLOWED.
- ALL NEW WATER LINE CONNECTIONS SHALL BE HOT TAPPED TO THE EXISTING MAIN LINE (8" NOMINAL DIAMETER DUCTILE IRON) USING STAINLESS STEEL TAPPING SADDLES AND NEW VALVES PER LOGAN CITY STANDARDS AND SPECIFICATIONS. HOT TAPS SHALL BE PERFORMED BY LOGAN CITY- SCHEDULE MIN 24 HOURS IN ADVANCE.
- ALL WATER METERS RELOCATED SHALL INCLUDE THE INSTALLATION OF ALL NEW SERVICE TAP AND VALVE, 1" SERVICE LINE AND METER SETTER, 21" CORRUGATED WHITE PVC METER BARREL WITH FRAME AND LID PER LOGAN CITY STANDARDS.
- ALL WATER METERS SHALL BE PROVIDED BY LOGAN CITY.
- PIPING SHALL BE INSTALLED IN ACCORDANCE WITH APWA STANDARDS AND SPECS AS AMENDED BY LOGAN CITY PLAN NO 382S.
- THRUST BLOCKS, WHERE REQUIRED SHALL BE CONSTRUCTED SUCH THAT BEARING AREA IS 2-3 SQUARE FEET. CENTER OF AREA OF BEARING SHALL MATCH CENTER OF PIPELINE BEING RESTRAINED. VOLUME OF CONCRETE FOR EACH THRUST BLOCK SHALL BE LESS THAN 3 CUBIC YARDS.
- THRUST RESTRAINT SHALL CONSIST OF A MIXTURE OF FLANGE BY FLANGE RESTRAINT, RESTRAINING ROD TYPE RESTRAINT, OR JOINT FITTING TYPE JOINT RESTRAINT SIMILAR TO MEGA-LUG OR EQUIVALENT.
- ALL THRUST RESTRAINT SYSTEMS INFORMATION AND LOCATION SHALL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING FOR APPROVAL BY ENGINEER.
- ALL THRUST RESTRAINTS SHALL BE AT LEAST FOR THE LENGTHS AND DISTANCES IDENTIFIED IN THE PLANS AND/OR TABLES LOCATED ON SHEET UT-DT-1
- TRACER WIRE SHALL BE INSTALLED PER LOGAN CITY STANDARDS AND SPECIFICATIONS AND SECURED TO THE TOP CENTER LINE OF PIPE FROM VALVE TO VALVE OR OTHER RISER TYPE.
- BLUE WARNING TAPE LABELED WATER SHALL BE INSTALLED ABOVE WATER PIPE PER LOGAN CITY STANDARDS AND SPECIFICATIONS.

CONCRETE COLLARS

- CONCRETE COLLARS SHALL BE INSTALLED ON ALL WATER VALVES, SEWER MANHOLES, AND UNDERGROUND DRAIN CLEANOUT MANHOLES IN ACCORDANCE WITH DETAILS ON SHEET UT-DT-2.
- CONCRETE MIX TO BE USED FOR CONCRETE COLLARS SHALL BE PROVIDED TO THE ENGINEER AT THE PRE-CONSTRUCTION MEETING SPECIFYING WHO WILL BE PROVIDING THE CONCRETE.
- CONCRETE USED IN CONCRETE COLLARS SHALL BE LEGRANDE JOHNSON'S UDOT 70-B WITH FIBER MIX, PARSONS AA-AE HP WITH FIBER ADD IN, OR EQUIVALENT HIGH EARLY STRENGTH MESH MIX TO UDOT STANDARDS.
- CONCRETE CURING AGENT SHALL BE APPLIED. AGENT SHALL BE A TYPE ID CASS A (CLEAR WITH FUGITIVE DYE), MEMBRANE FORMING COMPOUND PER APWA SECTION 03 39 00. SPECIFIC AGENT TO BE USED AND MANUFACTURER LITERATURE CONCERNING THE AGENT SHALL BE PROVIDED IN THE PRE-CONSTRUCTIO MEETING.
- ALL CONCRETE COLLARS SHALL BE 8 INCHES MIN. THICK AND 12 INCHES MIN. WIDE.
- ALL ASPHALT CUTS FOR CONCRETE COLLARS SHALL BE NEAT, VERTICAL, AND CONCENTRIC. ALL CUTS SHALL BE CLEANED OF ALL DEBRIS, OIL, AND DIRT PRIOR TO PLACING CONCRETE.
- FINISHED GRADES SHALL HAVE THE ASPHALT FINISHED $\frac{1}{8}$ TO $\frac{1}{4}$ INCH ABOVE THE CONCRETE COLLAR. IF IT EXCEEDS $\frac{1}{2}$ INCH AT ANY PLACE ON THE COLLAR OR LID, THE COLLAR WILL BE REPLACED AND THE LID AND FRAME ADJUSTED AT NO ADDITIONAL COST TO LOGAN CITY.

LANDSCAPING AND DISTURBED AREAS

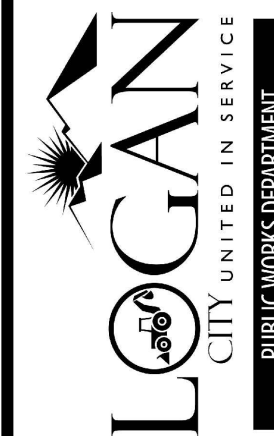
- CONTRACTOR SHALL PRESERVE AND PROTECT EXISTING TREES.
- CONTRACTOR SHALL REPAIR DISTURBED SURFACES TO EXISTING CONDITIONS, INCLUDING, BUT NOT LIMITED TO UTILITY LINES AND SERVICES, ASPHALT REPAIR, DRIVEWAYS, PLANTER STRIPS, TREES, SHRUBS, SPRINKLER AND IRRIGATION SYSTEMS, AND GENERAL CLEANUP EXCEPT WHERE INSTRUCTED OTHERWISE.
- CONTRACTOR SHALL MARK IRRIGATION HEADS AND SYSTEM ALONG EDGE OF SIDEWALK IDENTIFYING LOCATION OF SPRINKLER HEADS, LINES, AND WIRES. ANY DAMAGE TO THE HEADS, LINES, AND WIRES SHALL BE REPAIRED AT CONTRACTORS EXPENSE.
- CONTRACTOR SHALL PROVIDE AND INSTALL TOP SOIL TO SHAPE AND CONTOUR LAWNS, LANDSCAPED AREAS, AND OTHER LANDS TO MATCH NEW GRADES TO RESTORE AREAS TO PRE-CONSTRUCTION CONDITIONS.
- TOPSOIL USED TO CONSTRUCT OR REPAIR DISTURBED OR NEW LANDSCAPING SHALL BE COMPLIANT WITH APWA SECTION 31 05 13, PART 2.9. CONTRACTOR SHALL PROVIDE SOURCE, GRADATION, AND VERIFICATION OF CHEMICAL CHARACTERISTICS AND PHYSICAL CHARACTERISTICS AT PRE-CONSTRUCTION MEETING.
- TOPSOIL USED FOR CONSTRUCTION OF UNIMPROVED SHOULDER AREAS SHALL BE ACCEPTABLE TO THE ENGINEER AND OF GOOD QUALITY AND FREE OF ROCK AND DEBRIS.
- SOD GRASS, PURCHASED FROM A LOCAL VENDOR, SHALL BE PROVIDED AND INSTALLED AT DISTURBED LANDSCAPED AREAS, RESTORING AREAS TO PRE-CONSTRUCTION CONDITION.
- SPECIAL CARE SHALL BE TAKEN TO PRESERVE AND PROTECT EXISTING MATURE TREES AND THEIR ROOT SYSTEMS UNLESS TREES ARE SPECIFIED FOR REMOVAL.
- BROADCAST SEED APPLIED AT SHOULDER AREA SHALL BE CABIN MIX OF THE FOLLOWING CONSISTENCY:
 - 50% SHEEP FESCUE
 - 35% FAIRWAY CRESTED WHEAT GRASS
 - 15% SOLAR STREAMBANK WHEATGRASS

TEMPORARY SURFACE

- UPON TEMPORARY CESSATION OF WORK EXCEEDING 3-CALENDAR DAYS, THE CONTRACTOR, AT HIS/HER EXPENSE, SHALL APPLY AND MAINTAIN A SURFACE TO DISTURBED AREAS OF THE TRAVELED 1800 NORTH ROADWAY THAT ALLOWS THAT ROADWAY TO REOPOEN TO THE TRAVELING PUBLIC IN ALL DIRECTIONS. TRAFFIC CONTROL SIGNAGE SUCH AS STOP SIGNS AND REQUIRED WARNING SIGNS SHALL REMAIN IN PLACE, INSPECTED PERIODICALLY, AND MAINTAINED FOR THE DURATION OF THE PROJECT.
- TEMPORARY SURFACING MAY BE 3-INCH MINUS GRANULAR BORROW OR UTBC MATERIAL MEETING PROJECT SPECIFICATIONS OR OTHER MATERIAL APPROVED BY THE ENGINEER.

SIGNING AND STRIPING

- ALL PAINT TO BE USED FOR STRIPPING SHALL BE ACRYLIC WATER BASED PAINT OF THE SPECIFIED PIGMENT PER UDOT STANDARD SPECIFICATION 02765 WITH REFLECTORIZED BEADS.
- APPLICATION RATES ARE AS DEFINED IN UDOT STANDARD SPECIFICATION 02765.
- PAVEMENT MARKINGS LOCATED WITHIN UDOT GROOVED-IN PAVEMENT AREAS SHALL BE GROUND PRIOR TO APPLICATION OF MARKINGS IN ACCORDANCE WITH UDOT STANDARDS AND SPECIFICATIONS.
- REMOVAL OF EXISTING PAVEMENT MARKINGS (WHERE REQUIRED) SHALL BE PERFORMED IN ACCORDANCE WITH UDOT STANDARDS AND SPECIFICATIONS.
- ALL SIGNS ON THIS PROJECT SHALL BE RECYCLED AND REUSED UNLESS SPECIFIED OTHERWISE ON THE DESIGN DRAWING.
- ALL NEW SIGNS SPECIFIED SHALL BE IN ACCORDANCE WITH UTAH MUTCD MOST CURRENT EDITION.



LOGAN CITY ENGINEERING
290 NORTH 100 WEST
LOGAN, UTAH 84321

1800 NORTH 900-1000 WEST ROADWAY

PROJECT SPECIFIC NOTES

DESIGNED: TICKINSON	DATE: August 2, 2018
DRAFTED: TICKINSON	ENG'G: ENG 08020
CHECKED: BYOUNG	

REVISION BLOCK: PHASE 2-ROADWAY COMPLETION

SCALE
NO SCALE

1" = 10' VERIFY SCALE
SCALE = 1/2" SHOWN SCALE
IF PLOTTED ON B SIZE PAPER

SHEET NO:
SN-2

PRINT DATE/TIME: 8/7/18 4:38 PM

STORM WATER POLLUTION PREVENTION INFORMATION

SITE EVALUATION, ASSESSMENT, AND PLANNING

PROJECT SITE/NAME: 1800 NORTH 900-1000 WEST ROADWAY EXTENSION
PROJECT LOCATION: 1800 NORTH 900-1000 WEST, SEE COVER SHEET
CITY: LOGAN, UTAH 84321
COUNTY: CACHE
LATITUDE/LONGITUDE (GOOGLE EARTH)
LAT: 41°45'55.5" NORTH LONG: 111°51'24.6" WEST

CONTACT INFORMATION AND RESPONSIBLE PARTIES:

OWNER: LOGAN CITY
290 NORTH 100 WEST
LOGAN, UT 84321
(435) 716-9152 (PUBLIC WORKS)

PROJECT MANAGER:
TOM DICKINSON
LOGAN CITY ENGINEERING
290 NORTH 100 WEST
LOGAN, UT 84321
(435) 716-9168
TOM.DICKINSON@LOGANUTAH.ORG

STORMWATER MANAGER AND SWPPP CONTACT
TBD-THIS IS TO BE FILLED IN BY THE CONTRACTOR

CITY REGULATORY STORM WATER INSPECTOR
LYNN MAYS
LOGAN CITY STREETS AND STORMWATER FOREMAN
290 NORTH 100 WEST
LOGAN, UT 84321
(435) 716-9167 (DAY)
(435) 716-9090 (AFTER HOURS EMERGENCY)
LYNN.MAYS@LOGANUTAH.ORG

NATURE AND SEQUENCE OF CONSTRUCTION

THE CITY IS EXTENDING AN EXISTING ROADWAY ALONG 1800 NORTH FROM APPROXIMATELY 900 WEST TO 1000 WEST. THE PROJECT IS LOCATED WITHIN A JURISDICTIONAL WETLAND AREA AND PERMITS HAVE BEEN SECURED FROM THE ACOE TO REMOVE AND MITIGATE IMPACTED WETLANDS.

PHASE I OF THE PROJECT WAS COMPLETED IN SPRING 2017 AND CONSISTED OF REMOVAL OF IMPACTED WETLANDS AS PERMITTED BY THE ACOE AND PLACING AND COMPACTING SUB-BASE MATERIALS TO BUILD THE SUB BASE OF THE PAVEMENT SECTION, TEMPORARY ASPHALT SURFACE, AND ROAD SHOULDERING. ALSO INCLUDED IN PHASE I WAS AN PERFORATED UNDERGROUND DRAINAGE PIPING, PIPING OF THE EXISTING IRRIGATION SYSTEM ON THE SOUTH SIDE OF THE ROAD, AND THE STORM DRAIN SYSTEM ON THE SOUTH SIDE OF THE ROADWAY. THE EXISTING IRRIGATION DITCH ON THE SOUTH WAS FILLED.

PHASE II OF THE PROJECT IS EXPECTED TO BEGIN IN THE SUMMER OF 2018 AND WILL INCLUDE REMOVAL OF TEMPORARY ASPHALT SURFACING AND REMOVAL OF GRANULAR BORROW MATERIAL FOR THE INSTALLATION OF SEWER AND WATER LINES, COMPLETION OF THE STORMWATER SYSTEM, AND COMPLETION OF BASE COURSE MATERIALS, CURB AND GUTTER, AND FINAL ROADWAY SURFACE.

WETLANDS NOT APPROVED FOR REMOVAL WILL BE PROTECTED BY USE OF DOUBLE BMPs (SILT FENCE WITH WADDLE) AND CONSTRUCTION FENCING.

GROUNDWATER HAS BEEN OBSERVED ON THE SURFACE AND UP TO 12-INCHES BELOW THE GROUND SURFACE. DEWATERING IS EXPECTED. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN REQUIRED PERMITS FROM THE STATE. DEWATERING SHALL NOT DISCHARGE TO WETLANDS.

BEST MANAGEMENT PRACTICES (BMPs) FOR ALL OF THE ACTIVITIES WILL BE APPLIED TO THE SITE AS DETERMINED IN THE SWPPP THAT WILL BE PREPARED BY THE CONTRACTOR THEN REVIEWED AND APPROVED BY THE CITY. DUE TO THE PROXIMITY TO WETLANDS- **WEEKLY INSPECTIONS SHALL BE PERFORMED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION.** ADDITIONAL BMPs (DOUBLE BMPs) WILL BE ADDED AT WETLAND BOUNDARIES ADJACENT TO THE PROJECT TO PRESERVE UNDISTURBED WETLANDS.

THE FUNCTION OF THIS ACTIVITY IS PUBLIC.
ESTIMATED START DATE: AUGUST 2018
ESTIMATED COMPLETION: OCTOBER 2018

SOILS, SLOPES, VEGETATION, AND CURRENT DRAINAGE PATTERNS

THE SOILS ON THIS SITE ARE GREENSOM LOAM AND SALT LAKE SILTY CLAYS AS OBTAINED BY THE NRCS SOILS SURVEY WEBSITE. THE SOILS INVESTIGATION PERFORMED BY AGEC IN 2014 OBSERVED 1-3 FOOT DEEP LAYER OF PEAT OVERLAYING A MEDIUM STIFF CLAY LAYER. THE WATER TABLE WAS OBSERVED AT 1-INCHES BELOW THE SURFACE AND IS EXPECTED TO HAVE ARTESIAN PRESSURE.

SLOPES: SLOPES ON THIS PROJECT ARE LESS THAN 2 PERCENT. SITE CONDITIONS ARE NOT SUBJECT TO EROSION IN THEIR PRE-CONSTRUCTION CONDITION.

DRAINAGE PATTERNS: DRAINAGE PATTERNS ARE FROM EAST TO WEST/SOUTHWEST

VEGETATION: VEGETATION IS SPARSE PASTURE GRASS AND DOCUMENTED WETLANDS (WET MEADOW).

CONSTRUCTION SITE ESTIMATES

CONSTRUCTION SITE AREA TO BE DISTURBED: 1.19 ACRES
TOTAL PROJECT AREA: 1.19 ACRES
PERCENT IMPERVIOUS AREA BEFORE CONSTRUCTION: 00.00%
PERCENT IMPERVIOUS AREA AFTER CONSTRUCTION: 100%
RUNOFF CN NUMBER AFTER CONSTRUCTION: 98
100-YEAR PEAK RUNOFF BEFORE CONSTRUCTION: 3.02 CFS
100-YEAR PEAK RUNOFF AFTER CONSTRUCTION: 3.17 CFS

RECEIVING WATERS

THE RECEIVING WATER FOR THIS PROJECT IS THE SWIFT SLOUGH BY WAY OF NUMEROUS NATURAL AND MANMADE DRAINAGES. WETLANDS ARE DOCUMENTED AND A PORTION ARE PERMITTED THROUGH THE ACOE FOR REMOVAL AS NOTED ON THE PLANS.

SITE FEATURES AND SITE SENSITIVE AREAS TO BE PROTECTED

WETLANDS ON THE SITE NOT APPROVED FOR REMOVAL WILL BE PROTECTED BY BMPs AND CONSTRUCTION FENCE.

ENDANGERED SPECIES

THERE ARE NO ENDANGERED SPECIES ASSOCIATED WITH THIS SITE AS DETERMINED BY THE ENDANGERED SPECIES REPORT PERFORMED BY CIVIL SOLUTIONS IN JUNE 2011.

HISTORIC PRESERVATION

THERE ARE NO HISTORIC SITES ASSOCIATED WITH THIS PROJECT AS DETERMINED BY THE CLASS III CULTURAL RESOURCES INVENTORY SUBMITTED BY USU ARCHEOLOGICAL SERVICES INC IN JUNE 2011.

GENERAL LOCATION MAP

FOR THE GENERAL LOCATION MAP, SEE COVER SHEET.

SWPPP REQUIREMENTS AND BMPs

- THE CONTRACTOR SHALL PREPARE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL INSTALL AND MAINTAIN BMPs, INSPECT AND MANAGE THE SITE, AND UPDATE AND MANAGE THE SWPPP DURING CONSTRUCTION. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE SWPPP. CONTRACTOR SHALL MAINTAIN A COPY OF THE SWPPP AT THE PROJECT SITE AT A MARKED LOCATION CONTINUOUSLY. SWPPP SHALL BE AVAILABLE FOR REVIEW DURING NORMAL WORK HOURS.
- THE CONTRACTOR SHALL ENSURE THAT NO POLLUTION LEAVES THE DESIGNATED WORK ZONE BY IMPLEMENTING STANDARD BMPs AND COMMON PRACTICES APPROVED BY THE ENGINEER AND DOCUMENTED IN THE SWPPP.
- DOUBLE BMPs ARE REQUIRED WITHIN 50 FT OF ANY AND ALL WETLAND.
- THE CONTRACTOR IS RESPONSIBLE TO PREPARE THE STORM WATER POLLUTION PLAN FOR THIS PROJECT. THE SWPPP SHALL BE PREPARED USING THE SWPPP TEMPLATE PROVIDED BY THE UTAH DIVISION OF WATER QUALITY FOR PROJECTS EXCEEDING 1.0 ACRE. THE SWPPP SHALL BE PROVIDED TO THE LOGAN CITY STORM WATER INSPECTOR FOR REVIEW PRIOR TO THE PRE-CONSTRUCTION MEETING.
- CONTRACTOR SHALL NOT DISTURB ANY PORTION OF THE SITE UNTIL THE SWPPP IS APPROVED BY THE LOGAN CITY STORM WATER INSPECTOR. CONTRACTOR OBTAINS A NOTICE OF INTENT (NOI), AND CONTRACTOR OBTAINS A LOGAN CITY LAND DISTURBANCE PERMIT.
- SWPPP BMPs SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL INCLUDE THE ASSOCIATED BMPs FOR EACH OF THE POSSIBLE CONTAMINANT SOURCES INCLUDED IN THE ASSOCIATED POTENTIAL POLLUTANTS INCLUDED ON THIS SHEET. THE POTENTIAL SOURCES IN BOLD TYPE ARE EXPECTED BY THE ENGINEER TO BE THE MOST LIKELY TO CAUSE CONTAMINATION AND SHALL BE CLEARLY ADDRESSED IN THE SWPPP.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL SITE INSPECTIONS BY A CERTIFIED RSI, OR EQUIVALENT, INSPECTOR ON A WEEKLY BASIS (DUO TO PROXIMITY OF WETLANDS) OR MORE FREQUENT IF REQUIRED AS FOLLOWS:
 - RAINSTORM EXCEEDS ¼ INCH OF RAIN IN 24 HOURS AS MEASURED AT EITHER THE USU WEATHER STATION OR KVNU RADIO STATION.
 - DISCHARGE FROM SITE POTENTIALLY ENTERS OR IMPACTS A WETLAND OR OTHER WATER OF THE STATE OF UTAH CONSIDERED SENSITIVE OR CURRENTLY ON OR A TRIBUTARY TO A WATER OF THE STATE OF UTAH ON THE 303-D LIST FOR IMPAIRED WATERS.
- ALL INSPECTIONS AND LOGS SHALL BE RECORDED ON A UTAH DWQ APPROVED INSPECTION FORM.
- INSPECTIONS SHALL BE CONTINUED UNTIL SITE OBTAINS PERMANENT STABILIZATION AS DEFINED BY THE UPDES CONSTRUCTION GENERAL PERMIT.
- UPON OBTAINING PERMANENT STABILIZATION, AND WITH APPROVAL FROM THE LOGAN CITY STORM WATER INSPECTOR, CONTRACTOR SHALL OBTAIN AN NOT AND SUBMIT A COPY TO ENGINEER. FINAL PAYMENT SHALL NOT BE PROCESSED UNTIL NOT IS PROVIDED TO ENGINEER.

BEST MANAGEMENT PRACTICES

THE CONTRACTOR WILL PREPARE A SWPPP THAT WILL BE REVIEWED AND APPROVED BY THE CITY'S STORMWATER INSPECTOR. THE SWPPP WILL SPECIFY THE USE OF DOUBLE BMPs AT THE PERIMETER OF TEH PROJECT WHERE LOCATED WITHIN 50 FEET OF WETLANDS. THE CONTRACTOR WILL BE RESPONSIBLE FOR BMP INSTALLATION, MAINTENANCE, AND WEEKLY INSPECTIONS FOR THE DURATION OF THE PROJECT.

POTENTIAL SOURCES OF POLLUTION

POTENTIAL POLLUTANT MATERIAL	ACTUAL POLLUTANT	POLLUTANT SOURCE	MANAGEMENT PRACTICE
SEDIMENT/TOTAL SUSPENDED SOLIDS	SEDIMENT	EROSION OF DISTURBED SOILS	MINIMIZE SOIL DISTURBANCE. INSTALL BMPs LISTED AND COMPLY WITH SWPPP
SOILS STABILIZATION MATERIAL	VARIOUS MATERIALS BOTH FLOATABLE AND SOLUBLE	DISTURBED AREAS WHERE SLOPES OR SUSCEPTIBLE SOIL TYPES ARE EXPOSED	INSTALL SEDIMENT CONTROL BMPs PER SWPPP
CONCRETE-WHITE/SOLID GREY	LIMESTONE, SAND, pH, CHROMIUM	EXTRA CONCRETE WHEN POURING CONCRETE	CLEAN UP EXCESS AND EXTRA CONCRETE AND DISPOSE OF AT SPECIFIED LOCATION. SEE ALSO CONCRETE WASHOUT
OILS-BROWN OILY PETROLEUM AND HYDROCARBONS	MINERAL OIL, HYDRAULIC FLUID, MOTOR OIL, ETC.	VEHICLES AND EQUIPMENT USED IN CONSTRUCTION	NO OILS WILL BE CHANGED ON SITE. LEAKS WILL BE REPAIRED IMMEDIATELY.
ASPHALT AND PAVING - BLACK SOLIDS	OIL AND PETROLEUM DISTILLAGES	ASPHALT PAVING OPERATIONS	PAVING OPERATIONS WILL NOT BE PERFORMED WITHIN 8 HOURS OF EXPECTED STORMS EXCEEDING 0.5 INCH.
GREASE	GREASE AND LUBE OIL	VEHICLES AND EQUIPMENT USED IN CONSTRUCTION	KEEP EQUIPMENT CLEAN AND WIPED DOWN
ANTIFREEZE	ETHYLENE GLYCOL	ENGINE COLLUANT	FIX LEAKS IMMEDIATELY. REPAIRS WILL NOT BE MADE ON SITE
CONSTRUCTION DEWATERING	TSS/SEDIMENTS	DEWATERING ACTIVITIES	CONTRACTOR TO OBTAIN PERMIT. AVOID DISCHARGE TO WETLANDS. USE FILTER BAGS/PUMP TO FIELDS.
FUELS	BENZENE, ETHYL BENZENE, TOULENE, XYLENE, MTBE, PETROLEUM DISTALLATE, OILS/GREASES, NAPHTHALEN, COL OIL	USED IN VEHICLES AND POWER EQUIPMENT	FUELING WILL NOT BE ALLOWED ON SITE UNLESS OVER AN IMPERMEABLE SURFACE WITH AN EMERGENCY CLEANUP KIT AT THE LOCATION
PESTICIDES AND INSECTICIDES, FUNGICIDES, HERBICIDES, AND RODENTICIDES	CHLORINATED HYDROCARBONS, ORANOPHOSPHATES, CARBAMATES, ARSENIC	USED FOR CONTROL OF PESTS DURING REVEGETATION	APPLICATION WILL BE PER MANUFACTURER INSTRUCTIONS. EXCESS OR LEFT OVER PESTICIDES WILL BE IMMEDIATELY REMOVED FROM SITE
CONCRETE CURING COMPOUNDS - CREAMY WHITE LIQUID	NOT USED		
CONCRETE WASHOUT WATER	pH	CONCRETE TRUCKS AND PUMP TRUCKS	WASH WATER FROM CONCRETE TRUCKS WILL BE CONTAINED IN A LEAK PROOF LOCATION DESIGNATED BY THE CONTRACTOR
TRASH	SOLID WASTES	TRASH LEFT OVER FROM CONSTRUCTION ACTIVITIES	REMOVE ALL TRASH FROM SITE DAILY. DO NOT DISPOSE OF TRASH IN HOLES OR TRENCHES
SANITARY WASTE MANAGEMENT	BACTERIA, PARASITES, VIRUSES	FECAL COLIFORM, BACTERIA ASSOCIATED WITH HUMAN OR ANIMAL WASTES	NO PUBLIC RESTROOMS AVAILABLE. CONTRACTOR SHALL PROVIDE PORTABLE FACILITIES AND ENSURE THEY ARE SECURED FROM TIPPING AND ARE MAINTAINED
FERTILIZERS - LIQUID AND SOLID GRAIN	NITROGEN, PHOSPHORUS	FERILIZERS USED IN RESTORING VEGETATION	APPLICATION WILL BE PER MANUFACTURER INSTRUCTIONS. EXCESS WILL BE PROMPTLY REMOVED FROM SITE

PROJECT FILE LOCATION: G:\public\civ\Engineering\100 Engineering File System\PROJECTS 2009\ENGIN09020 - 1800N 800 to 1000 West\Design\DWG\DWG\Phase 2 Roadway\1800 N COVER & GEN NOTES 6-14-18.dwg

SHEET NO: SW-1

SCALE: NO SCALE

1" VERIFY SCALE

SCALE = 1/2" SHOWN SCALE IF PLOTTED ON B SIZE PAPER


REVISION BLOCK:
PHASE 2 - ROADWAY COMPLETION

DATE: August 2, 2018
DESIGNED: TDICKINSON
DRAFTED: TDICKINSON
CHECKED: BTOUNG
ENG'G: ENG 08020

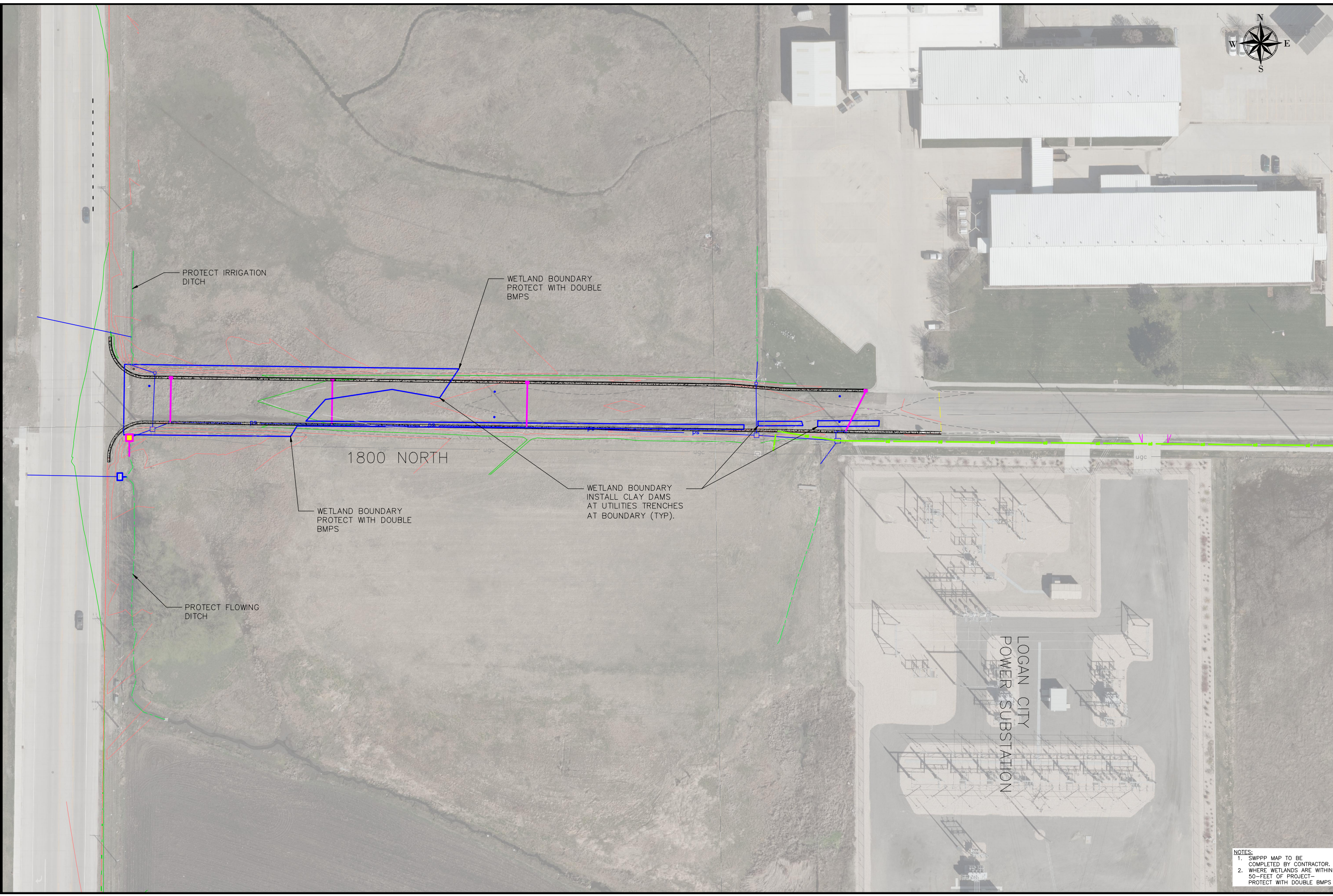
1800 NORTH 900-1000 WEST ROADWAY EXTENSION

SWPPP INFO

LOGAN CITY ENGINEERING
290 NORTH 100 WEST
LOGAN, UTAH 84321

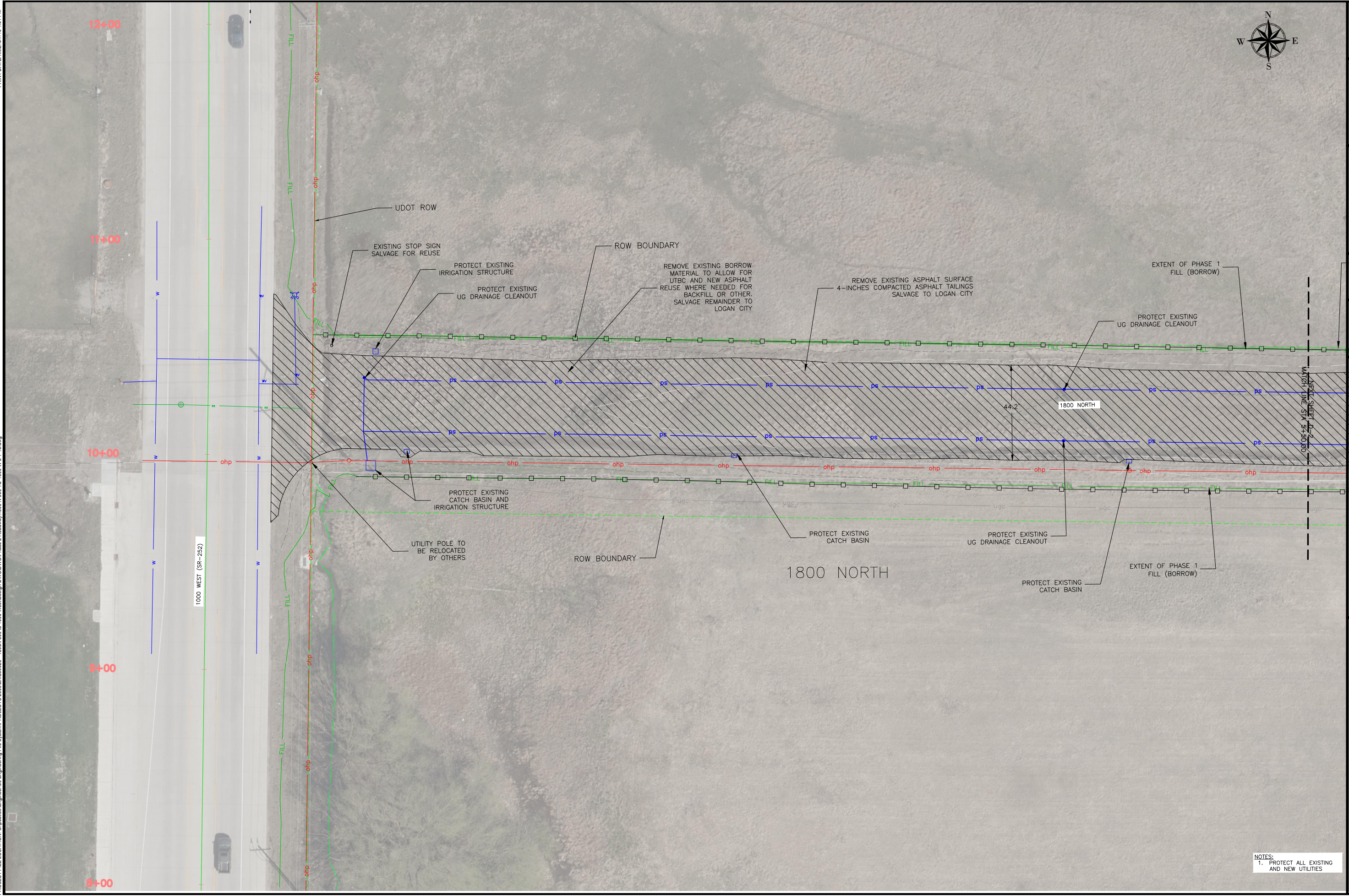


LOGAN CITY ENGINEERING
CITY UNITED IN SERVICE
PUBLIC WORKS DEPARTMENT



NOTES:
 1. SWPPP MAP TO BE COMPLETED BY CONTRACTOR.
 2. WHERE WETLANDS ARE WITHIN 50- FEET OF PROJECT- PROTECT WITH DOUBLE BMPS

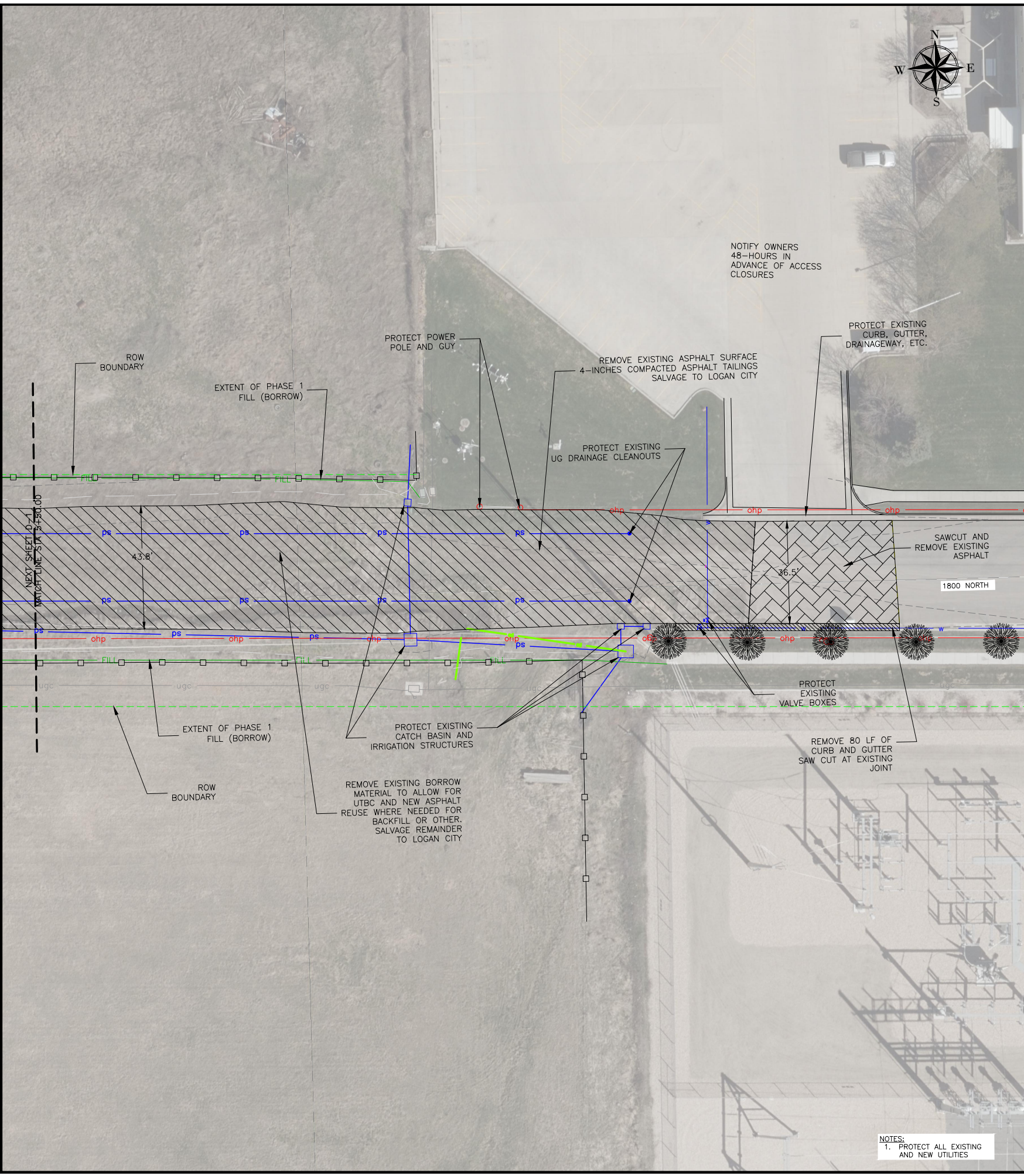
 LOGAN CITY ENGINEERING 290 NORTH 100 WEST LOGAN, UTAH 84321 <small>CITY UNITED IN SERVICE PUBLIC WORKS DEPARTMENT</small>	1800 NORTH 900-1000 WEST ROADWAY SWPPP MAP		DESIGNED: TDICKINSON DRAFTED: TDICKINSON CHECKED: BYOUNG	DATE: August 2, 2018 ENG #: ENG 09020	REVISION BLOCK: PHASE 2- ROADWAY COMPLETION	SCALE: N.T.S. 1" = 100' VERIFY SCALE SCALE = 1/2 SHOWN SCALE IF PLOTTED ON B SIZE PAPER	SHEET NO: SW-2
	<p>LOGAN CITY ENGINEERING</p>						




NOTES:
 1. PROTECT ALL EXISTING AND NEW UTILITIES

<p>LOGAN CITY ENGINEERING 290 NORTH 100 WEST LOGAN, UTAH 84321</p>	<p>1800 NORTH 900-1000 WEST ROADWAY</p>	<p>DESIGNED: TDICKINSON DRAFTED: TDICKINSON CHECKED: BYOUNG</p>	<p>DATE: August 2, 2018 ENG #: ENG 09020</p>	<p>REVISION BLOCK: PHASE 2-ROADWAY COMPLETION</p>	<p>SHEET NO: D-1</p>
	<p>DEMOLITION 1800 N STA: P.O.B. TO 5 + 50.00</p>	<p>SCALE HORIZONTAL 1" = 20 FT VERIFY SCALE SCALE = 1/2 SHOWN SCALE IF PLOTTED ON B SIZE PAPER</p>			

PROJECT FILE LOCATION: G:\pub\kwl\Eng\100_Engineering File System\PROJECTS 2009\ENG\08020 - 1800N 800 to 1000 West\Design DWG\DWG\Phase 2 Roadway\1800 N 900 TO 1000 W 8-1-18.dwg
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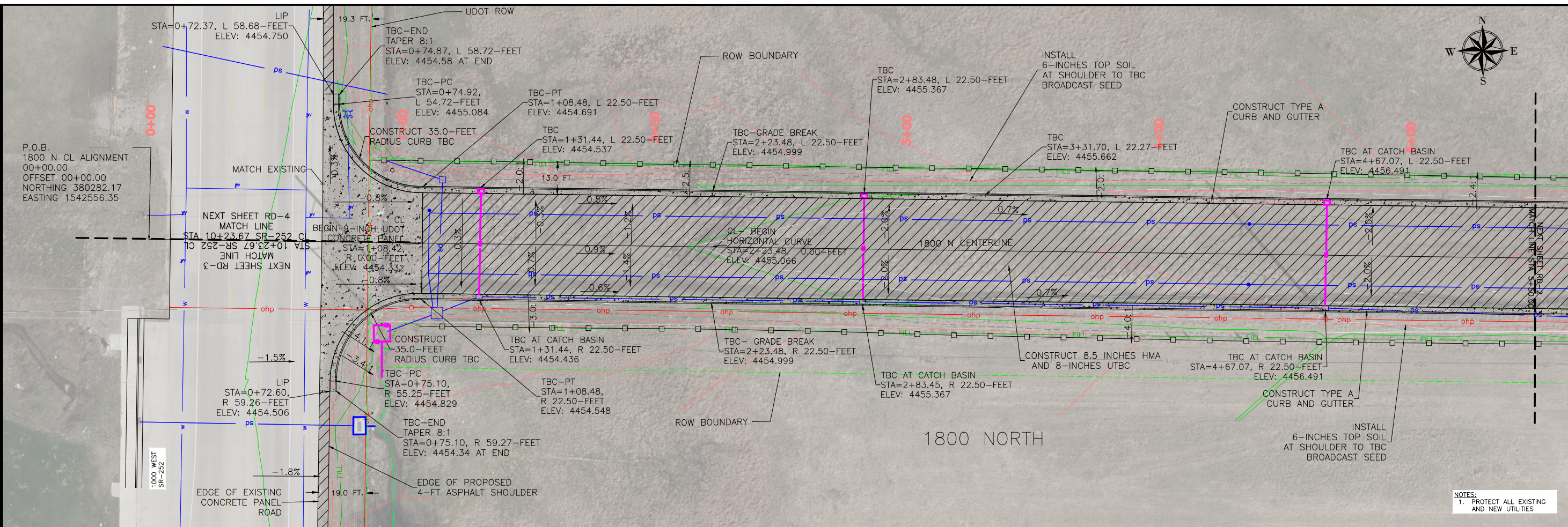


NOTES:
1. PROTECT ALL EXISTING AND NEW UTILITIES

 LOGAN CITY ENGINEERING 290 NORTH 100 WEST LOGAN, UTAH 84321 <small>CITY UNITED IN SERVICE PUBLIC WORKS DEPARTMENT</small>	1800 NORTH 900-1000 WEST ROADWAY	SHEET NO: D-2
	DEMOLITION 1800 N STA: 5 + 50.00 TO END	SCALE HORIZONTAL 1" = 20 FT VERTICAL 1" = 10 FT <small>SCALE = 1/2" SHOWN SCALE IF PLOTTED ON B SIZE PAPER</small>
DESIGNED: TOICKINSON	DATE: August 2, 2018	REVISION BLOCK PHASE 2 ROADWAY COMPLETION
DRAFTED: TOICKINSON	ENG #: ENG 08020	
CHECKED: BYOUNG		

PRINT DATE/TIME: 8/7/18 4:51 PM

PROJECT FILE LOCATION: G:\sub\civ\engineer\100 Engineering File System\PROJECTS 2009\ENGR\9200 - 1800 N TO 1000 WEST\Design DWG\DWG\Phase 2 Roadway\1800 N 900 TO 1000 W 8 - 18.dwg



SHEET NO: RD-1

SCALE HORIZONTAL 1" = 20 FT
 1" VERIFY SCALE
 SCALE = 1/2 SHOWN SCALE
 IF PLOTTED ON B SIZE PAPER

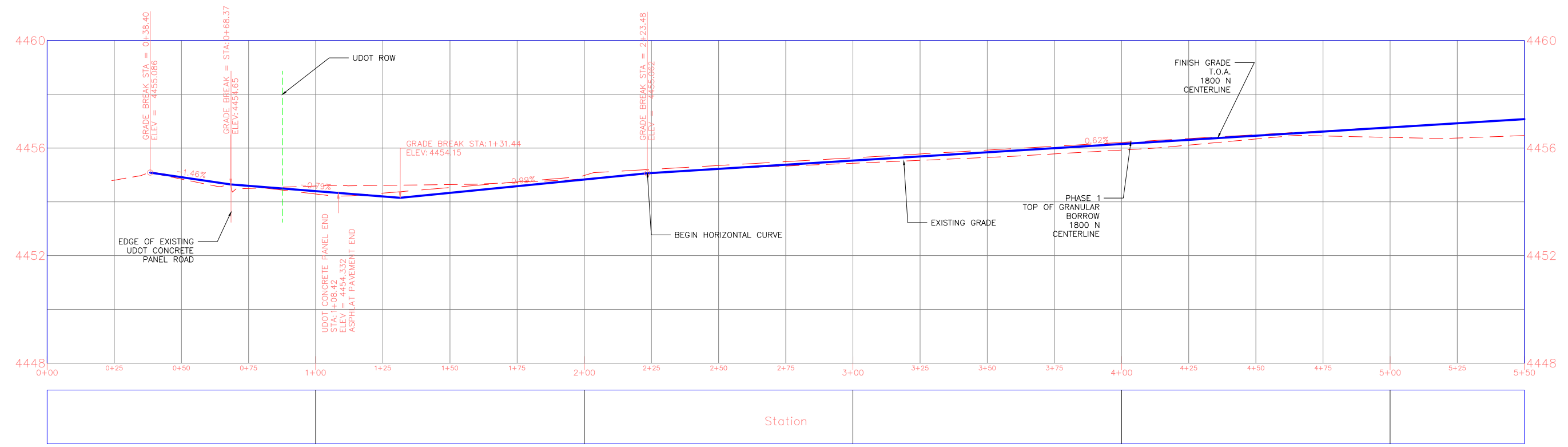
REVISION BLOCK:
 PHASE 2-ROADWAY COMPLETION

DATE: August 2, 2018
 DESIGNED: TD/KINSON
 DRAFTED: TD/KINSON
 CHECKED: B/OLING
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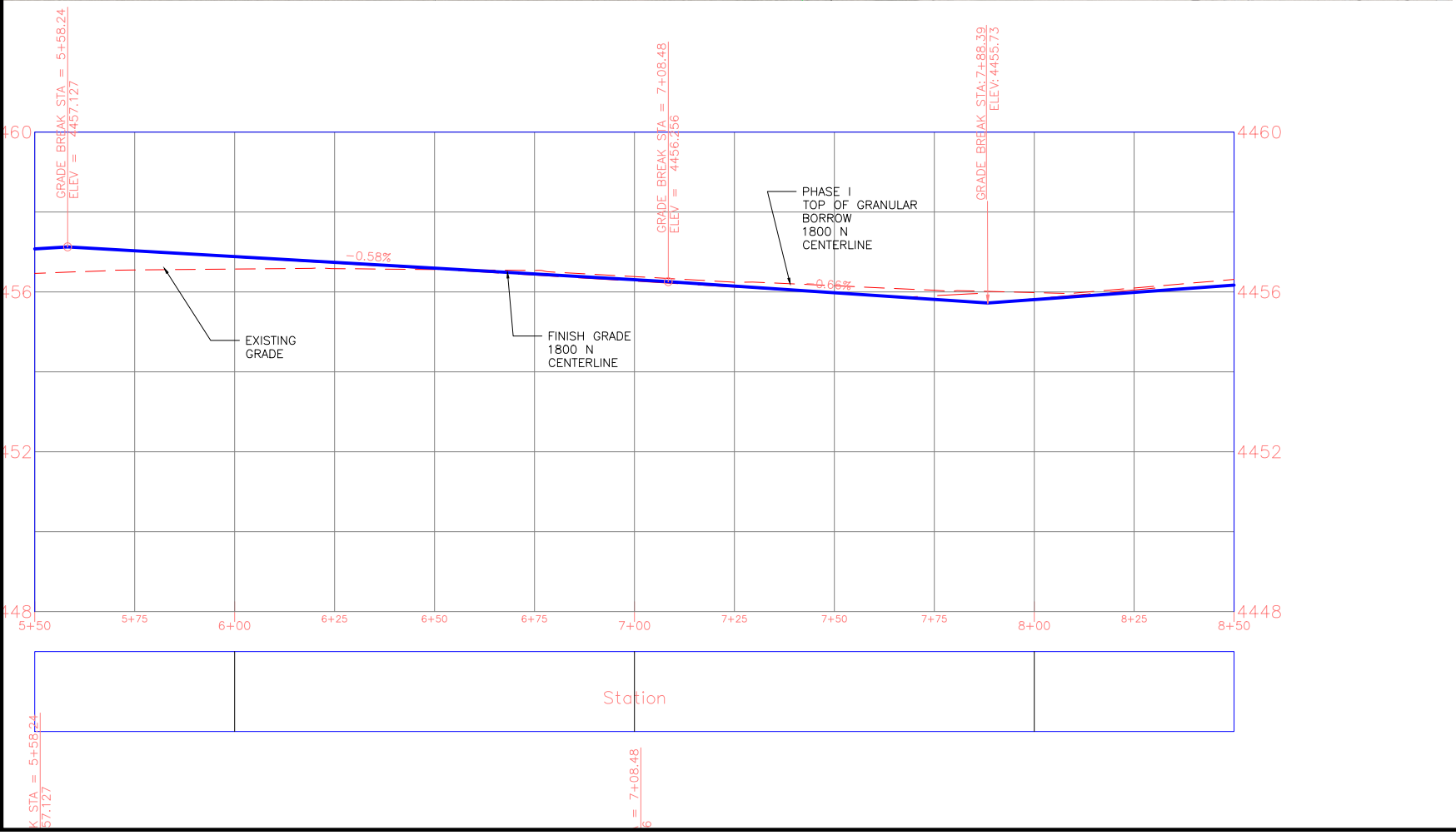
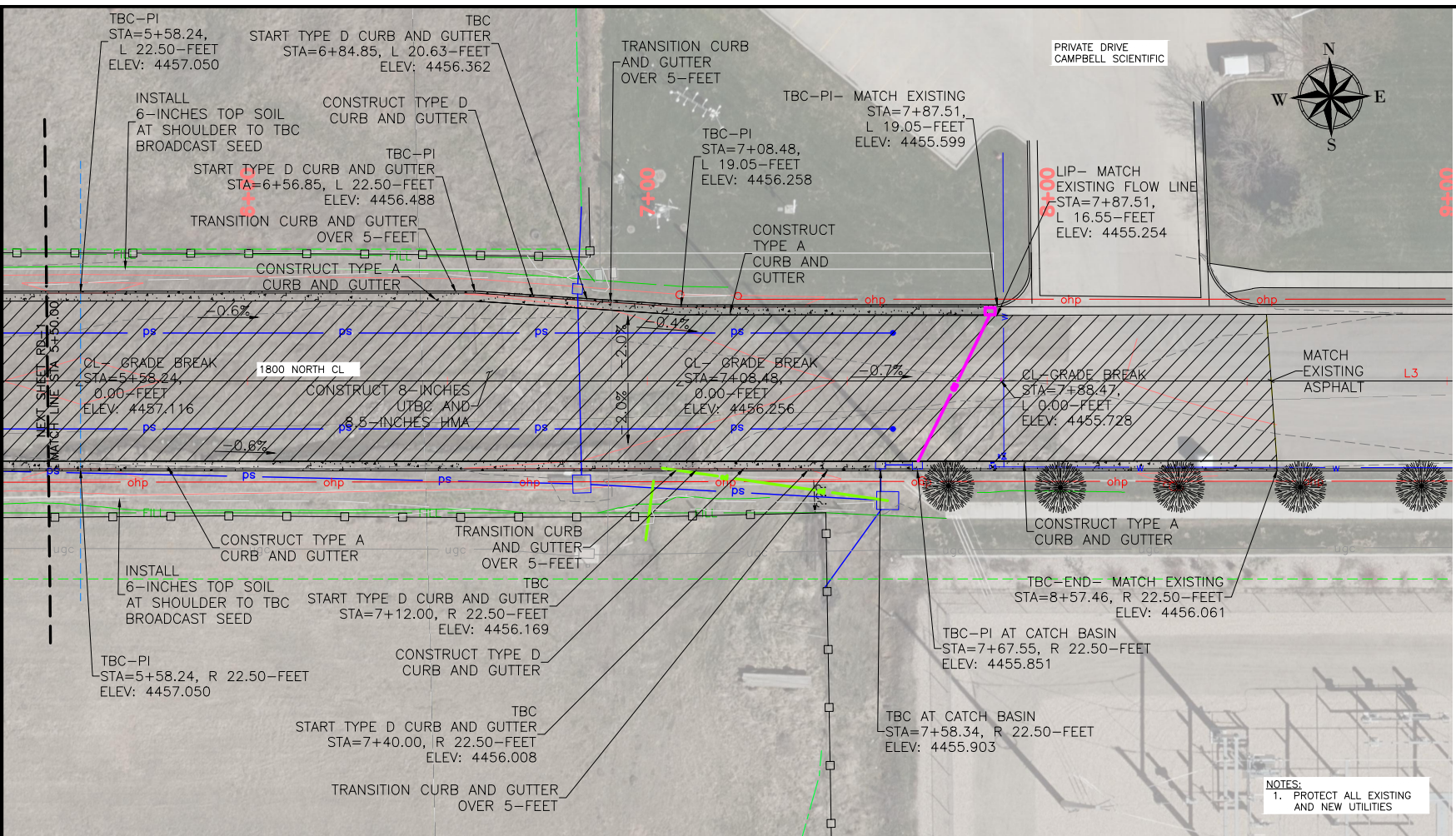
1800 NORTH 900-1000 WEST ROADWAY
 ROADWAY 1800 N STA: P.O.B. TO 5 + 50.00

LOGAN CITY ENGINEERING
 290 NORTH 100 WEST
 LOGAN, UTAH 84321
 LOGAN CITY UNITED IN SERVICE
 PUBLIC WORKS DEPARTMENT

NOTES:
 1. PROTECT ALL EXISTING AND NEW UTILITIES



PROJECT FILE LOCATION: G:\public\w\engineer\00 Engineering File System\PROJECTS 2009\ENG09020 - 1800N 800 to 1000 West\Design DWG\DWG\Phase 2 Roadway\1800 N 900 TO 1000 W 8-1-18.dwg
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NOTES:
 1. PROTECT ALL EXISTING AND NEW UTILITIES

LOGAN CITY ENGINEERING
 290 NORTH 100 WEST
 LOGAN, UTAH 84321

LOGAN CITY
 UNITED IN SERVICE
 PUBLIC WORKS DEPARTMENT

1800 NORTH 900-1000 WEST ROADWAY
 ROADWAY 1800 N STA: 5 + 50.00 TO END

DESIGNED: TOICKINSON
 DRAFTED: TOICKINSON
 CHECKED: BYOUNG

DATE: August 2, 2018
 ENG #: ENG 09020

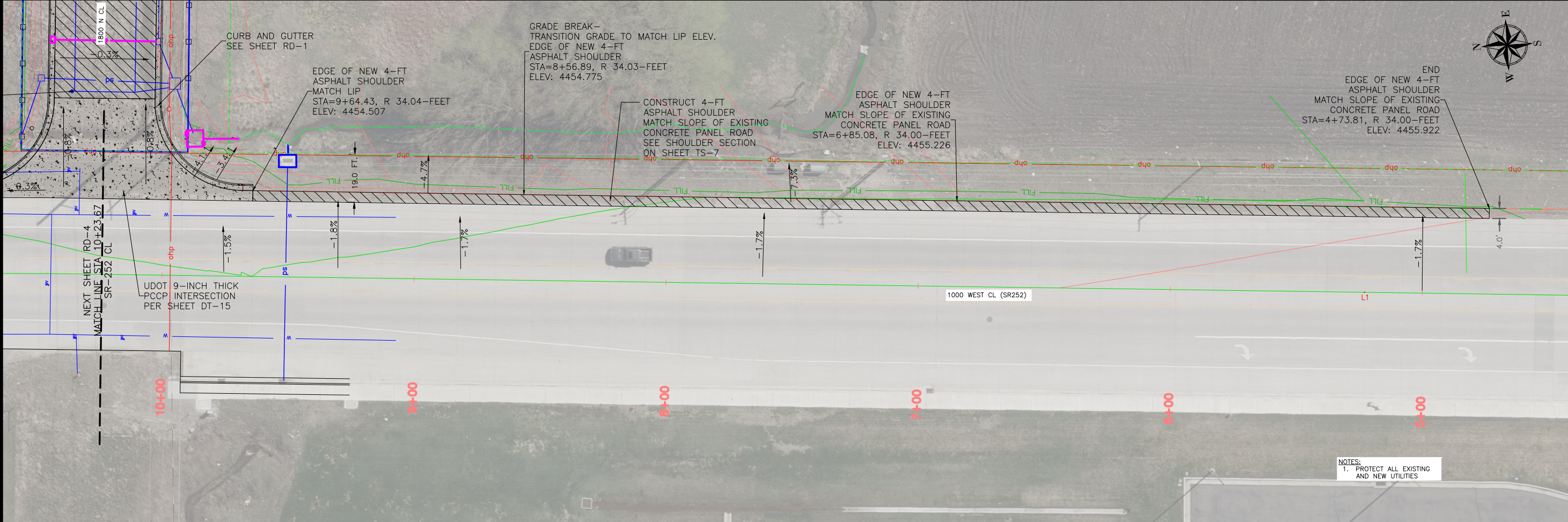
REVISION BLOCK
 PHASE 2-ROADWAY COMPLETION

SCALE
 HORIZONTAL 1" = 20 FT
 1" = 1'
 VERIFY SCALE
 SCALE = 1/2" SHOWN SCALE
 IF PLOTTED ON B SIZE PAPER

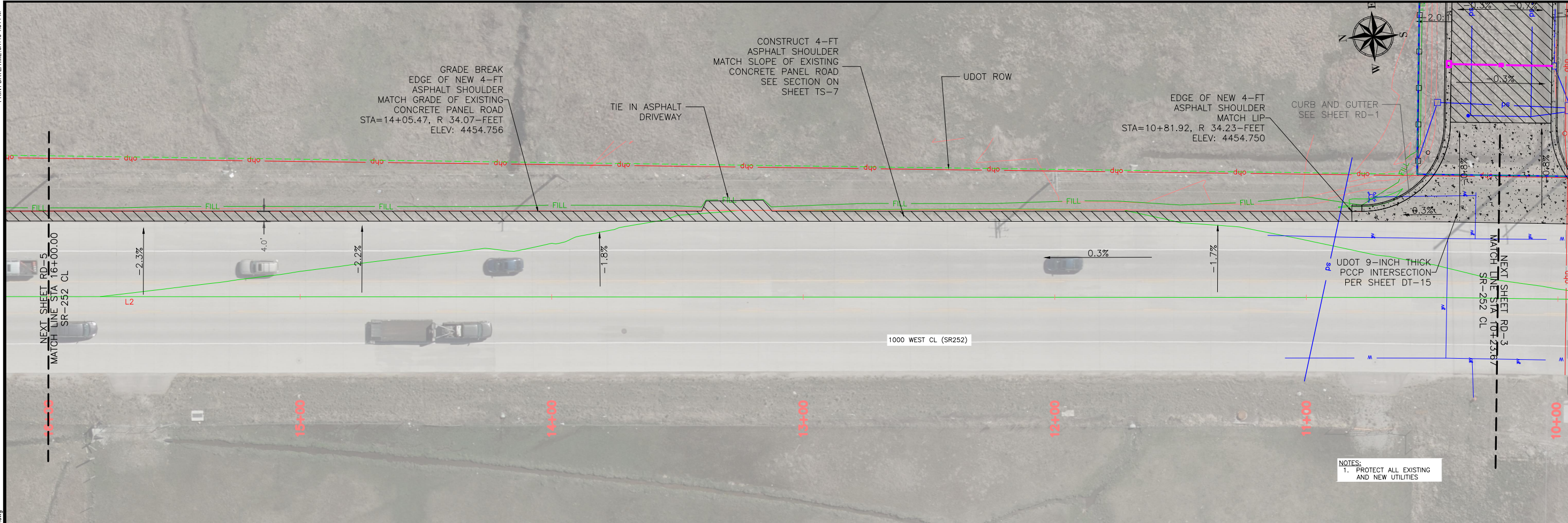
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PRINT DATE/TIME: 8/7/18 4:51 PM



 <p>LOGAN CITY ENGINEERING 290 NORTH 100 WEST LOGAN, UTAH 84321</p>	<p>1800 NORTH 900-1000 WEST ROADWAY</p>	<p>ROADWAY SR-252 STA: 4+73 TO 10+23</p>
	<p>LOGAN CITY ENGINEERING CITY UNITED IN SERVICE PUBLIC WORKS DEPARTMENT</p>	<p>DESIGNED: TDICKINSON DRAFTED: TDICKINSON CHECKED: BYOUNG</p>
<p>REVISION BLOCK: PHASE 2-ROADWAY COMPLETION</p>		
<p>SCALE HORIZONTAL 1" = 20 FT VERTICAL 1" = 10 FT VERIFY SCALE SCALE = 1/2 SHOWN SCALE IF PLOTTED ON B SIZE PAPER</p>		
<p>SHEET NO: RD-3</p>		



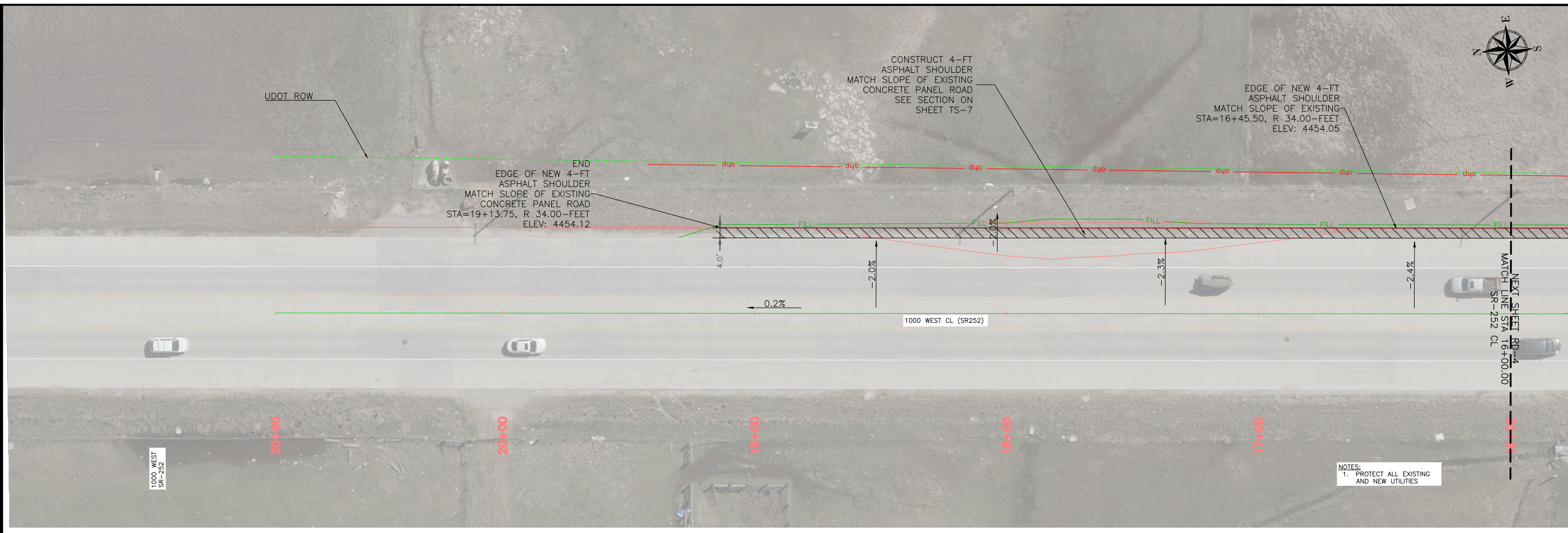
GRADE BREAK
EDGE OF NEW 4-FT
ASPHALT SHOULDER
MATCH GRADE OF EXISTING
CONCRETE PANEL ROAD
STA=14+05.47, R 34.07- FEET
ELEV: 4454.756

CONSTRUCT 4-FT
ASPHALT SHOULDER
MATCH SLOPE OF EXISTING
CONCRETE PANEL ROAD
SEE SECTION ON
SHEET TS-7

EDGE OF NEW 4-FT
ASPHALT SHOULDER
MATCH LIP
STA=10+81.92, R 34.23- FEET
ELEV: 4454.750



 LOGAN CITY ENGINEERING 290 NORTH 100 WEST LOGAN, UTAH 84321	1800 NORTH 900-1000 WEST ROADWAY ROADWAY SR-252 STA: 10+23 TO 16+00	SHEET NO: RD-4
	SCALE HORIZONTAL 1" = 20 FT VERIFY SCALE SCALE = 1/2 SHOWN SCALE IF PLOTTED ON B SIZE PAPER	REVISION BLOCK: PHASE 2-ROADWAY COMPLETION

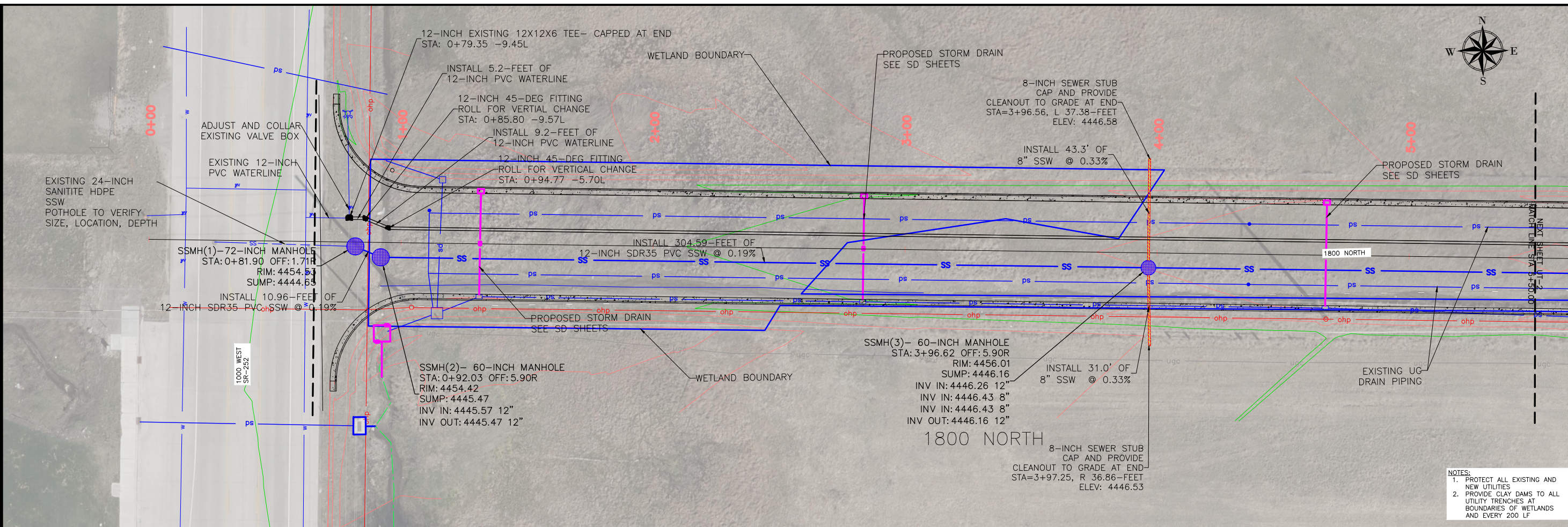


NOTES:
 1. PROTECT ALL EXISTING AND NEW UTILITIES

 <p>LOGAN CITY ENGINEERING 290 NORTH 100 WEST LOGAN, UTAH 84321</p>	<p>1800 NORTH 900-1000 WEST ROADWAY</p>		<p>LOGAN CITY ENGINEERING PUBLIC WORKS DEPARTMENT</p>
	<p>ROADWAY SR-252 STA: 16+00 TO END</p>		<p>LOGAN CITY ENGINEERING PUBLIC WORKS DEPARTMENT</p>
<p>DESIGNED: TDICKINSON DRAFTED: TDICKINSON CHECKED: BYOUNG</p>	<p>DATE: August 2, 2018 ENG #: ENG 09020</p>	<p>REVISION BLOCK: PHASE 2-ROADWAY COMPLETION</p>	<p>SCALE HORIZONTAL 1" = 20 FT 1" VERIFY SCALE SCALE = 1/2 SHOWN SCALE IF PLOTTED ON B SIZE PAPER</p>
<p>1800 NORTH 900-1000 WEST ROADWAY</p>			<p>SHEET NO: RD-5</p>

PRINT DATE/TIME: 8/7/18 4:51 PM

PROJECT FILE LOCATION: G:\sublow\Engineer\100 Engineering File System\PROJECTS 2009\ENR\GR920 - 1800 N 900 to 1000 West\Design\DWG\DWG\Phase 2 Roadway\1800 N 900 TO 1000 W 8 - 18.dwg



LOGAN CITY ENGINEERING
 290 NORTH 100 WEST
 LOGAN, UTAH 84321

LOGAN CITY
 CITY UNITED IN SERVICE
 PUBLIC WORKS DEPARTMENT

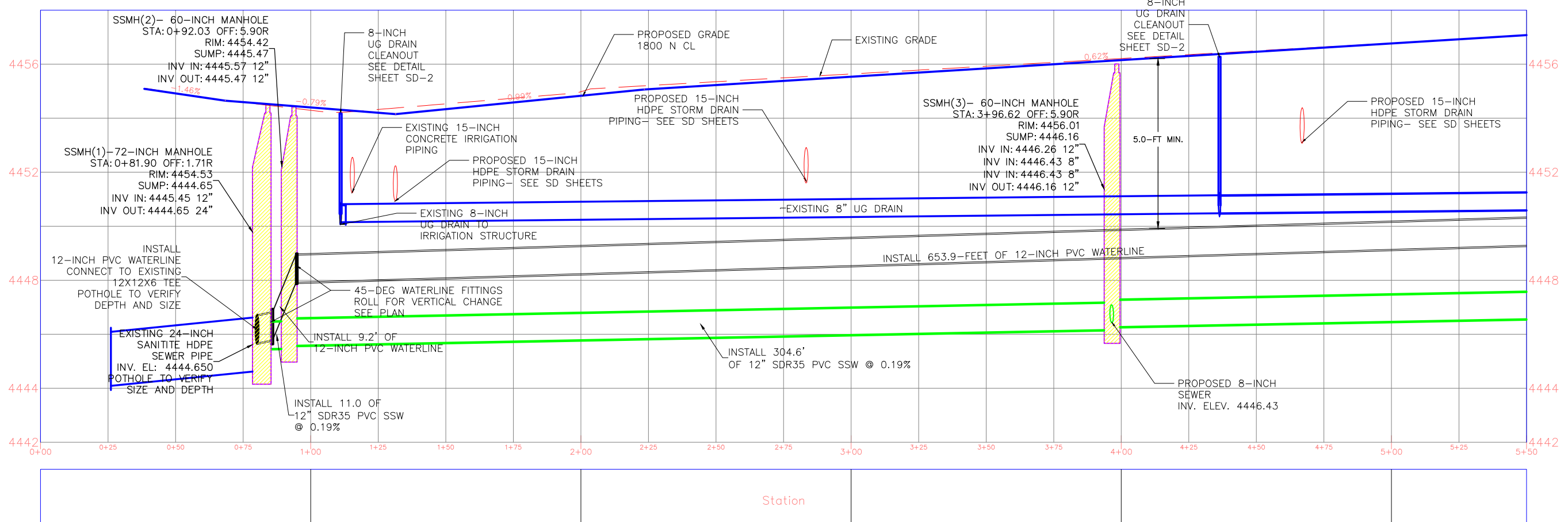
1800 NORTH 900-1000 WEST ROADWAY
 UTILITY STA: P.O.B. TO 5 + 50.00

REVISION BLOCK:
 PHASE 2-ROADWAY COMPLETION

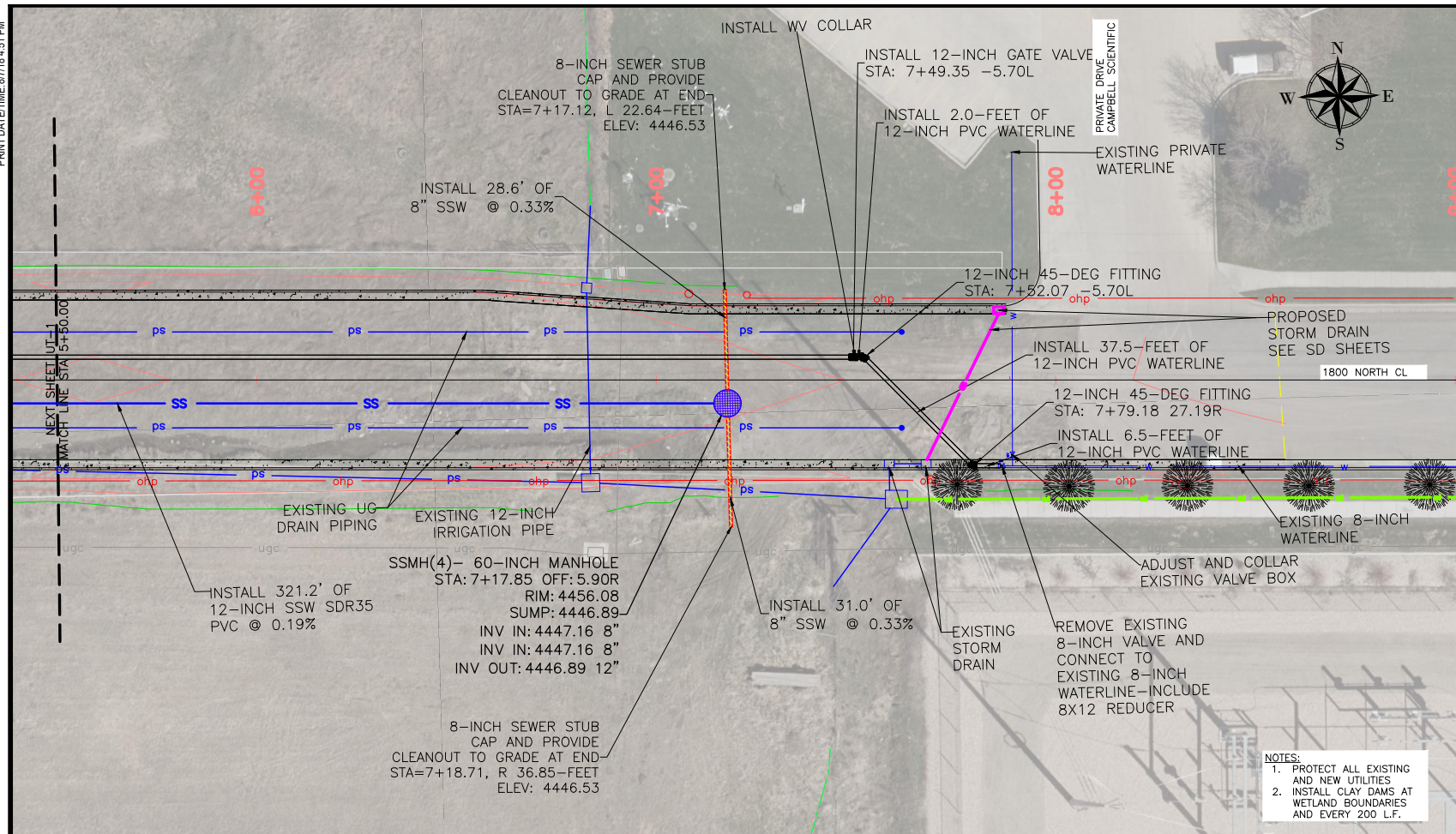
DATE: August 2, 2018
 DESIGNED: TD/JKINSON
 DRAFTED: TD/JKINSON
 CHECKED: BY/OLING
 ENG #: ENG 09020

SHEET NO: **UT-1**

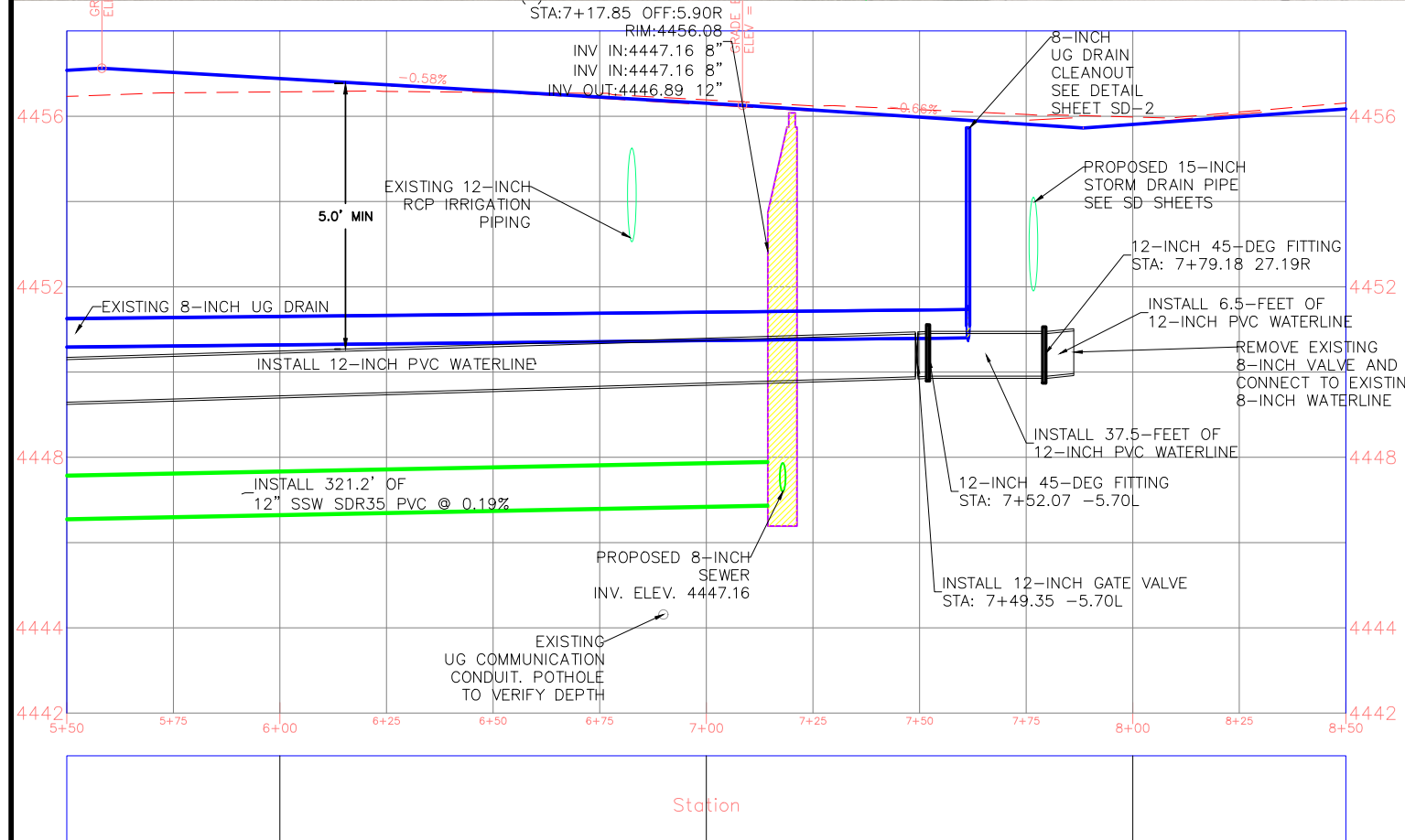
SCALE: HORIZONTAL 1" = 20 FT
 VERTICAL SCALE: 1" = 10 FT
 SCALE = 1/2 SHOWN SCALE
 IF PLOTTED ON B SIZE PAPER



- NOTES:**
1. PROTECT ALL EXISTING AND NEW UTILITIES
 2. PROVIDE CLAY DAMS TO ALL UTILITY TRENCHES AT BOUNDARIES OF WETLANDS AND EVERY 200 LF



- NOTES:
1. PROTECT ALL EXISTING AND NEW UTILITIES
 2. INSTALL CLAY DAMS AT WETLAND BOUNDARIES AND EVERY 200 L.F.



LOGAN CITY ENGINEERING
 290 NORTH 100 WEST
 LOGAN, UTAH 84321

LOGAN CITY UNITED IN SERVICE
 PUBLIC WORKS DEPARTMENT

1800 NORTH 900-1000 WEST ROADWAY
 UTILITY STA: 5 + 50.00 TO END

DESIGNED: TIDKINSON
 DRAFTED: TIDKINSON
 CHECKED: B'YOUNG

DATE: August 2, 2018
 ENG #: ENG 09020

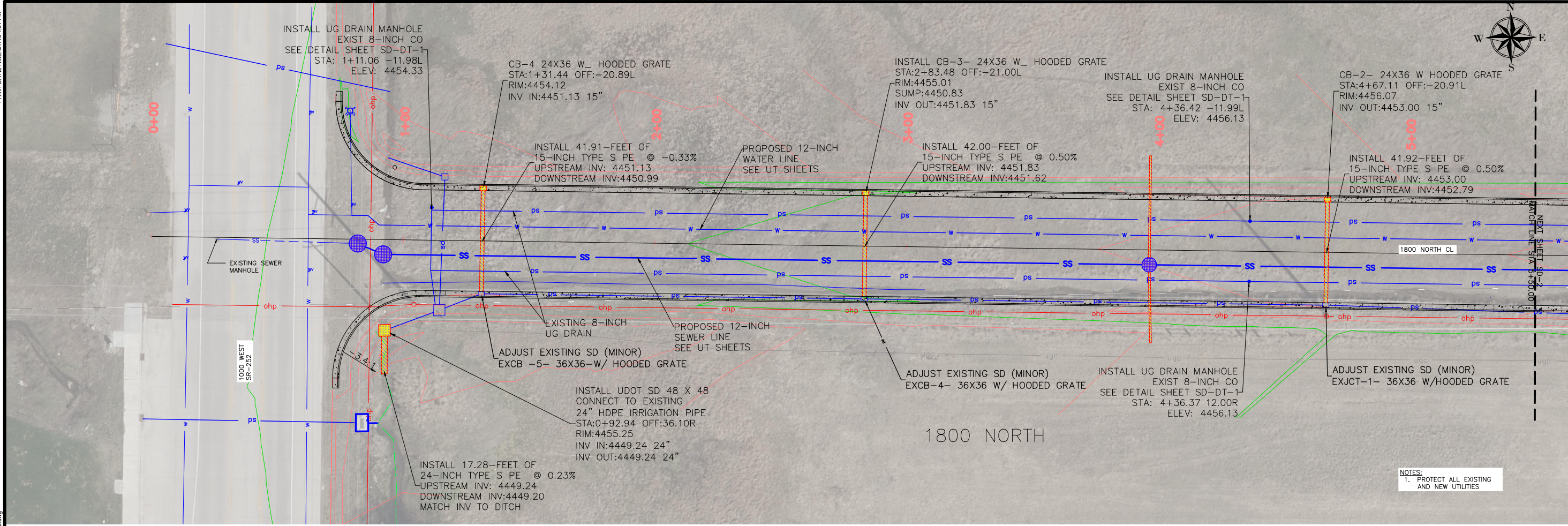
REVISION BLOCK:
 PHASE 2: ROADWAY COMPLETION

SCALE
 HORIZONTAL 1" = 20 FT
 VERTICAL 1" = 20 FT
 SCALE = 1/2" SHOWN SCALE
 IF PLOTTED ON B SIZE PAPER

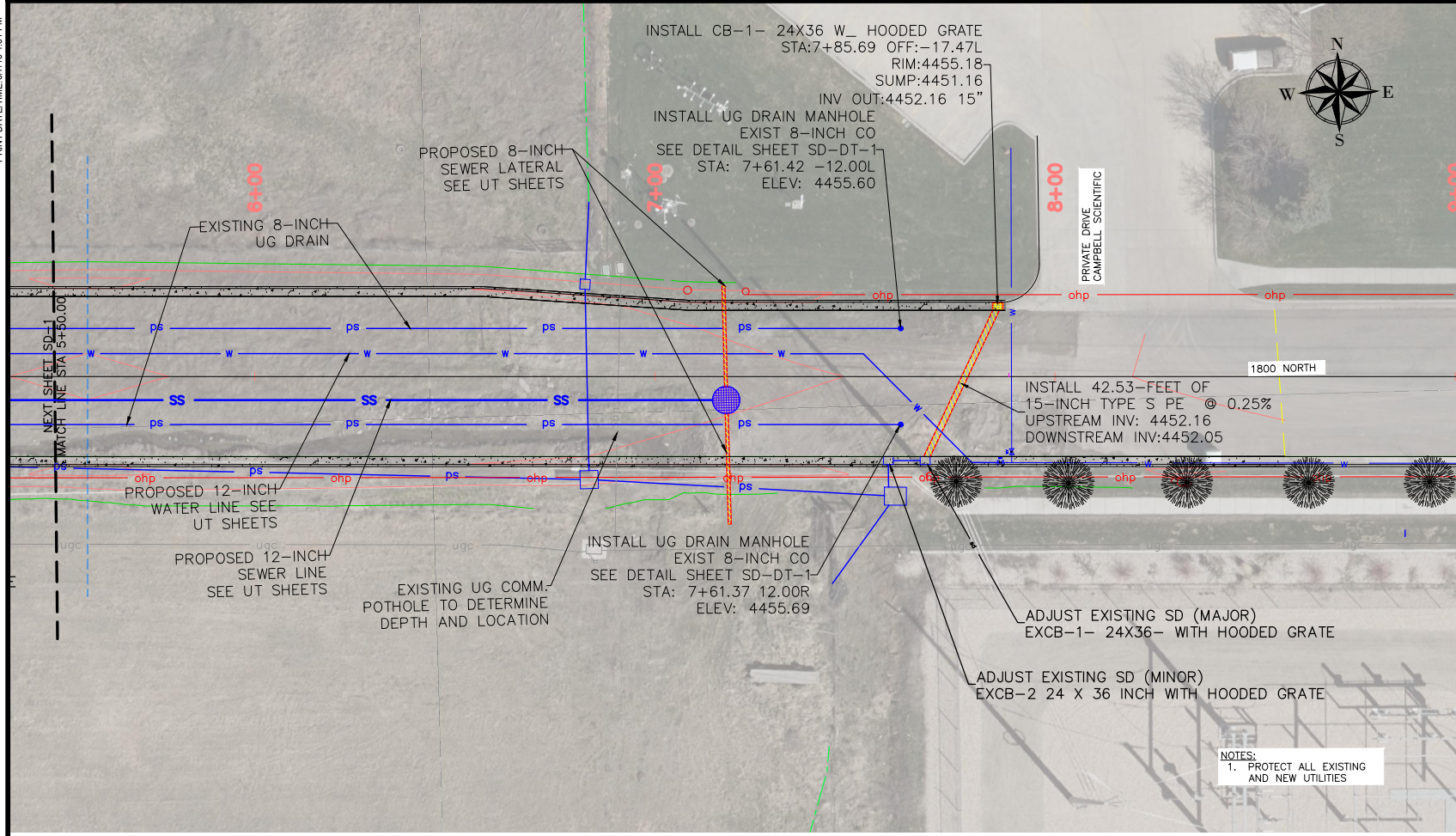
SHEET NO:
 UT-2

PRINT DATE/TIME: 8/7/18 4:51 PM

PROJECT FILE LOCATION: G:\baublow\Engineer\00 Engineering File System\PROJECTS 2009\ENR\G5920 - 180N 800 to 1000 West\Design DWG\DWG\Phase 2 Roadway\1800 N 900 TO 1000 W 6'-18.dwg



<p>LOGAN CITY ENGINEERING 290 NORTH 100 WEST LOGAN, UTAH 84321</p>	<p>DESIGNED: TUDKINSON</p> <p>DRAFTED: TUDKINSON</p> <p>CHECKED: BYOUNG</p>	<p>DATE: August 2, 2018</p> <p>ENG #: ENG 09020</p>	<p>REVISION BLOCK: PHASE 2-ROADWAY COMPLETION</p>	<p>SHEET NO: SD-1</p>
	<p>1800 NORTH 900-1000 WEST ROADWAY</p> <p>STORM DRAIN STA: P.O.B. TO 5 + 50.00</p>	<p>SCALE HORIZONTAL 1" = 20 FT</p> <p>1" VERIFY SCALE SCALE = 1/2 SHOWN SCALE IF PLOTTED ON B SIZE PAPER</p>	<p>SCALE HORIZONTAL 1" = 20 FT</p>	<p>SCALE HORIZONTAL 1" = 20 FT</p>



NOTES:
1. PROTECT ALL EXISTING AND NEW UTILITIES



LOGAN CITY ENGINEERING
290 NORTH 100 WEST
LOGAN, UTAH 84321

1800 NORTH 900-1000 WEST ROADWAY
STORM DRAIN STA: 5 + 50.00 TO END

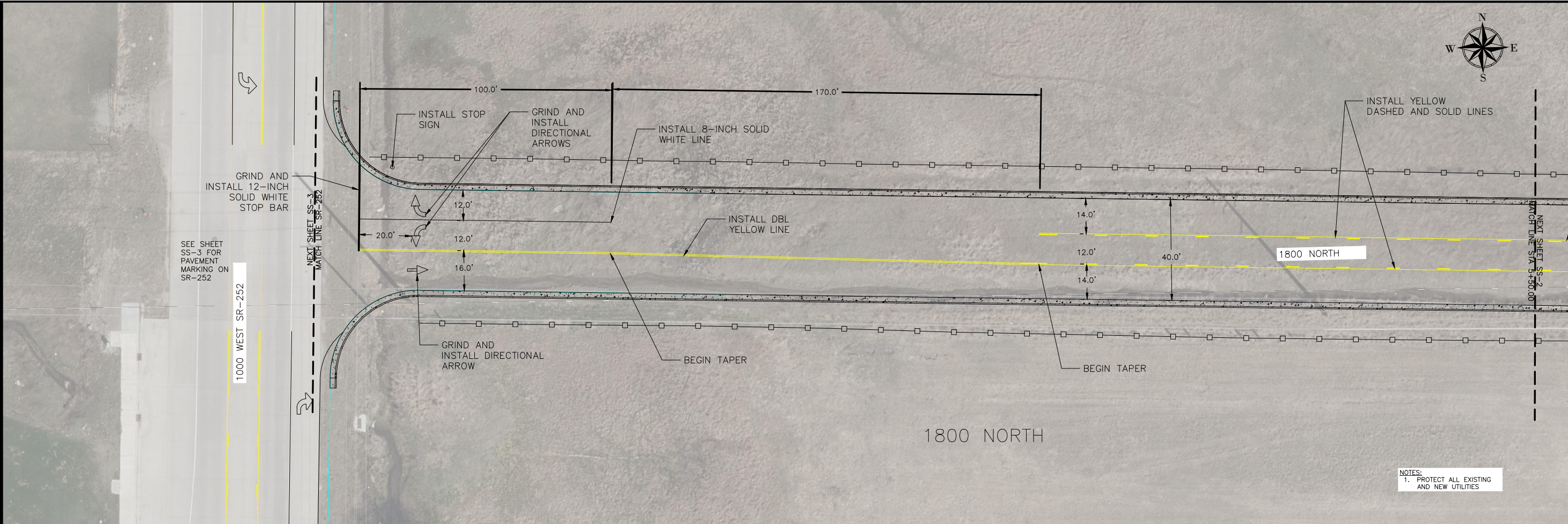
DESIGNED:	TJ DRINKSON
DRAWN:	TJ DRINKSON
CHECKED:	B YOUNG

DATE:	August 2, 2018
ENG #:	ENG 09020

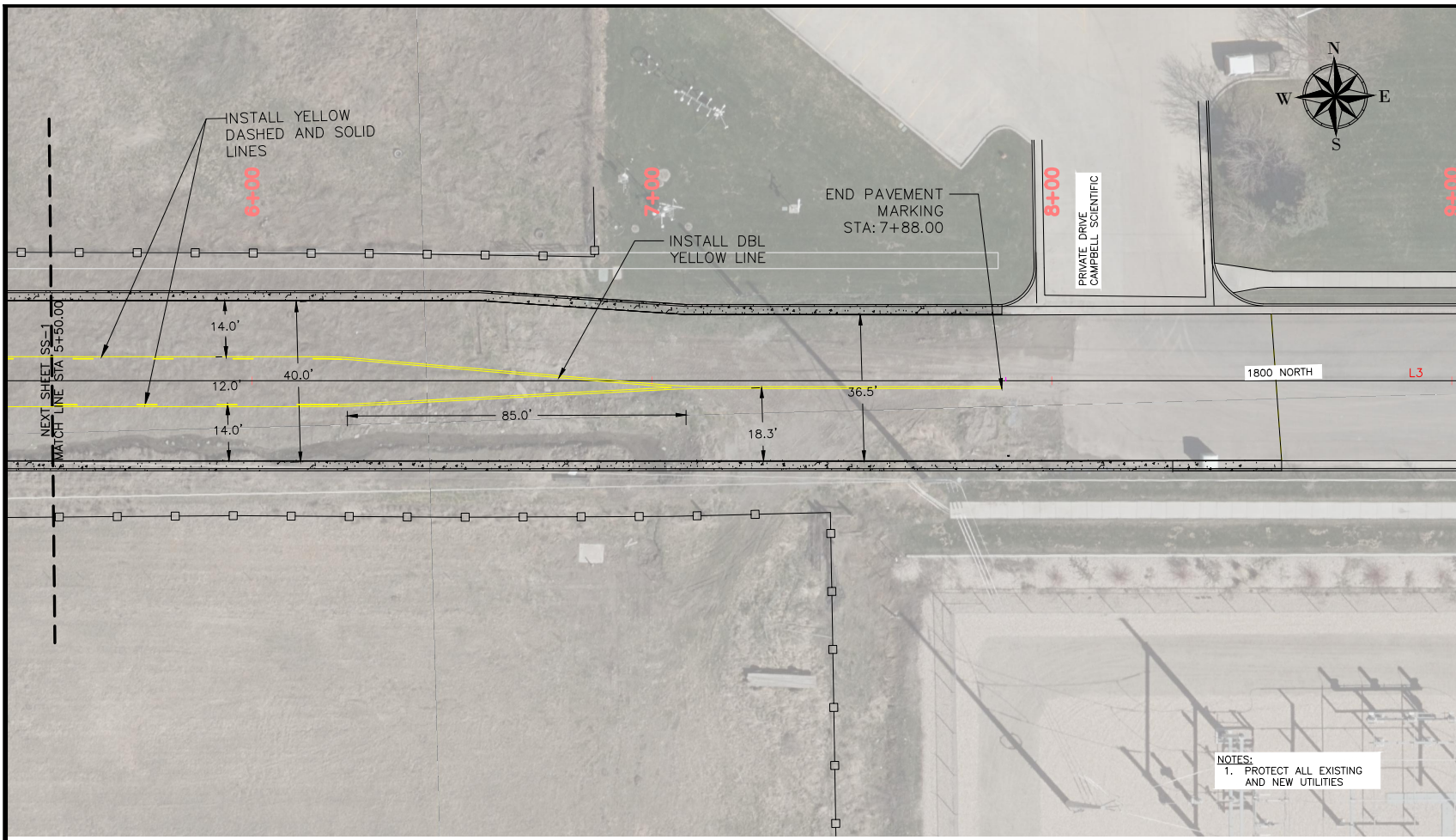
REVISION BLOCK:
PHASE 2: ROADWAY COMPLETION

SCALE
HORIZONTAL 1" = 20 FT
VERTICAL 1" = 10 FT
SCALE = 1/2" SHOWN SCALE
IF PLOTTED ON B SIZE PAPER

SHEET NO:
SD-2



<p>LOGAN CITY ENGINEERING 290 NORTH 100 WEST LOGAN, UTAH 84321</p>	<p>DESIGNED: TDICKINSON</p> <p>DRAWN: TDICKINSON</p> <p>CHECKED: BYOUNG</p>	<p>DATE: August 2, 2018</p> <p>ENG #: ENG 09020</p>	<p>REVISION BLOCK: PHASE 2-ROADWAY COMPLETION</p>	<p>SHEET NO: SS-1</p>
	<p>1800 NORTH 900-1000 WEST ROADWAY</p> <p>SIGN AND STRIPING 1800 N STA: P.O.B. TO 5 + 50.00</p>			<p>SCALE HORIZONTAL 1" = 20 FT</p> <p>1" VERIFY SCALE</p> <p>SCALE = 1/2 SHOWN SCALE IF PLOTTED ON B SIZE PAPER</p>



LOGAN CITY ENGINEERING
290 NORTH 100 WEST
LOGAN, UTAH 84321

1800 NORTH 900-1000 WEST ROADWAY

SIGN AND STRIPING 1800 N STA: 5 + 50.00 TO END

DESIGNED:
T DICKINSON

DRAWN:
T DICKINSON

CHECKED:
B YOUNG

DATE:
August 2, 2018

ENG #:
ENG 09020

REVISION BLOCK:
PHASE 2: ROADWAY COMPLETION

SCALE
HORIZONTAL 1" = 20 FT

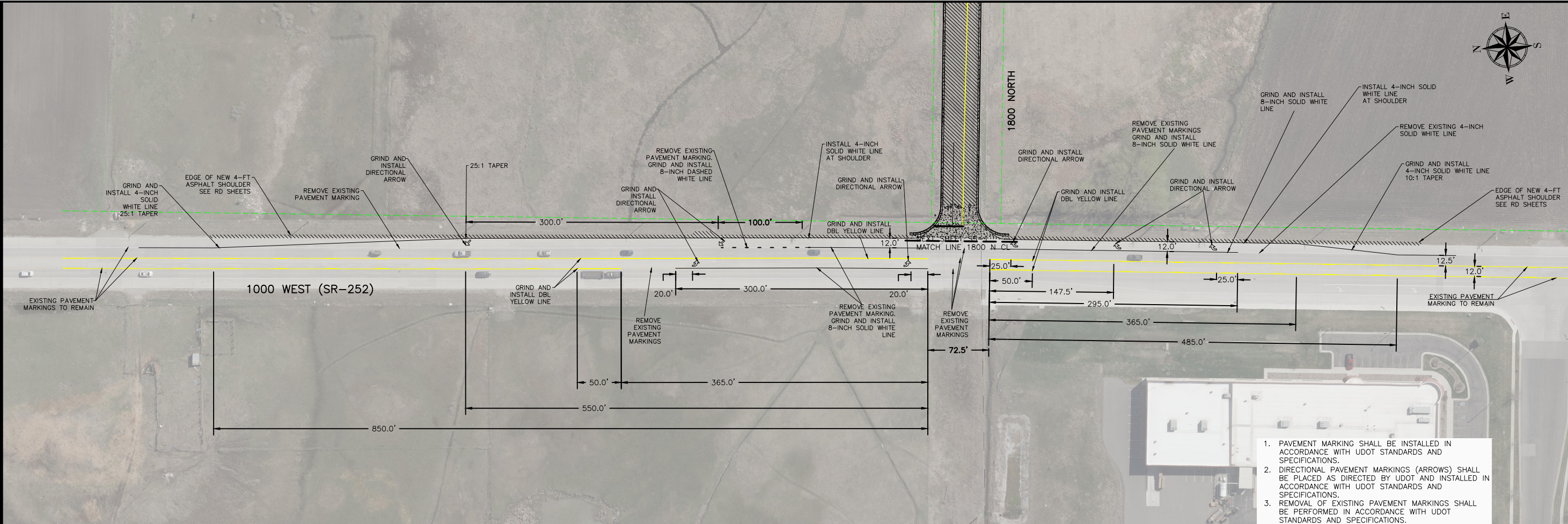
VERIFY SCALE
SCALE = 1/2 SHOWN SCALE
F PLOTTED ON B SIZE PAPER

SHEET NO:

SS-2

PRINT DATE/TIME: 8/7/18 4:51 PM

PROJECT FILE LOCATION: G:\public\low\Engineer\100 Engineering File System\PROJECTS 2009\ENGR\9200 - 1800N 800 to 1000 West\Design DWG\DWG\Phase 2 Roadway\1800 N 900 TO 1000 W 8 - 18.dwg



1. PAVEMENT MARKING SHALL BE INSTALLED IN ACCORDANCE WITH UDOT STANDARDS AND SPECIFICATIONS.
2. DIRECTIONAL PAVEMENT MARKINGS (ARROWS) SHALL BE PLACED AS DIRECTED BY UDOT AND INSTALLED IN ACCORDANCE WITH UDOT STANDARDS AND SPECIFICATIONS.
3. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE PERFORMED IN ACCORDANCE WITH UDOT STANDARDS AND SPECIFICATIONS.

SHEET NO: SS-3

SCALE HORIZONTAL 1" = 60 FT
1" VERIFY SCALE
SCALE = 1/2 SHOWN SCALE
IF PLOTTED ON B SIZE PAPER

REVISION BLOCK:
PHASE 2-ROADWAY COMPLETION

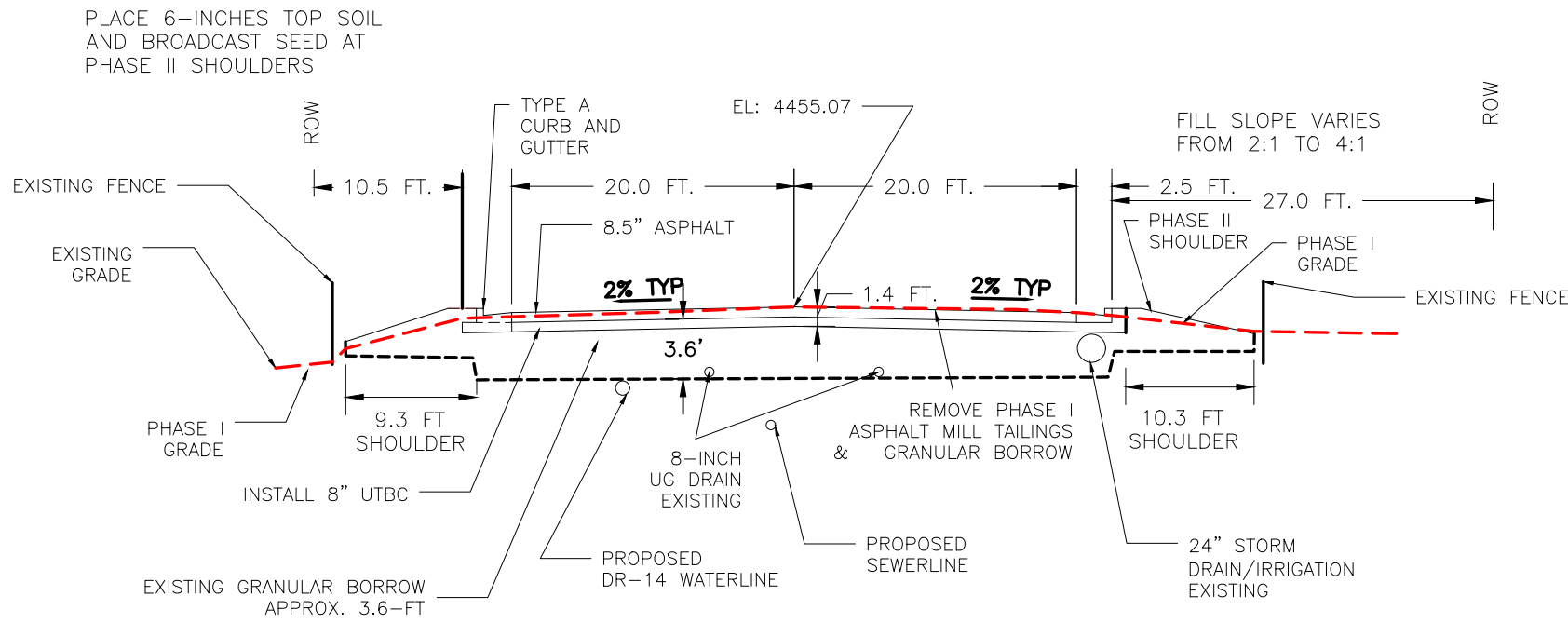
DATE:	August 2, 2018
DESIGNED:	TJ DICKINSON
DRAFTED:	TJ DICKINSON
CHECKED:	BY JOUNG
ENG #:	ENG 09020

1800 NORTH 900-1000 WEST ROADWAY

SIGN AND STRIPING SR-252

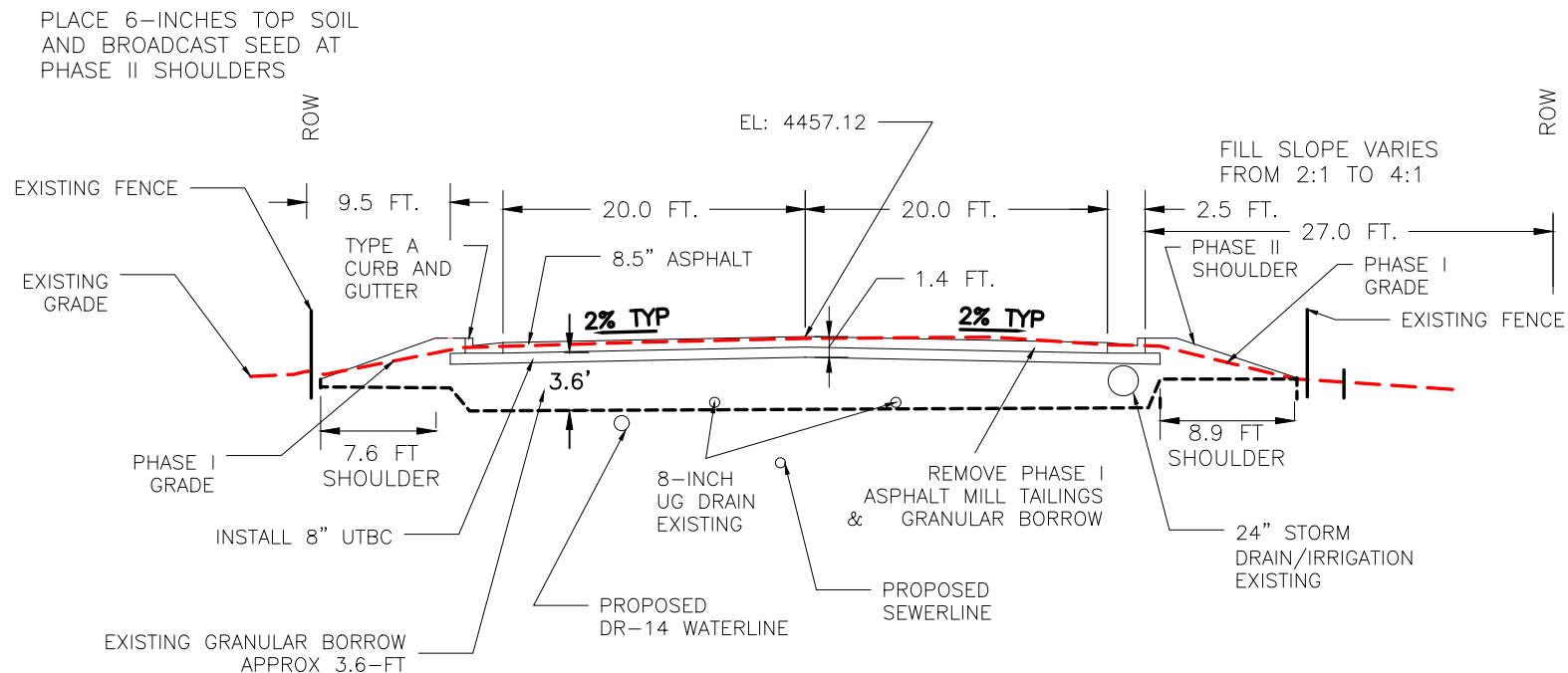
LOGAN CITY ENGINEERING
290 NORTH 100 WEST
LOGAN, UTAH 84321

LOGAN CITY UNITED IN SERVICE
PUBLIC WORKS DEPARTMENT



CROSS SECTION STA: 2+23.48

APPROXIMATE DEPTHS ARE SHOWN. ACTUAL DEPTHS MAY VARY.



CROSS SECTION STA: 5+58.24

APPROXIMATE DEPTHS ARE SHOWN. ACTUAL DEPTHS MAY VARY.

PHASE II INCLUDES REMOVAL OF TEMPORARY SURFACE (4-INCHES COMPACTED ASPHALT MILL TAILINGS), REMOVAL OF APPROXIMATELY 12.5-INCHES OF GRANULAR BORROW MATERIAL THAT WAS PLACED DURING PHASE I. REMOVED 3-INCH MINUS GRANULAR BORROW MAY BE USED TO FORM SHOULDERS, AS TRENCH BACKFILL, SUB-BASE, OR OTHER AREAS NEEDED TO COMPLETE PHASE II. REUSED 3-INCH MINUS GRANULAR BORROW MATERIAL SHALL BE FREE OF DEBRIS AND CONTAMINANTS. EXCESS WILL BE SALVAGED TO OWNER. CONTRACTOR WILL INSTALL WATER, SEWER, AND STORM DRAIN UTILITIES, 8-INCHES OF UTBC, CURB AND GUTTER, UDOT SHOULDER, UDOT CONCRETE INTERSECTION, AND 8.5-INCHES OF ASPHALT ROADWAY.

SHEET NO:

RD-SCT-1

SCALE HORIZONTALS

1" VERIFY SCALE IF PLOTTED ON B SIZE PAPER

REVISION BLOCK: PHASE 2: ROADWAY COMPLETION

DATE: August 2, 2018

ENG: ENG 08020

DESIGNED: TDICKINSON

DRAFTED: TDICKINSON

CHECKED: BYOUNG

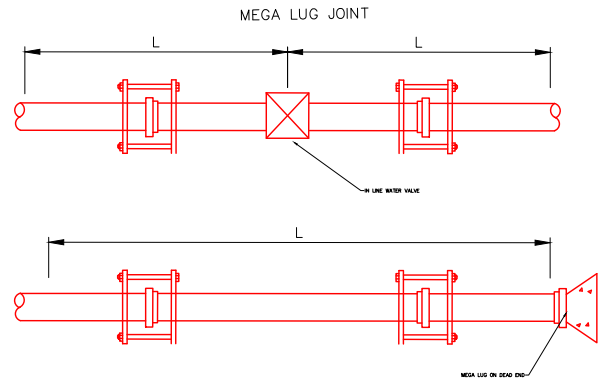
1800 NORTH 800 TO 1000 WEST

ROADWAY 1800 NORTH CROSS SECTIONS

LOGAN CITY ENGINEERING

290 NORTH 100 WEST LOGAN, UTAH 84321



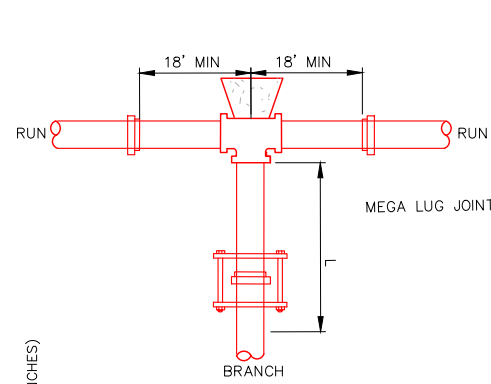


IN-LINE VALVE/DEAD END
NOTE:
1. ANY JOINTS WITHIN LENGTH "L" MUST BE RESTRAINED. USE RETAINER GLAND AT MECHANICAL JOINTS AND HARNESS WITH PUCH-ON PIPE PER STANDARDS.
2. IF ACTUAL CONDITIONS DIFFER FROM THOSE LISTED ABOVE OR THE REQUIRED RESTRAINED LENGTH CANNOT BE MET, THE RESTRAINED JOINT LENGTH SHALL BE DETERMINED BY THE ENGINEER.

PIPE DIAMETER (IN INCHES)									
4	6	8	10	12	14	16	18	20	
32	46	61	74	88	102	117	131	145	

RESTRAINED LENGTHS, "L" (IN FEET)

MECHANICAL RESTRAINT FOR IN-LINE VALVES AND END CAPS (TYP)



TEE AND BRANCH
NOTE:
1. RESTRAIN THE TWO MECHANICAL JOINTS ON EITHER SIDE OF THE TEE. THERE SHOULD BE A FULL 18'-FT SECTION OF PIPE INSTALLED ON EACH SIDE OF THE RUN.
2. ALL JOINTS WITHIN THE LENGTH "L" ON THE BRANCH MUST BE RESTRAINED. USE RETAINER GLAND AT MECHANICAL JOINTS AND HARNESS ON PUCH-ON PIPE PER CITY STANDARDS.

BRANCH DIA (IN INCHES)	RUN DIAMETER (IN INCHES)						
	10	12	14	16	18	20	
8.00	43	39	36	32	28	25	
10.00	60	57	54	51	48	45	
12.00	X	74	71	69	66	64	
14.00	X	X	88	86	83	81	

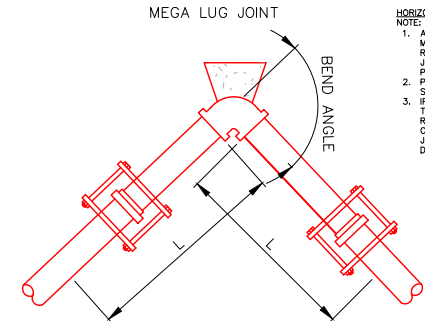
RESTRAINED LENGTHS, "L" (IN FEET)

MECHANICAL RESTRAINT FOR STANDARD TEES (TYP)

BRANCH DIA (IN INCHES)	RUN DIAMETER (IN INCHES)						
	10	12	14	16	18	20	
8.00	4	4	4	4	4	4	
10.00	6	6	6	6	6	6	
12.00	*	*	*	*	*	*	
14.00	*	*	*	*	*	*	

THRUST BLOCK SIZE (FT² OF BEARING AREA)

* CONTACT ENGINEER
** CONTACT ENGINEER IF JOINT RESTRAINT INSTALLATION IS NOT POSSIBLE ON EXISTING PIPING INSTALLATIONS.

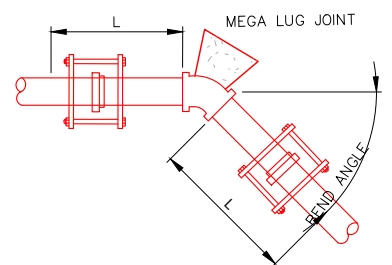


HORIZONTAL BENDS
NOTE:
1. ANY JOINTS WITHIN LENGTH "L" MUST BE RESTRAINED. USE RETAINER GLAND AT MECHANICAL JOINTS AND HARNESS WITH PUCH-ON PIPE PER STANDARDS.
2. PIPE ON EITHER SIDE OF FITTING SHALL BE A FULL LENGTH SECTION.
3. IF ACTUAL CONDITIONS DIFFER FROM THOSE LISTED ABOVE OR THE REQUIRED RESTRAINED LENGTH CANNOT BE MET, THE RESTRAINED JOINT LENGTH SHALL BE DETERMINED BY THE ENGINEER.

BEND ANGLE	PIPE DIAMETER (IN INCHES)									
	4	6	8	10	12	14	16	18	20	
11.25	2	4	5	6	7	8	9	10	11	
22.50	5	8	11	13	15	16	20	21		
45.00	10	15	19	24	28	32	36	41	45	
90.00	25	36	47	57	67	78	88	98	108	

RESTRAINED LENGTHS, "L" (IN FEET)
** CONTACT ENGINEER IF JOINT RESTRAINT INSTALLATION IS NOT POSSIBLE ON EXISTING PIPING INSTALLATIONS.

MECHANICAL RESTRAINT FOR HORIZONTAL BENDS (TYP)



VERTICAL BENDS
NOTE:
1. ANY JOINTS WITHIN LENGTH "L" MUST BE RESTRAINED. USE RETAINER GLAND AT MECHANICAL JOINTS AND HARNESS WITH PUCH-ON PIPE PER STANDARDS.
2. PIPE ON EITHER SIDE OF FITTING SHALL BE A FULL LENGTH SECTION.
3. IF ACTUAL CONDITIONS DIFFER FROM THOSE LISTED ABOVE OR THE REQUIRED RESTRAINED LENGTH CANNOT BE MET, THE RESTRAINED JOINT LENGTH SHALL BE DETERMINED BY THE ENGINEER.

BEND ANGLE	PIPE DIAMETER (IN INCHES)									
	4	6	8	10	12	14	16	18	20	
11.25	6	9	12	15	17	20	23	26	28	
22.50	13	18	24	30	35	41	46	52	58	
45.00	27	38	50	62	73	85	97	108	120	

RESTRAINED LENGTHS, "L" (IN FEET)

** CONTACT ENGINEER IF JOINT RESTRAINT INSTALLATION IS NOT POSSIBLE ON EXISTING PIPING INSTALLATIONS.

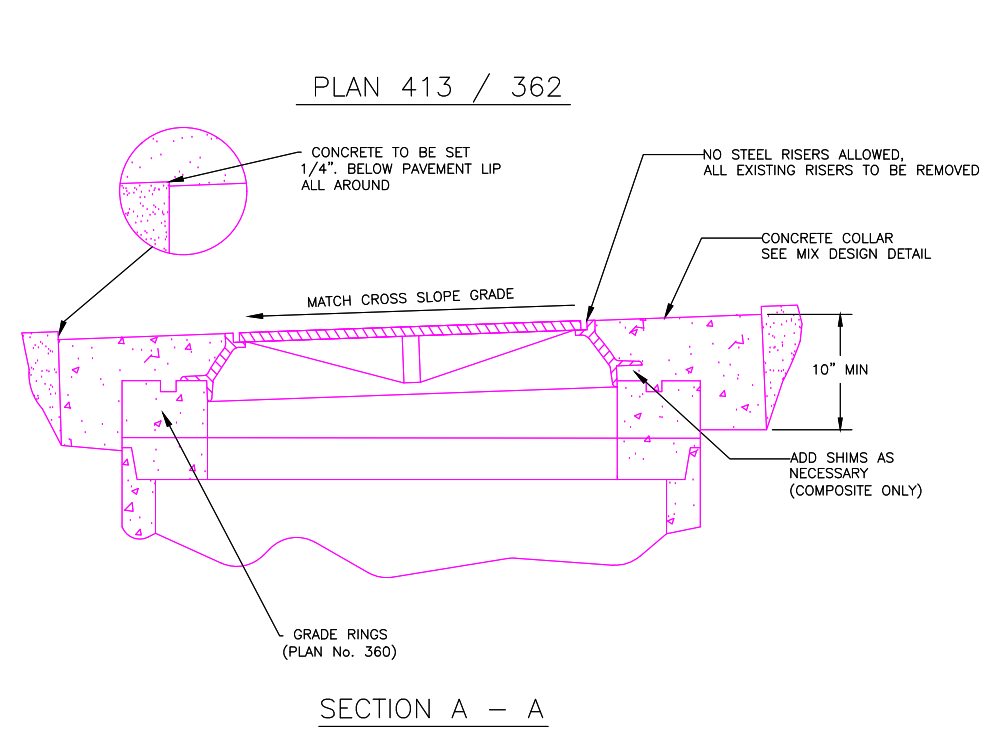
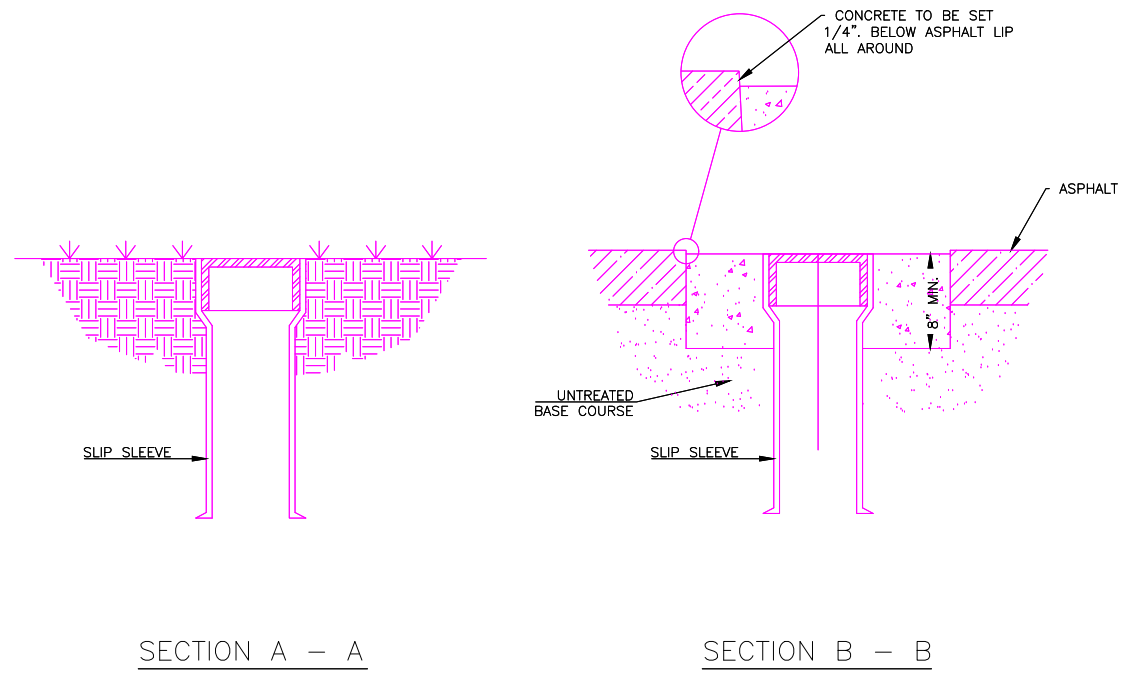
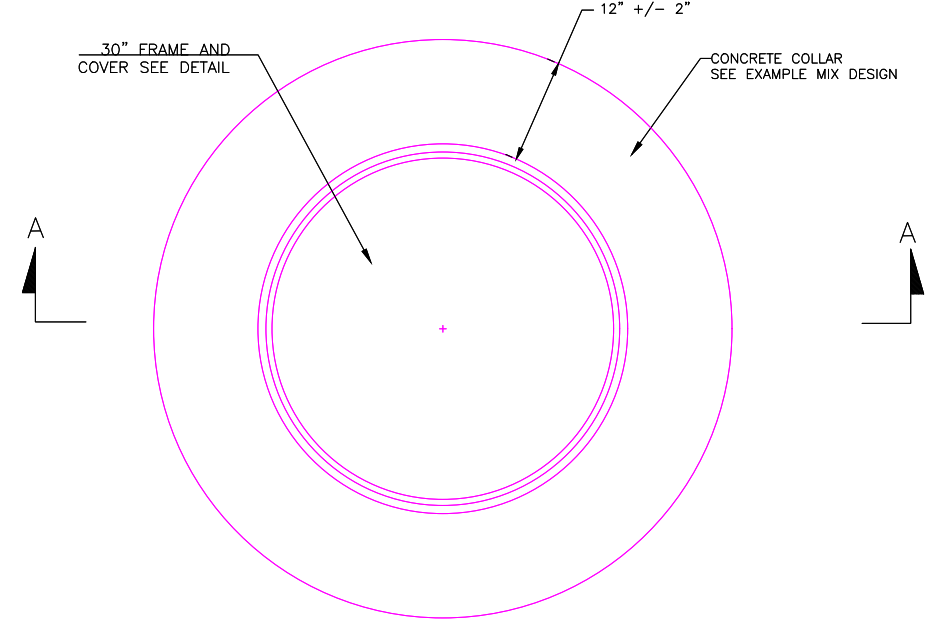
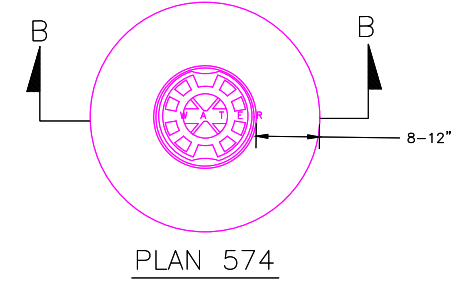
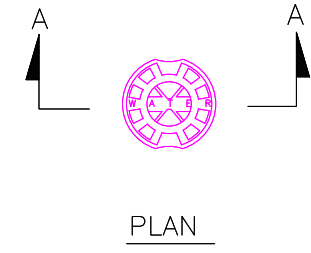
MECHANICAL RESTRAINT FOR VERTICAL BENDS (TYP)

Cover collar for water valve box

1. GENERAL
 - 1.1. In a pavement surface, the concrete will support the frame under traffic loadings
2. PRODUCTS
 - 2.1. CONCRETE: Concrete collars USE LEGRANDS (UDOT 70-B MIX) OR PARSON'S (AA-AE HP WITH MESH ADD IN). OR EQUIVALENT HIGH EARLY STRENGTH FIBER MIX TO UDOT STANDARD.
 - 2.2. Concrete Curing Agent: Type ID Cass A (clear with fugitive dye), membrane forming compound, APWA Section 03 39 00
3. EXECUTION
 - 3.1. Pavement Preparation: Provide a neat vertical and concentric joint between concrete and existing asphalt surfaces. Clean edges of all dirt, oil and loose debris.
 - 3.2. Concrete Placement: APWA Section 03 30 10. Fill the annular space around the frame and cover casting with concrete, and mechanically vibrate. Apply a broom finish. apply a curing agent.

Cover collar- sewer/underground drain manhole

1. GENERAL
 - 1.1. In a pavement surface, the concrete will support the frame under traffic loadings
2. PRODUCTS
 - 2.1. CONCRETE: Concrete collars USE LEGRANDS (UDOT 70-B MIX) OR PARSON'S (AA-AE HP WITH FIBER ADD IN). OR EQUIVALENT HIGH EARLY STRENGTH MESH MIX TO UDOT STANDARD.
 - 2.2. Concrete Curing Agent: Type ID Cass A (clear with fugitive dye), membrane forming compound, APWA Section 03 39 00
3. EXECUTION
 - 3.1. Pavement Preparation: Provide a neat vertical and concentric joint between concrete and existing asphalt surfaces. Clean edges of all dirt, oil and loose debris.
 - 3.2. Concrete Placement: APWA Section 03 30 10. Fill the annular space around the frame and cover casting with concrete, and mechanically vibrate. Apply a broom finish. apply a curing agent.



SHEET NO:
UT-DT-2

SCALE
N.T.S.
1" = 1' N.T.S.
SCALE = 1/2" SHOWN SCALE
P. PLOTTED ON B SIZE PAPER

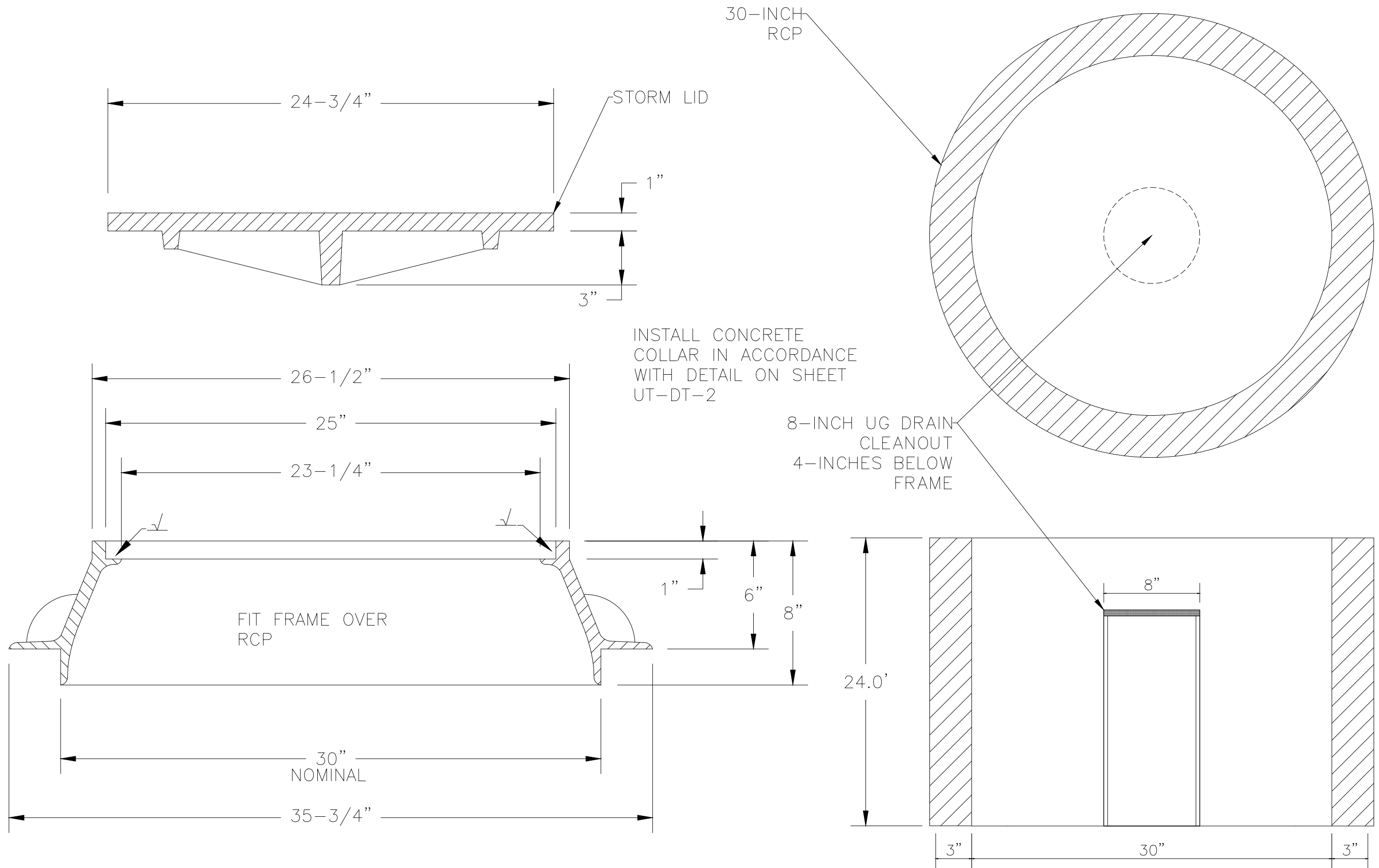
REVISION BLOCK:
PHASE 2: ROADWAY COMPLETION

DATE: August 2, 2018
ENG #:
ENG 09020

DESIGNED: TDICKINSON
DRAFTED: TDICKINSON
CHECKED: B'YOUNG

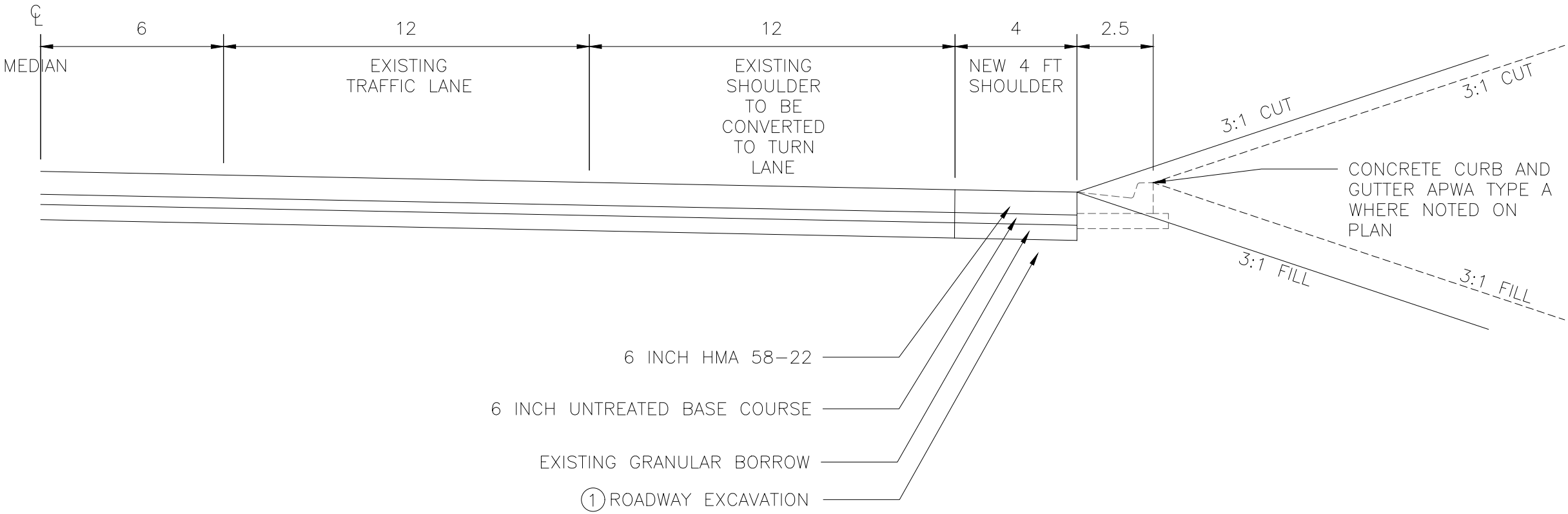
1800 NORTH 900-1000 WEST ROADWAY
UTILITY DETAILS- COLLARS

LOGAN CITY ENGINEERING
290 NORTH 100 WEST
LOGAN, UTAH 84321
LOGAN CITY UNITED IN SERVICE
PUBLIC WORKS DEPARTMENT



UG DRAIN MANHOLE DETAIL

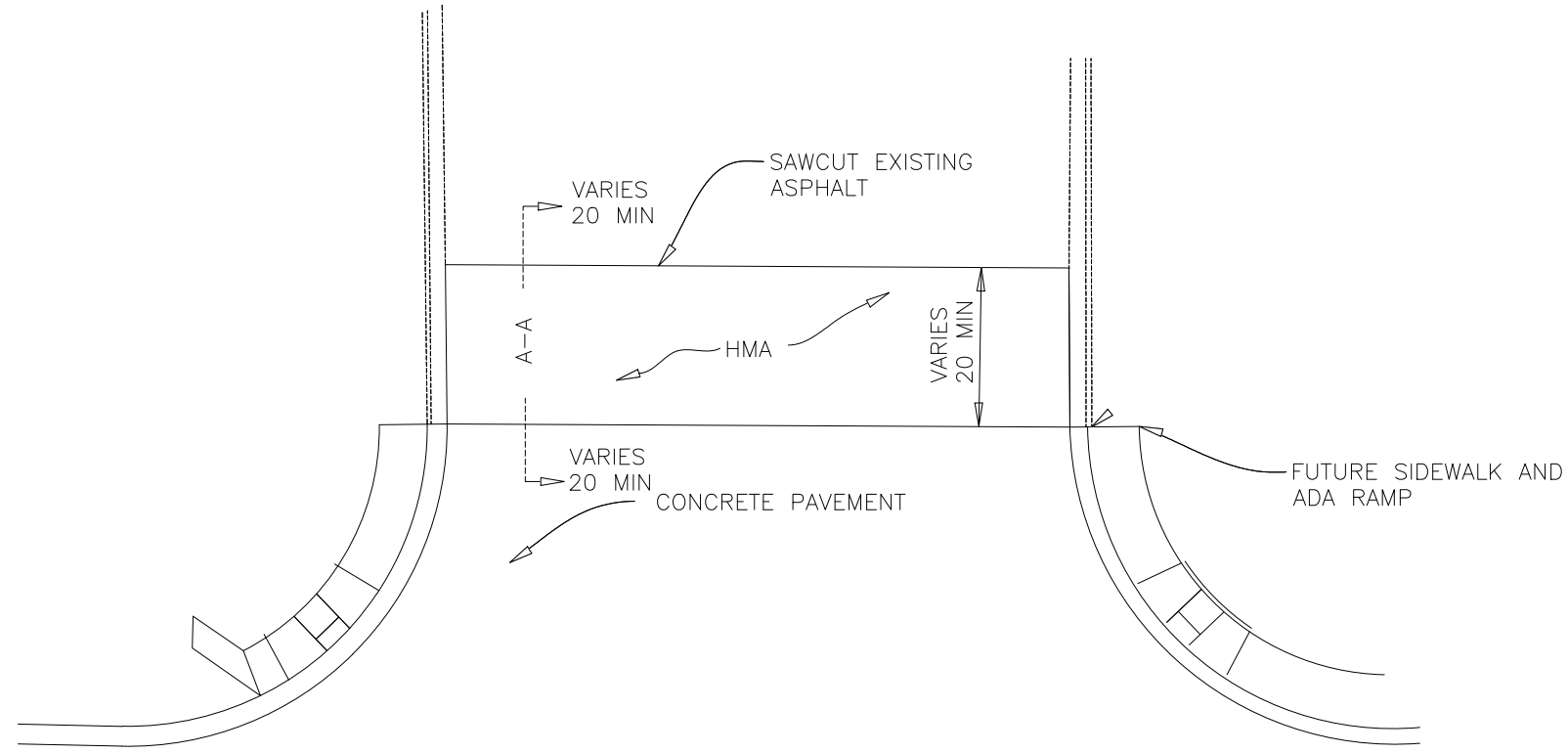
<p>LOGAN CITY ENGINEERING 290 NORTH 100 WEST LOGAN, UTAH 84321</p>		<p>1800 NORTH 800 TO 1000 WEST</p> <p>UG DRAIN CLEANOUT DETAIL</p>
<p>DESIGNED: TDICKINSON</p> <p>DRAFTED: TDICKINSON</p> <p>CHECKED: BYOUNG</p>	<p>DATE: August 2, 2018</p> <p>ENG #: ENG 08020</p>	<p>REVISION BLOCK: PHASE 2: ROADWAY COMPLETION</p>
<p>LOGAN CITY ENGINEERING CITY UNITED IN SERVICE PUBLIC WORKS DEPARTMENT</p>		<p>SHEET NO: SD-DT-1</p> <p>SCALE: HORIZONTAL NTS 1" = N.T.S. SCALE = 1/2" SHOWN SCALE IF PLOTTED ON B SIZE PAPER</p>



NOTES:

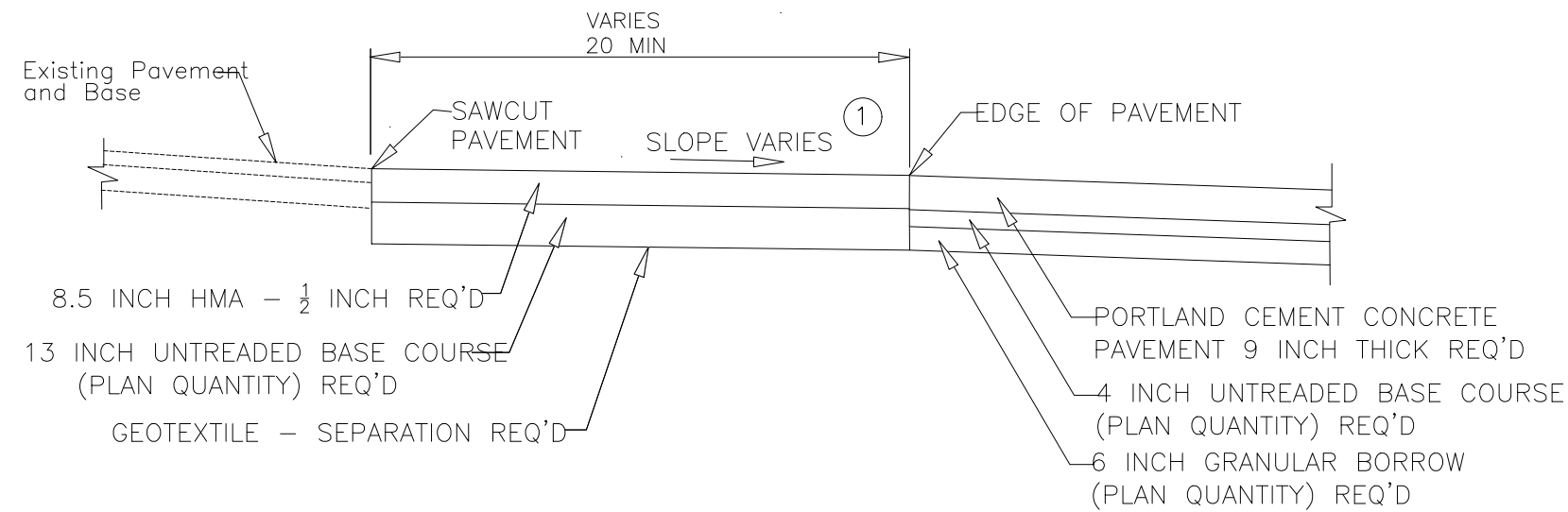
- ① SOFT SPOT REPAIR REQ'D – UNSUITABLE SUBGRADE MATERIAL MAY BE ENCOUNTERED DURING CONSTRUCTION DEPENDING ON TIME OF CONSTRUCTION AND GROUND WATER CONDITIONS. REPAIR SOFT SPOTS THAT ARE ENCOUNTERED DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 02316M THAT ARE APPROVED BY THE ENGINEER.

<p>LOGAN CITY ENGINEERING 290 NORTH 100 WEST LOGAN, UTAH 84321</p>		<p>1800 NORTH 800 TO 1000 WEST</p> <p>SR-252 SHOULDER DETAIL</p>	<p>DESIGNED: TDICKINSON</p> <p>DRAWN: TDICKINSON</p> <p>CHECKED: BYOUNG</p>	<p>DATE: August 2, 2018</p> <p>ENG #: ENG 108020</p>	<p>REVISION BLOCK: PHASE 2: ROADWAY COMPLETION</p>	<p>SCALE HORIZONTAL NTS 1" = N.T.S. SCALE = 1/2" SHOWN SCALE IF PLOTTED ON B SIZE PAPER</p>	<p>SHEET NO: TS-7</p>
--	--	--	---	--	--	---	---------------------------



**TYPICAL HMA TRANSITION DETAIL
AT SIDE STREETS**

SEE DETAIL SHEETS DT-1 TO DT-9
FOR ADDITIONAL INFORMATION



SECTION A-A

SHEET NO:
DT-14

SCALE
HORIZONTAL N.T.S.
1" = 10' N.T.S.
SCALE = 1/2" SHOWN SCALE
IF PLOTTED ON B SIZE PAPER

REVISION BLOCK:
PHASE 2: ROADWAY COMPLETION

DESIGNED: TDICKINSON	DATE: August 2, 2018
DRAFTED: TDICKINSON	ENG #: ENG 08020
CHECKED: BYOUNG	

1800 NORTH 800 TO 1000 WEST
SR-252 ROAD DETAILS

LOGAN CITY ENGINEERING
290 NORTH 100 WEST
LOGAN, UTAH 84321

LOGAN CITY UNITED IN SERVICE
PUBLIC WORKS DEPARTMENT

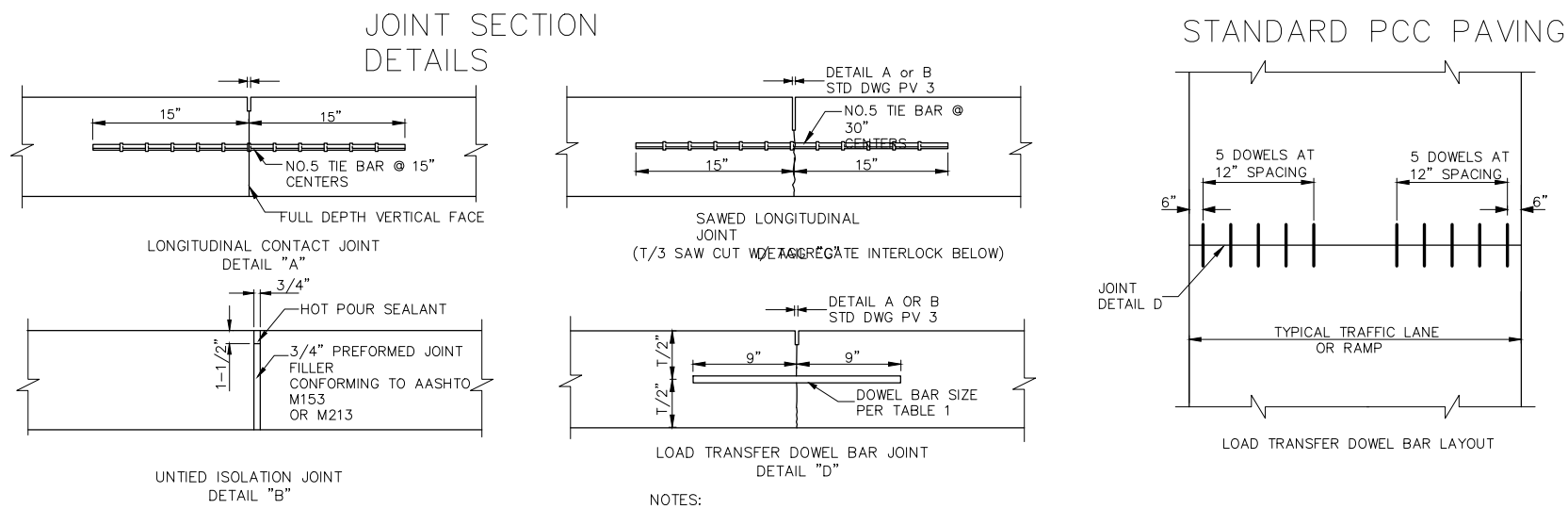
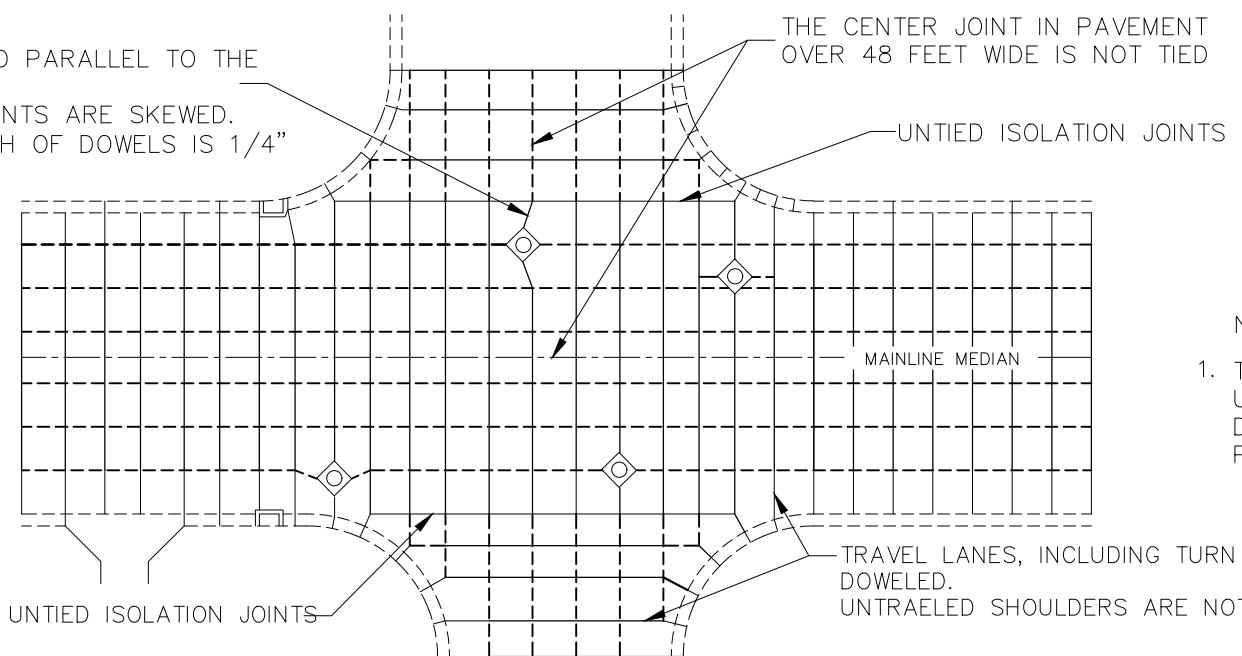


TABLE 1	
PAVEMENT THICKNESS	DOWEL BAR SIZE
8"-9.5"	NO.8
10" -	NO.10
12" OR GREATER	NO.12

- NOTES:**
1. INSTALL DOWEL BARS PARALLEL TO THE CENTERLINE AND TO THE PAVEMENT SURFACE. LIMIT DEVIATIONS TO ± 1/4" IN THE LENGTH OF THE DOWEL BAR.
 2. ALL BARS ARE CORROSION RESISTANT PER SECTION 03211.
 3. ALL DOWEL BARS ARE SMOOTH.
 4. PLACE DOWEL BARS IN ALL TRAFFIC LANES INCLUDING FULL LENGTH OF TURN LANES IN MEDIAN AND SHOULDERS. START DOWEL BARS WHERE STRIPING TAPER OR GAP BEGINS.
 5. ALL NOTES AND DETAILS REPLACE NOTES AND DETAILS ON UDOT STANDARD DRAWING PV 4.

ALL DOWELS ARE TO BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROADWAY, EVEN WHEN JOINTS ARE SKEWED. MAXIMUM DEVIATION IN THE LENGTH OF DOWELS IS 1/4"



- NOTE:**
1. THIS DETAIL REPLACES INTERSECTION JOINT LAYOUT ON UDOT STANDARD DRAWING PV 5. ALL OTHER NOTES, DETAILS AND INFORMATION ON STANDARD DRAWING PV 5 STILL APPLY

CONCEPTUAL DOWEL BAR / TIE BAR LOCATION
 DETAIL
 FOR UDOT PCCP INTERSECTION

LOGAN CITY ENGINEERING
 290 NORTH 100 WEST
 LOGAN, UTAH 84321

LOGAN CITY
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1800 NORTH 800 TO 1000 WEST
 SR-252 INTERSECTION DETAILS

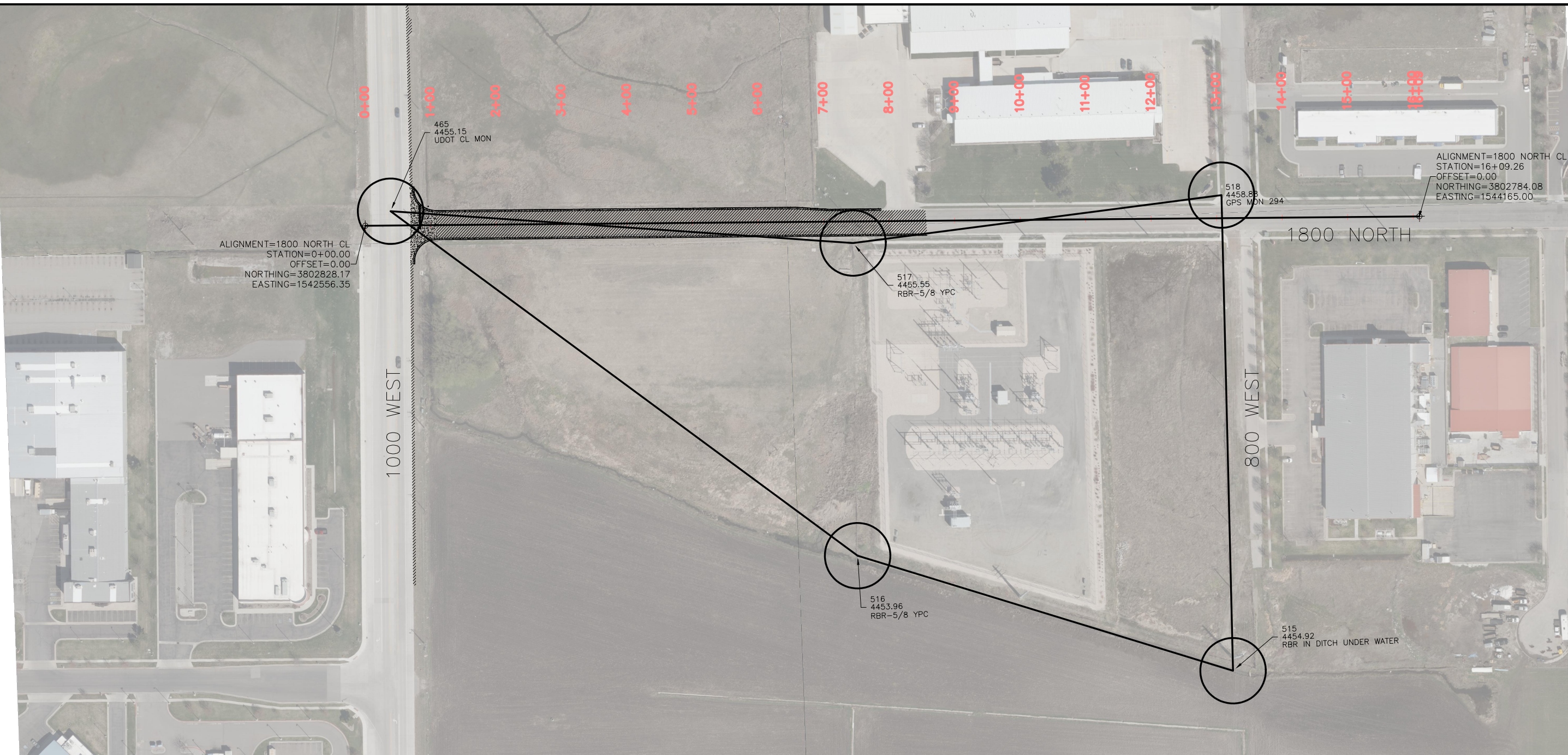
DESIGNED: TDICKINSON
 DRAFTED: TDICKINSON
 CHECKED: BYOUNG

DATE: August 2, 2018
 ENG #: ENG 08020

REVISION BLOCK
 PHASE 2: ROADWAY COMPLETION

SCALE
 HORIZONTAL N.T.S.
 1" = N.T.S.
 SCALE = 1/2" SHOWN SCALE
 IF PLOTTED ON B SIZE PAPER

SHEET NO:
 DT-15



ALIGNMENT=1800 NORTH CL
STATION=0+00.00
OFFSET=0.00
NORTHING=3802828.17
EASTING=1542556.35

ALIGNMENT=1800 NORTH CL
STATION=16+09.26
OFFSET=0.00
NORTHING=3802784.08
EASTING=1544165.00

Point #	Elevation	Northing	Easting	Description
514	4454.47	3805501.84	1543950.69	SEC COR-NW20
515	4454.92	3802100.88	1543855.59	RBR IN DITCH UNDER WATER
516	4453.96	3802297.26	1543289.11	RBR-5/8 YPC
517	4455.55	3802774.76	1543299.49	RBR-5/8 YPC
518	4458.88	3802827.53	1543864.31	GPS MON 294
465	4455.15	3802848.95	1542595.58	CL MON

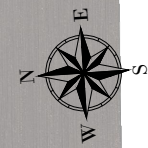
Line #	Length	Direction	Start Point	End Point
L3	1609.27	S88° 25' 48.64"E	(1542556.35,3802828.17)	(1544165.02,3802784.08)

 LOGAN CITY ENGINEERING 290 NORTH 100 WEST LOGAN, UTAH 84321	SURVEY CONTROL 1800 NORTH	1800 NORTH 800 TO 1000 WEST	REVISION BLOCK PHASE 2-ROADWAY COMPLETION	SHEET NO: SV-1
	DATE: August 2, 2018 ENG #: ENG 09020	DESIGNED: TDICKINSON DRAFTED: TDICKINSON CHECKED: BYOUNG	SCALE HORIZONTAL 1" = 80 FT VERIFY SCALE SCALE = 1/2 SHOWN SCALE IF PLOTTED ON B SIZE PAPER	SCALE HORIZONTAL 1" = 80 FT VERIFY SCALE SCALE = 1/2 SHOWN SCALE IF PLOTTED ON B SIZE PAPER



Line Table: SR-252 CENTERLINE ALIGNMENT

Line #	Length	Direction	Start Point	End Point
L1	1045.55	N1° 36' 52.61"E	(1542566.09,3801803.85)	(1542595.55,3802848.98)
L2	1044.51	N0° 50' 06.24"E	(1542595.55,3802848.98)	(1542610.77,3803893.38)



SHEET NO:
SV-2

SCALE
HORIZONTAL 1" = 80 FT
VERTICAL 1" = 10 FT
VERIFY SCALE
SCALE = 1/2 SHOWN SCALE
IF PLOTTED ON B SIZE PAPER

REVISION BLOCK:
PHASE 2-ROADWAY COMPLETION

DATE: August 2, 2018
ENG #: ENG 09020

DESIGNED: TD/KINSON
DRAFTED: TD/KINSON
CHECKED: BY/JUNG

1800 NORTH 900-1000 WEST ROADWAY
SURVEY CONTROL SR-252

LOGAN CITY ENGINEERING
290 NORTH 100 WEST
LOGAN, UTAH 84321

LOGAN CITY ENGINEERING
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ALIGNMENT=1000 WEST NEW CL
STATION=0+00.00
OFFSET=0.00
NORTHING=3801803.85
EASTING=1542566.09

NOTES:
1. PROTECT ALL EXISTING AND NEW UTILITIES

ALIGNMENT=1000 WEST NEW CL
STATION=20+90.04
OFFSET=0.00
NORTHING=3803893.36
EASTING=1542610.77

PI- ALIGNMENT=1000 WEST NEW CL
STATION=10+45.55
OFFSET=0.00
NORTHING=3802848.98
EASTING=1542595.55