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*THE TxDOT STANDARD SHEETS SPECIFICALLY IDENTIFIED ABOVE HAVE BEEN SELECTED BY THE ENGINEER OF RECORD OR UNDER THEIR RESPONSIBLE SUPERVISION AS BEING APPLICABLE TO THIS PROJECT.

HELPFUL WEBSITES

AUSTIN WATER PIPELINE ENGINEERING
https://www.austintexas.gov/page/pipeline-engineering

CITY OF AUSTIN EASEMENT TEMPLATES
https://www.austintexas.gov/department/forms-applications#spanclassckanchorideasementspanEasementandRestrictiveCovenantTemplates

SERVICE EXTENSION REQUEST (SER)
https://www.austintexas.gov/department/service-extension

NOTES:

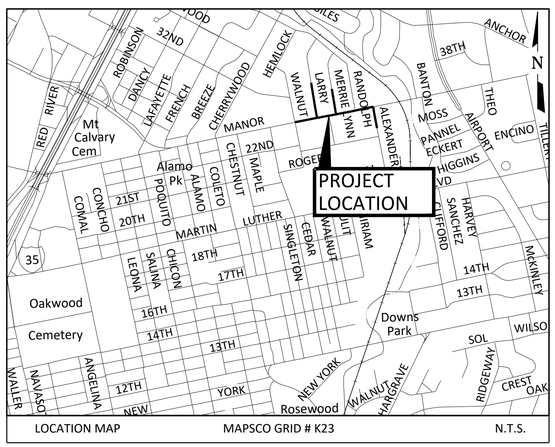
1. CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT 24 HOURS PRIOR TO STARTING CONSTRUCTION OR CLEARING OPERATIONS.
2. CONTRACTOR SHALL CALL "ONE CALL" AT 1-800-344-8377 FOR UTILITY LOCATIONS AT LEAST 48 HOURS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET RIGHT OF WAYS.
3. THIS PROJECT IS LOCATED WITHIN THE BOGGY CREEK WATERSHED (CLASSIFIED AS SUBURBAN) AND SHALL BE DEVELOPED, CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH CHAPTER 25 OF THE CODE OF THE CITY OF AUSTIN.
4. NO PORTION OF THIS SITE IS LOCATED WITHIN PARKLAND OR LAND USED FOR PARK PURPOSES. (IF SUCH LAND IS INCLUDED, DOCUMENTATION OF PARKS AND RECREATION DEPT APPROVAL IS REQUIRED AT THE TIME OF SUBMITTAL FOR GENERAL PERMIT PROGRAM APPROVAL.)
5. NO PORTION OF THIS SITE IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN, PER CITY OF AUSTIN AND FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAPS.
6. THIS PROJECT IS NOT WITHIN THE EDWARDS AQUIFER RECHARGE ZONE AS DEFINED BY THE CITY OF AUSTIN. THIS PROJECT IS NOT WITHIN THE EDWARDS AQUIFER RECHARGE ZONE AS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ).
7. THERE ARE NO KNOWN CRITICAL ENVIRONMENTAL FEATURES WITHIN 150' OF ANY PORTION OF THIS PROJECT. A FIELD INVESTIGATION HAS NOT BEEN PERFORMED AS PART OF THIS PROJECT AND IS NOT REQUIRED.
8. THE STANDARD SHEETS INCLUDED IN THIS PLAN SET WERE PROVIDED BY THE GENERAL PERMIT PROGRAM OFFICE FOR USE ON GENERAL PERMIT PROJECTS ONLY. IF ANY MODIFICATIONS TO THE SHEETS WERE MADE, THEY ARE CLEARLY INDICATED ON THE SHEET ITSELF AND IN THE COVER SHEET INDEX.
9. ADDITIONAL TRENCH E/S CONTROL: TRIANGULAR SEDIMENT FILTER DIKE WILL BE INSTALLED ACROSS FULL WIDTH OF TRAFFIC CLOSURE AND DOWNSTREAM OF CONSTRUCTION AREA, PERPENDICULAR TO CURB. FILTER DIKE TO FOLLOW ACTIVE CONSTRUCTION. REMOVING AND RE-SETTING FILTER DIKE IS CONSIDERED SUBSIDIARY TO BARRICADES AND TRAFFIC HANDLING.
10. PROJECT SCHEDULE MUST BE APPROVED BY THE GENERAL PERMIT PROGRAM (GPP) COORDINATOR. INSTALLATION AND REMOVAL OF TEMPORARY AND PERMANENT EROSION/SEDIMENTATION CONTROLS MUST BE REFLECTED IN THE SCHEDULE, BY STATION NUMBER. GPP REPRESENTATIVE MUST BE NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE OF TRANSITION BETWEEN PHASES.
11. APPROPRIATE EASEMENTS/APPROVALS MUST BE SECURED AND DOCUMENTED FOR PROJECT AREAS LOCATED OUTSIDE OF RIGHT OF WAYS. NO WORK SHALL BE PERFORMED WITHIN THESE AREAS UNTIL ASSOCIATED RIGHT OF ENTRY HAS BEEN SECURED. ADDITIONALLY, PROJECT PORTIONS IMPACTED BY LACK OF RECORDED DOCUMENT NUMBERS WILL NOT BE CONSIDERED FOR FORMAL GPP REVIEW.
12. CONTRACTOR SHALL STAKE ALL PROPOSED SERVICE CONNECTIONS LOCATED WITHIN THE CRITICAL ROOT ZONE OF TREES 8" IN CALIPER AND LARGER AT LEAST 21 CALENDAR DAYS PRIOR TO CONSTRUCTION OF SUCH SERVICES. STAKING SHALL CONSIST OF A LATH WITH NAIL AND PAINT MARKINGS. IN CASES WHERE A STAKE CANNOT BE PLACED WITHOUT DAMAGING PROPERTY, CONTRACTOR MAY USE PAINT ONLY. ONCE STAKING IS COMPLETED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO INFORM THE CITY OF AUSTIN'S CONSTRUCTION INSPECTOR WITHIN TWENTY-FOUR HOURS. THE CITY OF AUSTIN'S CONSTRUCTION INSPECTOR WILL THEN COORDINATE A FIELD REVIEW OF THE SERVICE LOCATIONS WITH THE GENERAL PERMIT PROGRAM COORDINATOR AND PROPERTY OWNERS. SERVICE LINE LOCATIONS MAY BE ADJUSTED BASED ON THE REVIEW AND WILL BE RESTAKED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. ALL SERVICE LINE STAKING SHALL BE MAINTAINED UNTIL THE SERVICE IS INSTALLED.
13. TO THE BEST OF MY KNOWLEDGE, I KIMBERLY K. PATAK, TX LICENSE NUMBER 97367, VERIFY THAT THIS SET OF PLANS IS COMPLETE, ACCURATE, AND IN COMPLIANCE WITH CHAPTER 25-8 SUBCHAPTER A OF THE LAND DEVELOPMENT CODE.
14. CITY OF AUSTIN AUSTIN WATERSHED PROTECTION HAS GRANTED WAIVERS TO THEIR DCM TO THE FOLLOWING CRITERIA:

DCM Waiver Section	Date Approved	DCM Waiver Sheet	DCM Waiver Location
4.1.0.D (Curb Inlet Transition Length)	2/9/2026	45-46	CI-58, CI-59, and CI-63
3.2.0 (Permissible Spread of Water)	1/15/2026	41	CI-72
5.6.1 (Manhole Spacing)	1/15/2026	43	STA 12+77.33 and STA 12+68.53
5.7.1 (Storm Drain Clearance)	1/15/2026	96	Detail 1 and Detail 2

15. THIS PROJECT CONSISTS OF APPROXIMATELY 2,266 LINEAR FEET OF STORM DRAIN, WATER LINE, WASTEWATER LINE, AND ROADWAY RECONSTRUCTION. THE LOC COVERS 107,901 SQUARE FEET.
16. THERE ARE POTENTIAL CONFLICTS WITH SPECIAL EVENTS AROUND THE PROJECT AREA. PLEASE CONTACT THE CITY OF AUSTIN OFFICE OF SPECIAL EVENTS FOR COORDINATION AT LEAST 6 WEEKS PRIOR TO THE START OF CONSTRUCTION. EMAIL KRIS.NEWMAN@AUSTINTEXAS.GOV & CC TPWOSECOORDINATION@AUSTINTEXAS.GOV.

CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
C.I.P. NO. 8598.014

BOGGY CREEK MLK TOD STORMWATER CONVEYANCE IMPROVEMENTS
PHASE-3
AUGUST 2026
100% SUBMITTAL



LOCATION MAP MAPSCO GRID # K23 N.T.S.

GENERAL PERMIT PROGRAM CORRECTIONS RECORD

No.	DESCRIPTION	BY	CORRECT (C) ADD (A) VOID (V) SHEET Nos.	TOTAL No. SHEETS IN CORRECTION PLAN SET	CITY OF AUSTIN APPROVAL/DATE	DATE IMAGED

PROJECT INFORMATION:

STREET ADDRESS:
MANOR ROAD, ALEXANDER AVENUE, LARRY LANE, AND MERRIE LYNN AVENUE
AUSTIN, TEXAS 78702

OWNER:
CITY OF AUSTIN

CONTACT:
MR. GLEN TAFFINDER P.E.
PROJECT SPONSOR
505 BARTON SPRINGS ROAD STE. 1200
AUSTIN, TX 78704
(512) 974-3381

LAURIE THERING
PROJECT MANAGER
P.O. BOX 1088, OTX-CPMD, AUSTIN, TX 78767
AUSTIN, TEXAS 78744

SUBMITTAL PREPARED BY:

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone – (512) 617–3100
Fax – (512) 617–3101
Web – www.freese.com

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

FNI PROJECT NUMBER AU314361

CONTACT:
MS. KIMBERLY PATAK, P.E.
PHONE (512)-617-3100
KKP@FREESE.COM

STATE OF TEXAS
KIMBERLY K. PATAK
97367
LICENSED
PROFESSIONAL ENGINEER

SUBMITTED FOR APPROVAL BY:

ENGINEER OF RECORD 8/21/2026 DATE

GENERAL PERMIT CERTIFICATION:

DEPARTMENT: AUSTIN WATERSHED PROTECTION

EXECUTIVE OF RECORD, CERTIFIES THAT THEIR DEPARTMENTS COMPONENTS OF THIS PROJECT MEET THE CONDITIONS NECESSARY TO BE ELIGIBLE FOR GENERAL PERMIT

EXECUTIVE PRINTED NAME: JANAE SPENCE

SIGNED DATE

MAYOR
KIRK WATSON

CITY COUNCIL MEMBERS

NATASHA HARPER-MADISON	DISTRICT 1
VANESSA FUENTES	DISTRICT 2
JOSÉ VELÁSQUEZ	DISTRICT 3
JOSÉ "CHITO" VELA	DISTRICT 4
RYAN ALTER	DISTRICT 5
KRISTA LAINE	DISTRICT 6
MIKE SIEGEL	DISTRICT 7
PAIGE ELLIS	DISTRICT 8
ZOHAIB "ZO" QADRI	DISTRICT 9
MARC DUCHEN	DISTRICT 10

NOTES:

GENERAL PERMIT PROGRAM APPROVAL DOES NOT CONSTITUTE UTILITY ALIGNMENT/ASSIGNMENT APPROVAL.

RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.

STAKEHOLDER APPROVALS:

REVIEWED
August 20, 2026
BrooksK
Austin
Water
Expires: August 20, 2029

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026
☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS
BY John Dubois

AUSTIN WATER UTILITY 8/20/2026 DATE

UCC CASE NUMBER: 230629-06-03

GENERAL PERMIT PROGRAM

ACAD Rel: 25.1s (LMS Tech)
Filename: N:\SW\Larry Lane\Standards\GN-AU-ALL-COVER.dwg
Last Saved: 8/5/2026 12:10 PM Saved By: 02915

Plot Date: 8/5/2026 12:10 PM Plot By: 02915 Filename: N:\SW\Larry Lane\Standards\GN-AU-ALL-COVER.dwg

GENERAL PERMIT GENERAL NOTES:

1. THIS PROJECT CONSISTS OF DRAINAGE IMPROVEMENTS AND WATER LINE AND WASTEWATER LINE REPLACEMENTS. THE PROJECT INCLUDES, BUT IS NOT NECESSARILY LIMITED TO THE FOLLOWING: STORM DRAIN INSTALLATION, RECONSTRUCTION, MILLING, CURB AND GUTTER, SIDEWALK AND DRIVEWAY RECONSTRUCTION, SIDEWALK AND ADA RAMP CONSTRUCTION, WATER LINES, WASTEWATER LINES, AND PAVEMENT MARKINGS.
2. THE CITY OF AUSTIN STANDARD SPECIFICATIONS CURRENT AT THE TIME OF ADVERTISEMENT FOR BIDS SHALL GOVERN MATERIALS AND METHODS USED TO PERFORM THIS WORK. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE STATE STATUTES AND U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS (O.S.H.A.). ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE 2011 TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3. THE CONTRACTOR MUST BE LICENSED AND MUST OBTAIN A STREET CUT PERMIT FROM THE PUBLIC WORKS DEPARTMENT PRIOR TO THE START OF CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR ALLEY.
4. THE ESTIMATED QUANTITIES PUBLISHED WITH THESE CONSTRUCTION DOCUMENTS ARE FURNISHED AS AN AID IN THE BIDDING PROCESS AND ARE NOT TO BE SUBSTITUTED FOR THE CONTRACTOR'S QUANTITY TAKEOFFS.
5. THE BIDDER (CONTRACTOR AFTER AWARD) SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY OBSTACLES THAT MAY IMPEDE OR PREVENT THE PROPER CONSTRUCTION OF THE PROJECT.
6. THE CONTRACTOR SHALL ARRANGE THE OPERATION IN SUCH A MANNER AS TO AVOID UNNECESSARY INCONVENIENCE TO THE PUBLIC IN CONSTRUCTION AREAS.
7. ACCESS TO ALL SIDE STREETS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES AT THE SOLE EXPENSE OF THE CONTRACTOR UNLESS OTHERWISE DIRECTED BY THE OWNER'S REPRESENTATIVE.
8. PORTIONS OF THE CONSTRUCTION OF THIS PROJECT AUTHORIZED BY PERMIT OR LICENSE AGREEMENT WILL BE SUBJECT TO SUCH INSPECTION AND TESTS AS MAY BE DEEMED NECESSARY BY THE PERMIT GRANTING AUTHORITIES. CONTRACTOR SHALL FURNISH INFORMATION TO AUTHORITIES AS REQUIRED. CONTRACTOR SHALL ALSO FURNISH INCIDENTAL LABOR AND EQUIPMENT TO ALLOW TESTING PERSONNEL TO ACCESS THE WORK AND COOPERATE FULLY WITH THESE AUTHORITIES IN CONDUCTING THE TESTING AND INSPECTION PROGRAM. UNLESS STATED OTHERWISE IN THE PLANS OR PROJECT MANUAL, COSTS OF TESTING WILL BE AS SPECIFIED IN SECTION 00700 OF THE STANDARD SPECIFICATIONS.
9. THE CONSTRUCTION INSPECTION DIVISION OF THE PUBLIC WORKS DEPARTMENT SHALL ARRANGE A PRE-CONSTRUCTION MEETING NOT LESS THAN FOURTEEN (14) DAYS PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL NOTIFY INSPECTOR FORTY-EIGHT (48) HOURS IN ADVANCE OF BEGINNING ANY CONSTRUCTION IN THE R.O.W. OR IN EASEMENTS. CONTRACTOR SHALL NOTIFY INSPECTOR TWENTY-FOUR (24) HOURS IN ADVANCE OF MAKING ANY SUPPLEMENTARY CONNECTION OR CLOSING OFF ANY WATER OR WASTEWATER SERVICES TO PROPERTY OWNERS.
10. CONTRACTOR SHALL NOTIFY PRINCIPLES OF EACH OF THE FOLLOWING ENTITIES OF THE CONSTRUCTION SCHEDULES AT LEAST TWO WEEKS IN ADVANCE OF PROPOSED CONSTRUCTION OPERATIONS. CONTRACTOR SHALL PROVIDE PERTINENT INFORMATION ABOUT LANE CLOSURES AND DETOURS AND ANY OTHER CONSTRUCTION RELATED ACTIVITY WHICH MAY INTERFERE WITH NORMAL SERVICES.

AUSTIN FIRE DEPARTMENT	476-1050
AUSTIN POLICE DEPARTMENT	974-5283
EMERGENCY MEDICAL SERVICES (EMS)	269-2046
AUSTIN INDEPENDENT SCHOOL DISTRICT	414-3191
CAPITAL METRO DISPATCHER	389-7418
US POSTAL SERVICE	342-1236
COA TRANSPORTATION DIVISION	974-7024
UNIVERSITY OF TEXAS (PHYSICAL PLANT DIRECTOR)	471-4110
STATE OF TEXAS GENERAL SERVICES COMMISSION	463-7934
CAPITAL POLICE (DPS)	463-3473
CITY OF AUSTIN DISPATCHER	322-9500

11. CONTRACTOR SHALL MAINTAIN THE JOB SITE IN A SAFE, NEAT, AND WORKMANLIKE MANNER AT ALL TIMES. JOB SITE SAFETY SHALL NOT BE COMPROMISED, ANY ATTRACTIVE NUISANCE SHALL BE REMOVED OR CAMOUFLAGED BY CONTRACTOR WHEN DIRECTED BY THE OWNER OR ENGINEER. CONTRACTOR SHALL REMOVE OR CAMOUFLAGE ANY CHILD ATTRACTIVE NUISANCE. AT THE END OF EACH DAY THE CONTRACTOR MUST REMOVE ALL CONSTRUCTION SPOILS AND EQUIPMENT FROM THE SITE.
12. THE ATTENTION OF ALL PROSPECTIVE BIDDERS IS DIRECTED TO SECTION 00700, PARAGRAPHS 6.1, 6.7, AND 6.11 OF THE GENERAL CONDITIONS OF THE AGREEMENT, CITY OF AUSTIN STANDARD SPECIFICATIONS, THE STATE LAW (VERNON'S ANNOTATED TEXAS STATUTES, ARTICLE 1436(C)), AND THE NEED FOR EFFECTIVE PRECAUTIONARY MEASURES WHEN OPERATING IN THE VICINITY OF ELECTRICAL LINES. IF THE CONTRACTOR CHOOSES TO USE EQUIPMENT WITH THE POTENTIAL OF COMING WITHIN THE DISTANCES PRESCRIBED BY STATUTE, THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THE WORK WITH THE APPROPRIATE ELECTRIC/UTILITY COMPANY.
13. ALL CONSTRUCTION EQUIPMENT INVOLVED IN ROADWAY WORK SHALL BE EQUIPPED WITH A PERMANENTLY-MOUNTED, 360-DEGREE REVOLVING OR STROBE WARNING LIGHT WITH AMBER LENS IN WORKING ORDER. THIS LIGHT SHALL HAVE A MINIMUM LENS HEIGHT OF 5" AND A DIAMETER OF 5". THIS LIGHT SHALL HAVE MOUNTING HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE ROADWAY SURFACE AND SHALL BE VISIBLE FROM ALL SIDES. THIS EQUIPMENT SHALL ALSO HAVE ATTACHED AT EACH SIDE OF THE REAR END OF THE VEHICLE AN APPROVED ORANGE WARNING FLAG MOUNTED NOT LESS THAN 6 FEET ABOVE THE ROADWAY SURFACE.
14. ALL DAMAGE CAUSED BY THE CONTRACTOR DIRECTLY OR INDIRECTLY TO THE STREET SURFACE OR SUBSURFACE OUTSIDE OF THE PAVEMENT CUT AREA SHALL BE REGARDED AS A PART OF THE STREET CUT REPAIR. THIS INCLUDES ANY SCRAPES, GOUGES, CUTS, CRACKING, DEPRESSIONS, AND/OR ANY OTHER DAMAGE CAUSED BY THE CONTRACTOR DURING THE EXECUTION OF THE WORK. THESE AREAS WILL BE INCLUDED IN THE TOTAL AREA OF REPAIR. THE AREAS OF REPAIR NEAR UTILITY TRENCHES SHALL BE SAW CUT IN STRAIGHT, NEAT LINES PARALLEL TO THE UTILITY TRENCH. ALL REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE AND SHALL MEET ALL CITY TESTING REQUIREMENTS.
15. ALL EXISTING SIDEWALKS, CURB AND GUTTER, DRIVEWAYS, LANDSCAPING, OR DRAINAGE FACILITIES DISTURBED OR DAMAGED BY THE CONTRACTOR SHALL BE REMOVED AND RESTORED WITH MATERIALS EQUAL TO OR BETTER THAN THE ORIGINAL AND SHALL BE AT THE CONTRACTOR'S EXPENSE.
16. BLASTING WITHIN THE PROJECT AREA WILL NOT BE ALLOWED.
17. CONTRACTOR WILL MINIMIZE USE OF STREET PARKING BY HIS/HER EMPLOYEES AND SUBCONTRACTORS IN THE VICINITY OF THE CONSTRUCTION AREA.
18. CONTRACTOR WILL PROVIDE, INSTALL, AND MAINTAIN "LOCAL BUSINESS ACCESS" SIGNS AT EACH BUSINESS WHEN LANE CLOSURES ARE IN PLACE.
19. CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS ACROSS ALL INTERSECTIONS WITH EXISTING PEDESTRIAN ACCESS.
20. CONTRACTOR SHALL PROVIDE AND MAINTAIN SAFETY FENCING ALONG THE RIGHT-OF-WAY LINE BETWEEN ALL DRIVEWAYS ADJACENT TO THE CONSTRUCTION AREA. SAFETY FENCING IS REQUIRED ALONG ANY EXCAVATION AREAS, ANY CONSTRUCTION AREAS SPECIFICALLY IDENTIFIED ON THE PLANS, AND AREAS IDENTIFIED BY THE ENGINEER BASED ON SITE SPECIFIC CONDITIONS. IF SIDEWALK IS PRESENT IN AN AREA REQUIRING SAFETY FENCING, A TEMPORARY FENCE MOUNTING SYSTEM SHALL BE USED TO PLACE SAFETY FENCING BETWEEN THE CONSTRUCTION AND THE PEDESTRIAN PATHWAY OF THE SIDEWALK.
21. THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT ALL LOCATIONS USED FOR STORING CONSTRUCTION EQUIPMENT, MATERIALS, AND STOCKPILES OF ANY TYPE WITHIN THE CONSTRUCTION LIMITS SHALL BE APPROVED, IN ADVANCE, BY THE OWNER'S REPRESENTATIVE. USE OF THE AREA WITHIN THE CONSTRUCTION LIMITS FOR THESE PURPOSES WILL BE RESTRICTED TO THOSE LOCATIONS WHERE DRIVER SIGHT DISTANCE TO BUSINESSES AND SIDE STREET INTERSECTIONS IS NOT OBSTRUCTED AND AT OTHER LOCATIONS WHERE AN UNSIGHTLY APPEARANCE, AS DETERMINED BY THE OWNER'S REPRESENTATIVE, WILL NOT EXIST.
22. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN BARRICADES, WARNING SIGNS, FLASHERS AND OTHER DEVICES OF THE TYPE AND SIZE AS INDICATED IN THE LATEST EDITION OF THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" OR AS DIRECTED BY THE ENGINEER.
23. IF CULTURAL RESOURCES ARE ENCOUNTERED DURING CONSTRUCTION (ARCHEOLOGICAL FINDINGS UNEARTHED) CONTRACTOR SHALL STOP WORK IN THAT AREA AND IMMEDIATELY CONTACT THE TEXAS HISTORICAL COMMISSION AT (512) 463-6100.
24. CONTRACTOR WILL COORDINATE ALL TRAFFIC CONTROL ACTIVITIES THROUGH THE CITY OF AUSTIN TRANSPORTATION DIVISION.
25. ALL MATERIAL, EQUIPMENT, STAGING AND WORK WILL TAKE PLACE WITHIN THE LIMITS OF CONSTRUCTION (LOC). IF THE CONTRACTOR REQUIRES USE OF ANY AREAS OUTSIDE OF THE DESIGNATED LOC AN APPLICATION MUST BE SUBMITTED TO THE GENERAL PERMIT OFFICE AND APPROVAL OBTAINED BEFORE ANY WORK COMMENCES.

GENERAL PERMIT UTILITY NOTES:

1. UTILITIES SHOWN REFLECT THE BEST INFORMATION AVAILABLE AT THE TIME THAT PROJECT WAS DESIGNED/SURVEYED. THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM AT 1-800-344-8377 (DIG TESS) 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION FOR EXISTING UTILITY LOCATIONS.
2. THE INFORMATION SHOWN ON THESE DRAWINGS INDICATING TYPE AND LOCATION OF UNDERGROUND, SURFACE, AND AERIAL UTILITIES IS NOT GUARANTEED TO BE EXACT OR COMPLETE. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT TYPE AND LOCATION OF ALL UTILITIES AFFECTED BY CONSTRUCTION FOR THIS PROJECT IN ORDER TO AVOID DAMAGING THOSE UTILITIES. THE CONTRACTOR SHALL IMMEDIATELY ARRANGE FOR REPAIR AND RESTORATION OF CONTRACTOR-DAMAGED UTILITIES, AND THE CONTRACTOR SHALL PAY FOR SUCH REPAIRS. THE CONTRACTOR IS REQUIRED TO PERFORM SPOT POT HOLING AT HIS EXPENSE IN ADVANCE OF THE PROJECT TO VERIFY LOCATION OF UTILITIES.
3. UTILITY RELOCATION WORK HAS BEEN OR WILL BE ACCOMPLISHED TO CLEAR THE WORKSPACE. THE RELOCATIONS ARE NOT REFLECTED IN THESE DRAWINGS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION BETWEEN HIMSELF AND OTHER CONTRACTORS AND UTILITIES IN THE VICINITY OF THIS PROJECT. THIS INCLUDES, BUT IS NOT LIMITED TO GAS, WATER, WASTEWATER, ELECTRICAL, TELEPHONE, COMMUNICATIONS NETWORKS, CABLE TELEVISION, THE UNIVERSITY OF TEXAS SYSTEM FACILITIES, PETROLEUM PIPELINES, AND STREET AND DRAINAGE WORK. ONCE THE CONTRACTOR BECOMES AWARE OF A POSSIBLE CONFLICT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE CONSTRUCTION INSPECTOR WITHIN TWENTY-FOUR (24) HOURS.
5. WHEN EXISTING WATERLINE SHUT OFF IS NECESSARY OR POSSIBLE, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR, WHO WILL THEN NOTIFY THE WATER UTILITY. THE UTILITY REQUIRES A MINIMUM OF SEVENTY-TWO (72) HOURS ADVANCE NOTICE FOR ALL SHUT OFFS.
6. BEFORE DISCONNECTING ANY WASTEWATER AND/OR WASTEWATER SERVICE LINE, CONTRACTOR MUST PROVIDE AN ALTERNATE MEANS OF WASTEWATER CONVEYANCE FOR THE INTERRUPTED SECTION AT THE CONTRACTOR'S EXPENSE. ANY DAMAGE CAUSED BY BACK FLOW OF WASTEWATER SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
7. EACH LOT IS SERVED BY AT LEAST ONE (1) GAS SERVICE LINE. THE EXACT LOCATIONS OF THE GAS SERVICE LINES ARE NOT SHOWN ON THE CONSTRUCTION PLANS. TEXAS GAS SERVICE WILL LOCATE THEIR SERVICE LINES DURING THE "ONE CALL" PROCESS. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THE GAS SERVICE LINES DURING CONSTRUCTION.
8. CONTRACTOR WILL BE RESPONSIBLE FOR THE COST INCURRED AS A RESULT OF UTILITY RELOCATIONS PERFORMED FOR THE CONTRACTOR'S CONVENIENCE.
9. DEBRIS CAPS SHALL BE PLACED AS REQUIRED AFTER CONTRACTOR HAS SET UP BARRICADES. FOR NEW WATER LINE, DEBRIS CAPS SHALL BE PLACED UPON COMPLETION OF WATER LINE. DEBRIS CAPS MUST BE INSTALLED IN EXISTING VALVES PRIOR TO BEGINNING WORK AND IN NEW VALVES IMMEDIATELY FOLLOWING THEIR CONSTRUCTION.
10. ANY WATER OR WASTEWATER PIPE EXPOSED DURING OPEN EXCAVATION SHALL BE REBEDDED TO EXISTING STANDARD AND SPECIFICATION, OR EXISTING CONDITION, WHICHEVER IS GREATER.
11. CONTRACTOR MUST OBTAIN UTILITY EXCAVATION PERMITS, FOR EACH RIGHT-OF-WAY EXCAVATED, FROM THE CITY OF AUSTIN PUBLICS WORKS DEPARTMENT - CONSTRUCTION INSPECTION DIVISION (512-974-7265) PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL PROVIDE A ONE CALL CENTER CONFIRMATION NUMBER.

GENERAL PERMIT CONSTRUCTION NOTES:

1. CONTRACTOR MUST CONTACT (OB.MCKOWN@AUSTINTEXAS.GOV) FOR PERMITTING OF EACH SITE.
2. WHERE REMOVAL OF BASE AND PAVEMENT IS NECESSARY FOR THIS PROJECT, ALL BASE AND PAVEMENT SHALL BE REPLACED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS, CITY OF AUSTIN STANDARD SPECIFICATIONS AND STANDARD DETAILS FOR CUT IN PUBLIC RIGHT-OF WAY. ALL PAVEMENT CUTS SHALL BE SAW-CUT PRIOR TO PLACEMENT OF HMAC.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE, PRESERVE AND RESET STREET MARKERS AND TRAFFIC CONTROL SIGNS THAT ARE WITHIN THE CONSTRUCTION LIMITS TO THE LINE AND HEIGHT AS DESCRIBED IN THE 2011 TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES BEFORE ANY SIDEWALK OR STREET EXCAVATION IS BEGUN AND DURING ALL CONSTRUCTION PHASES. SIGNS SHALL NOT BE LAID ON THE GROUND. THE TRAFFIC SIGN ACTIVITY SECTION OF THE URBAN TRANSPORTATION DIVISION 974-0170, EXT. 7024) SHALL BE NOTIFIED A MINIMUM OF TWO WORKING DAYS PRIOR TO THE COMPLETION OF THE PROJECT SO THAT THE SIGNS OR POSTS SHALL BE PAID FOR BY THE CONTRACTOR.
4. ALL STRUCTURAL CONCRETE SHALL BE CLASS A (5 SACK, 3000-PSI AT 28 DAYS), AND ALL REINFORCING STEEL SHALL BE GRADE SIXTY, UNLESS OTHERWISE NOTED.
5. IN AREAS EXISTING CURBS AND GUTTERS ARE TO REMAIN, THE OLD PAVING AND BASE MUST BE REMOVED AND THE NEW BASE AND PAVING PLACED AND COMPACTED SO AS NOT TO DISTURB EXISTING CURBS AND GUTTERS.
6. CONTRACTOR SHALL SAW-CUT OR USE ENGINEER APPROVED ALTERNATIVE METHOD TO REMOVE CONCRETE PAVEMENTS, TO RECONSTRUCT CURBS, TO DELINEATE MILLING EDGES, AND TO TIE TO EXISTING PAVEMENT. WHERE CUTTING INTO BASE MATERIALS, SAW-CUT OR APPROVED ALTERNATIVE METHOD SHALL BE OF SUFFICIENT DEPTH TO ACHIEVE A SMOOTH, VERTICAL FACE DURING EXCAVATION IN THE BASE.
7. ALL LOOSE MATERIALS SHALL BE COMPLETELY REMOVED FROM THE ROADWAY BY MECHANICAL SWEEPER AND/OR MANUAL BROOMING PRIOR TO OPENING TO TRAFFIC AND FOR THE DURATION OF THE PROJECT. ALL LOOSE MATERIAL SHALL BE COMPLETELY REMOVED FROM THE ADJACENT SIDEWALK AREAS FOR THE DURATION OF THE PROJECT AND SIDEWALKS SHALL BE COMPLETELY CLEAR OF ANY CONSTRUCTION DEBRIS PRIOR TO FINAL COMPLETION OF THE PROJECT. LOOSE AND SURPLUS AGGREGATE SHALL BE BROOMED OFF THE SURFACE AS DIRECTED BY THE PROJECT MANAGER.
8. ALL RECONSTRUCTION, PREPARATION WORK AND PAVING SHALL BE COMPLETED IN A MANNER SO AS TO PROVIDE A SMOOTH RIDING SURFACE FREE OF BUMPS, DIPS, AND RIPPLES AND A SMOOTH, UNIFORM APPEARANCE. THE FINISHED SURFACE SHALL APPROXIMATE THE EXISTING PROFILE. DIPS AND RISES MAY EXIST DUE TO SUBSURFACE OR OTHER CONDITIONS. THE CONTRACTOR SHALL ATTEMPT TO SMOOTH OUT THE PROFILE DURING MILLING AND OVERLAY OPERATIONS TO IMPROVE RIDEABILITY.
9. THE CONTRACTOR SHALL OBTAIN AND INSTALL BLUE REFLECTORIZED PAVEMENT MARKERS ON PAVED STREETS OPPOSITE (PERPENDICULAR TO) EXISTING/PROPOSED FIRE HYDRANTS. THESE DELINEATORS SHALL BE PLACED AT A ONE (1) FOOT OFFSET FROM THE CENTERLINE TOWARD THE SIDE OF THE STREET WHERE THE FIRE HYDRANT IS LOCATED.
10. THE CONSTRUCTION AND PHASING SHALL BE IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS. ANY CHANGES TO THE SEQUENCE OF WORK ON THE APPROVED PLANS WILL REQUIRE APPROVAL OF THE CITY AND ENGINEER. NO EXTRA PAYMENT WILL BE PROVIDED FOR THESE CHANGES.
11. CONTRACTOR SHALL TRIM ANY SHRUBS AND TREES TO PROVIDE PEDESTRIAN CLEARANCE IN ORDER TO COMPLY WITH T.A.S.

GENERAL PERMIT SIDEWALK NOTES:

1. SIDEWALK AND DRIVEWAY CONCRETE THICKNESS SHALL BE 5 INCHES THICK UNLESS IT IS A COMMERCIAL DRIVEWAY THAT PROVIDES ACCESS TO A BUSINESS OR APARTMENT COMPLEX, THEN THE THICKNESS OF THE DRIVEWAY AND SIDEWALK SHALL BE 6 INCHES IN THAT AREA.
2. CONCRETE FOR SIDEWALKS AND RAMPS SHALL BE PLACED NO LATER THAN 4 WORKING DAYS AFTER EXCAVATION AT ANY SITE.
3. EXPANSION JOINTS SHALL BE PROVIDED AT THE TIE-IN OF NEW CURB AND GUTTER TO EXISTING CURB AND GUTTER AND AT OTHER LOCATIONS TO BE DETERMINED BY THE ENGINEER.
4. EXPANSION JOINT MATERIALS SHALL BE AS PER ITEM 408 AND EXTEND THE FULL DEPTH OF THE CONCRETE FOR WET JOINTS AND 1/2" BITUMEN FILLED FIBER AND COLD JOINTS OR AS DIRECTED BY THE ENGINEER.
5. ALL FILL AREAS SHALL BE COMPACTED TO A UNIFORM DENSITY OF NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AT NOT LESS THAN OPTIMUM MOISTURE AS DETERMINED BY THE TEST METHOD TEX-113-E.
6. ALL FLAT CONCRETE SHALL BE BROOM FINISHED.
7. PIPE SLEEVE EXPANSION JOINTS SHALL BE PLACED IN HANDRAILS TO CORRESPOND TO EXPANSION JOINTS IN THE SIDEWALK OR CONCRETE STRUCTURE. THE PIPE SLEEVE EXPANSION JOINT SHALL BE PLACED AT A POST UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
8. CONTRACTOR SHALL MAINTAIN A MINIMUM 3 FOOT CLEARANCE AT ALL OBSTRUCTIONS IN SIDEWALKS SUCH A TELEPHONE POLES, SIGNS, ETC.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING MAIL BOXES THAT ARE IN THE CONSTRUCTION AREA WHILE ENSURING THAT MAIL DELIVERY WILL NOT BE INTERRUPTED AS A RESULT OF THE CONSTRUCTION ACTIVITIES. MAILBOXES SHALL NOT BE LAID ON THE GROUND.
10. EXISTING PVC PIPE DRAINS IN AND BEHIND CURB SHALL BE REMOVED AND REPLACED IN NEW CURB AND GUTTER AND/OR SIDEWALK. IN AREAS OF PROPOSED SIDEWALK, WHERE CURB AND GUTTER IS TO REMAIN, EXISTING PVC SHALL BE CUT FAR ENOUGH BEHIND BACK OF CURB TO ALLOW ROOM FOR JOINT FITTINGS TO CONNECT TO NEW PVC PIPE.
11. LIMITS OF SIDEWALK CONSTRUCTION THROUGH ASPHALT OR GRAVEL AREAS SHALL BE 1' BEYOND THE SIDEWALK EDGES. ANY DAMAGE BEYOND THIS POINT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. BACKFILL OF THE SIDEWALK IN THESE AREAS SHALL BE WITH MATERIAL EQUAL TO OR BETTER THAN THAT REMOVED.
12. TIE-IN ELEVATIONS SHOWN ON THE PLANS ARE APPROXIMATE, CONTRACTOR TO MATCH EXISTING SIDEWALK AT ALL TIE POINTS.

GENERAL PERMIT PROGRAM

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
KIMBERLY K. PATAK
97367
LICENSED PROFESSIONAL ENGINEER
8/21/2026

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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

GENERAL NOTES 1 OF 3

NO.	ISSUE	BY	DATE

F&N JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
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VERIFY SCALE
Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
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SHEET 2
SEQ. 2 OF 143

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GENERAL NOTES

ALL RESPONSIBILITY FOR THE ADEQUECY OF THESE PLANS REMAINS WITH THE ENGINEER. APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN DOES NOT REMOVE THESE RESPONSIBILITIES.

"REVIEWED BY AUSTIN WATER" APPLIES ONLY TO AW PUBLIC INFRASTRUCTURE, ALL OTHER WATER AND WASTEWATER INFRASTRUCTURE INSIDE PRIVATE PROPERTY ARE UNDER THE JURISDICATION OF BUILDING INSPECTIONS.

USE OF ELECTRONIC FILES GENERAL DISCLAIMER: USE OF THE ATTACHED FILES IN ANY MANNER INDICATES YOUR ACCEPTANCE OF TERMS AND CONDITIONS AS SET FORTH BELOW. IF YOU DO NOT AGREE TO ALL OF THE TERMS AND CONDITIONS, PLEASE CONTACT AUSTIN WATER PIPELINE ENGINEERING, PROJECT COORDINATOR PRIOR TO USE OF THE REFERENCED INFORMATION. PLEASE BE ADVISED THAT THE ATTACHED FILES ARE IN A FORMAT THAT CAN BE ALTERED BY THE USER. DUE TO THIS FACT, ANY REUSE OF THE DATA WILL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO THE CITY OF AUSTIN AND USER SHALL INDEMNIFY AND HOLD HARMLESS THE CITY OF AUSTIN FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES INCLUDING ATTORNEY'S FEES ARISING OUT OF OR RESULTING FROM USING THE DIGITAL FILE. IN ADDITION, IT IS THE RESPONSIBILITY OF THE USER TO COMPARE ALL DATA WITH THE PDF VERSION OF THIS DRAWING. IN THE EVENT THERE IS A CONFLICT BETWEEN THE PDF VERSION DRAWING AND THE ELECTRONIC FILE, THE PDF VERSION DRAWING SHALL PREVAIL.

AUTOMATED METERING INFRASTRUCTURE: EFFECTIVE MARCH 2022, NEW WATER METERS INSTALLED SHALL BE IN CONFORMANCE WITH AW'S AUTOMATED METERING INFRASTRUCTURE TECHNOLOGY, AND WITH THE APPLICABLE STANDARD PRODUCT LIST. APPLICANTS FILING A SITE PLAN OR SUBDIVISION PLAN WILL BE REQUIRED TO COORDINATE WITH THE AUSTIN WATER PLAN REVIEWER FOR DETAILS ON APPROVAL AND INSTALLATION.

PRIOR TO THE HANDLING AND DISPOSAL OF ASBESTOS PIPE, THE CONTRACTOR'S WORK PLAN WILL BE REVIEWED AND COORDINATED THROUGH COA BUILDING SERVICES DEPARTMENT - ASBESTOS, LEAD AND MOLD MANAGEMENT GROUP MANAGER WHO CAN BE REACHED AT 512-974-7137. IT IS THE CONTRACTOR'S RESPONSIBILITY TO USE A TRAINED, CERTIFIED AND LICENSED ASBESTOS ABATEMENT CONTRACTOR IN ACCORDANCE WITH THE FEDERAL, STATE AND LOCAL REGULATIONS.

MODIFICATIONS TO AUSTIN WATER SIGNED AND STAMPED SHEETS ARE NOT PERMITTED. ALL DESIGN MODIFICATIONS SHALL BE SUBMITTED VIA THE ABC PORTAL FOR A PLAN CORRECTION OR REVISION. ALL UNETHICAL ENGINEERING PRACTICES, INCLUDING MODIFYING CITY STAMPED PLAN SHEETS, SHALL BE REPORTED TO THE TEXAS BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS (TBPELS).
REFERENCE: TEXAS ENGINEERING PRACTICE ACT AND RULES, SUBCHAPTER C: PROFESSIONAL CONDUCT AND ETHICS

GEOTECH LEGEND

- ASPHALTIC CONCRETE
- TAN FLEX BASE
- SANDY FAT CLAY (CH)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- CLAYEY GRAVEL (GC)

AW INFRASTRUCTURE INFORMATION

PROPOSED PRODUCT TYPE (TO BE INSTALLED)	LENGTH OF PIPE (L.F.)	SIZE OF PIPE (INCH)	NO. OF SERVICES
WATER MAIN	94	6"	NA
WATER MAIN	1752	8"	26
WATER MAIN	130	12"	NA
WATER MAIN	477	24"	NA
WASTEWATER MAIN	1750	8"	22
RECLAIMED WATER MAIN	NA	NA	NA
WATER SERVICE	320	2"	NA
WASTEWATER SERVICE	440	6"	NA

EXPAND OR REDUCE TABLE AS NEEDED*
THE INFORMATION INCLUDED IN THIS TABLE ARE APPROXIMATE VALUES ESTIMATED BASED ON GENERAL ENGINEERING GUIDELINES

STANDARD CONSTRUCTION NOTES REVISED FEBRUARY 7, 2025

1. **THE CITY STANDARD CONSTRUCTION SPECIFICATIONS CURRENT AT THE TIME OF BIDDING SHALL COVER MATERIALS AND METHODS USED TO DO THIS WORK.**
2. **CONTRACTOR MUST OBTAIN A ROW PERMIT FROM AUSTIN TRANSPORTATION AND PUBLIC WORKS DEPARTMENT, RIGHT OF WAY MANAGEMENT DIVISION BEFORE BEGINNING CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR ALLEY. ACTIVITY WITHIN RIGHT-OF-WAY SHALL COMPLY WITH APPROVED TRAFFIC CONTROL PLAN (TCP).**
3. **AT LEAST 48 HOURS PRIOR TO BEGINNING ANY UTILITY CONSTRUCTION ACTIVITY IN PUBLIC ROW OR PUBLIC EASEMENT, THE CONTRACTOR SHALL NOTIFY THE APPLICABLE CITY OF AUSTIN INSPECTION GROUP (AUSTIN TRANSPORTATION AND PUBLIC WORKS DEPARTMENT (TPW), OR DEVELOPMENT SERVICES). SEE CURRENT NOTIFICATION REQUIREMENTS AT WWW.AUSTINTEXAS.GOV.**
4. **THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM AT 1-800-344-8377 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION IN ADVANCE OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES TO BE EXTENDED, TIED TO, OR ALTERED, OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS. THE CITY OF AUSTIN WATER AND WASTEWATER MAINTENANCE RESPONSIBILITY ENDS AT R.O.W./EASEMENT LINES.**
5. **NO OTHER UTILITY SERVICE/APPURTENANCES SHALL BE PLACED NEAR THE PROPERTY LINE, OR OTHER ASSIGNED LOCATION DESIGNATED FOR WATER AND WASTEWATER UTILITY SERVICE THAT WOULD INTERFERE WITH THE WATER AND WASTEWATER SERVICES.**
6. **MINIMUM TRENCH SAFETY MEASURES SHALL BE PROVIDED, AS REQUIRED BY OSHA, CITY SPECIFICATION 509S, AND CITY/COUNTY CONSTRUCTION INSPECTORS.**
7. **PRESSURE TAPS WILL ONLY BE ALLOWED ON A CASE BY CASE BASIS, AS DETERMINED BY THE DIRECTOR'S DESIGNEE. NORMALLY PRESSURE TAPS 4 INCHES AND LARGER SHALL BE ALLOWED IN THE FOLLOWING CASES: A) A TEST SHUT OUT INDICATES AN ADEQUATE SHUT OUT TO PERFORM THE WORK IS NOT FEASIBLE B) MORE THAN 30 CUSTOMERS OR A SINGLE CRITICAL CUSTOMER (AS DEFINED BY AUSTIN WATER) WOULD BE IMPACTED BY THE SHUT OUT OR C) THE EXISTING WATER LINE WARRANTS IT.**
8. **WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEMS 510.3 (27)-(29). FORCE MAIN PRESSURE TESTING SHALL BE CONDUCTED AND FALL UNDER THE SPECIFICATIONS AS WATER LINES (PRESSURE PIPE) OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.**
9. **ALL MATERIAL USED ON THIS PROJECT MUST BE LISTED ON THE STANDARD PRODUCTS LISTING. ANY MATERIAL NOT LISTED HAS TO GO THROUGH THE REVIEW OF THE STANDARDS COMMITTEE FOR REVIEW AND APPROVAL PRIOR TO START OF PROJECT. TESTING AND EVALUATION OF PRODUCTS ARE REQUIRED BEFORE APPROVAL WILL BE GIVEN ANY CONSIDERATION.**
10. **WHEN WATER SERVICES ARE DAMAGED AND THE SERVICE MATERIAL IS POLYETHYLENE (PE), THE LINE SHALL BE REPAIRED ONLY BY HEAT FUSION WELD, AT BRASS FITTINGS, OR THE FULL LENGTH SHALL BE REPLACED PER CURRENT STANDARD DETAIL(S). WHEN POLYBUTYLENE (PB) TUBING IS DAMAGED OR TAMPERED WITH IN ANY WAY, THE FULL LENGTH OF SERVICE LINE SHALL BE REPLACED. (NOTE: FULL LENGTH IS FROM THE CORPORATION STOP TO THE METER.) REPAIR COUPLINGS ARE NOT ALLOWED FOR ANY WATER OR WASTEWATER SERVICE LINE REPAIR, RECONNECT, OR REPLACEMENT.**
11. **WHEN AN EXISTING WATERLINE SHUT OUT IS NECESSARY AND POSSIBLE, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR WHO WILL THEN NOTIFY AUSTIN WATER DISPATCH AND THE AFFECTED CUSTOMERS A MINIMUM OF FORTY-EIGHT (48) HOURS IN ADVANCE.**
12. **THE INSPECTOR SHALL NOTIFY AUSTIN WATER AT 972-1000 AT A MINIMUM OF 72 HOURS PRIOR TO RELOCATING ANY DOMESTIC OR FIRE DEMAND WATER METERS.**
13. **PROJECT-SPECIFIC SHOP DRAWINGS SHALL BE SUBMITTED FOR AW APPROVAL FOR PRE-CAST CIRCULAR VERTICAL MANHOLE SECTIONS LARGER THAN 48" DIAMETER. THE SHOP DRAWINGS SHALL INCLUDE THE FLOWLINE ELEVATION OF ALL CONNECTING PIPES; ELEVATIONS OF TRANSITIONS FROM LARGE DIAMETER SECTIONS TO 48" DIAMETER SECTIONS; TOP OF MANHOLE AND SURROUNDING GROUND ELEVATIONS; AND DETAILS OF SPECIAL CONSTRUCTION CONSIDERATIONS SPECIFIED IN THE CONTRACT DOCUMENTS.**
14. **WHEN CONCRETE MANHOLES LARGER THAN 48 INCH DIAMETER ARE USED, DRAWINGS THAT ARE SEALED BY A PROFESSIONAL ENGINEER SHALL BE SUBMITTED FOR BASE SLABS, FLAT TOP LIDS (IF USED), AND FLAT TYPE CONCRETE PIECES USED TO TRANSITION FROM LARGER TO SMALLER DIAMETER MANHOLE SECTIONS.**
15. **ALL FIRE HYDRANTS AND VALVES THAT ARE TO BE ABANDONED SHALL BE REMOVED, SALVAGED AND RETURNED TO AUSTIN WATER. NOTICE SHOULD BE GIVEN 48 HOURS PRIOR, TO PIPELINE OPERATIONS DISTRIBUTION SYSTEM -VALVES AND HYDRANT SERVICES SUPERVISOR AT AWDSM-ASSET-RECOVERY@CITYOFAUSTIN.ONMICROSOFT.COM.**
16. **ALL EXISTING WATER METERS IDENTIFIED TO BE RELOCATED OR ABANDONED AT THE DEVELOPMENT SHALL BE REMOVED FROM THE METER BOX PRIOR TO CONSTRUCTION AND GIVEN IMMEDIATELY TO THE CITY OF AUSTIN INSPECTOR.**
17. **THE ENGINEER SHALL CALL OUT THE SIZE, TYPE AND USE (DOMESTIC, IRRIGATION OR RECLAIM) OF ALL EXISTING WATER METERS TO BE RELOCATED OR REPURPOSED. WATER METER NUMBERS WILL NOT BE REQUIRED TO BE PLACED ON THE PLAN SHEET. A SEPARATE UTILITY PERMITTING OFFICE FORM CAN BE USED TO PROVIDE RELEVANT DATA FOR THE EXISTING INFORMATION ON EXISTING METERS TO RECEIVE APPROPRIATE CREDITS. THIS FORM SHALL BE DIRECTLY SUBMITTED TO UTILITY PERMITTING OFFICE FOR REVIEW AND PROCESSING.**
18. **NO CONNECTION MAY BE MADE BETWEEN THE PRIVATE PLUMBING AND AUSTIN WATER INFRASTRUCTURE UNTIL A CITY APPROVED WATER METER HAS BEEN INSTALLED.**
19. **METER BOXES AND CLEAN OUTS SHALL NOT BE LOCATED WITHIN PAVED AREAS SUCH AS DRIVEWAYS AND SIDEWALKS.**
20. **NO SOIL COMPACTION EQUIPMENT SHALL COME WITHIN 24-INCHES FROM THE TOP OF THE WATER OR WASTEWATER PIPE. BETWEEN 24-36 INCHES FROM TOP OF THE PIPE, ONLY LIGHT SOIL COMPACTION EQUIPMENT (E.G., RAMMERS OR "WHACKER PACKERS", VIBRATING PLATE COMPACTORS, WALK-BEHIND HAND-GUIDED ROLLERS) OR SMOOTH ROLLER COMPACTION EQUIPMENT WEIGHING LESS THAN 5,000 LBS. WILL BE ALLOWED. WHERE SOIL COMPACTION EQUIPMENT WILL BE 36-INCHES OR GREATER FROM THE TOP OF THE PIPE, HS20 LOADS SHALL NOT BE EXCEEDED. PIPE DEPTHS SHALL BE VERIFIED THROUGH POTHOLING, LEVEL A SUE OR BY MH INVERT DATA.**
21. **THE DESIGN AND CONSTRUCTION OF RETAINING WALLS, BRIDGES, CULVERTS, HEADWALLS, JUNCTION STRUCTURES, SCREENING WALLS, AND STORMWATER DRAINAGE PIPE WITHIN THE VICINITY OF AW UTILITIES SHALL BE IN COMPLIANCE WITH SECTION 13 OF THE COA'S TRANSPORTATION CRITERIA MANUAL.**
22. **THRUST RESTRAINT SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 510.3(22) AND SPL WW-27A, WW-27A-01, WW-27A-02 AND WW-27F.**
23. **ALL WATERLINE BRANCH CONNECTIONS SHALL HAVE AN MJ GATE VALVE POSITIVELY RESTRAINED TO THE MJ TEE BY USING A SWIVEL TEE, FOSTER ADAPTOR, OR SWIVEL X SOLID HYDRANT ADAPTOR (WITH SWIVEL GLAND).**

*** ON CITY SPONSORED PROJECTS, WHERE CONFLICTS ARE IDENTIFIED BETWEEN THESE CONSTRUCTION NOTES AND THE PROJECT CONTRACT DOCUMENTS, THE CONTRACT DOCUMENTS WILL TAKE PRECEDENCE.**

UTILITY CRITERIA MANUAL WAIVER SUMMARY NOTES AND EXCEPTION GUIDELINES

AW#	SHEET #	ALIGNMENT	AFFECTED PIPE SIZE	STATION(S)	WAIVER FOR	CRITERIA	DESCRIPTION AND JUSTIFICATION
AW-01	53	WL-I	8" DI	2+48.63	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 4" RCP SDJB (4.1')	UCM 2.9.1.B.2	PROP 8" DI WL LOCATION IS NEEDED TO MAINTAIN SEPARATION FROM PROP 4' RCP STORM JB AND FROM EX. 6" WL (1.5')
AW-02			8" DI	3+39.48	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 6'X5' RCP SDJB (3.2')		PROP 8" DI WL LOCATION IS NEEDED TO MAINTAIN SEPARATION FROM PROP 6'X5' RCP STORM JB AND FROM EX. 6" WL (1.5')
AW-03			8" DI	3+42.16 THRU 3+68.22	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 48" RCP SD (4.4')		PROP 8" DI WL LOCATION IS NEEDED TO MAINTAIN SEPARATION FROM PROP 48" RCP SD AND FROM EX. 6" CI WL (1.5')
AW-04	54		8" DI	6+53.53	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 4' RCP SDJB (4.3')		PROP 8" DI WL LOCATION IS NEEDED TO MAINTAIN SEPARATION FROM EXISTING 3" GAS LINE (5') AND FROM 48" RCP STORM (5.2')
AW-05			8" DI	5+13.77 THRU 8+67.13	LESS THAN 4.0' COVER BETWEEN EXISTING GROUND AND PROPOSED 8" DI WL (3.0' - 3.99')	UCM 2.9.1.B.4	PROP 8" DI WL-I LOCATION IS NEEDED TO TIE INTO EXISTING WATER SERVICE, CONNECT TO WL-I-1, AND REMAIN ABOVE THE PROP 48" RCP SD AND 18" RCP SI-02 LATERAL
AW-06			8" DI	7+05.79 - 7+20.35	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 48" RCP STORM (4')	UCM 2.9.1.B.2	PROP 8" DI WL-I LOCATION IS NEEDED TO REMAIN 5FT HORIZONTALLY FROM PROP 48" RCP SD AND SI-02
AW-07			8" DI	7+20.35	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 6'X5' RCP SDJB (3.1')		PROP 8" DI WL-I LOCATION IS NEEDED TO REMAIN 5FT HORIZONTALLY FROM PROP 48" RCP SD AND SI-02, STL CASING ADDED
AW-08	54, 55		8" DI	7+20.35 THRU 9+10.89	LESS THAN 5' HORIZONTAL SEPARATION FROM EXIST 48" RCP STORM (4.0' - 4.4')		PROP 8" DI WL-I LOCATION IS NEEDED TO REMAIN 5FT HORIZONTALLY FROM CI-78 AND CI-79
AW-09	54		8" DI	7+40.99	LESS THAN 1.5' VERTICAL SEPERATION FROM PROP 18" RCP STORM CROSSING BELOW THE PROP 8" DI WL (1.20')	UCM 2.9.1.B.3	PROP 8" DI WL-I LOCATION IS NEEDED TO TIE INTO EXISTING WATER SERVICE, CONNECT TO WL-I-1, AND REMAIN ABOVE THE PROP 48" RCP SD AND 18" RCP SI-02 LATERAL. WL HAS 3.4' OF COVER
AW-10	55	WL-I	8" DI	9+13.72	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 6'X5' RCP SDJB (3.4')	UCM 2.9.1.B.2	PROP 8" DI WL-I LOCATION IS NEEDED TO REMAIN 5FT HORIZONTALLY FROM CI-78 AND CI-79, STL CASING ADDED
AW-11	56	WL-J	8" DI	2+27.49	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP CI-59 (4.5')		PROP 8" DI WL LOCATION IS NEEDED TO BE SEPARATED FROM BOTH CURB INLET CI-59 AND 5'X5' SDJB
AW-12			8" DI	2+27.49	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 5'X5"" RCP SDJB (4.8')		PROP 8" DI WL LOCATION IS NEEDED TO BE SEPARATED FROM BOTH CURB INLET CI-59 AND 5'X5' SDJB
AW-13			8" DI	3+37.60	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP CI-58 (4.3')		PROP 8" DI WL LOCATION IS NEEDED TO BE SEPARATED FROM BOTH CURB INLET CI-58 AND EX. 8" PVC WL
AW-14	57	WL-H	8" DI	1+00 THRU 1+42.66, 1+68.94 THRU 1+80.32	LESS THAN 4.0' COVER BETWEEN EXISTING GROUND AND PROPOSED 8" DI WL (3.4' - 3.99')	UCM 2.9.2.B.4	PROP 8" DI WL-I LOCATION IS NEEDED TO TIE INTO PROPOSED WL-I WHILE REMAINING ABOVE THE PROP 48" RCP SD, AND CONNECT TO EX. 6" DI WL
AW-15	58	WL-K	8" DI	2+31.67 - 2+51.67	LESS THAN 4.0' COVER BETWEEN EXISTING GROUND AND PROPOSED 8" DI WL (3.0')	UCM 2.9.2.B.4	PROP 8" DI WL-K LOCATION IS NEEDED TO TIE INTO EXISTING 6" CI WL
AW-16	59	WL-I-1	8" DI	1+00 - 1+14.35	LESS THAN 4.0' COVER BETWEEN EXISTING GROUND AND PROPOSED 8" DI WL (3.4' - 3.8')	UCM 2.9.2.B.4	PROP 8" DI LOCATION IS NEEDED TO TIE INTO PROPOSED WL-I AND REMAIN ABOVE PROP 48" RCP SD
AW-17	60	WL-L	8" DI	1+07.50 THRU 1+14.00, 1+83.26 THRU 2+14.37	LESS THAN 4.0' COVER BETWEEN EXISTING GROUND AND PROPOSED 8" DI WL (3.7' - 3.99')	UCM 2.9.2.B.4	PROP 8" DI LOCATION IS NEEDED TO TIE INTO EXISTING 6" DI WL
AW-18	61	WL-I-2	12" DI	3+32.21 THRU 3+70.40	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 48" RCP STORM LINE(4')	UCM 2.9.1.B.2	PROP 12" DI WL LOCATION IS NEEDED TO TIE INTO EXIST 12 " DI, AND AVOID BOTH 24" DI WL AND 48" RCP SD. ADDED CONCRETE TRENCH FILL
AW-19			12" DI	3+47.47 THRU 3+83.44	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 24" DI WL (4')		PROP 12" DI WL LOCATION IS NEEDED TO TIE INTO EXIST 12 " DI, AND AVOID BOTH 24" DI WL AND 48" RCP SD. , ADDED CONCRETE TRENCH FILL
AW-20	62	WL-I-3	24" DI	1+00 THRU 1+24.18	LESS THAN 4.0' COVER BETWEEN EXISTING GROUND AND PROPOSED 24" DI WL (3.7')	UCM 2.9.2.B.4	PROP 24" DI LOCATION IS NEEDED TO TIE INTO EXISTING 24" CSC WL
AW-45	63		24" DI	2+73.06 THRU 4+18.29	LESS THAN 5' HORIZONTAL SEPARATION FROM EXISTING 3" GAS LINE (3.8')	UCM 2.9.1.B.2	PROP 24' WL-I-3 LOCATION IS NEEDED TO AVOID EXISTING GAS ALIGNMENT WHILE STAYING WITHIN BIKE LANE AND LOC.
AW-21			24" DI	4+50.08 THRU 4+86.05	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 12" DI WL(4')	UCM 2.9.1.B.2	PROP 24' WL-I-3 LOCATION IS NEEDED TO TIE INTO EX 24" WL , , ADDED PROPOSED CONC TRENCH FILL
AW-22	64	WL-I-4	8" DI	2+52.59 THRU 2+80.57	LESS THAN 4.0' COVER BETWEEN EXISTING GROUND AND PROPOSED 8" DI WL (2.7' - 3.23')	UCM 2.9.2.B.4	PROP 8" DI LOCATION IS NEEDED TO MAINTAIN VERTICAL SEPARATION FROM PROPOSED 48" RCP SD LINE I. ADDED STL CASING
AW-23			8" DI	2+67.16	LESS THAN 1.5' VERTICAL SEPERATION FROM PROP 48" RCP SD CROSSING BELOW THE PROP 8" DI WL (1.01')	UCM 2.9.1.B.3	PROP 8" DI LOCATION IS NEEDED TO MAINTAIN MAXIMUM COVER AND BE INSTALLED ABOVE PROPOSED 48" RCP SD LINE I. ADDED STL CASING
AW-24	66	WW-I	MH-I-01	1+00.00	LESS THAN 5' HORIZONTAL SEPARATION FROM EXIST PE GAS CROSSING (1.3')	UCM 2.9.1.B.2	PROP WW-I LINE LOCATION IS NEEDED TO TIE INTO EXIST 12" WW LINE, MH# 133450 IS "REPLACE IN PLACE"
AW-25			MH-I-01	1+00.00	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 48" RCP STORM LINE (3.4')		PROP WW-I LINE LOCATION IS NEEDED TO TIE INTO EXIST 12" WW LINE MAINTAINING SEPARATION FROM PROP 48" RCP STORM LINE (5.4') MH#133450 IS "REPLACE IN PLACE"
AW-46			MH-I-02	1+18.67	LESS THAN 5" HORIZONTAL SEPARATION FROM PROP 48" RCP STORM LINE (3.4')		PROP WW-I LINE LOCATION IS NEEDED TO TIE INTO EXIST 12" WW LINE MAINTAINING SEPARATION FROM PROP 48" RCP STORM LINE (5.4') MH#300807 IS "REPLACE IN PLACE"
AW-26			8" PVC	3+86.03	LESS THAN 1.5' VERTICAL SEPARATION FROM EXIST 6-4" ATT COMM DB CROSSING BELOW THE PROP 8" PVC WWTR (1.00')	UCM 2.9.1.B.3	PROP 8" PVC WW LOCATION IS NEEDED TO MAINTAIN 1.59' OF VERTICAL SEPARATION FROM 48" RCP SD.
AW-27			MH-I-05	3+98.36	LESS THAN 5' HORIZONTAL SEPARATION FROM EXIST 6-4" ATT COMM DB LINE (3.8')	UCM 2.9.1.B.2	PROP MH-I-05 LOCATION IS NEEDED TO TIE PROP WW-I LINE TO PROP WW- I-1, CONCRETE TRENCH FILL IS PROVIDED AROUND PROPOSED WWMH.
AW-28			MH-I-05	3+98.36	LESS THAN 5' HORIZONTAL SEPARATION FROM EXIST 48" RCP STORM LINE (4.0')		PROP MH-I-05 LOCATION IS NEEDED TO TIE PROP WW-I LINE TO PROP WW- I-1, CONCRETE TRENCH FILL IS PROVIDED AROUND PROPOSED WWMH.
AW-29	67	WW-I-1	8" PVC	3+76.13	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP STORM JB (4.7')		PROP WW-I-1 LINE LOCATION IS NEEDED TO MAINTAIN SEPARATION FROM PROP 6'X5' RCP STORM JB (4.7') AND ATT COMM VAULT (3.5')
AW-30			8" PVC	3+86.22	LESS THAN 5' HORIZONTAL SEPARATION FROM EXIST ATT COMM VAULT (3.5')		PROP WW-I-1 LINE LOCATION IS NEEDED TO MAINTAIN SEPARATION FROM PROP 6'X5' RCP STORM JB (4.7') AND ATT COMM VAULT (3.5')
AW-31			MH-I-07	4+62.72	LESS THAN 5' HORIZONTAL SEPARATION FROM EXIST 6-4" ATT COMM DB LINE (4.2')		PROP WW-I-1 LINE LOCATION IS NEEDED TO MAINTAIN SEPARATION FROM EXIST 6-4" ATT COMM DB LINE (4.2') AND PROP 6'X5' RCP STORM JB (4.7')
AW-32	70	WW-K	8" PVC	1+53.94	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP CI-60 (3.8')		PROP WW-K LINE LOCATION IS NEEDED TO MAINTAIN SEPARATION FROM PROP 5'X5"" RCP STORM JB (5').
AW-33			MH-K-02	2+63.99	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 3" PE GAS LINE (4.7')		PROP MH-K-02 LOCATION IS NEEDED TO TIE INTO EXISTING 6" CONC WW LINE.
AW-34	72	WW-J	MH-J-02	3+86.99	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 3" PE GAS LINE (4.3')		PROP MH-J-02 LOCATION IS NEEDED TO TIE INTO EXISTING 6" CONC WW LINE
AW-35		WW-SERVICE J-4	6" WWCO	2+25.62 WW-J	PR. WWCO LOCATION IS IN EX. DRIVEWAY	UCM 2.9.4.G.6	PROP WWCO LOCATION IS NEEDED TO TIE INTO EXISTING WWTR SERVICE
AW-36		WW-SERVICE J-8	6" WWCO	3+30.13 WW-J	PR. WWCO LOCATION IS IN EX. DRIVEWAY		PROP WWCO LOCATION IS NEEDED TO TIE INTO EXISTING WWTR SERVICE
AW-37	73	WW-SERVICE I-2	6" WWCO	1+32.80	PROPOSED CO DEPTH IS GREATER THAN 6FT (14.31')	UCM 2.9.4.G.1	PROP WWCO DEPTH IS NEEDED FOR 6" PVC WWTR SERVICE TO GO UNDER THE PROPOSED 48" RCP SD (1.5')
AW-38		WW-SERVICE I-1-2	6" WWCO	1+36.07	PROPOSED CO DEPTH IS GREATER THAN 6FT (12.62')		PROP WWCO DEPTH IS NEEDED FOR 6" PVC WWTR SERVICE TO GO UNDER THE PROPOSED 48" RCP SD (2.0')
AW-39		WW-SERVICE K-2	6" WWCO	1+34.63	PROPOSED CO DEPTH IS GREATER THAN 6FT (9.75')		PROP WWCO DEPTH IS NEEDEDFOR 6" PVC WWTR SERVICE TO GO UNDER THE PROPOSED 8" DI WL (1.5')
AW-40	74	WW-SERVICE K-3	6" WWCO	1+33.84	PROPOSED CO DEPTH IS GREATER THAN 6FT (9.09')		PROP WWCO DEPTH IS NEEDEDFOR 6" PVC WWTR SERVICE TO GO UNDER THE PROPOSED 8" DI WL (1.5')
AW-41		WW-SERVICE J-2	6" WWCO	1+32.63	PROPOSED CO DEPTH IS GREATER THAN 6FT (10.23')		PROP WWCO DEPTH IS NEEDED FOR 6" PVC WWTR SERVICE TO GO UNDER THE PROPOSED 48" RCP SD (2.0')
AW-42	75	WW-SERVICE J-4	6" WWCO	1+32.63	PROPOSED CO DEPTH IS GREATER THAN 6FT (9.81')		PROP WWCO DEPTH IS NEEDEDFOR 6" PVC WWTR SERVICE TO GO UNDER THE PROPOSED 8" DI WL (1.5')
AW-43		WW-SERVICE J-6	6" WWCO	1+31.21	PROPOSED CO DEPTH IS GREATER THAN 6FT (9.93')		PROP WWCO DEPTH IS NEEDEDFOR 6" PVC WWTR SERVICE TO GO UNDER THE PROPOSED 8" DI WL (1.5')
AW-44		WW-SERVICE J-8	6" WWCO	1+29.89	PROPOSED CO DEPTH IS GREATER THAN 6FT (9.41')		PROP WWCO DEPTH IS NEEDEDFOR 6" PVC WWTR SERVICE TO GO UNDER THE PROPOSED 8" DI WL (1.5')

WAIVERS APPROVED BY:

AUSTIN WATER — **DATE** 08/20/2026

DOES THIS PROJECT NEED AULCC REVIEW ?
☒ YES
☐ NO
IF YES, PLEASE PROVIDE UCC# 230629-06-03

NOTE: IF THE PROJECT IS LOCATED WITHIN FULL PURPOSE JURISDICTION, A RIGHT-OF-WAY REVIEW, THROUGH THE AULCC PERMIT PROCESS WILL BE REQUIRED.

AUSTIN WATER
EXPIRATION DATE
August 20, 2029

REVIEWED
August 20, 2026
BrooksK
Austin
Water
Expires: August 20, 2029

CITY OF AUSTIN
AUSTIN WATER
October 2021

AUSTIN WATER GENERAL INFORMATION AND CONSTRUCTION NOTES FOR CAPITAL IMPROVEMENT PROJECTS

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS–PHASE 3

GENERAL NOTES SHEET 2 OF 3

ANTHONY D. BUONODONO
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08/21/2026

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NO.	ISSUE	BY	DATE

F&M JOB NO. AU31436

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DESIGNED		JCS
DRAWN		JCS
REVISED		JCS
CHECKED		TDB

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SHEET 3
SEQ. 3 of 141

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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY NOTES:

1. NO TEMPORARY ABOVE GROUND HYDROCARBON AND HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM IS INSTALLED WITHIN 150 FEET OF A DOMESTIC, INDUSTRIAL, IRRIGATION, OR PUBLIC WATER SUPPLY WELL, OR OTHER SENSITIVE FEATURE.
2. PRIOR TO COMMENCEMENT OF CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND GOOD ENGINEERING PRACTICES. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE CONTRACTOR MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THE CONTROLS MUST REMAIN IN PLACE UNTIL DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED.
3. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS TO WATER QUALITY (E.G., FUGITIVE SEDIMENT IN STREET BEING WASHED INTO SURFACE STREAMS OR SENSITIVE FEATURES BY THE NEXT RAIN).
4. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS NOT LATER THAN WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%. A PERMANENT STAKE MUST BE PROVIDED THAT CAN INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN VOLUME.
5. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES (E.G., SCREENING OUTFALLS, PICKED UP DAILY).
6. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS.
7. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

GENERAL NOTES:

1. LOCATIONS, SIZES, AND DEPTHS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN BASED ON INFORMATION PROVIDED TO THE ENGINEER BY OTHERS AND CANNOT BE GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF ALL UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADVANCE NOTIFICATION OF UTILITY COMPANIES HAVING PROPERTY IN THE CONSTRUCTION AREA PRIOR TO ANY EXCAVATION. IF SITUATIONS ARE ENCOUNTERED DIFFERENT THAN SHOWN ON THE DRAWINGS THAT AFFECT THE INSTALLATION OF THE IMPROVEMENTS, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY AND PREPARE A REQUEST FOR INFORMATION OR CONTRACTOR'S MODIFICATION REQUEST.
2. THE CONTRACTOR SHALL UNCOVER AND VERIFY THE DEPTHS AND HORIZONTAL LOCATION OF ALL EXISTING WATER AND WASTEWATER MAINS TO BE EXTENDED TO, ALTERED OR SUBJECT TO DAMAGE OR INCONVENIENCE BY THIS PROJECT PRIOR TO COMMENCING CONSTRUCTION. NO SEPARATE PAY.
3. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CAREFULLY REVIEW AND BECOME FAMILIAR WITH ALL PERMIT REQUIREMENTS ASSOCIATED WITH THE PROJECT. THE PERMITS CONTAIN SPECIAL CONDITIONS THAT THE CONTRACTOR WILL BE REQUIRED TO FOLLOW. ALL WORK ASSOCIATED WITH THE PERMIT REQUIREMENTS WILL BE CONSIDERED SUBSIDIARY TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE.
4. IF ANY CHANGES ARE PROPOSED TO THE PROJECT BY THE CONTRACTOR (I.E. ADDING A DIFFERENT STAGING AREA), THE CONTRACTOR SHALL SUBMIT A REVISED SITE LAYOUT TO THE ENGINEER FOR REVIEW.
5. FENCES, GATES, GROUND SURFACES, CURBS, DRIVEWAYS, MAIL BOXES, ETC. SHALL BE LEFT IN A CONDITION EQUAL OR BETTER THAN THAT FOUND. TEMPORARY LIVESTOCK FENCING (MATCH EXISTING WIRE) SHALL BE INSTALLED WHEN REQUIRED TO CONTAIN LIVESTOCK IN ADDITION TO ANY OTHER REQUIREMENTS OUTLINED IN THE SITE CERTIFICATES. COORDINATION SHALL BE WITH THE PROPERTY OWNER. ALL FENCES SHALL BE REINSTALLED IN ORIGINAL LOCATION OF THE SAME TYPE UNLESS OTHERWISE DIRECTED BY THE OWNER.
6. THE CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL AS NECESSARY TO PERFORM THE CONSTRUCTION IN A SAFE MANNER TO PROTECT THE PUBLIC SAFETY. THE CONTRACTOR IS TO OBTAIN PERMIT, IF REQUIRED, PRIOR TO BLOCKING ANY PORTION OF THE ROADWAY (NO SEPARATE PAY).
7. THE CONTRACTOR SHALL GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCING WORK. THE CONTRACTOR IS RESPONSIBLE FOR ASSURING THAT ALL PERMITS NECESSARY TO LEGALLY CONSTRUCT THE PROJECT HAVE BEEN OBTAINED PRIOR TO COMMENCING WORK. REQUIRED PERMITS ISSUED TO THE CONTRACTOR ONLY WILL BE OBTAINED AT THE CONTRACTOR'S EXPENSE.
8. FINAL PAYMENT FOR THIS PROJECT IS CONTINGENT UPON ACCEPTANCE OF ALL FACILITIES BY THE CITY OF AUSTIN.
9. ALL CONCRETE SHALL BE TYPE A PER COA SPECIFICATION NO. 403S UNLESS OTHERWISE NOTED.
10. ENVIRONMENTAL TESTING MAY BE REQUIRED BY THE CONTRACTOR TO IDENTIFY ENVIRONMENTAL HAZARDS SUCH AS ASBESTOS, LEAD PAINT, ETC. PRIOR TO COMMENCING DEMOLITION ACTIVITIES. ANY ENVIRONMENTAL HAZARDS IDENTIFIED ARE REQUIRED TO BE REMEDIATED AND DISPOSED OF APPROPRIATELY PER THE APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS AT THE CONTRACTOR'S EXPENSE.
11. GEOTECHNICAL INFORMATION (I.E., SOIL BORINGS) WAS PREPARED FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THIS PROJECT. GEOTECHNICAL INFORMATION INCLUDED IN THESE DOCUMENTS IS FOR INFORMATIONAL PURPOSES ONLY, AND IS NOT TO BE CONSTRUED AS BEING AN ACCURATE REPRESENTATION OF SUB SOIL. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL SUBSURFACE CONDITIONS.
12. ALL BACKFILL FOR ARTERIAL, COLLECTORS, AND NEW STREETS SHALL BE AS FOLLOWS: EXCAVATED TRENCHES WITH WIDTHS LESS THAN 12 INCH (300 MM) SHALL BE BACKFILLED WITH A STABILIZED BACKFILL CONSISTING OF CONTROLLED LOW STRENGTH MATERIAL (STANDARD SPECIFICATION ITEM NO. 402S) AND CLASS J P.C. CONCRETES (STANDARD SPECIFICATION ITEM NO. 403, "CONCRETE FOR STRUCTURES"). THE SURFACE SHALL BE FINISHED WITH AN ASPHALTIC CONCRETE SURFACE LAYER (STANDARD SPECIFICATION ITEM NO. 340, "HOT MIX ASPHALTIC CONCRETE PAVEMENT"). ALL BACKFILL SHALL BE A STABILIZED BACKFILL CONSISTING OF "CONTROLLED LOW STRENGTH MATERIAL" (CLSM) OVER THE UTILITY BEDDING MATERIAL. THE CLSM SHALL BE A MINIMUM OF 12 INCH (300 MM) IN THICKNESS. THE NEXT LAYER OF BACKFILL SHALL BE 7-INCH LAYER OF CLASS J MIX (2-SACK MIX). THE REMAINING AREAS SHALL BE BACKFILLED WITH A PAVEMENT STRUCTURE EQUIVALENT TO THE PAVEMENT THICKNESS FOR THE FUNCTIONAL CLASSIFICATION OF THE STREET. CUTS ADJACENT TO EXISTING CURB AND GUTTER SHALL BE COMPLETED IN ACCORDANCE WITH THE CITY OF AUSTIN UCM AND STANDARD DETAIL NO. 1100S-8B. CUTS ALONG AND ACROSS THE ROADWAY SHALL BE COMPLETED IN ACCORDANCE WITH THE CITY OF AUSTIN UCM AND STANDARD DETAIL NO. 1100S-6D.
13. IF "CLSM" AND CLASS J CONCRETE BACKFILL MATERIALS ARE NOT AVAILABLE, THE FOLLOWING BACKFILL METHOD MAY BE USED WITH PRIOR APPROVAL OF DIRECTOR. BACKFILL SHALL COMPLY WITH SECTION 510.3 (25) OF CITY OF AUSTIN STANDARD SPECIFICATION ITEM NO. 510, "PIPE."

SEQUENCE OF CONSTRUCTION:

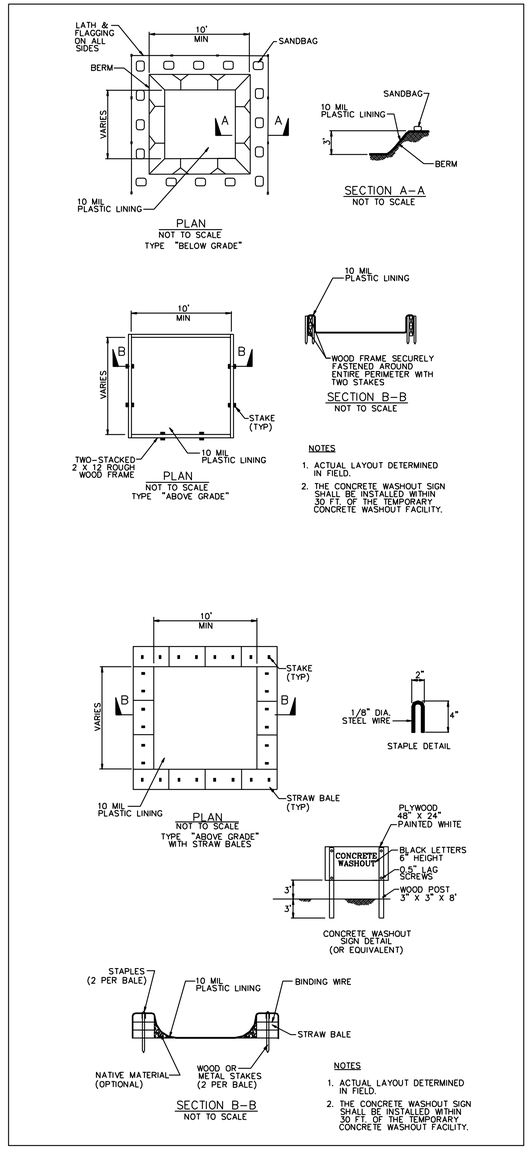
THE CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE OF CONSTRUCTION WHICH COMPLIES WITH THE FOLLOWING SEQUENCE FOR THE PROJECT:

A. HOLD PRE-CONSTRUCTION CONFERENCE.
B. INSTALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS, AND C.I.P. SIGNS IMMEDIATELY PRIOR TO CONSTRUCTION.
C. CONTACT AUSTIN WATERSHED PROTECTION, ENVIRONMENTAL INSPECTION AT 512-974-2278, 72 HOURS PRIOR TO SCHEDULED DATE OF THE REQUIRED ON-SITE PRE-CONSTRUCTION MEETING.
D. HOLD ON-SITE PRE-CONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR AND THE CONSTRUCTION INSPECTOR. AT THIS MEETING, DISCUSS THE TREE PROTECTION, TREE REMOVAL AND TREE PRUNING DURING THE PHASE.
E. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING TIE-IN INFRASTRUCTURE WITHIN A MINIMUM OF TWO WEEKS OF MOBILIZATION TO THAT WORK AREA.
F. COMMENCE CONSTRUCTION AS SHOWN IN THE PLANS.
G. THERE ARE THREE UNKNOWN UTILITIES IN THE PROJECT, ONE EAST OF THE INTERSECTION OF LARRY LANE AND MANOR ROAD AND TWO BETWEEN THE INTERSECTIONS OF RANDOLPH ROAD AND MANOR ROAD AND ALEXANDER AVENUE AND MANOR ROAD AS INDICATED ON SHEETS 16 AND 17. TWO WEEKS PRIOR TO DOING WORK IN THESE AREAS CONTRACTOR SHALL IDENTIFY TYPE AND DEPTH OF UNKNOWN UTILITY AND INFORM THE ENGINEER.
H. FLAG RIGHT-OF-WAY WITHIN 2 WEEKS OF CONSTRUCTION NEAR THE DOUBLE-SIDED INLET ON LINE-I.
I. CONTACT LAURIE MICHEL AT LAURIE.SHAW@CAPMETRO.ORG WITH CAPMETRO AT LEAST TWO WEEKS IN ADVANCE OF STARTING CONSTRUCTION AROUND THE TRANSIT STATION.
J. COORDINATE WITH CAPMETRO WHEN BUS STOPS ARE IMPACTED BY CLOSURES AND DETOURS. IN THE CASE THAT PARKING BOXES/CORRALS ARE IMPACTED THE FOLLOWING RESOURCES CAN BE UTILIZED: PARKING BOXES/CORRALS: SHAREDMOBILITY@AUSTINTEXAS.GOV (ONLY REQUIRE NOTIFICATION, NO NEED FOR APPROVAL). SPECIAL PARKING ZONE (ZONE TYPE) PARKINGROWCONFLICTS@AUSTINTEXAS.GOV
K. CONTACT MARVIN LEWIS (MARVIN.LEWIS@AUSTINTEXAS.GOV) AND BRET CARR (BRET.CARR@AUSTINTEXAS.GOV) AT AUSTIN FIRE DEPARTMENT AT LEAST TWO WEEKS IN ADVANCE OF ANY TEMPORARY WATER LINE SHUTOUTS.
L. CCTV ALL NEW STORM DRAIN LINES AFTER CONSTRUCTION IS COMPLETE PER REQUIREMENTS IN COA STANDARD SPEC 510.3.26.G.
M. COMMENCE RESTORATION AND REVEGETATION AS EARLY AS FEASIBLE AND NECESSARY FOR TIMELY COMPLETION OF THE PROJECT. REVEGETATION OF DISTURBED AREAS CONSTITUTES THE PERMANENT EROSION AND SEDIMENTATION CONTROLS FOR THIS PROJECT. THE DESIGN ENGINEER SHALL SUBMIT AN ENGINEER'S LETTER OF CONCURRENCE TO THE WATERSHED PROTECTION DEPARTMENT INDICATING THAT CONSTRUCTION, INCLUDING REVEGETATION, IS COMPLETE AND IN SUBSTANTIAL CONFORMITY WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, THE APPROPRIATE CITY INSPECTOR WILL SCHEDULE A FINAL INSPECTION.
N. REMOVE ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS UPON COMPLETION OF ALL CONSTRUCTION ITEMS AND PERMANENT EROSION AND SEDIMENTATION CONTROLS.
O. DRESS UP AND RESTORE ANY AREAS DISTURBED BY ITEMS ABOVE.

THE GENERAL PERMIT PROGRAM OFFICE SHALL BE NOTIFIED BY THE CONTRACTOR VIA EMAIL IN ADVANCE OF TRANSITION BETWEEN PHASES.

WASHOUT NOTES:

1. ALL WASTE CONCRETE MATERIALS INCLUDING CONCRETE, CONCRETE SLURRY RESIDUE, PCC AND AC WASTE SHOULD BE COLLECTED AND DISPOSED OF IN A DESIGNATED TEMPORARY CONCRETE WASHOUT FACILITY. DO NOT ALLOW EXCESS CONCRETE TO BE DUMPED ONSITE, EXCEPT IN DESIGNATED AREAS.
2. DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAINS, OPEN DITCHES, STREETS, STREAMS OR ONTO THE GROUND. PERFORM WASHOUT OF CONCRETE TRUCKS IN DESIGNATED AREAS ONLY, WHERE WASHOUT WILL NOT REACH STORMWATER.
3. DO NOT WASH SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE INTO THE STREET OR STORM DRAIN. COLLECT AND RETURN SWEEPINGS TO AGGREGATE BASE STOCKPILE OR DISPOSE IN THE TRASH.
4. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE CONSTRUCTED ABOVE GRADE OR BELOW GRADE AT THE OPTION OF THE CONTRACTOR. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.
5. TEMPORARY WASHOUT FACILITIES SHOULD HAVE A TEMPORARY PIT OR BERMED AREAS OF SUFFICIENT VOLUME TO COMPLETELY CONTAIN ALL LIQUID AND WASTE CONCRETE MATERIALS GENERATED DURING WASHOUT PROCEDURES.
6. A SIGN SHOULD BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.
7. WASHOUTS SHALL BE IMPLEMENTED IN A MANNER THAT PREVENTS LEACHING TO UNDERLYING SOILS. WASHOUT CONTAINERS MUCH BE WATER TIGHT AND WASHOUTS ON OR IN THE GROUND MUST BE LINED WITH A SUITABLE IMPERVIOUS LINER, TYPICALLY A PLASTIC TYPE MATERIAL.
8. THE BASE OF A WASHOUT SHOULD BE FREE OF ROCK OR DEBRIS THAT MAY DAMAGE A PLASTIC LINER.
9. PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL IN POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THE COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
10. ALTERNATIVELY, PORTABLE REMOVABLE CONTAINERS CAN BE USED AS ABOVE GRADE CONCRETE WASHOUTS. ALSO CALLED A "ROLL-OFF"; THIS CONCRETE WASHOUT FACILITY SHOULD BE PROPERLY SEALED TO PREVENT LEAKAGE AND SHOULD BE REMOVED FROM THE SITE AND REPLACED WHEN THE CONTAINER REACHES 75% CAPACITY.
11. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE MAINTAINED TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM FREEBOARD OF 4 IN. FOR ABOVE GRADE FACILITIES AND 12 IN. FOR BELOW GRADE FACILITIES. MAINTAINING TEMPORARY CONCRETE FACILITIES SHOULD INCLUDE REMOVING AND DISPOSING OF HARDENED CONCRETE AND RETURNING THE FACILITIES TO A FUNCTIONAL CONDITION. WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL.
12. WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHOULD BE REMOVED AND PROPERLY DISPOSED OR RECYCLED IN ACCORDANCE WITH FEDERAL, STATE OR LOCAL REGULATIONS. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE REMOVED FROM THE SITE OF THE WORK AND PROPERLY DISPOSED OR RECYCLED IN ACCORDANCE WITH FEDERAL, STATE OR LOCAL REGULATIONS.
13. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCES CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE BACKFILLED AND REPAIRED.



CONCRETE WASHOUT DETAIL

NOT TO SCALE

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
KIMBERLY K. PATAK
97367
LICENSED PROFESSIONAL ENGINEER
8/21/2026

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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

GENERAL NOTES 3 OF 3

NO.	ISSUE	BY	DATE

FAN JOB NO. AU314361
DATE 12/12/2025
DESIGNED PSK
DRAWN NO
REVISED TRH
CHECKED KKP
FILE NAME CV-AU-GN-NOTES-05.dwg

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CITY OF AUSTIN - STANDARD NOTES
EROSION AND SEDIMENTATION CONTROL
(MODIFIED FOR USE ON GENERAL PERMIT PROJECTS)

1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR EXCAVATION).
2. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE ENVIRONMENTAL CRITERIA MANUAL AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
3. THE PLACEMENT OF TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION AND THE APPROVED GRADING/TREE AND NATURAL AREA PLAN.
4. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD ON-SITE WITH THE CONTRACTOR, DESIGN ENGINEER, PERMIT APPLICANT, AND GENERAL PERMIT PROGRAM REPRESENTATIVE AFTER INSTALLATION OF THE EROSION/SEDIMENTATION CONTROLS AND THE TREE/NATURAL AREA PROTECTION MEASURES AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE CONTRACTOR SHALL NOTIFY THE GENERAL PERMIT PROGRAM OFFICE AT 512/974-6330, AT LEAST 3 DAYS PRIOR TO THE MEETING DATE.
5. ANY SIGNIFICANT VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS MUST BE APPROVED BY THE REVIEWING ENGINEER AND THE GENERAL PERMIT PROGRAM REPRESENTATIVE.
6. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT DAILY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO INSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES. SILT ACCUMULATION AT INLET DEVICES SHOULD BE REMOVED WHEN THE DEPTH REACHES TWO (2) INCHES.
7. PRIOR TO FINAL ACCEPTANCE BY THE CITY, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING DEBRIS SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.
8. ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS ONE SQUARE FOOT OR LARGER IN TOTAL AREA, BLOWS AIR FROM WITHIN THE SUBSTRATE, AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME, IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO IMMEDIATELY CONTACT THE GENERAL PERMIT PROGRAM REPRESENTATIVE FOR FURTHER INVESTIGATION.
9. FIELD REVISIONS TO THE EROSION/SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES. ANY REVISIONS TO THE PERMITTED PLAN MUST BE APPROVED BY THE GENERAL PERMIT PROGRAM OFFICE OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT.
10. PERMANENT EROSION/SEDIMENTATION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. WHERE THE CRITERIA MANUAL AND CONTRACT DOCUMENTS DIFFER THE MOST ENVIRONMENTALLY BENEFICIAL MATERIALS/METHOD SHALL BE REQUIRED UNLESS OTHERWISE APPROVED BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE.
11. DEVELOPER INFORMATION:

    PROJECT MANAGER: LAURIE THERING

    OWNER: CITY OF AUSTIN

    ADDRESS: P.O. BOX 1088, OTC-CPMD, AUSTIN, TX 78767

    OWNER: 512-974-7035

    FAX: TO BE DETERMINED

    OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:

    COMPANY: FREESE AND NICHOLS, INC.

    CONTACT: KIMBERLY PATAK, P.E., CFM

    ADDRESS: 10431 MORADO CIRCLE STE. 300

    PHONE: (512) 617-3100

    FAX: (512) 617-3101

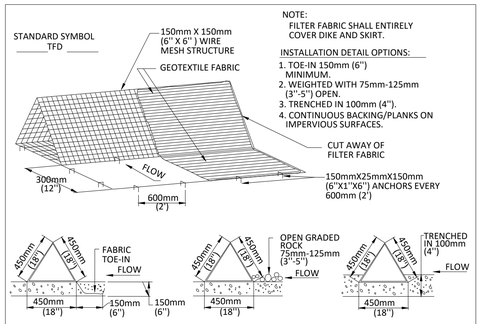
    PARTY RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE:

    CONTRACTOR TO BE DETERMINED PHONE # TO BE DETERMINED .

    PARTY RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE:

    CONTRACTOR TO BE DETERMINED PHONE # TO BE DETERMINED .

12. THE CONTRACTOR SHALL NOT DISPOSE OF SURPLUS EXCAVATED MATERIAL FROM THE SITE WITHOUT NOTIFYING THE GENERAL PERMIT PROGRAM INSPECTOR AT 974-6330 AT LEAST 48 HOURS PRIOR TO THE SPOILS REMOVAL. THIS NOTIFICATION SHALL INCLUDE THE DISPOSAL LOCATION AND A COPY OF THE PERMIT ISSUED TO RECEIVE THE MATERIAL.
13. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY PRIOR TO STREET WORK, AND WILL BE REMOVED AS SOON AS THE GENERAL PERMIT PROGRAM INSPECTOR AGREES THAT THERE IS NO POTENTIAL FOR SEDIMENTATION.

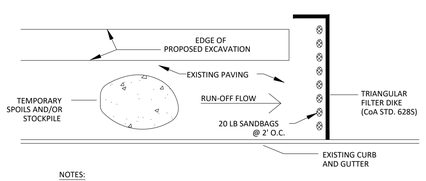


NOTE:
FILTER FABRIC SHALL ENTIRELY COVER DIKE AND SKIRT.

INSTALLATION DETAIL OPTIONS:
1. TOE-IN 150mm (6") MINIMUM.
2. WEIGHTED WITH 75mm-125mm (3"-5") OPEN.
3. TRENCHED IN 100mm (4").
4. CONTINUOUS BACKING/PLANKS ON IMPERVIOUS SURFACES.

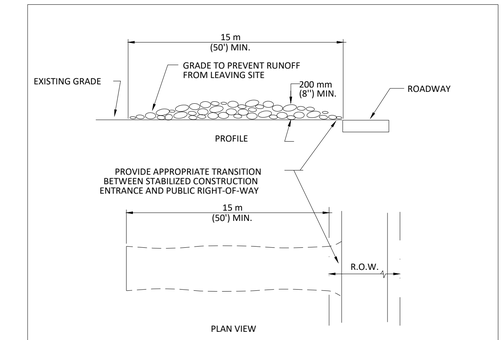
GENERAL NOTES
1. DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.
2. THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE.
3. THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF 75-125mm (3-5") OPEN GRADED ROCK OR TOED-IN 150mm (6") WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED IN 100mm (4").
4. DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 150mm (6") WIRE STAPLES ON 600mm (2') CENTERS ON BOTH EDGES AND SKIRT, OR STAKE USING 10M (3/8 ") DIAMETER RE-BAR WITH TEE ENDS.
5. FILTER MATERIAL SHALL BE LAPPED OVER ENDS 150mm (6") TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOAT RINGS.
6. THE DIKE STRUCTURE SHALL BE MW40-150mmX150mm (6 GA. 6"X6") WIRE MESH, 450mm (18") ON A SIDE.
7. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
8. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150mm (6") AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.
9. AFTER THE DEVELOPMENT SITE IS COMPLETLY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED. SILT SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTE 8 ABOVE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TRIANGULAR SEDIMENT FILTER DIKE	
RECORD COPY SIGNED BY J. PATRICK MURPHY	3/27/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 628S



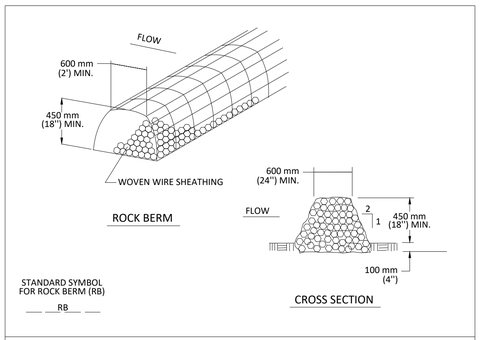
NOTES:
1. THE TEMPORARY SPOILS/STOCKPILE STORAGE AREA AND STAGING AREA MAY BE LOCATED DIRECTLY ADJACENT TO THE EXCAVATION AND ON THE PAVEMENT.
2. ANY SPOIL NOT INTENDED TO BE REUSED WILL BE HAULED TO AN APPROVED OR PERMITTED DISPOSAL SITE DAILY.
3. INSTALL TRIANGULAR SEDIMENT FILTER DIKE (DETAIL 682S) ACROSS FULL WIDTH OF TRAFFIC CLOSURE AND DOWNSTREAM OF CONSTRUCTION AREA, PERPENDICULAR TO CURB AND PLACED TO EFFECTIVELY CATCH AND CONTAIN SEDIMENT LADEN RUNOFF FROM THE EXCAVATED AREA. FILTER DIKE TO FOLLOW ACTIVE CONSTRUCTION. REMOVING AND RE-SETTING FILTER DIKE IS CONSIDERED SUBSIDIARY TO BARRICADES AND TRAFFIC HANDLING.

DETAIL A:
ADDITIONAL EROSION/SEDIMENTATION CONTROL FOR WORK IN PAVED AREAS FOR GENERAL PERMIT PROGRAM PROJECTS



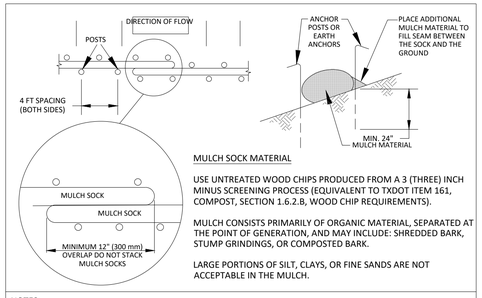
NOTES:
1. STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		STABILIZED CONSTRUCTION ENTRANCE	
RECORD COPY SIGNED BY J. PATRICK MURPHY	5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1



NOTES:
1. USE ONLY OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTION PROBLEM.
5. WHEN THE SITE IS COMPLETELY STABILIZED,THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		ROCK BERM	
RECORD COPY SIGNED BY MORGAN BYARS	8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S-1



MULCH SOCK MATERIAL

USE UNTREATED WOOD CHIPS PRODUCED FROM A 3 (THREE) INCH MINUS SCREENING PROCESS (EQUIVALENT TO TXDOT ITEM 161, COMPOST, SECTION 1.6.2.B, WOOD CHIP REQUIREMENTS).

MULCH CONSISTS PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, OR COMPOSTED BARK.

LARGE PORTIONS OF SILT, CLAYS, OR FINE SANDS ARE NOT ACCEPTABLE IN THE MULCH.

NOTES:

1. STEEL OR WOOD POSTS WHICH SUPPORT THE MULCH SOCK SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 600mm (24 inches). IF WOOD POSTS CANNOT ACHIEVE 600mm (24 inches) DEPTH, USE STEEL POSTS. EARTH ANCHORS ARE ALSO ACCEPTABLE.

2. THE TOE OF THE MULCH SOCK SHALL BE PLACED SO THAT THE MULCH SOCK IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. IN ORDER TO PREVENT WATER FROM FLOWING BETWEEN THE JOINTS OF ADJACENT ENDS OF MULCH SOCKS, LAP THE ENDS OF ADJACENT MULCH SOCKS A MINIMUM OF 300mm (12 inches).

3. MULCH MATERIAL MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH; IT IS NOT ACCEPTABLE FOR THE MULCH MATERIAL TO CONTAIN GROUND CONSTRUCTION DEBRIS, BIOSOLIDS, OR MANURE.

4. SOCK MATERIAL WILL BE 100% BIODEGRADABLE, PHOTODEGRADABLE, OR RECYCLABLE SUCH AS BURLAP, TWINE, UV PHOTOBIODEGRADABLE PLASTIC, POLYESTER, OR ANY OTHER ACCEPTABLE MATERIAL.

5. MULCH SOCKS SHOULD BE USED AT THE BASE OF SLOPES NO STEEPER THAN 2:1 AND SHOULD NOT EXCEED THE MAXIMUM SPACING CRITERIA PROVIDED IN CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL TABLE 1.4.5.F.1 FOR A GIVEN SLOPE CATEGORY.

6. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		MULCH SOCK	
RECORD COPY SIGNED BY MORGAN BYARS	08/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 648S-1

GENERAL PERMIT PROGRAM

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
KIMBERLY K. PATAK
97367
LICENSED PROFESSIONAL ENGINEER
8/21/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
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Fax - (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

EROSION AND SEDIMENT CONTROL NOTES

NO.	ISSUE	BY	DATE

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DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
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GENERAL PERMIT PROGRAM (GPP)
STANDARD ENVIRONMENTAL NOTES:

ADDITIONAL AREAS:

1. ANY ADDITIONAL AREAS REQUIRED FOR CONSTRUCTION OF THIS PROJECT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR MUST SECURE CITY OF AUSTIN APPROVAL OF PROPOSED ADDITIONAL AREAS PRIOR TO USE. APPROVAL OF "CORRECTION REQUEST" MUST BE SECURED FROM THE GENERAL PERMIT PROGRAM OFFICE OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT.
2. ALL ASSOCIATED PERMITS AND FEES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
3. IN ORDER TO SECURE APPROVAL FOR USE OF ADDITIONAL AREAS, CONTRACTOR MUST PROVIDE COMPLETE "CORRECTION REQUEST" SUBMITTAL TO GENERAL PERMIT PROGRAM OFFICE AND ALLOW A ONE WEEK COMMENT PERIOD FOR EACH REVIEW. CONTRACTOR SHOULD REQUEST INFORMATION ON THE ELEMENTS REQUIRED TO BE INCLUDED IN THE SUBMITTAL FROM THE OWNER'S REPRESENTATIVE OR THE GENERAL PERMIT PROGRAM OFFICE.
4. CONTRACTOR MUST INSTALL AND MAINTAIN EROSION/SEDIMENTATION CONTROLS AND TREE PROTECTION FOR ALL SUCH AREAS IN ACCORDANCE WITH THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL AND AS INCLUDED IN THE APPROVED SUBMITTAL OR DIRECTED IN THE FIELD BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE.
5. A SIGNED COPY OF THE PLANS PERMITTED THROUGH THE GENERAL PERMIT PROGRAM MUST BE KEPT ON SITE AND ACCESSIBLE AT ALL TIMES DURING PROJECT CONSTRUCTION.

DEWATERING:
CONTRACTOR IS RESPONSIBLE FOR DEWATERING OF WORK AREA. CONTRACTOR MUST SECURE CITY OF AUSTIN APPROVAL OF PROPOSED DEWATERING PROCEDURES PRIOR TO INSTALLATION OR USE. APPROVAL MUST BE SECURED FROM THE GENERAL PERMIT PROGRAM (GPP) OFFICE OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT. CONTRACTOR MUST PROVIDE COMPLETE SUBMITTAL TO GPP OFFICE AND ALLOW AN ONE WEEK (MIN.) COMMENT PERIOD FOR EACH REVIEW. CONTACT THE GPP OFFICE FOR SUBMITTAL REQUIREMENTS.

FUEL STORAGE:
FUEL STORAGE IS PROHIBITED ON THIS PROJECT. ADDITIONALLY, THE CONTRACTOR IS REQUIRED TO NOTIFY THE GENERAL PERMIT PROGRAM OFFICE IMMEDIATELY FOLLOWING ANY SPILL OF FUEL OR OTHER TOXIC MATERIAL. CONTRACTOR IS REQUIRED TO FOLLOW-UP WITH WRITTEN DOCUMENTATION, INCLUDING A COMPLETE DESCRIPTION OF THE INCIDENT, MATERIAL SPILLED, AND ACTIONS TAKEN TO CONTAIN AND CLEAN-UP MATERIAL.

FUGITIVE DUST CONTROL:
ALL PROJECTS APPROVED THROUGH THE GENERAL PERMIT PROGRAM (GPP) MUST COMPLY WITH THE CODE OF THE CITY OF AUSTIN AND THE ENVIRONMENTAL CRITERIA MANUAL REQUIREMENTS TO CONTROL AIRBORNE DUST. COMPLIANCE IS REQUIRED FOR ENTIRE PROJECT SITE AS WELL AS ASSOCIATED OPERATIONS. CONTACT THE GPP OFFICE FOR RECOMMENDED CONTROL METHODS.

SPOILS STORAGE:
NO SPOILS STORAGE IS ALLOWED WITHIN A CRITICAL WATER QUALITY ZONE, A 100-YEAR FLOODPLAIN, OR ON A SLOPE WITH A GRADIENT OF MORE THAN 15 PERCENT.

E/S CONTROLS FOR BORE / RECEIVING PIT LOCATIONS:
TEMPORARY E/S CONTROLS MUST SURROUND THE ENTIRETY OF BORING OPERATIONS, INCLUDING PIT, EQUIPMENT, ETC. FOR LOCATIONS WITHIN IMPERVIOUS AREAS, TEMPORARY CONTROL WILL BE TRIANGULAR FILTER DIKE (COA STANDARD DETAIL #628S). DIKE FLAP WILL BE CONTINUOUSLY WEIGHTED DOWN THROUGH THE USE OF 1" BY 4" WOOD STRIPS NAILED TO THE PAVEMENT, EXCEPT FOR THE ACCESS POINT. PLACEMENT OF TEMPORARY E/S CONTROLS ACROSS ACCESS POINT WILL BE REQUIRED WHENEVER THE SITE IS NOT ACTIVELY USED. FOR LOCATIONS WITHIN PERVIOUS AREAS, TEMPORARY CONTROL WILL BE SILT FENCE (COA STANDARD DETAIL #642S-1) OR MULCH SOCKS (COA STANDARD DETAIL #648S-1), AS INDICATED ON APPROVED PLANS.

SOIL RETENTION BLANKET:
UNLESS OTHERWISE INDICATED IN THE PROJECT DOCUMENTS, INSTALLATION OF SOIL RETENTION BLANKET WILL BE REQUIRED FOR ALL IMPACTED SLOPES GREATER THAN 3:1 AND ALL IMPACTED AREAS WITHIN DRAINAGE CONVEYANCES. (CITY OF AUSTIN STANDARD SPECIFICATION ITEM 605S) SOIL RETENTION BLANKET SUBMITTAL MUST BE APPROVED BY PROJECT ENGINEER AND GENERAL PERMIT PROGRAM (GPP) REPRESENTATIVE PRIOR TO USE AND MUST INCLUDE PRODUCT AND INSTALLATION DETAILS PROVIDED BY MANUFACTURER. FINISH GRADING MUST BE INSPECTED AND APPROVED BY GPP INSPECTOR PRIOR TO BLANKET INSTALLATION. INSTALLATION MUST BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND MUST BE INSPECTED AND APPROVED BY GPP REPRESENTATIVE PRIOR TO ACCEPTANCE.

SOD INSTALLATION:
REVEGETATION WITHIN MANAGED TURF AREAS MUST BE ACCOMPLISHED THROUGH THE INSTALLATION OF SOLID BLOCK GRASS SOD. SOD TYPE MUST MATCH ADJACENT GRASS TYPE. QUESTIONS REGARDING SOD TYPE WILL BE RESOLVED BY THE GENERAL PROGRAM PERMIT REPRESENTATIVE. REFER TO CITY OF AUSTIN STANDARD SPECIFICATION ITEM NO. 602S: SODDING FOR EROSION CONTROL, UNLESS OTHERWISE NOTED ON THE APPROVED PLANS.

TxDOT RIGHTS-OF-WAY:
TOPSOIL (TxDOT ITEM NO. 160), SOIL RETENTION BLANKET (TxDOT ITEM NO. 169), AND REVEGETATION (TxDOT ITEM NO. 164) INSTALLED WITHIN TEXAS DEPARTMENT OF TRANSPORTATION (TxDOT) RIGHT-OF-WAY SHALL COMPLY WITH "REQUIREMENTS FOR INSTALLATION OF UTILITIES WITHIN THE STATE RIGHT-OF-WAY, AUSTIN DISTRICT".

PROJECT SEQUENCE:
(REFER TO FULL PLAN SET FOR PROJECT-SPECIFIC ADDITIONS, IF APPLICABLE.)

PRIOR TO CONSTRUCTION:

1. SECURE APPLICABLE COA PERMITS, INCLUDING APPROVAL UNDER GENERAL PERMIT PROGRAM AND RIGHT-OF-WAY EXCAVATION PERMIT.
2. NOTIFY GENERAL PERMIT PROGRAM REPRESENTATIVE PRIOR TO PLACEMENT OF E/S CONTROLS AND TREE PROTECTION FENCING. ALL PROPOSED PHASING OF CONTROLS MUST BE SUBMITTED TO AND APPROVED BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE PRIOR TO THE FIELD PRE-CONSTRUCTION CONFERENCE.
3. NOTIFY COA TEMPORARY TRAFFIC CONTROL REPRESENTATIVE PRIOR TO PLACEMENT OF TEMPORARY TRAFFIC CONTROLS. ALL PROPOSED PHASING OF CONTROLS MUST BE INDICATED ON APPROVED TEMPORARY TRAFFIC CONTROL PLAN AND SEALED BY PROFESSIONAL ENGINEER.
4. PLACE TEMPORARY E/S CONTROLS AND TREE PROTECTION FENCING PRIOR TO BEGINNING ANY EXCAVATION. INSTALL C.I.P. SIGN, IF APPLICABLE.
5. HOLD ENVIRONMENTAL PRE-CONSTRUCTION CONFERENCE ON SITE WITH THE CONTRACTOR, OWNER'S REPRESENTATIVE, AND GENERAL PERMIT PROGRAM REPRESENTATIVE AFTER INSTALLATION OF E/S CONTROLS AND TREE PROTECTION FENCING AND PRIOR TO ANY TRENCHING OPERATIONS.
6. PLACE TEMPORARY TRAFFIC CONTROL DEVICES.

PROJECT CONSTRUCTION:

1. BEGIN CONSTRUCTION. NOTIFY GENERAL PERMIT PROGRAM REPRESENTATIVE A MINIMUM OF 48 HOURS IN ADVANCE OF TRANSITION BETWEEN PHASES.
2. CONTACT GENERAL PERMIT OFFICE TO SCHEDULE FIELD INSPECTION PRIOR TO BEGINNING INSTALLATION OF PERMANENT E/S CONTROLS.
3. COMPLETE RESTORATION OF ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES FOR THIS PROJECT. (PERMANENT E/S CONTROLS)
4. REMOVE TEMPORARY TRAFFIC CONTROL DEVICES RELATED TO WORK AREAS OUTSIDE OF THE STREET.
5. HOLD ENVIRONMENTAL POST-CONSTRUCTION CONFERENCE ON SITE WITH THE CONTRACTOR, OWNER'S REPRESENTATIVE, AND GENERAL PERMIT PROGRAM REPRESENTATIVE. ALL PERMANENT E/S CONTROLS MUST BE ACCEPTED BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE. PERMANENT CONTROLS SHALL CONSIST OF REVEGETATION PER DETAILS 602, 604S, AND 609S AS INDICATED ON APPROVED PLANS.
6. FOLLOWING FINAL ACCEPTANCE OF PERMANENT E/S CONTROLS BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE, REMOVE TEMPORARY E/S CONTROLS. CLEAN EXISTING STORM DRAINAGE SYSTEMS AS NECESSARY DUE TO CONSTRUCTION OPERATIONS.
7. DRESS-UP AND RESTORE ANY AREAS DISTURBED BY REMOVAL OF TEMPORARY E/S CONTROLS DESCRIBED ABOVE. SUBMITTALS REQUIRED TO BE APPROVED BY GENERAL PERMIT PROGRAM REPRESENTATIVE INCLUDE: SUBMITTALS TRIGGERED BY CITY OF AUSTIN SERIES 600 SPECIFICATIONS AND RELATED SPECIAL PROVISIONS/SPECIFICATIONS, CONSTRUCTION SCHEDULE, TREE PROTECTION, P-6 AND OTHER ROOT ZONE PROTECTION/MITIGATION MEASURES, DEWATERING PLAN, WATERING SCHEDULE FOR REVEGETATION AREAS, AND ANY VEGETATIVE REPLACEMENT PROPOSALS, IF NOT ALREADY PART OF THE PERMITTED

REQUIRED SUBMITTALS:
SUBMITTALS REQUIRED TO BE APPROVED BY GENERAL PERMIT PROGRAM REPRESENTATIVE INCLUDE: SUBMITTALS TRIGGERED BY CITY OF AUSTIN SERIES 600 SPECIFICATIONS AND RELATED SPECIAL PROVISIONS/SPECIFICATIONS, CONSTRUCTION SCHEDULE, TREE PROTECTION, P-6 AND OTHER ROOT ZONE PROTECTION/MITIGATION MEASURES, DEWATERING PLAN, WATERING SCHEDULE FOR REVEGETATION AREAS, AND ANY VEGETATIVE REPLACEMENT PROPOSALS, IF NOT ALREADY PART OF THE PERMITTED PLAN SET

CITY OF AUSTIN - STANDARD NOTES TREE AND NATURAL AREA PROTECTION (MODIFIED FOR USE ON GENERAL PERMIT PROJECTS)

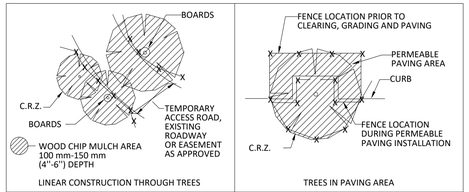
1. ALL TREES AND NATURAL AREAS SHOWN ON PLAN TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY MEASURES.
2. PROTECTIVE MEASURES SHALL BE INSTALLED ACCORDING TO CITY OF AUSTIN STANDARDS FOR TREE PROTECTION.
3. PROTECTIVE MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING), AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE PROJECT.
4. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP, COMPACTION OR CUTTING OF CRITICAL ROOT ZONE WITHIN TREE DRIP LINES.
5. TREE PROTECTION SHALL COMPLETELY SURROUND THE TREES OR GROUP OF TREES AND WILL BE LOCATED AT THE OUTERMOST LIMIT OF BRANCHES (DRIP LINE). FOR NATURAL AREAS, PROTECTIVE MEASURES SHALL FOLLOW THE LIMIT OF CONSTRUCTION LINE, IN ORDER TO PREVENT THE FOLLOWING:
   A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIALS;
   B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6 INCHES CUT OR FILL) OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE GENERAL PERMIT PROGRAM OFFICE OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT;
   C. WOUNDS TO EXPOSED ROOTS, TRUNK OR LIMBS BY MECHANICAL EQUIPMENT;
   D. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING, AND FIRES.
6. EXCEPTIONS TO INSTALLING PROTECTIVE FENCES AT CRITICAL ROOT ZONES MAY BE PERMITTED IN THE FOLLOWING CASES:
   A. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT, ERECT THE FENCE APPROXIMATELY 2 FEET BEYOND THE AREA DISTURBED;
   B. WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA
   C. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN 6 FEET TO THE BUILDING
   D. WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER SPECIAL REQUIREMENTS, CONTACT THE GENERAL PERMIT PROGRAM OFFICE AT 974-6330 TO DISCUSS ALTERNATIVES.

SPECIAL NOTE:
FOR THE PROTECTION OF NATURAL AREAS, NO EXCEPTIONS TO INSTALLING FENCES AT THE LIMIT OF CONSTRUCTION LINE WILL BE PERMITTED. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE 5 FEET OR CLOSER TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF 8 FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING.

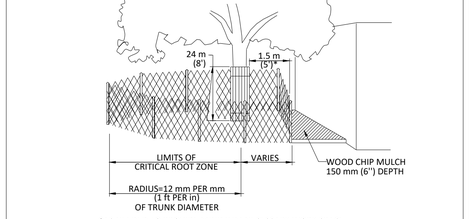
7. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN AREAS OF UNPROTECTED ROOT ZONES, THOSE AREAS SHOULD BE COVERED WITH 12 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION DURING CONSTRUCTION. FILTER FABRIC UNDERLAYMENT MAY BE REQUIRED AT DIRECTION OF GENERAL PERMIT PROGRAM REPRESENTATIVE BASED ON SITE CONDITIONS AND CONSTRUCTION ACTIVITIES. MAXIMUM FOUR (4) INCHES DEPTH MAY BE LEFT IN PLACE AFTER CONSTRUCTION WITH APPROVAL FROM THE GENERAL PERMIT PROGRAM REPRESENTATIVE.
8. ALL GRADING WITHIN PROTECTED ROOT ZONE AREAS SHALL BE DONE BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE. PRIOR TO GRADING, RELOCATE PROTECTIVE FENCES TO 2 FEET BEHIND THE GRADE CHANGE AREA.
9. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN 2 DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
10. PRIOR TO EXCAVATION OR GRADE CUTTING WITHIN TREE DRIPLINES, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE DAMAGE TO REMAINING ROOTS.
11. TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES SHOULD BE WATERED DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. TREE CROWNS SHOULD BE SPRAYED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.
12. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
13. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITHIN THE DRIPLINE OF TREES. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
14. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS. SEE NOTE THREE (3) OF SUPPLEMENTAL TREE PROTECTION NOTES FOR ADDITIONAL REQUIREMENTS.
15. ALL FINISHED PRUNING MUST BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES AVAILABLE ON REQUEST FROM THE GENERAL PERMIT PROGRAM OFFICE).
16. DEVIATIONS FROM THE ABOVE NOTES MAY BE CONSIDERED ORDINANCE VIOLATIONS IF THERE IS SUBSTANTIAL NONCOMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT.
17. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.

SUPPLEMENTAL TREE PROTECTION NOTES

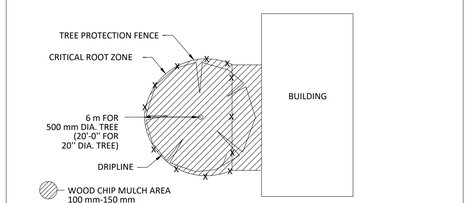
1. ALL TREE PROTECTION MUST COMPLY WITH CITY OF AUSTIN REQUIREMENTS AS OUTLINED IN THE ENVIRONMENTAL CRITERIA MANUAL AND AS INDICATED BY STANDARD COA NOTES AND DETAILS INCLUDED WITHIN THIS DOCUMENT SET. CONTRACTOR SHALL INSTALL PROTECTION PRIOR TO PRE-CONSTRUCTION CONFERENCE, MAKE ADJUSTMENTS TO PROTECTION AS DIRECTED BY THE GPP REPRESENTATIVE, AND MAINTAIN PROTECTION UNTIL PROJECT IS COMPLETE.
2. TYPE AND LOCATION OF ALL TREE PROTECTION MUST BE APPROVED IN THE FIELD BY THE GENERAL PERMIT PROGRAM (GPP) REPRESENTATIVE PRIOR TO CONSTRUCTION.
3. WALK-THROUGH: CONTRACTOR SHALL CONDUCT WALK-THROUGH MEETING WITH GENERAL PERMIT PROGRAM REPRESENTATIVE PRIOR TO PERFORMING ANY PRUNING ACTIVITIES ON TREES IN PROJECT AREA. PURPOSE OF WALK-THROUGH WILL BE TWOFOLD. ONE PURPOSE WILL BE TO DETERMINE THE MINIMUM AMOUNT OF PRUNING NECESSARY TO ALLOW CONSTRUCTION WORK TO BE COMPLETED. SECOND PURPOSE WILL BE TO DETERMINE AREAS OF PROJECT IN WHICH EXHAUST DIVERTERS WILL BE REQUIRED ON CONSTRUCTION EQUIPMENT TO PREVENT SCORCHING OF EXISTING TREES.
4. ALL PRUNING MUST BE PERFORMED IN ACCORDANCE WITH ANSI A300 (PART 1) - 2001 AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS (PRUNING), OR LATEST APPROVED VERSION. THIS DOCUMENT MAY BE OBTAINED ONLINE FOR A FEE AT WWW.ANSI.ORG.
5. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS. TO PREVENT BARK TEARS, THE WEIGHT OF THE BRANCH SHALL BE REMOVED BEFORE MAKING FINAL PRUNING CUT.
6. ALL PRUNING SHALL PRESERVE THE NATURAL CHARACTER OF THE TREE.
7. ONLY COLLAR CUTS ARE ACCEPTABLE. NO FLUSH CUTS OR STUB CUTS WILL BE ALLOWED.
8. ALL BRANCHES THAT ARE BROKEN OR DAMAGED DURING CONSTRUCTION SHALL BE REMOVED.
9. PRUNING CUTS OR DAMAGED AREAS ON AN OAK TREE SHALL BE PAINTED WITHIN FIVE MINUTES WITH A STANDARD TREE WOUND DRESSING. TREE WOUND DRESSING SHALL BE EITHER TREEKOTE AEROSOL OR TANGLEFOOT PRUNING SEALER (OR APPROVED EQUAL). THIS ALSO APPLIES TO WOUNDS CREATED BY CONSTRUCTION VEHICLES OR EQUIPMENT. ALL PRUNING MUST BE IN ACCORDANCE WITH COA OAK WILT PREVENTION POLICY.
10. ANY TREE ROOTS THAT ARE EXPOSED, CUT, OR TORN DURING CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SURROUNDING SOIL. (REFER ALSO TO NUMBER 9 OF THE TREE AND NATURAL AREA PROTECTION NOTES INCLUDED IN THIS PLAN SET.)
11. ALL TRENCHING WITHIN THE CRITICAL ROOT ZONE OF A TREE TO BE PRESERVED WILL BE SAW CUT OR EXCAVATED BY HAND, AS APPROVED BY THE GENERAL PERMIT PROGRAM ARBORIST.
12. REFER TO ENVIRONMENTAL CRITERIA MANUAL APPENDIX P-6 FOR FURTHER REMEDIAL TREE CARE REQUIREMENTS. P-6 REMEDIAL TREE CARE WILL BE COORDINATED WITH AND APPROVED BY THE GENERAL PERMIT PROGRAM ARBORIST FOR PROJECTS PERMITTED THROUGH THE GENERAL PERMIT



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TREE PROTECTION FENCE LOCATIONS
RECORD COPY SIGNED BY J. PATRICK MURPHY	11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
		STANDARD NO. 610S-1



*AS NEEDED TO PROVIDE MINIMUM NECESSARY WORK SPACE. IF LESS THAN 1.5 m (5'), THEN ADD BOARDS STRAPPED TO TRUNK.



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TREE PROTECTION FENCE MODIFIED TYPE A - CHAIN LINK
RECORD COPY SIGNED BY J. PATRICK MURPHY	11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
		STANDARD NO. 610S-4

GENERAL PERMIT PROGRAM

CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

TREE PROTECTION AND ENVIRONMENTAL NOTES

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
KIMBERLY K. PATAK
97367
LICENSED
PROFESSIONAL ENGINEER
8/21/2026

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NO.	ISSUE	BY	DATE

F&N JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
FILE NAME	CV-AU-DT-TREE.dwg

VERIFY SCALE 1 0
Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

SHEET 6
SEQ. 6 OF 143

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LEGEND

- NEW STORM DRAIN PIPE
- NEW STORM DRAIN JUNCTION BOX
- NEW STORM DRAIN MANHOLE
- NEW WASTEWATER LINE
- NEW WATER LINE
- NEW CONTOUR
- NEW DRAINAGE EASEMENT
- NEW CURB AND GUTTER
- NEW CONCRETE SIDEWALK
- NEW INLET PROTECTION
- NEW FIRE HYDRANT
- NEW PLUG
- LIMITS OF CONSTRUCTION
- LIMITS OF CONSTRUCTION/MULCH SOCK (STAGING AREA)
- RIGHT-OF-WAY
- STABILIZED CONSTRUCTION ENTRANCE
- COA 100 YR-FLOODPLAIN
- FILTER DIKE
- PROPERTY LINE
- EX. STORM MANHOLE
- EX. WASTEWATER MANHOLE
- EX. FACE OF CURB
- EX. OVERHEAD ELECTRIC LINE
- EX. STORM DRAIN PIPE
- EX. WASTEWATER LINE
- EX. WATER LINE
- EX. UNDERGROUND DUCT BANK
- EX. UNDERGROUND GAS LINE
- EX. ABANDONED WATERLINE
- EX. ABANDONED WASTE WATER
- EX. 96 INCH WASTEWATER
- TREE TO REMAIN
- TREE PROTECTION FENCE
- PROJECT BENCHMARK
- SUE TEST HOLE
- BORE HOLE
- EX. STRUCTURES
- EX. SIGN POST
- EX. GUY ANCHOR
- EX. POWER POLE
- EX. FIRE HYDRANT
- EX. ELECTRIC CONDUIT
- EX. ELECTRIC JUNCTION BOX
- EX. ELECTRIC METER
- EX. FIBER OPTIC MARKER
- EX. TELEPHONE JUNCTION BOX
- EX. GAS VALVE
- EX. GAS METER
- EX. GAS MARKER
- EX. WATER METER
- EX. WATER VALVE
- EX. TRAFFIC CONTROL BOX
- EX. BOLLARD
- EX. CONCRETE
- GPS CONTROL POINT
- MAGNAIL
- EX. RISER
- EX. ELECTRIC JUNCTION BOX
- EX. FIBER OPTIC JUNCTION BOX
- EX. LIGHT POLE
- EX. NATURAL GAS VALVE
- EX. MAILBOX
- EX. CLEAN OUT
- EX. WATER VALVE
- EX. ELECTRIC MANHOLE
- EX. TELEPHONE MANHOLE
- RECOGNIZED ENVIRONMENTAL CONDITIONS

ABBREVIATIONS:

ABAN	ABANDONED
ASSY.	ASSEMBLY
BK	BACK
BM	BENCHMARK
BLDG	BUILDING
℄	CENTERLINE
CONC.	CONCRETE
CTMA	CAPITAL METRO TRANSPORTATION AUTHORITY
CWQZ	CRITICAL WATER QUALITY ZONE
DRWY	DRIVEWAY
DI	DUCTILE IRON
EG	EXISTING GROUND
ELEV.	ELEVATION
ESMT.	EASEMENT
EX.	EXISTING
F.H.	FIRE HYDRANT
F.V.	FIELD VERIFY
FLEX. BASE	FLEXIBLE BASE
℄	FLOW LINE
HORZ.	HORIZONTAL
INV.	INVERT
JTS.	JOINTS
LF	LINEAR FEET
LOC	LIMITS OF CONSTRUCTION
LP	LIGHT POLE
MH	MANHOLE
OHE	OVERHEAD ELECTRIC
PVMT.	PAVEMENT
PED	PEDESTRIAN
PP	POWER POLE
℄	PROPERTY LINE
PROP	PROPOSED
R	RADIUS
REC	RECOGNIZED ENVIRONMENTAL CONDITIONS
REF	REFERENCE
RCP	REINFORCED CONCRETE PIPE
RCB	REINFORCED CONCRETE BOX
R.O.E./ROE	RIGHT-OF-ACCESS EASEMENT
R.O.W./ROW	RIGHT-OF-WAY
SD	STORMDRAIN
SF	SILT FENCE
STD.	STANDARD
STA.	STATION
TBR	TO BE REMOVED
TOC	TOP OF CURB
TRANS.	TRANSITION
TYP.	TYPICAL
UKWN	UNKNOWN
WL	WATERLINE
WW	WASTEWATER
WWTR	WASTEWATER

BENCHMARKS:

MLK DRAINAGE PROJECT
CITY OF AUSTIN, TRAVIS COUNTY, TEXAS
McGRAY & McGRAY JOB No.: 19-007
DATE: DECEMBER 17, 2024

BM #1 - 5/8" IRON ROD WITH RED PLASTIC CAP ("M&M TRAV") SET IN THE GROUND AT THE NORTHWEST CORNER OF THE INTERSECTION OF WALNUT AVENUE AND MANOR ROAD, +/- 19 FT. SOUTHEAST OF A STOP SIGN AT THE INTERSECTION OF WALNUT AVENUE AND MANOR ROAD, AND +/- 17 FT. SOUTHWEST OF A WASTEWATER MANHOLE FOUND IN WALNUT AVENUE.

68 (GRID) N:10077171.53 E:3123173.06 ELEVATION:602.73

BM #3 - 5/8" IRON ROD WITH RED PLASTIC CAP ("M&M TRAV") SET IN THE GROUND AT THE INTERSECTION OF MANOR ROAD AND THE DRIVEWAY TO "ELAN EAST," +/- 7 FT. NORTHEAST OF UTILITY POLE LOCATED ALONG MANOR ROAD, AND +/- 32 FT. SOUTHWEST OF A STOP SIGN LOCATED AT THE INTERSECTION OF MANOR ROAD AND THE DRIVEWAY TO "ELAN EAST"

74 (GRID) N:10077419.08 E:3124391.93 ELEVATION:568.46

NOTES:

1. THIS PROJECT IS REFERENCED, FOR ALL BEARING AND COORDINATE BASIS, TO THE TEXAS COORDINATE SYSTEM, CENTRAL ZONE (4203), NORTH AMERICAN DATUM OF 1983 (2011) EPOCH 2010.00.
2. ALL COORDINATES SHOWN HEREON ARE GRID COORDINATES.
3. ALL ELEVATIONS SHOWN HEREON ARE NORTH AMERICAN VERTICAL DATUM (NAVD) 88 AND WERE DERIVED FROM GPS OBSERVATIONS.
4. UNITS: U.S. SURVEY FEET.
5. GRID TO SURFACE CONVERSION FACTOR: 1.000070
6. A PORTION OF THE INVERT DATA SHOWN WAS PROVIDED BY THE RIOS GROUP, INC. SOME STORM AND SANITARY SEWER MANHOLES WERE NOT INVERTED DUE TO TRAFFIC.

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
KIMBERLY K. PATAK
97367
LICENSED PROFESSIONAL ENGINEER
8/21/2026

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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

SYMBOLS, LEGEND, AND ABBREVIATIONS

NO.	ISSUE	BY	DATE

FAH JOB NO. AU314361
DATE 12/12/2025
DESIGNED PSK
DRAWN NO
REVISED TRH
CHECKED KKP
FILE NAME CV-AU-GN-NOTES-02.dwg

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 7
SEQ. 7 OF 143

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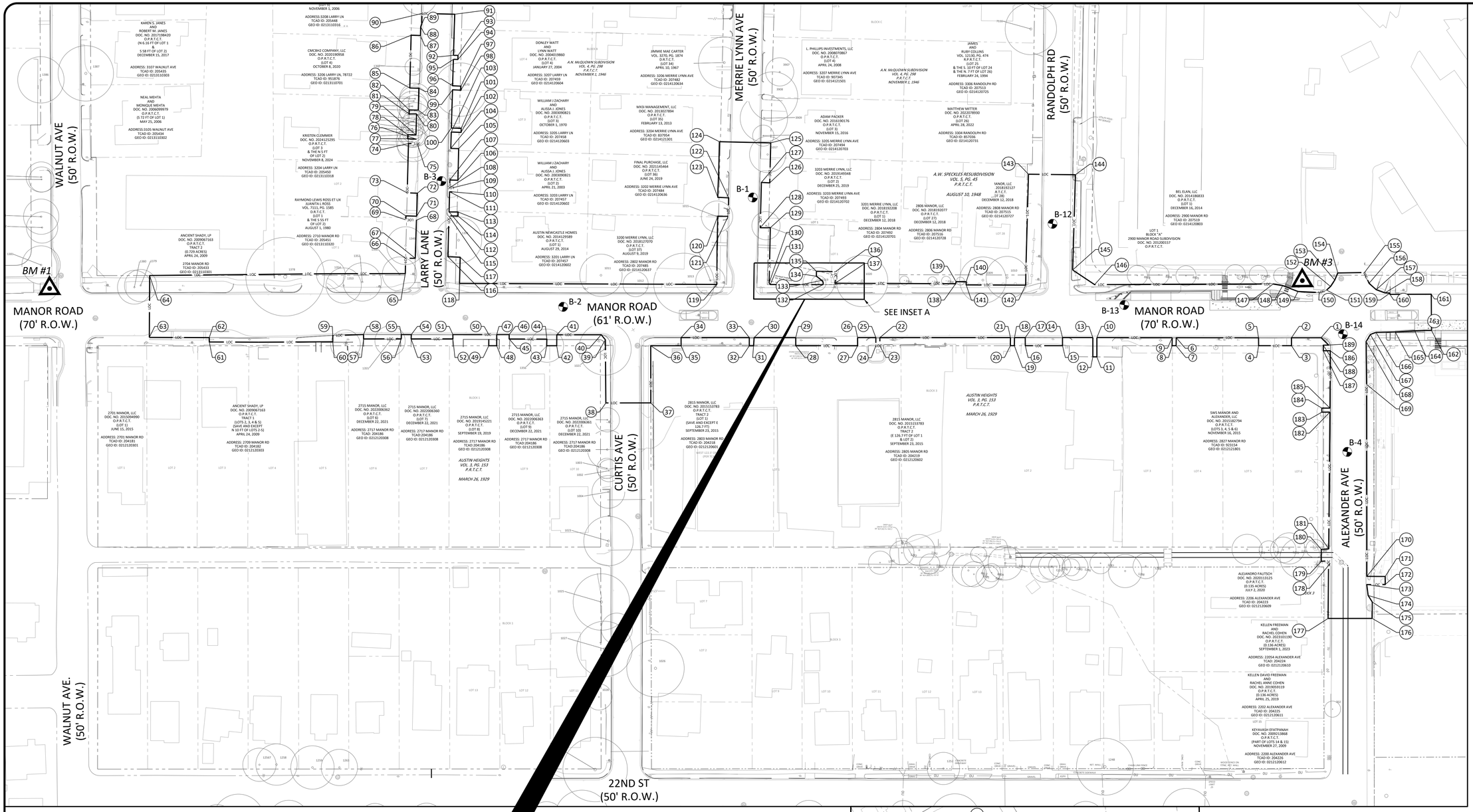

INSET A
1"=10'

STAGING AREA
1"=100'

NOTES:

1. BORINGS B-12, B-13 AND B-14 WERE PERFORMED AS PART OF THE AW 6943.045 UPPER BOGGY WEST - CHERRYWOOD WASTEWATER LINE IMPROVEMENTS PROJECT.
2. BENCHMARK AND COORDINATE SYSTEM INFORMATION CAN BE FOUND ON SHEET 7 - SYMBOLS, LEGEND, AND ABBREVIATIONS.

STAGING AREA NOTES:

1. CONTRACTOR SHALL MAKE ONLY RIGHT TURNS TO ENTER STAGING AREAS FROM PUBLIC ROADWAYS AND TO EXIT STAGING AREAS ONTO PUBLIC ROADWAYS. CONTRACTOR SHALL NOT BACK ONTO PUBLIC ROADWAYS FROM STAGING AREAS, NOR SHALL CONTRACTOR STOP TRAFFIC AT ANY TIME AT CONSTRUCTION ENTRANCES TO STAGING AREAS.

0 50' 100'
SCALE IN FEET

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
KIMBERLY K. PATAK
97367
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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

BOUNDARY MAP

NO.	ISSUE	BY	DATE

F&N JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
FILE NAME	CV-AU-PL-BNDY.dwg

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SHEET 8
SEQ. 8 OF 143

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LOC POINTS TABLE		
Point #	NORTHING	EASTING
1	10077367.07	3124421.18
2	10077361.32	3124392.28
3	10077353.62	3124393.85
4	10077347.32	3124361.80
5	10077355.00	3124360.23
6	10077339.36	3124280.04
7	10077331.52	3124281.43
8	10077330.75	3124277.51
9	10077338.59	3124276.08
10	10077324.27	3124202.71

LOC POINTS TABLE		
Point #	NORTHING	EASTING
11	10077305.49	3124206.39
12	10077304.76	3124202.45
13	10077323.51	3124198.78
14	10077317.74	3124169.21
15	10077309.77	3124170.78
16	10077302.64	3124134.52
17	10077310.52	3124132.92
18	10077308.46	3124122.44
19	10077300.55	3124123.89
20	10077299.78	3124119.96

LOC POINTS TABLE		
Point #	NORTHING	EASTING
21	10077307.69	3124118.51
22	10077282.69	3123991.29
23	10077274.79	3123992.86
24	10077274.01	3123988.93
25	10077281.92	3123987.37
26	10077278.43	3123969.59
27	10077270.52	3123971.18
28	10077258.67	3123910.89
29	10077266.59	3123909.36
30	10077258.62	3123868.82

LOC POINTS TABLE		
Point #	NORTHING	EASTING
31	10077250.60	3123869.83
32	10077249.78	3123865.65
33	10077257.70	3123864.11
34	10077244.63	3123797.62
35	10077236.72	3123799.23
36	10077230.90	3123769.61
37	10077175.23	3123780.66
38	10077166.57	3123736.88
39	10077228.03	3123724.27
40	10077232.15	3123719.29

LOC POINTS TABLE		
Point #	NORTHING	EASTING
41	10077223.60	3123676.02
42	10077212.90	3123678.05
43	10077210.97	3123668.26
44	10077217.44	3123667.16
45	10077210.37	3123630.43
46	10077214.66	3123629.61
47	10077212.28	3123617.50
48	10077201.40	3123619.56
49	10077199.88	3123611.84
50	10077210.75	3123609.78

LOC POINTS TABLE		
Point #	NORTHING	EASTING
51	10077203.89	3123574.74
52	10077199.73	3123575.61
53	10077191.68	3123534.92
54	10077195.89	3123534.26
55	10077194.03	3123524.49
56	10077189.85	3123525.29
57	10077182.54	3123488.59
58	10077186.85	3123487.71
59	10077179.83	3123458.00
60	10077173.89	3123459.13

LOC POINTS TABLE		
Point #	NORTHING	EASTING
61	10077150.04	3123338.91
62	10077154.27	3123338.01
63	10077143.03	3123279.60
64	10077203.39	3123268.05
65	10077254.19	3123516.70
66	10077269.23	3123514.08
67	10077271.02	3123523.47
68	10077308.31	3123517.39
69	10077306.64	3123506.75
70	10077310.56	3123506.14

LOC POINTS TABLE		
Point #	NORTHING	EASTING
71	10077312.26	3123516.77
72	10077334.83	3123513.08
73	10077333.25	3123503.13
74	10077381.55	3123494.93
75	10077382.98	3123503.53
76	10077387.32	3123501.64
77	10077386.02	3123493.17
78	10077389.97	3123492.52
79	10077391.43	3123500.54
80	10077412.02	3123497.11

LOC POINTS TABLE		
Point #	NORTHING	EASTING
81	10077410.50	3123489.91
82	10077414.45	3123489.24
83	10077415.97	3123498.04
84	10077437.39	3123494.47
85	10077435.90	3123485.56
86	10077487.57	3123476.73
87	10077489.06	3123485.87
88	10077497.54	3123484.46
89	10077500.48	3123484.99
90	10077510.88	3123483.16

LOC POINTS TABLE		
Point #	NORTHING	EASTING
91	10077516.36	3123515.21
92	10077476.12	3123521.86
93	10077476.87	3123526.27
94	10077472.93	3123526.95
95	10077472.17	3123522.52
96	10077446.27	3123526.83
97	10077447.49	3123535.06
98	10077443.54	3123535.72
99	10077442.32	3123527.54
100	10077404.88	3123533.72

LOC POINTS TABLE		
Point #	NORTHING	EASTING
101	10077406.42	3123543.35
102	10077402.48	3123544.02
103	10077400.94	3123534.38
104	10077384.88	3123537.05
105	10077386.17	3123544.80
106	10077355.26	3123550.09
107	10077353.92	3123542.20
108	10077346.32	3123543.50
109	10077346.81	3123546.36
110	10077342.87	3123547.03

LOC POINTS TABLE		
Point #	NORTHING	EASTING
111	10077342.38	3123544.17
112	10077322.65	3123547.53
113	10077324.33	3123556.38
114	10077320.39	3123557.06
115	10077318.70	3123548.20
116	10077278.80	3123555.00
117	10077280.67	3123567.04
118	10077254.95	3123571.44
119	10077303.33	3123822.31
120	10077369.81	3123810.08

LOC POINTS TABLE		
Point #	NORTHING	EASTING
121	10077371.84	3123820.31
122	10077389.94	3123817.22
123	10077388.35	3123806.52
124	10077442.85	3123797.47
125	10077451.52	3123847.69
126	10077412.39	3123854.38
127	10077411.24	3123846.15
128	10077366.84	3123853.71
129	10077368.75	3123863.52
130	10077314.78	3123872.95

LOC POINTS TABLE		
Point #	NORTHING	EASTING
131	10077313.44	3123874.38
132	10077323.40	3123925.72
133	10077327.30	3123923.86
134	10077330.34	3123917.70
135	10077335.15	3123916.82
136	10077338.54	3123935.51
137	10077327.02	3123937.24
138	10077349.71	3124054.81
139	10077351.78	3124054.79
140	10077353.69	3124064.69

LOC POINTS TABLE		
Point #	NORTHING	EASTING
141	10077350.56	3124065.30
142	10077361.75	3124123.29
143	10077470.34	3124104.78
144	10077478.87	3124150.61
145	10077385.51	3124166.15
146	10077375.43	3124190.35
147	10077410.20	3124364.12
148	10077410.47	3124373.73
149	10077407.68	3124389.74
150	10077410.80	3124410.63

LOC POINTS TABLE		
Point #	NORTHING	EASTING
151	10077414.56	3124417.34
152	10077418.79	3124420.47
153	10077425.89	3124423.39
154	10077433.37	3124425.06
155	10077438.90	3124450.93
156	10077429.27	3124457.43
157	10077424.41	3124465.63
158	10077422.95	3124474.74
159	10077423.74	3124479.62
160	10077422.55	3124479.86

LOC POINTS TABLE		
Point #	NORTHING	EASTING
161	10077430.55	3124520.15
162	10077395.35	3124527.30
163	10077394.00	3124520.45
164	10077391.78	3124511.00
165	10077386.91	3124492.26
166	10077382.81	3124473.61
167	10077379.63	3124468.52
168	10077371.94	3124465.77
169	10077330.27	3124474.42
170	10077143.30	3124511.35

LOC POINTS TABLE		
Point #	NORTHING	EASTING
171	10077146.72	3124529.30
172	10077138.80	3124530.86
173	10077135.27	3124512.94
174	10077124.94	3124516.31
175	10077119.33	3124521.63
176	10077103.35	3124524.63
177	10077094.89	3124481.70
178	10077148.91	3124473.30
179	10077149.28	3124464.12
180	10077160.96	3124461.81

LOC POINTS TABLE		
Point #	NORTHING	EASTING
181	10077162.73	3124469.00
182	10077296.24	3124444.01
183	10077294.65	3124436.13
184	10077298.58	3124435.35
185	10077300.18	3124443.27
186	10077356.15	3124432.59
187	10077354.76	3124425.85
188	10077360.18	3124424.68
189	10077361.34	3124429.99
190	10076289.13	3126181.37

LOC POINTS TABLE		
Point #	NORTHING	EASTING
191	10076347.16	3126207.83
192	10076396.12	3126251.33
193	10076503.11	3126263.25
194	10076477.99	3126278.52
195	10076505.70	3126294.10
196	10076479.58	3126309.46
197	10076450.10	3126295.48
198	10076377.16	3126339.84
199	10076354.24	3126241.89
200	10076298.52	3126219.29

LOC POINTS TABLE		
Point #	NORTHING	EASTING
201	10076240.47	3126226.04
202	10076249.46	3126270.89
203	10076236.35	3126293.54
204	10076259.33	3126412.73
205	10076182.63	3126458.27
206	10076179.08	3126489.99
207	10076152.22	3126505.32
208	10076156.44	3126448.64
209	10076143.40	3126423.94

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
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8/21/2026

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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

BOUNDARY MAP NORTHING AND EASTING TABLES

NO.	ISSUE	BY	DATE

FAN/JOB NO. AU314361
DATE 12/12/2025
DESIGNED PSK
DRAWN NO
REVISED TRH
CHECKED KKP
FILE NAME CV-AU-PL-BNDY.dwg

VERIFY SCALE Bar is one inch on original drawing, if not one inch on this sheet, adjust scale.
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SHEET 9
SEQ. 9 OF 143

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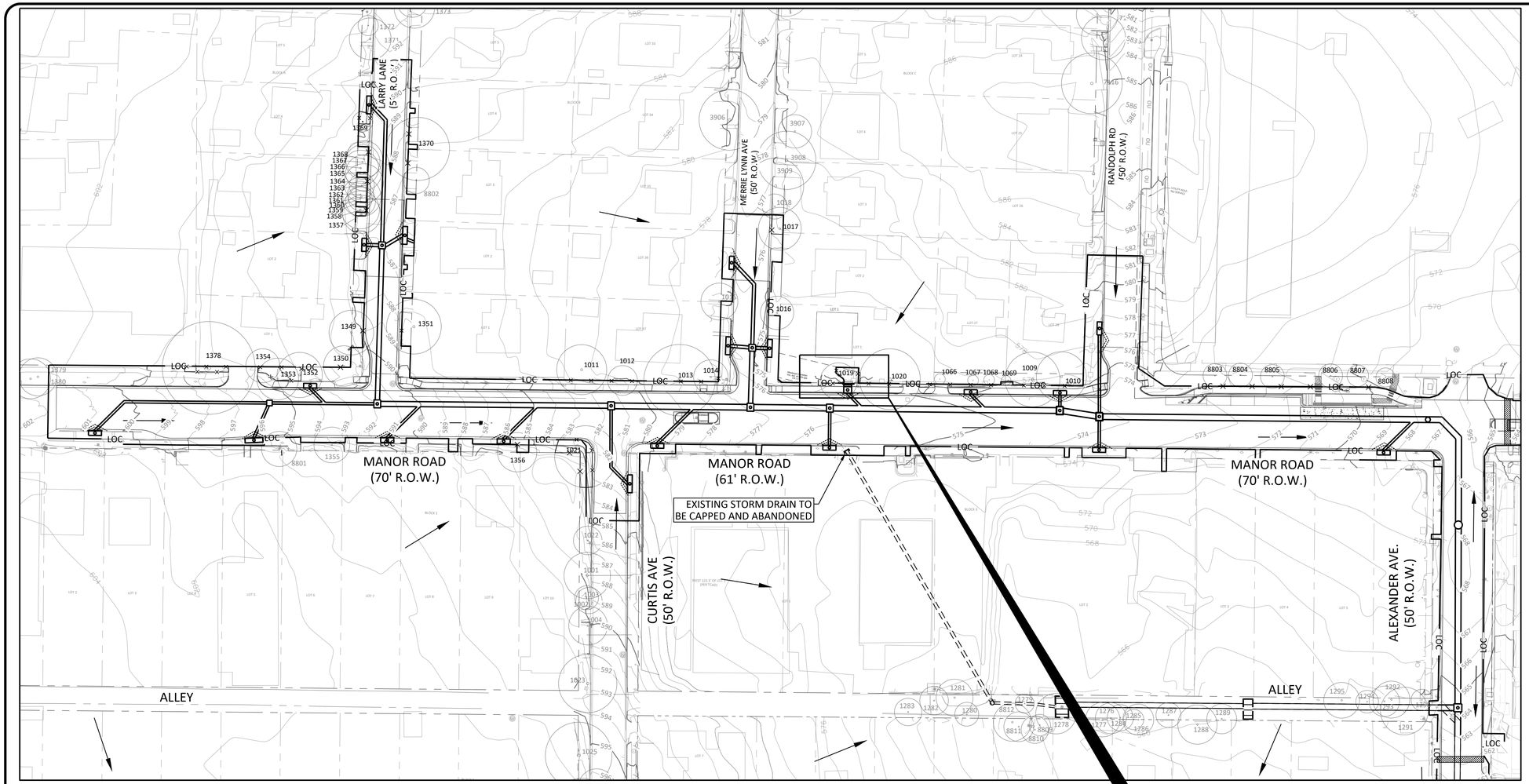
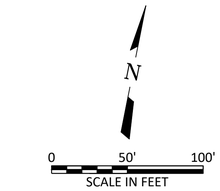




LEGEND

- LOC — LIMITS OF CONSTRUCTION
- TRIANGULAR FILTER DIKE
- FILTER DIKE
- EX. STORM DRAIN
- EASEMENT
- RIGHT-OF-WAY
- PROPERTY LINE
- FLOW ARROW
- XXX — TREE TO REMAIN
- TREE PROTECTION FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- ROCK BERM

GENERAL NOTES:

1. REF. SHEET 5 FOR SEDIMENT CONTROL DETAILS.
2. ALL TREES WITHIN LOC SHALL HAVE PROTECTIVE FENCING INSTALLED.
3. ANY TREE DAMAGED DURING CONSTRUCTION REQUIRING MITIGATION SHALL BE MITIGATED WITH TRIMMING AND FERTILIZER OR REPLANTED AT THE DISCRETION OF THE CITY OF AUSTIN.
4. TRIM ALL TREES OVERHANGING AND WITHIN LOC TO A MINIMUM 14' CLEARANCE. CONTACT ALL AFFECTED PROPERTY OWNERS AND ENV INSPECTOR PRIOR TO TRIMMING.

SPECIAL EROSION CONTROL NOTES:

1. FOR WORK IN PAVED AREAS, SEE DETAIL A, SHEET 5.
2. TWO LINES OF TRIANGULAR FILTER DIKES SHALL BE PLACED UPGRADIENT OF CURB INLETS TO MINIMIZE SEDIMENT ENTERING THE INLET.
3. AFTER TEMPORARY SPOILS ARE REMOVED FROM THE STREET, ALL REMAINING DEBRIS SHALL BE SWEPT IMMEDIATELY.
4. TRACKING DEBRIS MUST BE SWEPT FROM THE STREET UPON DISCOVERY.
5. IF DISTURBED AREAS ARE NOT WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREAS NEED TO BE STABILIZED BY REVEGETATION, MULCH, TARP, OR MATTING.
6. ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION AND SEDIMENTATION CONTROLS ONSITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS.
7. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING CONSTRUCTION SUCH AS MULCHING, VEGETATIVE COVER, SPRAY-ON ADHESIVES, TILLAGE, IRRIGATION, OR BARRIERS AS PER CITY OF AUSTIN ECM 1.4.8(C).
8. REFERENCE GENERAL NOTES SHEET FOR SEQUENCE OF CONSTRUCTION.
9. PROTECT DOWNSTREAM LIMITS OF PROJECT WITH TRIANGULAR FILTER DIKE AS APPROPRIATE WITHIN TCP SETUP.

STAGING AREA NOTES:

1. CONTRACTOR SHALL MAKE ONLY RIGHT TURNS TO ENTER STAGING AREAS FROM PUBLIC ROADWAYS AND TO EXIT STAGING AREAS ONTO PUBLIC ROADWAYS. CONTRACTOR SHALL NOT BACK ONTO PUBLIC ROADWAYS FROM STAGING AREAS, NOR SHALL CONTRACTOR STOP TRAFFIC AT ANY TIME AT CONSTRUCTION ENTRANCES TO STAGING AREAS.
2. ALL SPOILS AREAS SHALL BE SURROUNDED BY A MULCH SOCK.
3. NO FUEL STORAGE ALLOWED ON SITE
4. INSTALL TEMPORARY CURB RAMPS AT STAGING AREA CONSTRUCTION ENTRANCES (SEE DETAIL SHEET 97).

TREE LIST

ACTION	TAG No.	TREE TYPE	BOLE DIAMETER	DRIPLINE DIAMETER
P,-	1001	Cedar Elm	19.5"	19.5'
-	1002	Hackberry	11"	11'
-	1003	Cedar Elm	10"	10'
-	1004	Hackberry	16.25"	16.25'
P,0	1009	Cedar Elm	23"	23'
P,0	1010	Hackberry	21"	21'
P,0	1011	Cedar Elm	21"	21'
-	1012	Cedar Elm	12.5"	12.5'
0	1012	Cedar Elm	12.5"	12.5'
H,0	1013	Cedar Elm	30"	30'
0	1014	Ash	14.5"	14.5'
-	1015	Cedar Elm	15.5"	15.5'
0	1016	Cedar Elm	14"	14'
0	1017	Cedar Elm	18"	18'
-	1018	Cedar Elm	10.5"	10.5'
0	1019	Pecan	15.5"	15.5'
H,0	1020	Cedar Elm	25.5"	25.5'
H,0	1021	Cedar Elm	26"	26'
-	1022	Cedar Elm	12"	12'
-	1023	Waxleaf Ligustrum	19.25"	19.25'
0	1066	Sycamore	4.5"	4.5'
0	1067	Sycamore	4.5"	4.5'
0	1068	Sycamore	4.5"	4.5'
0	1069	Sycamore	4"	4'
-	1276	Box Elder	13"	13'
-	1277	Hackberry	14.5"	14.5'
-	1278	Hackberry	17"	17'
-	1279	Chinaberry	8X6"	8X6'
-	1280	Live Oak	10"	10'
-	1281	Box Elder	15.5"	15.5'
-	1282	Elm	12"	12'
-	1283	Chinaberry	11.5"	11.5'

TREE LIST

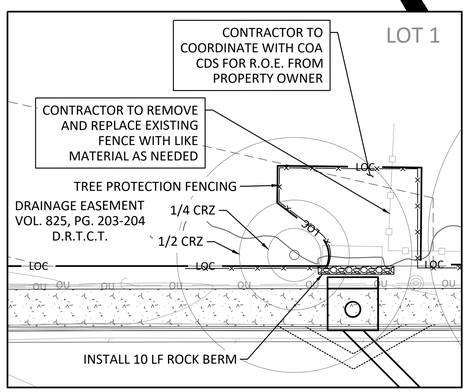
ACTION	TAG No.	TREE TYPE	BOLE DIAMETER	DRIPLINE DIAMETER
-	1284	Hackberry	11"	11'
-	1285	Box Elder	8.5"	8.5'
-	1286	Box Elder	13"	13'
-	1287	Box Elder	10.5"	10.5'
-	1288	Cedar Elm	16.5"	16.5'
-	1288	Cedar Elm	16.5"	16.5'
-	1289	Hackberry	12.5"	12.5'
-	1290	Hackberry	9"	9'
P,-	1291	Mesquite	20"	20'
-	1292	Cedar Elm	15.5"	15.5'
-	1293	Waxleaf Ligustrum	12.75"	12.75'
-	1294	Hackberry	9.5"	9.5'
-	1295	Chinaberry	15"	15'
0	1349	Ash	18.75"	18.75'
0	1350	Ash	17"	17'
P,0	1351	Cedar Elm	23"	23'
P,0	1352	Mesquite	19"	19'
0	1353	Mesquite	17.5"	17.5'
0	1354	Ash	14.25"	14.25'
-	1355	Pecan	15"	15'
0	1356	Cedar Elm	16.5"	16.5'
0	1357	Palm	16"	16'
0	1358	Palm	16"	16'
0	1359	Palm	12.5"	12.5'
0	1360	Palm	10"	10'
0	1361	Palm	16.5"	16.5'
0	1362	Palm	11"	11'
0	1363	Palm	10.5"	10.5'
0	1364	Palm	16.5"	16.5'
0	1365	Palm	15"	15'
0	1366	Palm	15"	15'
0	1367	Palm	14.5"	14.5'

TREE LIST

ACTION	TAG No.	TREE TYPE	BOLE DIAMETER	DRIPLINE DIAMETER
0	1368	Palm	15.5"	15.5'
0	1369	Pecan	8.5"	8.5'
P,0	1370	Hackberry	26.5"	26.5'
-	1371	Cedar Elm	17.5"	17.5'
-	1372	Cedar Elm	8.5"	8.5'
H,0	1378	Live Oak	39"	39'
H	3906	Cedar Elm	25.5"	25.5'
-	3907	Cedar Elm	14"	14'
H	3908	Cedar Elm	24.5"	24.5'
P	3909	Cedar Elm	23.5"	23.5'
-	8801	American Elm	14.75"	14.75'
-	8802	Chinese Pistache	11"	11'
0	8803	Shumard Oak	10"	10'
0	8804	Shumard Oak	10"	10'
0	8805	Shumard Oak	10"	10'
0	8806	Shumard Oak	10"	10'
0	8807	Shumard Oak	9"	9'
0	8808	Shumard Oak	8"	8'
-	8809	Box Elder	9"	9'
-	8810	Box Elder	11.5"	11.5'
-	8811	Hackberry	12.5"	12.5'
-	8812	Box Elder	16"	16'

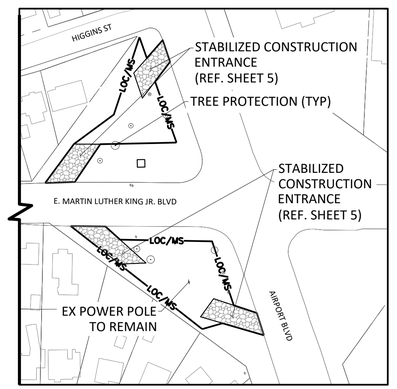
ACTION LEGEND	
*	TREE REMOVE
0	TREE PROTECT
-	NO ACTION
H	HERITAGE TREE
P	PROTECTED TREE

* ALL TREES TO BE PROTECTED. NONE TO BE REMOVED.



INSET A
1"=10'

INSET A NOTES:
1. EXCEPT FOR THE REMOVAL OF THE EXISTING INLET, NO CUT OR FILL >4" IS ALLOWED WITHIN THE 1/2 CRZ OF TREE NO. 1019.



STAGING AREA
1"=100'

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
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LICENSED PROFESSIONAL ENGINEER
8/21/2026

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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

EROSION AND SEDIMENT CONTROL AND TREE PROTECTION PLAN

FAN/JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
FILE NAME	CV-AU-PL-EROS-2.dwg

NO.	ISSUE	BY	DATE

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SHEET 10
SEQ. 10 OF 143

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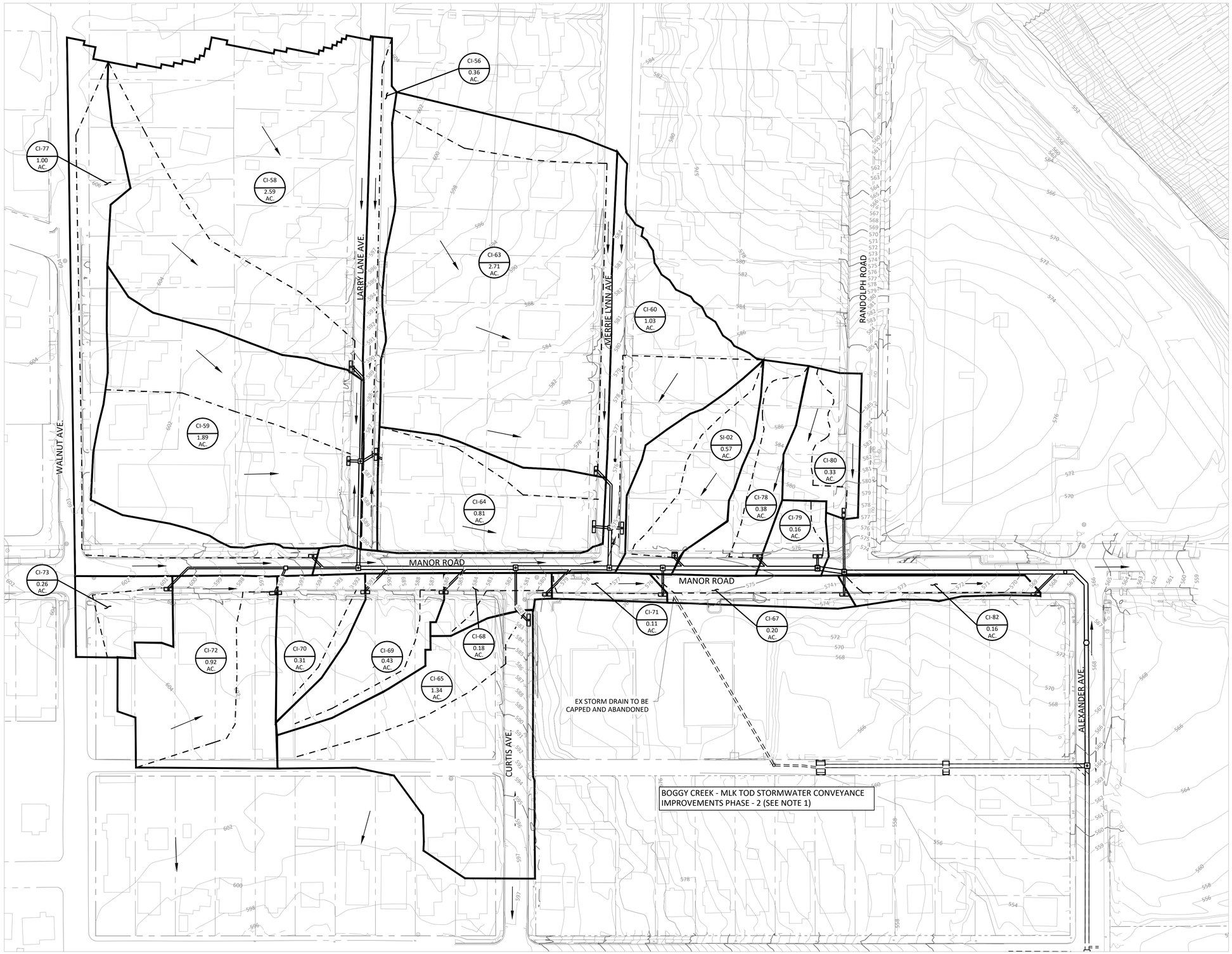

N

0 20' 40' 60' 120'

SCALE IN FEET

LEGEND:

- Tc PATH
- DRAINAGE AREA BOUNDARY
- DA XXXX AC. — DRAINAGE AREA
- FLOW DIRECTION
- CREEK FLOWLINE
- EX. STORM DRAIN
- FLOODPLAIN

NOTES:

1. REFERENCE BOGGY CREEK - MLK TOD STORMWATER CONVEYANCE IMPROVEMENTS PHASE - 2 (GP-2020-0430) FOR SOUTHERN DRAINAGE AREA BOUNDARY INFORMATION.

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
KIMBERLY K. PATAK
97367
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8/21/2026

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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION

BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

DRAINAGE AREA MAP

NO.	ISSUE	BY	DATE

F&N JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
FILE NAME	CV-AU-PL-DRNG.dwg

VERIFY SCALE
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0 1"

SHEET 11

SEQ. 11 OF 143

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LAND USE IMPERVIOUSNESS PERCENTAGE CALCULATION

LAND USE		% IMPERV	LAND USE		% IMPERV	LAND USE		% IMPERV	LAND USE		% IMPERV
100	Single-Family	50	200	Multi-Family	80	336	TOD Corridor Mixed Use[2]	95	600	Civic	60
111	Higher-Density Single Family[1]	60	300	Commercial	85	337	TOD Live / Work Flex[2]	95	700	Recreation / Open Space	10
112	TOD Low-Density Residential[2]	85	325	Neighborhood Mixed Use[3]	85	340	TOD Mixed Use[2]	95	800	Transportation	100
114	TOD Medium-Density Residential[2]	85	330	Mixed Use[3]	85	400	Office	80	940	Pond	100
						430	Mixed Use/Office	80			

BASIN NAME	TOT AREA (acres)	PERCENT OF TOTAL AREA USING COA FUTURE LAND USE MAP																	COMB IMPERV	AREA CHECK	2 YR RUNOFF COEFFICIENT	10 YR RUNOFF COEFFICIENT	25 YR RUNOFF COEFFICIENT	100 YR RUNOFF COEFFICIENT
		100	111	112	114	200	300	325	330	336	337	340	400	430	600	700	800	940						
Ultimate Condition																								
CI-56	0.36	1.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	98.79	0.00	99.40	100.00	0.73	0.81	0.86	0.95
CI-58	2.59	92.15	0.00	0.00	0.00	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.09	0.00	53.77	100.00	0.55	0.61	0.66	0.74
CI-59	1.89	40.44	0.00	0.00	0.00	33.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.03	0.00	0.00	6.04	0.00	69.08	100.00	0.61	0.68	0.72	0.81
CI-60	1.03	46.51	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	52.40	0.00	76.53	100.00	0.64	0.71	0.76	0.84
CI-63	2.71	89.05	0.00	0.00	0.00	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.05	0.00	54.90	100.00	0.55	0.62	0.66	0.74
CI-64	0.81	3.43	0.00	0.00	0.00	86.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.66	0.00	80.90	100.00	0.65	0.73	0.78	0.86
CI-65	1.34	64.65	0.00	0.00	0.00	0.00	0.00	0.00	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34.01	0.00	67.48	100.00	0.60	0.67	0.72	0.80
CI-67	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.62	0.00	0.00	0.00	0.00	86.38	0.00	99.32	100.00	0.73	0.81	0.86	0.95
CI-68	0.18	34.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.00	64.76	0.00	82.58	100.00	0.66	0.74	0.78	0.87
CI-69	0.43	80.42	0.00	0.00	0.00	0.00	0.00	0.00	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.39	0.00	59.31	100.00	0.57	0.64	0.68	0.76
CI-70	0.31	50.41	0.00	0.00	0.00	0.00	0.00	0.00	23.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.17	0.00	71.28	100.00	0.62	0.69	0.73	0.82
CI-71	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.73	0.00	0.00	0.00	0.00	86.27	0.00	99.31	100.00	0.73	0.81	0.86	0.95
CI-72	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	82.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.90	0.00	90.57	100.00	0.69	0.73	0.81	0.92
CI-73	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	59.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.37	0.00	91.05	100.00	0.69	0.77	0.82	0.91
CI-77	1.00	26.95	0.00	0.00	0.00	13.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.19	0.00	0.00	57.93	0.00	83.50	100.00	0.66	0.74	0.79	0.87
CI-78	0.38	31.33	0.00	0.00	0.00	17.28	0.00	0.00	0.00	0.00	0.00	32.60	0.00	0.00	0.00	0.00	18.79	0.00	79.25	100.00	0.65	0.72	0.77	0.85
CI-79	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.66	0.00	0.00	0.00	0.00	37.34	0.00	96.87	100.00	0.72	0.80	0.85	0.94
CI-80	0.33	38.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.32	0.00	0.00	0.00	0.00	30.66	0.00	78.92	100.00	0.65	0.72	0.77	0.85
CI-82	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.57	0.00	0.00	0.00	0.00	95.43	0.00	99.77	100.00	0.73	0.81	0.86	0.95
SI-02	0.57	32.95	0.00	0.00	57.67	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.00	0.00	8.60	0.00	71.95	100.00	0.62	0.69	0.74	0.82

1 Assumed 60% impervious, higher than regular single-family (50%) but lower than multi-family (70%)

2 From MLK TOD Regulating Plan

3 Assumed 85% like commercial, most conservative of residential and/or commercial uses, but not as dense as TOD

BASIN LAG TIME CALCULATION - ULTIMATE CONDITIONS

SHEET FLOW: $T_o = 0.42 * \frac{(n_o * L_o)^{0.8}}{P_2^{0.5} * S_o^{0.4}}$ — SHALLOW CONCENTRATED FLOW #1: $V_{S1} = K * S_{S1}^{0.5}$, $T_{S1} = \frac{L_{S1}}{60 * V_{S1}}$ — SHALLOW CONCENTRATED FLOW #2: $V_{S2} = K * S_{S2}^{0.5}$, $T_{S2} = \frac{L_{S2}}{60 * V_{S2}}$ — CHANNELIZED FLOW #1: $V_{H1} = \frac{1.49 \times \left(\frac{A_{H1}}{WP_{H1}}\right)^{\frac{2}{3}} \times S_{H1}^{\frac{1}{2}}}{n}$, $T_{H1} = \frac{L_{H1}}{60 * V_{H1}}$

BASIN ID	MINIMUM TC	MAXIMUM TC	SHEET FLOW (ULTIMATE)								SHALLOW CONCENTRATED FLOW #1 (ULTIMATE)						SHALLOW CONCENTRATED FLOW #2 (ULTIMATE)						CHANNELIZED FLOW #1												TIME OF CONCENTRATION			LAG TIME	
			L_o	LU1	% LU1	LU2	% LU2	n_o	S_o	P_2	T_o	Cond.	K	S_{S1}	L_{S1}	V_{S1}	T_{S1}	Cond.	K	S_{S2}	L_{S2}	V_{S2}	T_{S2}	Calc.	L_{H1}	D_{H1}	TW_{H1}	BW_{H1}	d_{H1}	A_{H1}	WP_{H1}	n_{H1}	S_{H1}	V_{H1}	T_{H1}	T_C			T_L	
	min	min	ft	NA	%	NA	%	NA	ft/ft	inches	min	NA	CONST	ft/ft	ft	fps	min	NA	CONST	ft/ft	ft	fps	min	NA	ft	ft	ft	ft	ft	sq ft	ft		ft/ft	fps	min	min	adj	hour	min	hour
CI-56	5	-	37	Single-Family	Asphalt	50%	Dense grasses	50%	0.128	0.011	4.06	4.5	None	0.0	0.056	31.86811	0.0	0.0	None	10.2	0.062	160.637	2.5	1.1	Gutter	489.316		15	0	0.5	3.75	15.03	0.016	0.034	6.8	1.2	6.73	6.73	0.1	4.0	0.1
CI-58	5	-	100	Single-Family	Asphalt	50%	Dense grasses	50%	0.128	0.016	4.06	8.4	Unpaved	16.1	0.042	378.2947	3.3	1.9	None	10.2	0.062	160.637	2.5	1.1	Gutter	39.78		15	0	0.5	3.75	15.03	0.016	0.075	10.1	0.1	11.40	11.40	0.2	6.8	0.1
CI-59	5	-	96	Single-Family	Asphalt	50%	Dense grasses	50%	0.128	0.021	4.06	7.3	Paved	20.3	0.020	70.5	2.9	0.4	Unpaved	18.2	0.040	153	3.6	0.7	None	90.282		15	0	0.5	3.75	15.03	0.016	0.028	0.0	0.0	8.41	8.41	0.1	5.0	0.1
CI-60	5	-	100	Single-Family	Asphalt	50%	Dense grasses	50%	0.128	0.050	4.06	5.3	Unpaved	16.1	0.042	75.91284	3.3	0.4	None						Gutter	228.514		15	0	0.5	3.75	15.03	0.016	0.018	4.9	0.8	6.47	6.47	0.1	3.9	0.1
CI-63	5	-	100	Single-Family	Asphalt	50%	Dense grasses	50%	0.128	0.042	4.06	5.7	Unpaved	16.1	0.069	179.7345	4.2	0.7	None						Gutter	384.019		15	0	0.5	3.75	15.03	0.016	0.023	5.6	1.1	7.53	7.53	0.1	4.5	0.1
CI-64	5	-	100	Multi-Family	Asphalt	80%	Dense grasses	20%	0.061	0.046	4.06	3.0	Unpaved	16.1	0.026	101.6193	2.6	0.7	Paved	20.3	0.041	94.62873	4.1	0.4	Gutter	47.5707		15	0	0.5	3.75	15.03	0.016	0.005	2.6	0.3	4.37	**5.00**	0.1	3.0	0.1
CI-65	5	-	100	Mixed Use	Asphalt	85%	Dense grasses	15%	0.050	0.030	4.06	3.1	Unpaved	16.1	0.058	189	3.9	0.8	None	10.2	0.041	94.62873	2.1		Gutter	72		15	0	0.5	3.75	15.03	0.016	0.107	12.1	0.1	3.96	**5.00**	0.1	3.0	0.1
CI-67	5	-	24	Transportation	Asphalt	100%	Dense grasses	0%	0.016	0.042	4.06	0.3	None						None						Gutter	214		20	0	0.5	5.00	20.02	0.016	0.010	3.7	1.0	1.30	**5.00**	0.1	3.0	0.1
CI-68	5	-	67	Mixed Use	Asphalt	85%	Dense grasses	15%	0.059	0.119	4.06	1.5	None	0.0	0.100	60.26586	0.0	0.0	None						Gutter	71.3338		15	0	0.5	3.75	15.03	0.016	0.059	9.0	0.1	1.60	**5.00**	0.1	3.0	0.1
CI-69	5	-	50	Mixed Use	Asphalt	85%	Dense grasses	15%	0.050	0.020	4.06	2.1	Unpaved	16.1	0.064	204	4.1	0.8	None						Gutter	19.35		15	0	0.5	3.75	15.03	0.016	0.052	8.4	0.0	2.93	**5.00**	0.1	3.0	0.1
CI-70	5	-	48	Mixed Use	Asphalt	85%	Dense grasses	15%	0.050	0.021	4.06	2.0	Unpaved	16.1	0.079	107	4.5	0.4	None						None	40.5918		15	0	0.5	3.75	15.03	0.016	0.064	0.0	0.0	2.36	**5.00**	0.1	3.0	0.1
CI-71	5	-	24	Transportation	Asphalt	100%	Dense grasses	0%	0.016	0.042	4.06	0.3	None	0.0	0.078	69.61408	0.0	0.0	None						Gutter	126		15	0	0.5	3.75	15.03	0.016	0.013	4.2	0.5	0.84	**5.00**	0.1	3.0	0.1
CI-72	5	-	100	Mixed Use	Asphalt	100%	Dense grasses	0%	0.016	0.010	4.06	1.9	Paved	20.3	0.025	242.5	2.9	1.4	None						None												3.30	**5.00**	0.1	3.0	0.1
CI-73	5	-	43	Mixed Use	Asphalt	50%	Dense grasses	50%	0.128	0.023	4.06	3.7	Unpaved	16.1	0.019	53.7066	2.2	0.4	None						Gutter	46		15	0	0.5	3.75	15.03	0.016	0.030	6.4	0.1	4.20	**5.00**	0.1	3.0	0.1
CI-77	5	-	100	Single-Family	Asphalt	50%	Dense grasses	50%	0.128	0.021	4.06	7.5	None	0.0	0.017	11.78861	0.0	0.0	None						Gutter	804.692		15	0	0.5	3.75	15.03	0.016	0.018	4.9	2.7	10.23	10.23	0.2	6.1	0.1
CI-78	5	-	100	Single-Family	Asphalt	25%	Dense grasses	75%	0.184	0.020	4.06	10.2	Unpaved	16.1	0.066	181.0202	4.2	0.7	None						Gutter	31		24	0	0.5	6.00	24.02	0.016	0.010	3.7	0.1	11.11	11.11	0.2	6.7	0.1
CI-79	5	-	74	Mixed Use	Asphalt	50%	Dense grasses	50%	0.128	0.054	4.06	4.0	None	0.0	0.075	159.3816	0.0	0.0	None						None	4.14226		24	0	0.5	6.00	24.02	0.016	0.063	0.0	0.0	4.05	**5.00**	0.1	3.0	0.1
CI-80	5	-	100	Single-Family	Asphalt	30%	Dense grasses	70%	0.173	0.020	4.06	9.7	Paved	20.3	0.035	144	3.8	0.6	None						Gutter	29.63		20	0	0.5	5.00	20.02	0.016	0.067	9.6	0.1	10.43	10.43	0.2	6.3	0.1
CI-82	5	-	29	Transportation	Asphalt	100%	Dense grasses	0%	0.016	0.034	4.06	0.4	None	0.0	0.085	142	0.0	0.0	None						Gutter	209.409		20	0	0.5	5.00	20.02	0.016	0.019	5.1	0.7	1.12	**5.00**	0.1	3.0	0.1
SI-02	5	-	100	Multi-Family	Asphalt	58%	Asphalt	42%	0.016	0.070	4.06	0.9	Unpaved	16.1	0.025	197	2.6	1.3	None						Gutter	56		15	0	0.5	3.75	15.03	0.016	0.304	20.3	0.0	2.20	**5.00**	0.1	3.0	0.1

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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

DRAINAGE CALCULATIONS

NO.	ISSUE	BY	DATE

FNI JOB NO. AU314361
DATE 12/12/2025
DESIGNED PSK
DRAWN NO
REVISED TRH
CHECKED KKP
FILE NAME CV-AU-PL-DRNG.dwg

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
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SHEET 12
SEQ. 12 OF 143

ACAD Rel: 25.1s (LMS Tech)
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Last Saved: 7/28/2026 2:29 PM Saved By: no

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GUTTER FLOW / CURB INLET ON GRADE COMPUTATIONS FOR 25-YEAR STORM EVENT BASED ON COA DCM

Inlet		Peak Discharge							Gutter Analysis									Curb Inlet Analysis													
ID	Location	D.A. ID	Area (Ac)	C	Tc (min)	Intensity (in/hr)	Q (cfs)	CO (cfs)	Q_a (cfs)	n	S_x (ft/ft)	S_L (ft/ft)	d (ft)	Max Depth (ft)	Depth Check	T (ft)	T_a (ft)	a (ft)	W (ft)	A_w	P_w	K_w	A_o	P_o	K_o	E_o	S_e	L_T	L	E	Q_i (cfs)	Q_{pass} (cfs)	Bypass Inlet ID	Remarks
CI-58	Larry Lane	CI-58	2.59	0.66	11.40	8.8	14.89	0.00	14.89	0.016	0.050	0.042	0.39	0.50	yes	9.2	15	0.55	1.5	0.94	1.620	61.226	1.25	7.74	34.486	0.64	0.28	19.64	15	0.93	13.78	1.11	CI-59	
CI-63	Merrie Lynn Ave.	CI-63	2.71	0.66	7.53	10.2	18.35	0.00	18.35	0.016	0.022	0.030	0.43	0.50	yes	14.4	15	0.55	1.5	1.02	1.614	70.021	2.47	12.87	76.398	0.48	0.21	20.06	10	0.71	13.05	5.30	CI-64	
CI-65	Curtis Ave.	CI-65	1.34	0.72	5.00	11.6	11.22	0.00	11.22	0.016	0.049	0.038	0.34	0.50	yes	8.8	15	0.55	1.5	0.87	1.618	53.886	1.02	7.33	25.624	0.68	0.29	16.95	15	0.98	10.99	0.23	CI-68	
CI-80	Randolph Ave.	CI-80	0.33	0.77	10.43	9.1	2.31	0.00	2.31	0.016	0.071	0.008	0.10	0.50	yes	11.7	15	0.55	1.5	0.55	1.602	25.083	0.44	10.20	4.971	0.83	0.31	9.24	10	1.00	2.31	0.00	CI-81	
CI-67		CI-67	0.20	0.86	5.00	11.6	1.99	0.00	1.99	0.016	0.010	0.034	0.23	0.50	yes	6.7	8	0.55	1.5	0.72	1.616	38.573	0.46	5.18	8.405	0.82	0.34	4.64	10	1.00	1.99	0.00	CI-82	
CI-68		CI-68	0.18	0.78	5.00	11.6	1.63	0.23	1.86	0.016	0.050	0.024	0.14	0.50	yes	6.0	8	0.55	1.5	0.60	1.610	28.895	0.24	4.54	3.230	0.90	0.35	7.07	10	1.00	1.86	0.00	CI-71	
CI-69		CI-69	0.43	0.68	5.00	11.6	3.40	0.00	3.40	0.016	0.055	0.022	0.17	0.50	yes	7.9	8	0.55	1.5	0.64	1.609	32.441	0.44	6.41	6.902	0.82	0.32	9.87	10	1.00	3.40	0.00	CI-68	
CI-70		CI-70	0.31	0.73	5.00	11.6	2.63	0.00	2.63	0.016	0.055	0.020	0.15	0.50	yes	7.6	8	0.55	1.5	0.61	1.608	30.092	0.36	6.05	5.178	0.85	0.33	8.72	10	1.00	2.63	0.00	CI-69	
CI-71	Manor Rd.	CI-71	0.11	0.86	5.00	11.6	1.10	0.00	1.10	0.016	0.010	0.037	0.19	0.50	yes	5.0	8	0.55	1.5	0.65	1.618	33.105	0.23	3.53	3.543	0.90	0.37	3.41	10	1.00	1.10	0.00	CI-67	
CI-72		CI-72	0.92	0.81	5.00	11.6	8.64	0.00	8.64	0.016	0.037	0.025	0.27	0.50	yes	11.0	8	0.55	1.5	0.80	1.611	46.219	1.12	9.48	25.173	0.65	0.26	14.74	15	1.00	8.64	0.00	CI-70	
CI-73		CI-73	0.26	0.82	5.00	11.6	2.48	0.00	2.48	0.016	0.030	0.025	0.18	0.50	yes	7.2	8	0.55	1.5	0.65	1.611	33.143	0.40	5.69	6.369	0.84	0.33	7.10	10	1.00	2.48	0.00	CI-72	
CI-77		CI-77	1.00	0.79	10.23	9.1	7.22	0.00	7.22	0.016	0.037	0.044	0.32	0.50	yes	7.2	8	0.55	1.5	0.84	1.621	50.165	0.72	5.73	16.760	0.75	0.32	12.17	10	0.96	6.90	0.32	CI-60	
CI-78		CI-78	0.38	0.77	11.11	8.8	2.59	0.00	2.59	0.016	0.010	0.030	0.24	0.50	yes	8.0	8	0.55	1.5	0.74	1.614	40.644	0.63	6.47	12.332	0.77	0.31	5.41	10	1.00	2.59	0.00	CI-79	
CI-79		CI-79	0.16	0.85	5.00	11.6	1.58	0.00	1.58	0.016	0.010	0.022	0.18	0.50	yes	8.0	8	0.55	1.5	0.65	1.609	33.261	0.47	6.55	7.575	0.81	0.32	4.32	10	1.00	1.58	0.00	CI-81	
CI-82		CI-82	0.16	0.86	5.00	11.6	1.60	0.00	1.60	0.016	0.048	0.035	0.16	0.50	yes	4.5	8	0.55	1.5	0.61	1.616	29.534	0.16	3.02	2.070	0.93	0.38	6.30	10	1.00	1.60	0.00	-	

GUTTER FLOW / CURB INLET IN SAG COMPUTATIONS FOR 25-YEAR STORM EVENT BASED ON COA DCM

Inlet		Peak Discharge							Gutter Analysis									Curb Inlet Analysis										
ID	Location	D.A. ID	Area (Ac)	C	Tc (min)	Intensity (in/hr)	Q (cfs)	CO (cfs)	Q_a (cfs)	n	S_x (ft/ft)	d (ft)	hc (ft)	da (ft)	Weir Depth (ft)	Depth Check	T (ft)	T_a (ft)	a (ft)	W (ft)	S'_w	S_w	E_o	S_o	L_T	L	E	Q_i (cfs)	Q_{pass} (cfs)	Bypass Inlet ID	Remarks
CI-56	Larry Ln.	CI-56	0.36	0.86	6.73	10.6	3.30	4.91	8.21	0.016	0.020	0.32	0.34	0.32	0.7	yes	16.1	15	0.55	1.5	0.369	0.389	0.230	0.105	12.30	15	1.00	8.21	0.00	-	
CI-59		CI-59	1.89	0.72	8.41	9.8	13.47	1.11	14.58	0.016	0.020	0.62	0.47	0.47	0.7	yes	23.5	15	0.55	1.5	0.369	0.389	0.161	0.080	7.30	10	1.00	9.67	4.91	CI-56	Not overtopping curb but overtops crown to CI-56
CI-64	Merrie Lynn Ave.	CI-64	0.81	0.78	5.00	11.6	7.34	5.30	12.64	0.016	0.015	0.43	0.40	0.40	0.7	yes	26.7	15	0.55	1.5	0.369	0.384	0.143	0.0678	12.30	15	1.00	11.38	1.26	CI-60	Not overtopping curb but overtops crown to CI-60
CI-60		CI-60	1.03	0.76	6.47	10.8	8.43	1.58	10.01	0.016	0.035	0.37	0.40	0.37	0.7	yes	10.5	15	0.55	1.5	0.369	0.404	0.338	0.1596	12.30	15	1.00	10.01	0.00	-	

GUTTER FLOW / CURB INLET ON GRADE COMPUTATIONS FOR 100-YEAR STORM EVENT BASED ON COA DCM

Inlet		Peak Discharge							Gutter Analysis									Curb Inlet Analysis													
ID	Location	D.A. ID	Area (Ac)	C	Tc (min)	Intensity (in/hr)	Q (cfs)	CO (cfs)	Q_a (cfs)	n	S_x (ft/ft)	S_L (ft/ft)	d (ft)	Max Depth (ft)	Depth Check	T (ft)	T_a (ft)	a (ft)	W (ft)	A_w	P_w	K_w	A_o	P_o	K_o	E_o	S_e	L_T	L	E	Q_i (cfs)	Q_{pass} (cfs)	Bypass Inlet ID	Remarks
CI-58	Larry Ln.	CI-58	2.59	0.74	11.40	11.5	21.99	0.00	21.99	0.016	0.050	0.042	0.45	0.50	yes	10.7	15.0	0.55	1.5	1.04	1.620	71.385	1.77	9.19	54.582	0.57	0.25	24.59	15	0.82	17.95	4.04	CI-59	
CI-63	Merrie Lynn Ave.	CI-63	2.71	0.74	7.53	13.5	27.09	0.00	27.09	0.016	0.022	0.030	0.50	0.50	yes	16.6	15.0	0.55	1.5	1.12	1.614	81.961	3.42	15.13	117.656	0.41	0.18	25.53	10	0.59	16.02	11.07	CI-64	
CI-65	Curtis Ave.	CI-65	1.34	0.80	5.00	15.3	16.35	0.00	16.35	0.016	0.049	0.038	0.39	0.50	yes	10.2	15.0	0.55	1.5	0.95	1.618	61.992	1.43	8.68	40.113	0.61	0.26	21.03	15	0.89	14.63	1.72	CI-68	
CI-80	Randolph Ave.	CI-80	0.33	0.85	10.43	11.9	3.35	0.00	3.35	0.016	0.071	0.008	0.11	0.50	yes	13.5	15.0	0.55	1.5	0.57	1.602	26.786	0.60	11.96	7.594	0.78	0.29	11.25	10	0.98	3.28	0.06	CI-81	
CI-67		CI-67	0.20	0.95	5.00	15.3	2.90	0.00	2.90	0.016	0.010	0.034	0.26	0.50	yes	7.7	20.0	0.55	1.5	0.77	1.616	43.315	0.65	6.19	13.511	0.76	0.31	5.65	10	1.00	2.90	0.00	CI-82	
CI-68		CI-68	0.18	0.87	5.00	15.3	2.40	1.97	4.37	0.016	0.050	0.024	0.20	0.50	yes	8.3	20.0	0.55	1.5	0.68	1.610	35.680	0.55	6.82	9.557	0.79	0.31	10.90	10	0.99	4.32	0.05	CI-71	
CI-69		CI-69	0.43	0.76	5.00	15.3	5.03	0.12	5.15	0.016	0.055	0.022	0.20	0.50	yes	9.2	20.0	0.55	1.5	0.69	1.609	36.113	0.64	7.74	11.394	0.76	0.30	12.29	10	0.95	4.90	0.25	CI-68	
CI-70		CI-70	0.31	0.82	5.00	15.3	3.89	0.61	4.50	0.016	0.055	0.020	0.18	0.50	yes	9.2	20.0	0.55	1.5	0.67	1.608	34.298	0.59	7.74	9.976	0.77	0.30	11.53	10	0.97	4.39	0.12	CI-69	
CI-71		CI-71	0.11	0.95	5.00	15.3	1.60	0.05	1.65	0.016	0.010	0.037	0.22	0.50	yes	5.9	20.0	0.55	1.5	0.70	1.618	37.150	0.36	4.37	6.233	0.86	0.35	4.16	10	1.00	1.65	0.00	CI-67	
CI-72	Manor Rd.	CI-72	0.92	0.90	5.00	15.3	12.61	0.00	12.61	0.016	0.037	0.025	0.32	0.50	yes	12.7	20.0	0.55	1.5	0.86	1.611	52.460	1.56	11.16	38.859	0.57	0.24	18.43	15	0.95	12.00	0.61	CI-70	
CI-73		CI-73	0.26	0.91	5.00	15.3	3.62	0.00	3.62	0.016	0.030	0.025	0.21	0.50	yes	8.3	20.0	0.55	1.5	0.69	1.611	36.684	0.57	6.79	10.207	0.78	0.31	8.66	10	1.00	3.62	0.00	CI-72	
CI-77		CI-77	1.00	0.87	10.23	12.0	10.46	0.00	10.46	0.016	0.037	0.044	0.36	0.50	yes	8.3	20.0	0.55	1.5	0.91	1.621	57.427	1.02	6.81	26.540	0.68	0.29	14.90	10	0.86	9.05	1.41	CI-60	
CI-78		CI-78	0.38	0.85	11.11	11.6	3.76	0.00	3.76	0.016	0.010	0.030	0.28	0.50	yes	9.2	20.0	0.55	1.5	0.79	1.614	45.711	0.88	7.67	19.389	0.70	0.29	6.64	10	1.00	3.76	0.00	CI-79	
CI-79		CI-79	0.16	0.94	5.00	15.3	2.30	0.00	2.30	0.016	0.010	0.022	0.20	0.50	yes	9.3	20.0	0.55	1.5	0.69	1.609	36.745	0.66	7.76	11.946	0.75	0.30	5.28	10	1.00	2.30	0.00	CI-81	
CI-82		CI-82	0.16	0.95	5.00	15.3	2.33	0.00	2.33	0.016	0.048	0.035	0.18	0.50	yes	5.2	20.0	0.55	1.5	0.65	1.616	32.470	0.24	3.70	3.565	0.90	0.37	7.53	10	1.00	2.33	0.00	-	

GUTTER FLOW / CURB INLET IN SAG COMPUTATIONS FOR 100-YEAR STORM EVENT BASED ON COA DCM

Inlet		Peak Discharge							Gutter Analysis								Curb Inlet Analysis										
ID	Location	D.A. ID	Area (Ac)	C	Tc (min)	Intensity (in/hr)	Q (cfs)	CO (cfs)	Q_a (cfs)	n	S_x (ft/ft)	d (ft)	Weir Depth (ft)	Depth Check	T (ft)	T_a (ft)	a (ft)	W (ft)	S'_w	S_w	E_o	S_o	L_T	L	E	Q_i (cfs)	Remarks
CI-56	Larry Ln.	CI-56	0.36	0.95	6.73	14.0	4.79	9.86	14.66	0.016	0.020	0.47	0.7	yes	23.7	15	0.55	1.5	0.369	0.389	0.160	0.079	12.30	15	1.00	14.66	
CI-59		CI-59	1.89	0.81	8.41	13.0	19.77	4.04	23.81	0.016	0.020	0.60	0.7	yes	28.0	15	0.55	1.5	0.369	0.389	0.137	0.070	14.37	10	1.00	13.94	Overtopping curb but remains in ROW
CI-64	Merrie Lynn Ave.	CI-64	0.81	0.86	5.00	15.3	10.67	11.07	21.74	0.016	0.015	0.60	0.7	yes	28.0	15	0.55	1.5	0.369	0.384	0.137	0.065	12.89	15	1.00	21.74	Overtopping curb but remains in ROW
CI-60		CI-60	1.03	0.84	6.47	14.2	12.26	1.41	13.68	0.016	0.035	0.47	0.7	yes	13.4	15	0.55	1.5	0.369	0.404	0.272	0.135	11.55	15	1.00	13.68	

SPECIAL DOUBLE-SIDED CURB INLET - 25 YEAR

Inlet ID	Location	Station	D.A. ID	Area (AC)	C	T_c (MIN)	I_{25} (IN/HR)	Q_{25} (CFS)	CO (CFS)	Q_{a25} (CFS)	L (FT)	H_a (FT)	H (FT)	Comments
SI-02	Manor		SI-02	0.57	0.75	5.00	11.6	4.97	0.00	4.97	5	0.48	0.50	Special double-sided curb inlet

SPECIAL DOUBLE-SIDED CURB INLET - 100 YEAR

Inlet ID	Location	Station	D.A. ID	Area (AC)	C	T_c (MIN)	I_{100} (IN/HR)	Q_{100} (CFS)	CO (CFS)	Q_{a100} (CFS)	L (FT)	H_a (FT)	H (FT)	Comments
SI-02	Manor		SI-02	0.57	0.83	5.00	15.3	7.25	0.00	7.25	5	0.62	0.50	Special double-sided curb inlet

LEGEND:

Q - Discharge Calculated for D.A.
CO - Carryover from upstream inlet
Q_a - Actual Discharge = Q+CO
n - Manning's roughness coefficient
S_L - Longitudinal slope of roadway
S_X - Cross-slope or Gutter Slope
d - Gutter depth of flow
T - Spread
T_a - Allowable Spread
a - depth of local depression
W - Width of local depression
A_W - Area of depressed gutter section
P_W - Wetted perimeter of depressed gutter section
K_W - Conveyance in gutter section
A_O - Area of road section beyond depressed gutter
P_O - Wetted perimeter of road beyond depressed gutter section
K_O - Conveyance in road beyond gutter section
E_O - Ratio of depression flow to total flow
S_e - equivalent cross slope
L_T - curb inlet length required to interecept 100% of the gutter flow
L_{weir} - length of inlet required in sag location under Weir flow conditions
$L_{orifice}$ - length of inlet required in sag location under orifice flow conditions
L - Actual inlet length
E - Efficiency of inlet
Q_i - Actual inlet interception
Q_{pass} - Bypass flow
A - Gutter Area
A_g - Grate Area
B - Width of alley
C -Runoff coefficient
I_{25} -25-year rainfall intensity
Q_{25} -25-year discharge calculated for D.A.
Q_{a25} -25-year actual discharge; Qa25 = Q25+CO
Q_c - Discharge captured by inlet
R_f - Ratio of frontal flow intercepted
R_s - Ratio of side flow intercepted
T_c - Time of concentration
V - gutter velocity
y_o - Gutter depth
V_o - Splash-over velocity
H_a - Head
H - Height of inlet opening

NOTES:
1) LONGITUDINAL SLOPE ESTIMATED FROM SURVEY OR PROPOSED PLANS
2) 35% CLOGGING FACTOR FOR INLETS ON GRADE (COA DCM)
3) DOUBLE SIDED INLET WEIR FLOW
Q=Cd(L)(H^1.5)
Cd = 3.0

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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

INLET CALCULATIONS

NO.	ISSUE	BY	DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale. 0 1

FAN/JOB NO. AU314361
DATE 12/12/2025
DESIGNED PSK
DRAWN NO
REVISED TRH
CHECKED KKP
FILE NAME CV-AU-PL-CALC.dwg

SHEET 13
SEQ. 13 OF 143

ACAD Rel: 25.1s (LMS Tech)
Filename: N:\SW\Larry Lane\Drawings\CV-AU-PL-CALC.dwg
Last Saved: 7/28/2026 2:28 PM Saved By: 02915

Plot Date: 8/21/2026 8:44 AM Plot By: no Filename: N:\SW\Larry Lane\Drawings\CV-AU-PL-CALC.dwg

STORMCAD RESULTS

STORMCAD RESULTS																					
										25-YR						100-YR					
Label	Start Node	Stop Node	Conduit Description	Notes	Length (ft)	U/S Invert (ft)	D/S Invert (ft)	Slope (%)	Capacity (Full Flow) (cfs)	Flow (cfs)	Velocity Avg (ft/s)	Energy Grade Line (In) (ft)	Energy Grade Line (out) (ft)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Flow (cfs)	Velocity Avg (ft/s)	Energy Grade Line (In) (ft)	Energy Grade Line (out) (ft)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
Line I	T-STA 1+69.93	MH-2+91.85	Circle - 18.0 in	Phase 2	122	591.98	588.63	0.028	17	2	7.0	592.80	591.20	592.58	591.17	4	2.1	593.65	593.51	593.59	593.44
Line I	MH-2+91.85	T-STA 3+38.53	Circle - 18.0 in	Phase 3	47	588.53	587.24	0.027	17	11	10.4	590.53	589.62	589.80	589.02	15	8.8	592.76	591.74	591.57	590.55
Line I	T-STA 3+38.53	MH-3+82.55	Circle - 18.0 in	Phase 3	45	587.24	586.03	0.028	17	16	11.2	590.00	589.00	588.67	587.22	23	13.3	592.45	590.26	589.72	587.51
Line I	MH-3+82.55	T-STA 4+19.52	Circle - 42.0 in	Phase 3	37	579.25	577.79	0.040	200	44	16.7	582.20	580.75	581.33	580.01	65	18.6	582.96	581.51	581.78	580.37
Line I	T-STA 4+19.52	T-STA 5+17.68	Circle - 42.0 in	Phase 3	98	577.79	573.92	0.039	200	46	16.9	580.81	576.95	579.92	576.16	68	18.8	581.61	577.74	580.37	576.57
Line I	T-STA 5+17.68	MH-5+79.17	Circle - 42.0 in	Phase 3	62	573.92	571.50	0.039	200	49	17.1	577.03	575.19	576.10	574.79	71	19.0	577.86	576.50	576.57	575.65
Line I	MH-5+79.17	T-STA 6+49.52	Circle - 48.0 in	Phase 3	70	571.40	568.90	0.036	271	57	17.1	574.60	572.10	573.67	571.24	83	19.0	575.42	574.71	574.17	574.03
Line I	T-STA 6+49.52	MH-6+96.29	Circle - 48.0 in	Phase 3	47	568.90	567.24	0.036	271	58	17.2	572.14	572.05	571.23	571.72	85	6.8	574.72	574.55	574.01	573.84
Line I	MH-6+96.29	MH- 7+63.05	Circle - 48.0 in	Phase 3	68	566.78	565.77	0.015	177	85	13.9	570.86	570.52	569.58	569.80	125	9.9	573.56	573.06	572.03	571.53
Line I	MH- 7+63.05	T-STA 7+90.51	Circle - 48.0 in	Phase 3	25	565.67	565.22	0.016	184	86	14.4	569.77	569.33	568.48	568.13	125	10.0	572.14	571.93	570.60	570.39
Line I	T-STA 7+90.51	T-STA 8+94.30	Circle - 48.0 in	Phase 3	105	565.22	563.53	0.016	183	90	14.5	569.43	568.16	568.09	567.34	130	10.4	571.98	571.12	570.30	569.45
Line I	T-STA 8+94.30	MH- 9+56.43	Circle - 48.0 in	Phase 3	62	563.53	562.51	0.016	184	92	14.6	568.17	567.92	567.31	567.10	133	10.6	571.13	570.60	569.39	568.85
Line I	MH- 9+56.43	MH-9+90.08	Circle - 48.0 in	Phase 3	34	562.41	561.87	0.016	182	93	7.4	567.37	567.23	566.53	566.39	134	10.7	569.43	569.14	567.65	567.36
Line I	MH-9+90.08	T-STA 12+55.33	Circle - 48.0 in	Phase 3	265	561.77	557.84	0.015	175	96	14.2	566.17	562.54	564.74	561.58	139	11.1	567.88	565.38	565.97	563.47
Line I	T-STA 12+55.33	T-STA 12+77.33	Circle - 48.0 in	Phase 3	22	557.84	557.52	0.015	173	96	14.2	562.54	562.45	561.58	561.54	139	11.1	565.37	565.16	563.46	563.25
Line I	T-STA 12+77.33	T-STA 12+98.53	Circle - 48.0 in	Phase 3	21	557.52	557.27	0.012	156	96	13.1	562.22	562.14	561.26	561.23	139	11.1	564.70	564.50	562.80	562.60
Line I	T-STA 12+98.53	MH- 13+71.84	Circle - 48.0 in	Phase 3	73	557.27	556.42	0.012	154	96	13.0	561.90	561.59	560.90	560.68	139	11.1	564.05	563.36	562.14	561.46
Line I	MH- 13+71.84	MH-15+25.52	Circle - 48.0 in	Phase 3	154	556.32	549.56	0.044	301	96	21.3	560.71	555.33	559.29	554.43	138	23.5	562.01	557.68	559.82	555.80
CI-73 Lateral	CI-73	T-STA 1+69.93	Circle - 18.0 in	Phase 3	36	592.15	591.98	0.005	7	3	3.8	592.97	592.85	592.75	592.72	4	4.2	593.71	593.67	593.65	593.60
CI-72 Lateral	CI-72	T-STA 2+91.85	Circle - 18.0 in	Phase 3	32	592.57	590.69	0.059	25	9	13.1	594.28	593.39	593.71	591.36	13	14.4	594.83	593.81	593.91	592.99
CI-77 Lateral	CI-77	T-STA 3+38.53	Circle - 18.0 in	Phase 3	20	589.92	587.24	0.150	41	7	17.4	591.44	589.28	590.96	589.02	11	19.3	591.87	591.10	591.17	590.55
CI-70 Lateral	CI-70	T-STA 4+19.52	Circle - 18.0 in	Phase 3	41	587.88	579.79	0.202	47	3	14.4	588.72	583.26	588.49	580.03	4	16.2	588.93	584.15	588.63	580.08
CI-69 Lateral	CI-69	T-STA 5+17.68	Circle - 18.0 in	Phase 3	41	577.44	575.92	0.038	20	3	8.6	578.42	577.43	578.15	576.34	5	9.6	578.66	577.73	578.30	576.45
CI-65 Lateral	CI-65	MH-5+79.17	Circle - 18.0 in	Phase 3	20	575.19	574.30	0.045	22	11	12.6	577.24	576.53	576.47	575.89	17	9.4	578.81	578.31	577.45	576.95
CI-68 Lateral	CI-68	T-STA 6+49.52	Circle - 18.0 in	Phase 3	44	571.84	571.40	0.010	11	2	4.3	572.50	572.09	572.32	571.80	2	1.4	574.08	574.06	574.05	574.03
CI-71 Lateral	CI-71	MH- 7+63.05	Circle - 18.0 in	Phase 3	33	567.95	566.01	0.062	26	1	0.6	570.24	570.23	570.23	570.23	2	0.9	572.46	572.45	572.45	572.44
SI-02 Lateral	SI-02	T-STA 7+90.51	Circle - 18.0 in	Phase 3	19	569.25	567.70	0.086	31	5	12.9	570.46	569.90	570.11	568.17	7	14.3	570.78	570.65	570.30	570.39
CI-78 Lateral	CI-78	T-STA 8+94.30	Circle - 18.0 in	Phase 3	20	567.01	565.99	0.056	25	3	9.1	567.85	567.38	567.62	567.34	4	2.1	569.55	569.52	569.47	569.45
CI-79 Lateral	CI-79	MH- 9+56.43	Circle - 18.0 in	Phase 3	15	566.52	565.01	0.117	36	2	10.2	567.60	567.60	567.58	567.58	2	1.3	569.92	569.91	569.89	569.89
CI-67 Lateral	CI-67	MH-9+90.08	Circle - 18.0 in	Phase 3	28	566.04	563.18	0.109	35	2	10.7	566.91	566.90	566.84	566.88	3	1.7	568.46	568.44	568.42	568.40
CI-80 Lateral	CI-80	MH-9+90.08	Circle - 18.0 in	Phase 3	65	569.10	564.00	0.079	30	2	10.1	569.90	566.85	569.69	566.82	3	11.2	570.09	568.44	569.81	568.38
CI-82 Lateral	CI-82	T-STA 12+55.33	Circle - 18.0 in	Phase 3	39	565.07	560.34	0.128	38	2	10.6	565.72	561.60	565.55	561.58	2	11.8	565.87	563.50	565.65	563.47
Line J	T-STA 1+37.97	MH-2+43.13	Circle - 24.0 in	Phase 3	105	582.74	581.69	0.010	23	15	7.7	584.78	583.81	584.14	583.45	22	7.1	586.84	585.82	586.06	585.05
Line J	MH-2+43.13	MH-3+82.55	Circle - 36.0 in	Phase 3	133	580.69	579.35	0.010	68	30	9.3	583.46	583.21	583.09	582.94	44	6.2	585.18	584.63	584.59	584.04
CI-58 Lateral	CI-58	T-STA 1+37.97	Circle - 24.0 in	Phase 3	19	584.69	582.74	0.110	75	15	18.7	586.73	584.93	586.09	584.53	22	20.8	587.34	587.03	586.38	586.25
CI-59 Lateral	CI-59	MH-2+43.13	Circle - 24.0 in	Phase 3	15	582.18	581.69	0.038	44	14	12.3	584.09	583.78	583.50	583.49	20	6.4	585.87	585.76	585.24	585.13
CI-56 Lateral	CI-56	MH-2+43.13	Circle - 24.0 in	Phase 3	20	581.88	581.69	0.010	22	3	5.1	583.68	583.67	583.66	583.66	5	1.5	585.54	585.53	585.50	585.49
Line K	T-STA 1+36.93	MH-1+90.42	Circle - 24.0 in	Phase 3	54	571.00	569.72	0.024	35	18	11.3	573.32	572.40	572.55	571.87	27	8.7	576.08	575.30	574.91	574.14
Line K	MH-1+90.42	MH-6+96.29	Box - 3.0 x 3.0 in	Phase 3	50	568.72	568.32	0.008	76	33	3.7	572.08	572.00	571.87	571.80	48	5.4	574.61	574.45	574.16	574.00
CI-63 Lateral	CI-63	T-STA 1+36.93	Circle - 24.0 in	Phase 3	26	571.44	571.00	0.018	30	18	10.1	573.76	573.51	572.99	572.97	27	8.7	576.71	576.36	575.54	575.19
CI-64 Lateral	CI-64	MH-1+90.42	Circle - 24.0 in	Phase 3	20	570.68	569.72	0.052	52	7	11.7	572.24	572.22	572.09	572.13	11	3.4	574.95	574.91	574.77	574.73
CI-60 Lateral	CI-60	MH-1+90.42	Circle - 24.0 in	Phase 3	14	570.37	569.72	0.051	51	9	12.1	572.25	572.23	572.12	572.12	12	3.9	574.97	574.93	574.73	574.69

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
KIMBERLY K. PATAK
97367
LICENSED
PROFESSIONAL ENGINEER
8/21/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone - (512) 617-3100
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Web - www.freese.com

CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

STORMCAD PIPE HYDRAULICS RESULTS

NO.	ISSUE	BY	DATE

B&N JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
FILE NAME	CV-AU-PL-CALC.dwg

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1

SHEET 14
SEQ. 14 OF 143

ACAD Rel: 25.1s (LMS Tech)
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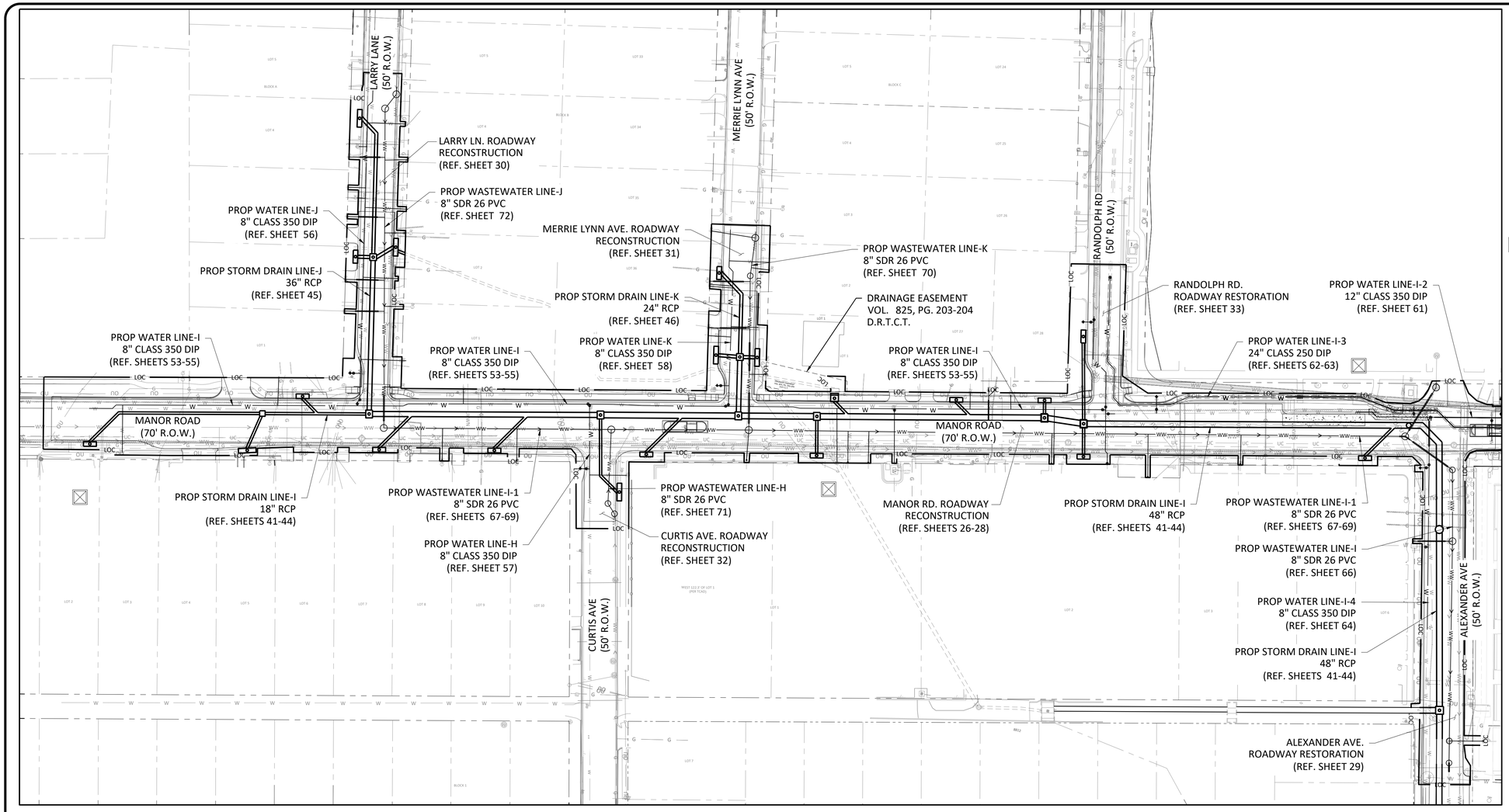
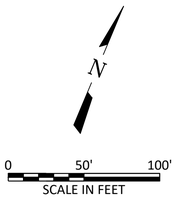
Last Saved: 7/28/2026 2:28 PM Saved By: 02915

Plot Date: 8/21/2026 8:44 AM Plot By: no Filename: N:\SW\Larry Lane\Drawings\CV-AU-PL-CALC.dwg





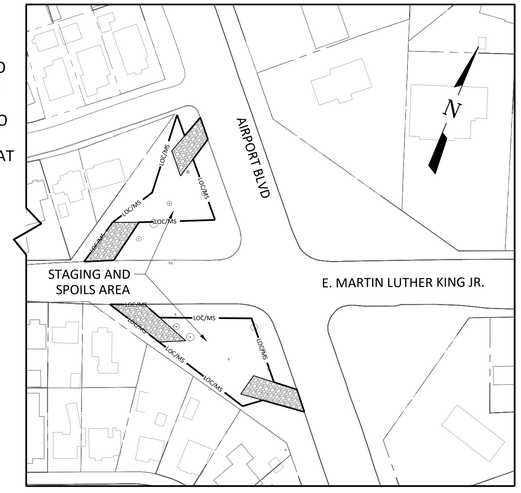
NOTES:

RECOGNIZED ENVIRONMENTAL CONDITIONS

1. IF POTENTIALLY HAZARDOUS MATERIAL AND/OR CONTAMINATED MEDIA (I.E. SOIL, GROUNDWATER, SURFACE WATER, SEDIMENT, BUILDING MATERIALS, ETC.) ARE UNEXPECTEDLY ENCOUNTERED DURING CONSTRUCTION, CEASE WORK IN THE IMMEDIATE AREA AND CONTACT THE CITY'S INSPECTOR IMMEDIATELY.
2. REFERENCE DEMO SHEETS 16-17.

STAGING AREA NOTES:

CONTRACTOR SHALL MAKE ONLY RIGHT TURNS TO ENTER STAGING AREAS FROM PUBLIC ROADWAYS AND TO EXIT STAGING AREAS ONTO PUBLIC ROADWAYS. CONTRACTOR SHALL NOT BACK ONTO PUBLIC ROADWAYS FROM STAGING AREAS, NOR SHALL CONTRACTOR STOP TRAFFIC AT ANY TIME AT CONSTRUCTION ENTRANCES TO STAGING AREAS.



STAGING AREA
1"=100'

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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

SITE PLAN

NO.	ISSUE	BY	DATE

F&N JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
FILE NAME	CV-AU-PL-SITE.dwg

VERIFY SCALE
Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 15
SEQ. 15 OF 143

ACAD Rel: 25.1s (LMS Tech)
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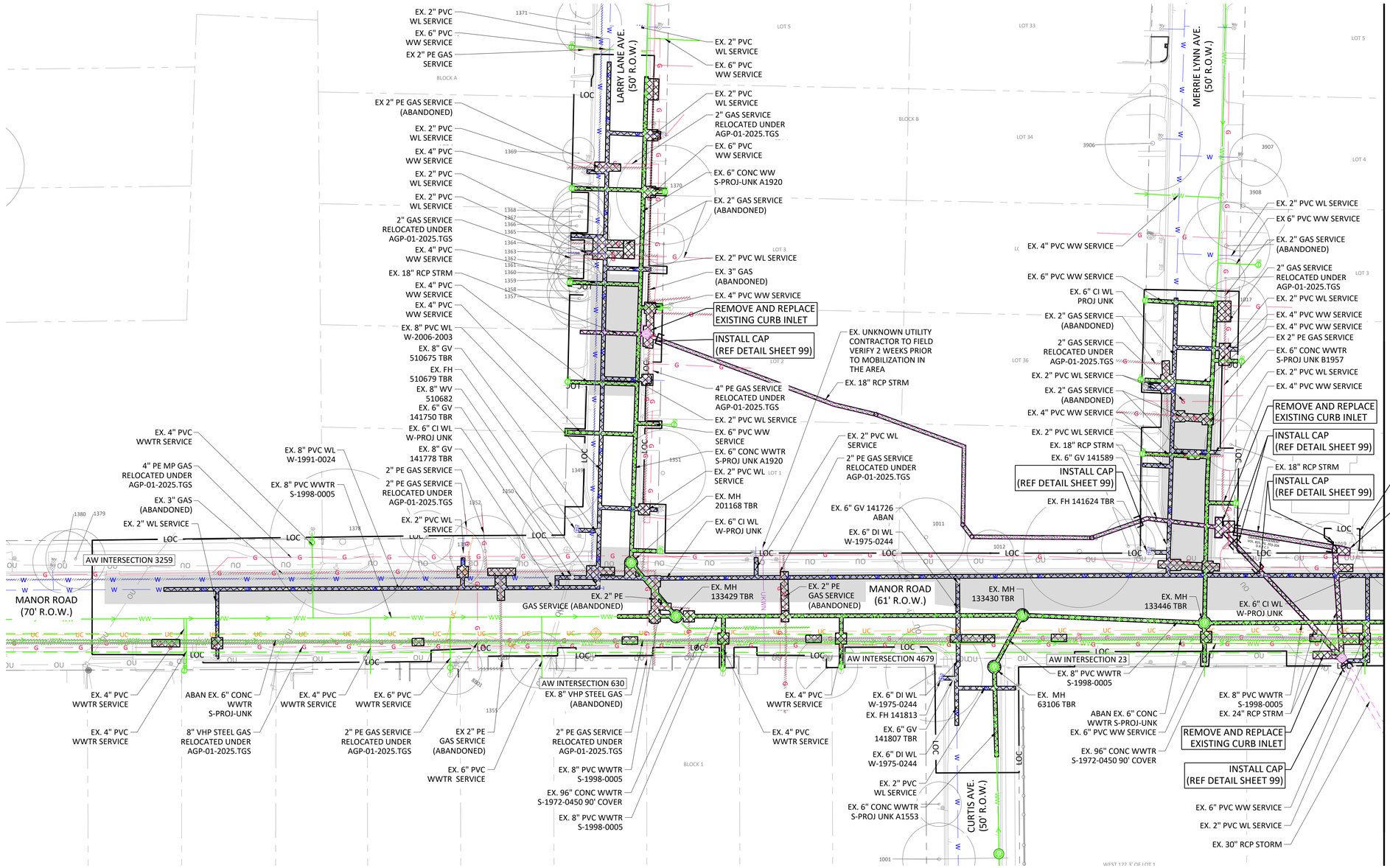

DEMOLITION PLAN VIEW

NOTES:

1. FILLING EXISTING STORM DRAIN, WATER, AND WASTEWATER LINES THAT ARE BEING ABANDONED IN PLACE WITH CELLULAR GROUT SHALL BE SUBSIDIARY TO PREPARING THE ROW.
2. ALL STORM DRAIN CAPS SHALL BE INSTALLED WITHIN THE ROW.
3. EXCEPT FOR THE REMOVAL OF THE EXISTING INLET, NO CUT OR FILL >4" IS ALLOWED WITHIN THE 1/2 CRZ OF TREE NO. 1019.
4. GAS RELOCATIONS PERFORMED BY TGS UNDER AGP-01-2025.TGS.
5. ALL ABANDONED LINES MUST BE EITHER CAPPED ON BOTH ENDS OR COMPLETELY REMOVED.

N

0 10' 20' 30' 60'
SCALE IN FEET

LEGEND

- CAP
- CELLULAR GROUT
- REMOVE
- ROADWAY FULL DEPTH RECONSTRUCTION LIMITS
- LIMITS OF WATER LINE TRENCH (BUS STOP)
- RIGHT-OF-WAY
- LOC — LIMITS OF CONSTRUCTION
- EX DRAINAGE EASEMENT
- EX STORM DRAIN
- EX WASTEWATER LINE
- EX 96 INCH WASTEWATER LINE
- EX WATERLINE
- EX UNDERGROUND DUCT BANK
- EX UNDERGROUND GAS LINE
- EX ABANDONED UNDERGROUND GAS LINE
- EX ABANDONED WATERLINE
- EX ABANDONED WASTEWATER
- UKWN — EX UNKNOWN UTILITY CONTRACTOR TO FIELD VERIFY

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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

DEMOLITION PLAN 1 OF 2

NO.	ISSUE	BY	DATE
1			

VERIFY SCALE
Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

R&N JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
FILE NAME	CV-AU-PL-DEMO.dwg

SHEET 16
SEQ. 16 OF 143

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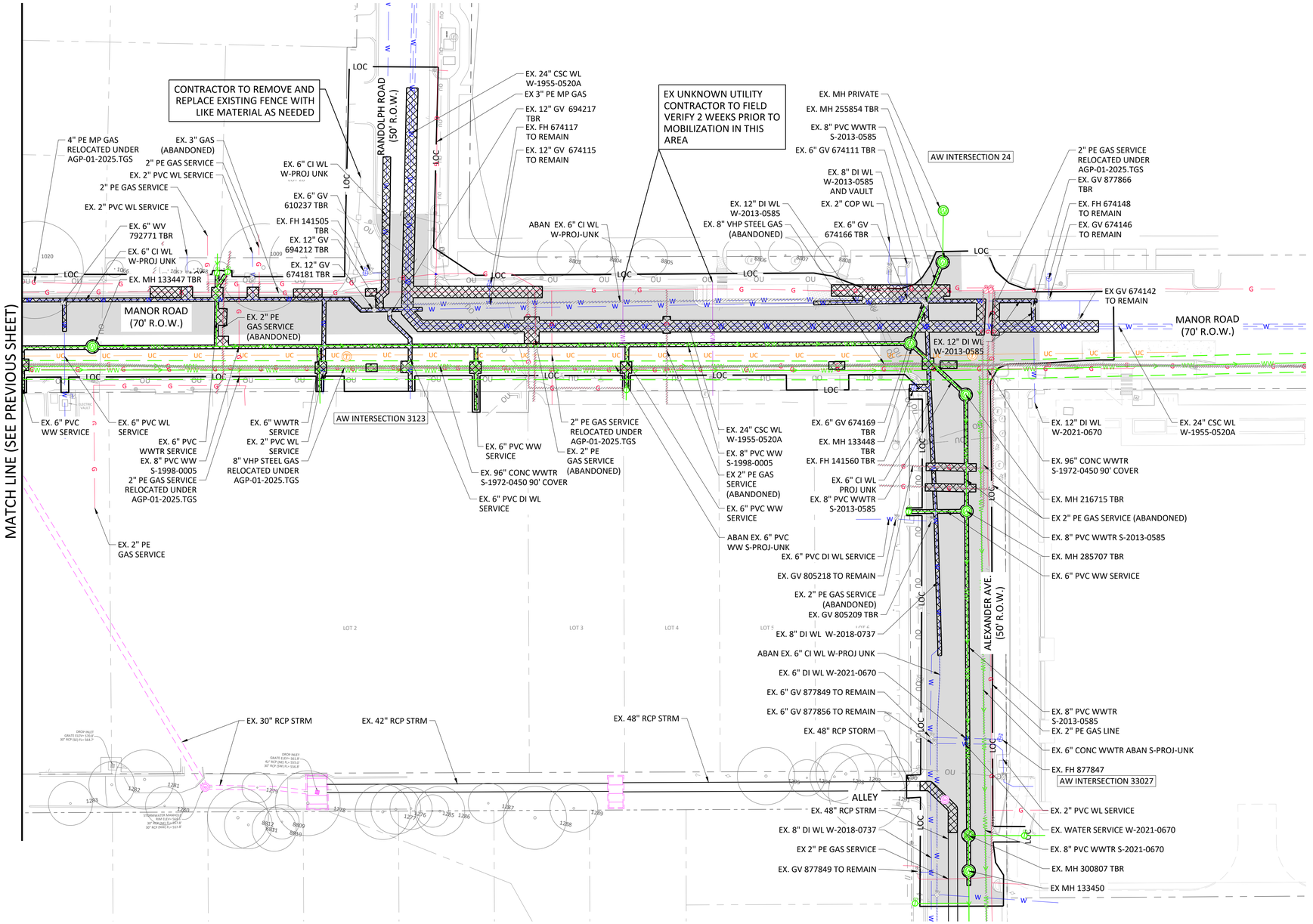

DEMOLITION PLAN VIEW

NOTES:

1. FILLING EXISTING STORM DRAIN, WATER, AND WASTEWATER LINES THAT ARE BEING ABANDONED IN PLACE WITH CELLULAR GROUT SHALL BE SUBSIDIARY TO PREPARING THE ROW.
2. ALL STORM DRAIN CAPS SHALL BE INSTALLED WITHIN THE ROW.
3. NOTIFY CMTA TWO WEEKS PRIOR TO DEMOLITION ADJACENT TO BUS STATION TO ARRANGE FOR REMOVAL OF BUS STATION AMENITIES.
4. GAS RELOCATIONS PERFORMED BY TGS UNDER AGP-01-2025.TGS.
5. ALL ABANDONED LINES MUST BE EITHER CAPPED ON BOTH ENDS OR COMPLETELY REMOVED.

N

0 10' 20' 30' 60'
SCALE IN FEET

LEGEND

- CAP
- CELLULAR GROUT
- REMOVE
- ROADWAY FULL DEPTH RECONSTRUCTION LIMITS
- LIMITS OF WATER LINE TRENCH (BUS STOP)
- RIGHT-OF-WAY
- LOC — LIMITS OF CONSTRUCTION
- EX DRAINAGE EASEMENT
- EX STORM DRAIN
- WW — EX WASTEWATER LINE
- EX 96 INCH WASTEWATER LINE
- W — EX WATERLINE
- UC — EX UNDERGROUND DUCT BANK
- G — EX UNDERGROUND GAS LINE
- EX ABANDONED UNDERGROUND GAS LINE
- W — EX ABANDONED WATERLINE
- WW — EX ABANDONED WASTEWATER
- UKWN — EX UNKNOWN UTILITY CONTRACTOR TO FIELD VERIFY

Freese and Nichols, Inc.
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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

DEMOLITION PLAN 2 OF 2

NO.	ISSUE	BY	DATE

F&N JOB NO. AU314361
DATE 12/12/2025
DESIGNED PSK
DRAWN NO
REVISED TRH
CHECKED KKP
FILE NAME CV-AU-PL-DEMO.dwg

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1

SHEET 17
SEQ. 17 OF 143

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Filename: N:\SW\Larry Lane\Drawings\CV-AU-PL-DEMO.dwg
Last Saved: 7/29/2026 5:31 PM Saved By: 02915

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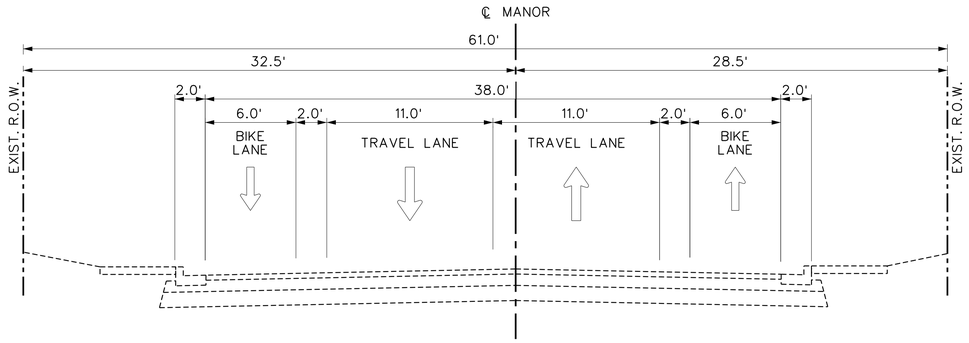
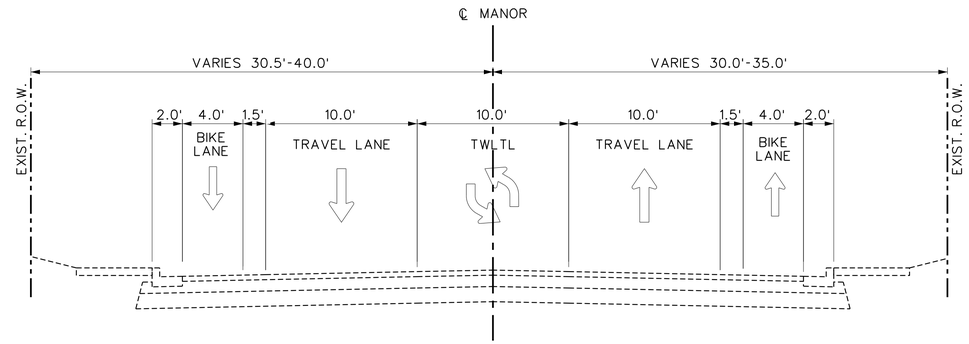


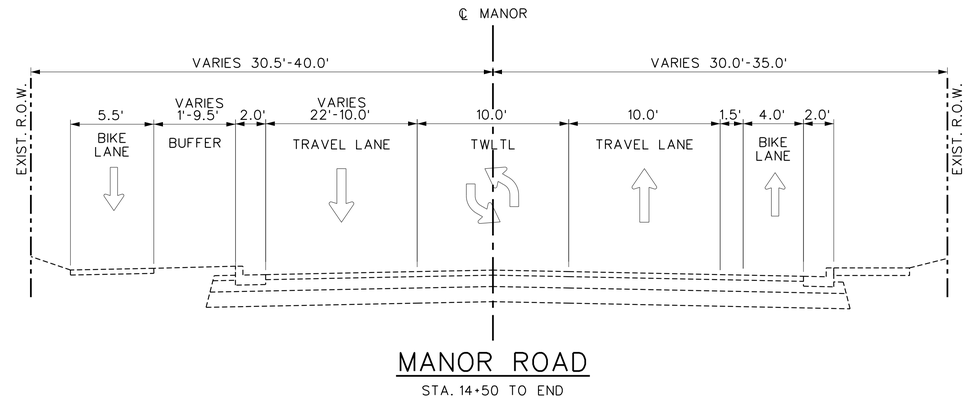
MANOR ROAD

STA. 7+55 TO STA. 10+30



MANOR ROAD

STA. 5+65 TO STA. 7+55
STA. 10+30 TO STA. 14+50



MANOR ROAD

STA. 14+50 TO END

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08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

MANOR ROAD EXISTING TYPICAL ROADWAY SECTIONS

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-PL-PH3-EXIST TYPICAL SECTIONS01.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet adjust scale accordingly.
0 1"

SHEET 18
SEQ. 18 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 - N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-EXIST TYPICAL SECTIONS01.SHT
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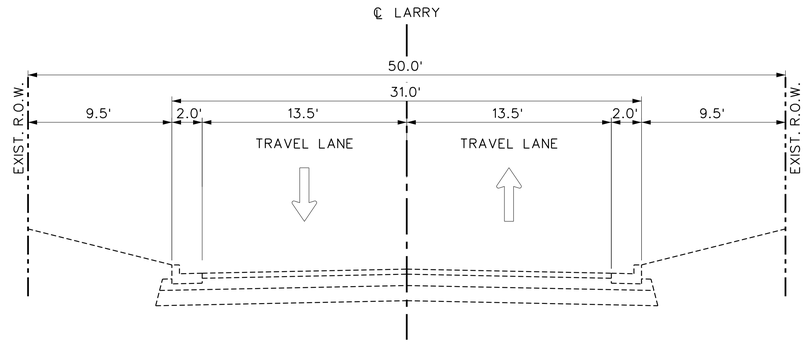
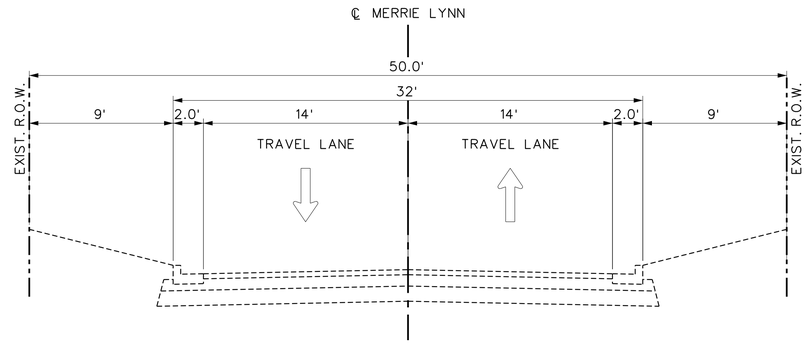
Plot Scale: 5.0000 '/ in. Model: Default
Date: Aug 25, 2026 - 10:56:53 AM Project: Freese and Nichols, Inc.



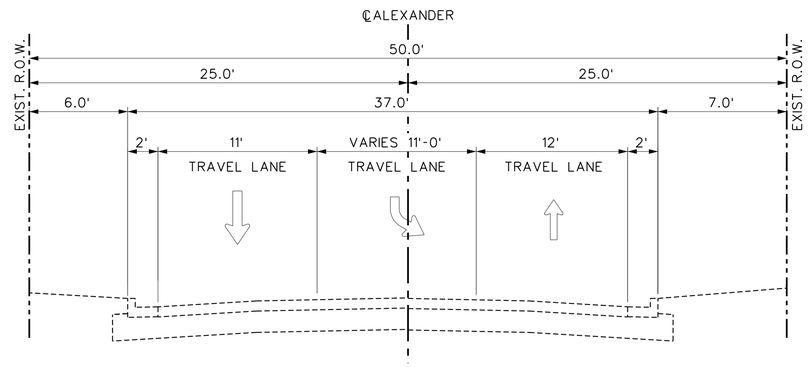
LARRY LANE

STA.2+22 TO STA.4+72



MERRIE LYNN AVENUE

STA.3+35 TO STA.4+85



ALEXANDER AVENUE

STA.2+73 TO STA.5+55

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

LARRY LANE, MERRIE LYNN AVENUE, ALEXANDER AVENUE

EXISTING TYPICAL ROADWAY SECTIONS

F&N JOB NO.	AU314361
DATE	08/17/2026
DESIGNED	BP
DRAWN	MIC
REVISED	
CHECKED	MB
FILE NAME	CV-TRT-PL-PH3-EXIST TYPICAL SECTIONS02.SHT

NO.	ISSUES	BY	DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet adjust scale accordingly

SHEET 19

SEQ. 19 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-EXIST TYPICAL SECTIONS02.SHT
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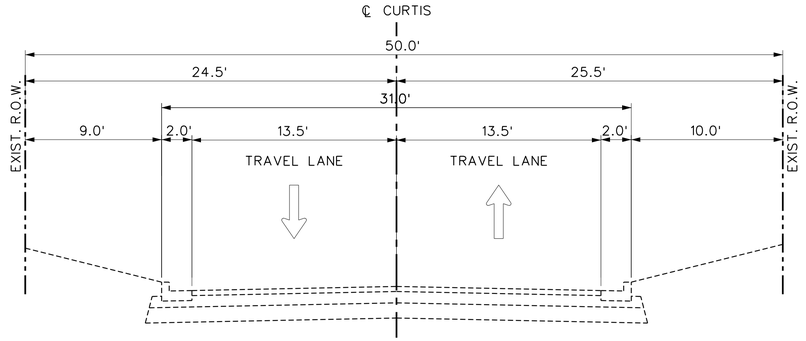
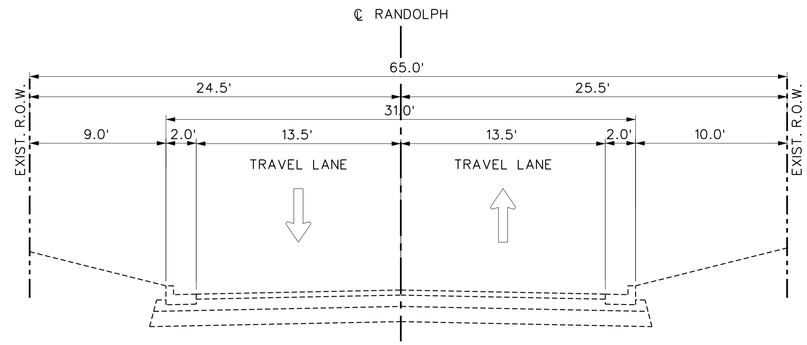


CURTIS AVENUE



RANDOLPH ROAD

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
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LICENSED
PROFESSIONAL ENGINEER

Heather McNeal
08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

CURTIS AVENUE, RANDOLPH ROAD EXISTING TYPICAL ROADWAY SECTIONS

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-PL-PH3-EXIST TYPICAL SECTIONS03.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet adjust scale accordingly

0 1"

SHEET 20

SEQ. 20 OF 143

MicroStation V8 User: 03926Office: On Site
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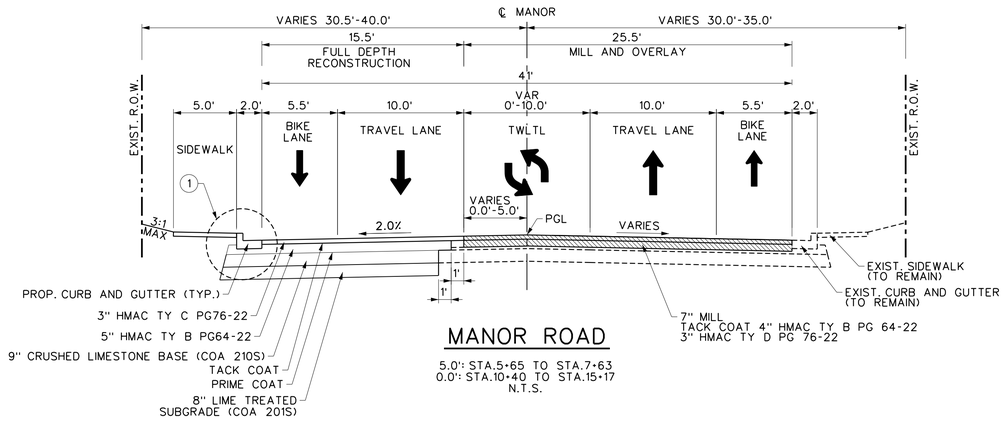
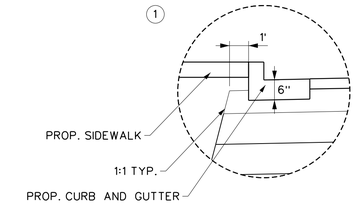
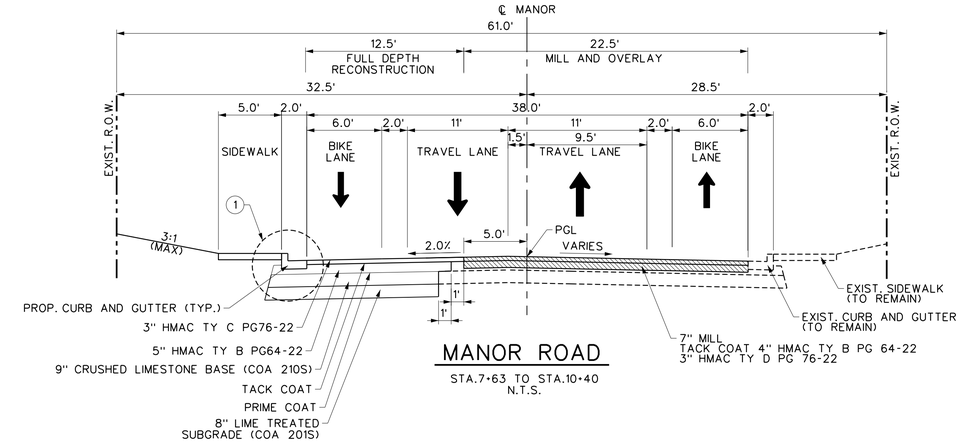


MANOR ROAD

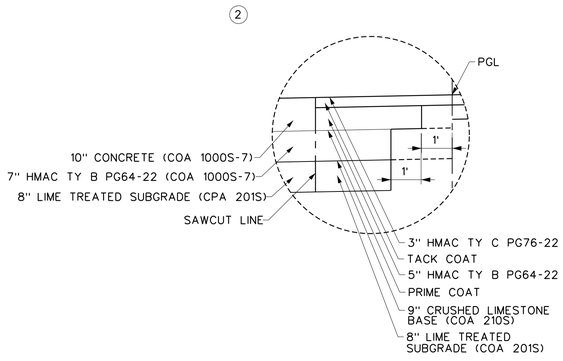
5.0': STA.5+65 TO STA.7+63
0.0': STA.10+40 TO STA.15+17
N.T.S.

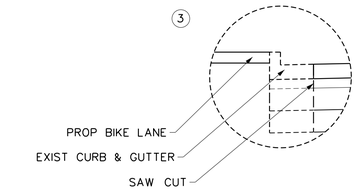


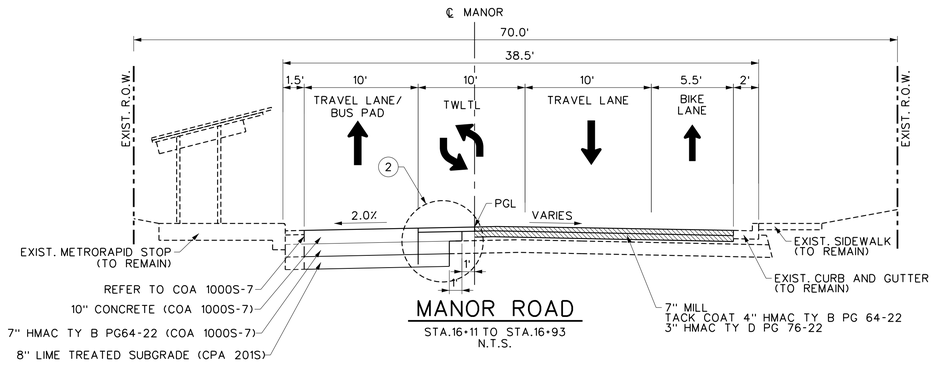


MANOR ROAD

STA.7+63 TO STA.10+40
N.T.S.

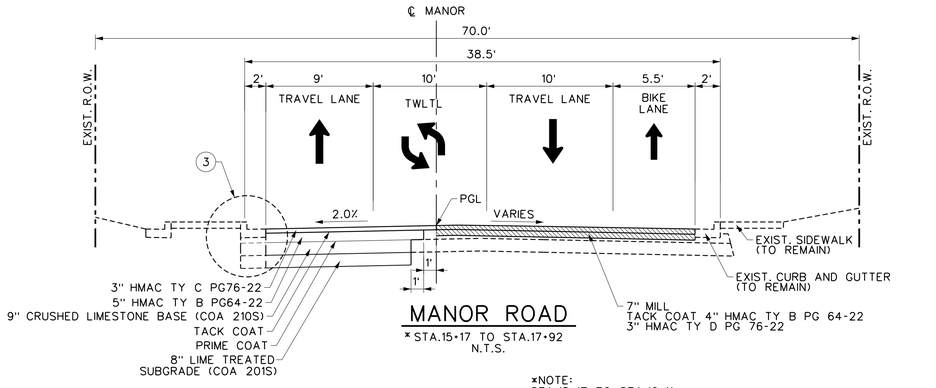






MANOR ROAD

STA.16+11 TO STA.16+93
N.T.S.



MANOR ROAD

*STA.15+17 TO STA.17+92
N.T.S.

*NOTE:
STA.15+17 TO STA.16+11
STA.16+93 TO STA.17+92*

INCLUDES FULL DEPTH RECONSTRUCTION FOR THE ENTIRE WIDTH OF ROADWAY.

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
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08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

MANOR ROAD PROPOSED TYPICAL ROADWAY SECTIONS

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314.361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME AU314361-PH3-PROP TYPICAL SECTIONS01.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale accordingly.
0" 1"

SHEET 21
SEQ. 21 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 - N:\F\Drawings\Phase 3\CV-TRT-PL-PH3-PROP TYPICAL SECTIONS01.SHT
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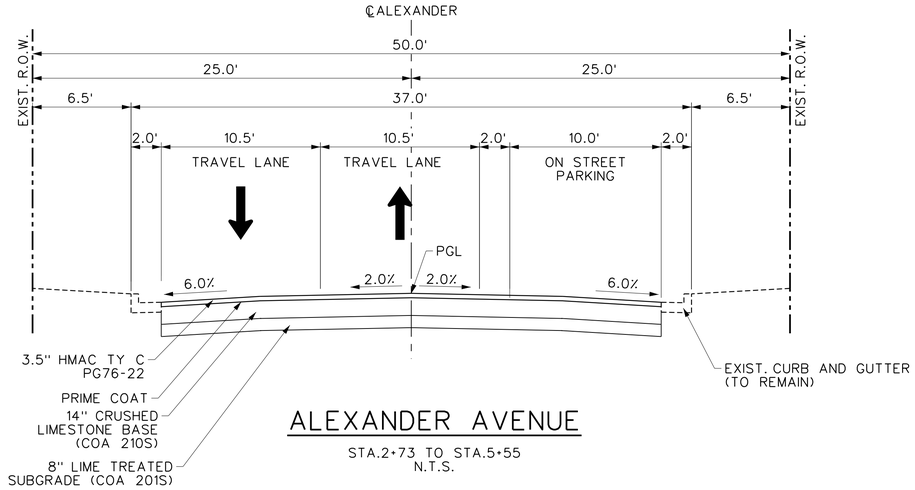
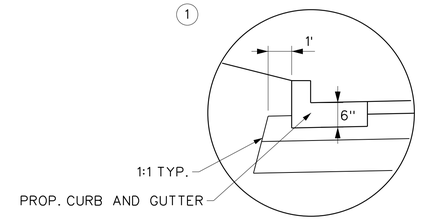
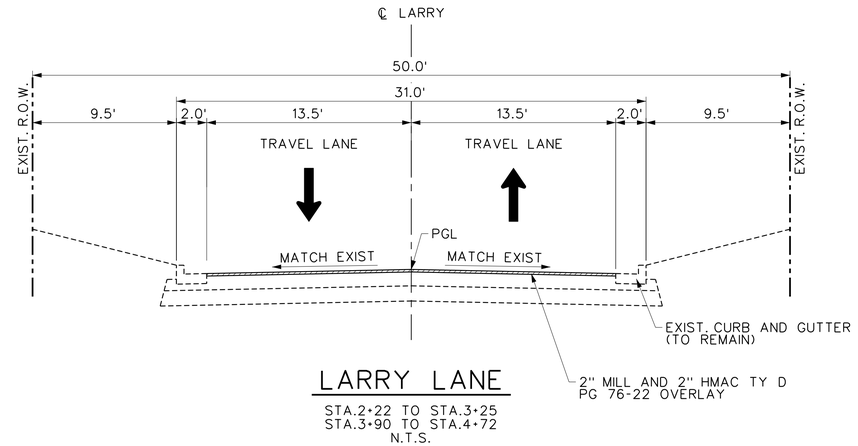
Plot Scale: 6.0000 '/ in. Project: Freese and Nichols, Inc.
Date: Aug. 25, 2026 - 10:56:57 AM



ALEXANDER AVENUE

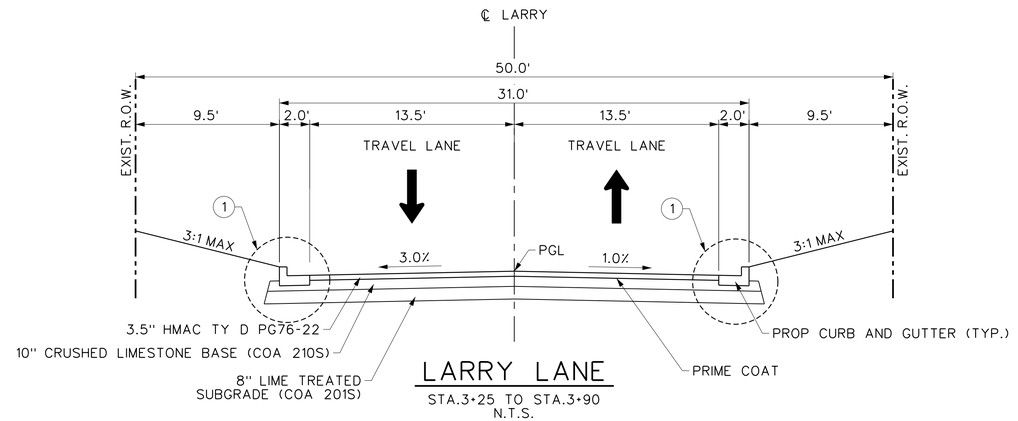
STA.2+73 TO STA.5+55
N.T.S.





LARRY LANE

STA.2+22 TO STA.3+25
STA.3+90 TO STA.4+72
N.T.S.



LARRY LANE

STA.3+25 TO STA.3+90
N.T.S.

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/25/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

LARRY LANE & ALEXANDER AVENUE PROPOSED TYPICAL ROADWAY SECTIONS

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN AF
REVISED
CHECKED MB
FILE NAME C:\Users\...\PH3-PROP TYPICAL SECTIONS02.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet adjust scale accordingly

SHEET 22
SEQ. 22 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-PROP TYPICAL SECTIONS02.SHT
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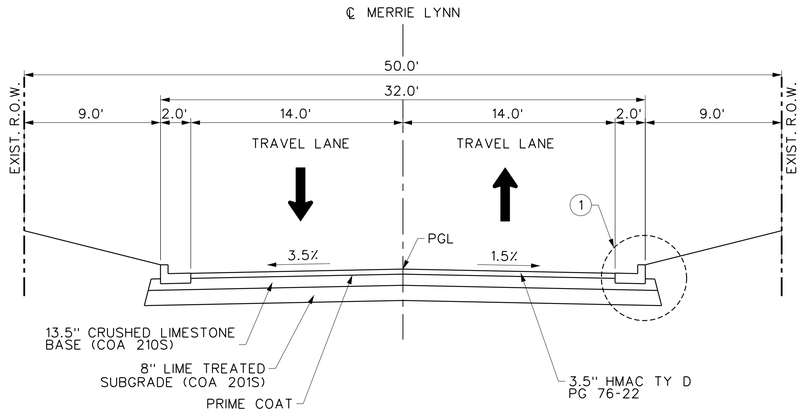
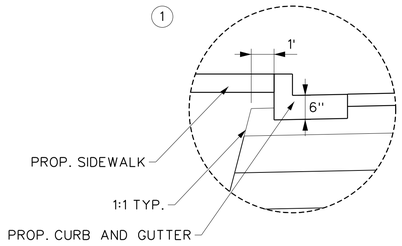
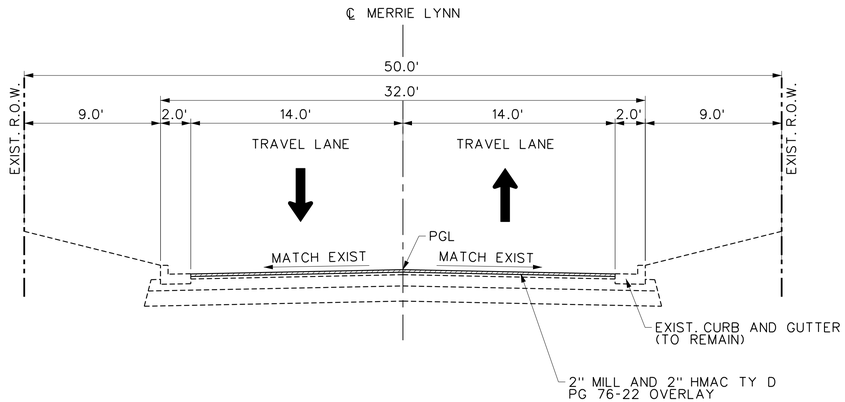
Plot Scale: 5.000 '/ in. Plot Date: Aug 25, 2026 - 10:57:04 AM
Model: Default
Project: Freese and Nichols, Inc.



MERRIE LYNN AVENUE

STA.3+90 TO STA.4+84
N.T.S.





MERRIE LYNN AVENUE

STA.3+35 TO STA.3+90
N.T.S.

FREESE AND NICHOLS, INC.
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

MERRIE LYNN AVENUE
PROPOSED TYPICAL ROADWAY SECTIONS

F&N JOB NO. AU31436
DATE 08/17/2026
DESIGNED BP
DRAWN AF
REVISED
CHECKED MB

NO.	ISSUES	BY	DATE

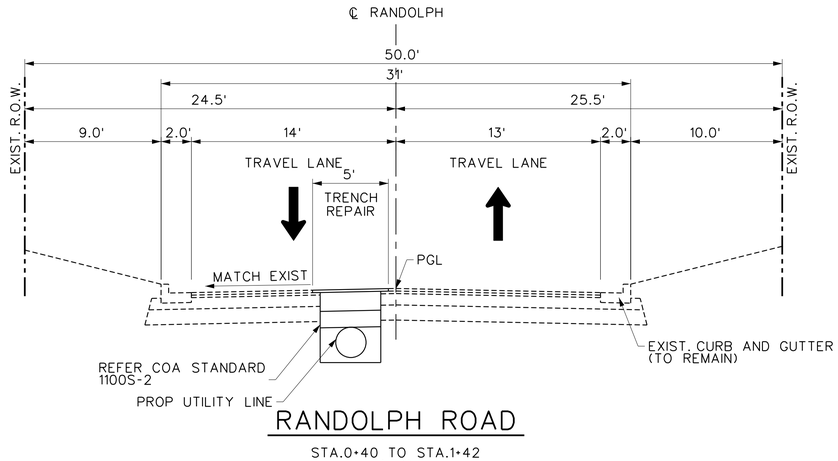
FILE NAME CV-TRT-PL-PH3-PROP TYPICAL SECTIONS03.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet adjust scale accordingly.
0 1"

SHEET 23
SEQ. 23 OF 143

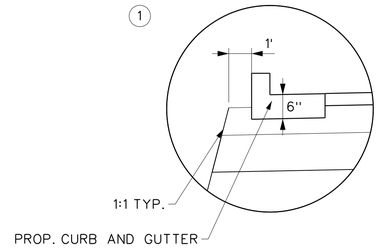
MicroStation V8 User: 03926Office: On Site
AU31436 | N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-PROP TYPICAL SECTIONS03.SHT
Active Level: ALL | Active Model: Default | Reference Models: None
Plot Scale: 5.000 '/ in. | Plot Style: PWP
Date: Aug 25, 2026 - 10:57:04 AM | Model: Default
Project: Freese and Nichols, Inc.

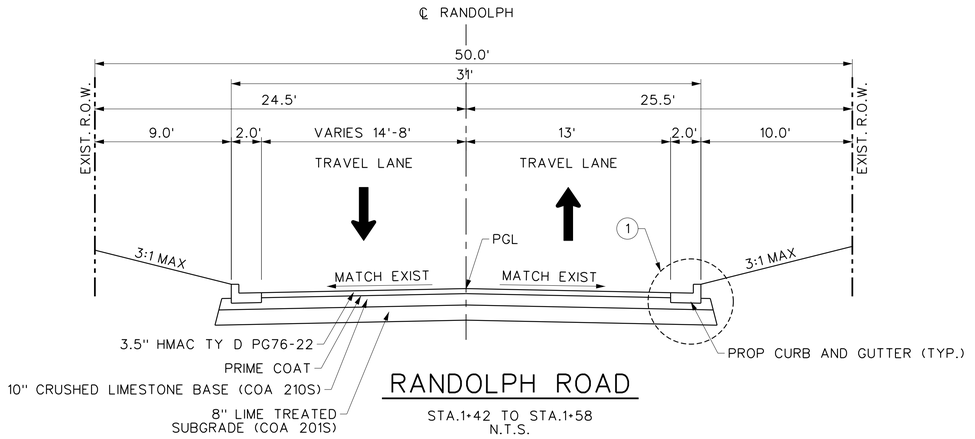
Office: On Site AU31436 Date: Aug. 25, 2026 - 10:57:04 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-PROP TYPICAL SECTIONS03.SHT



RANDOLPH ROAD

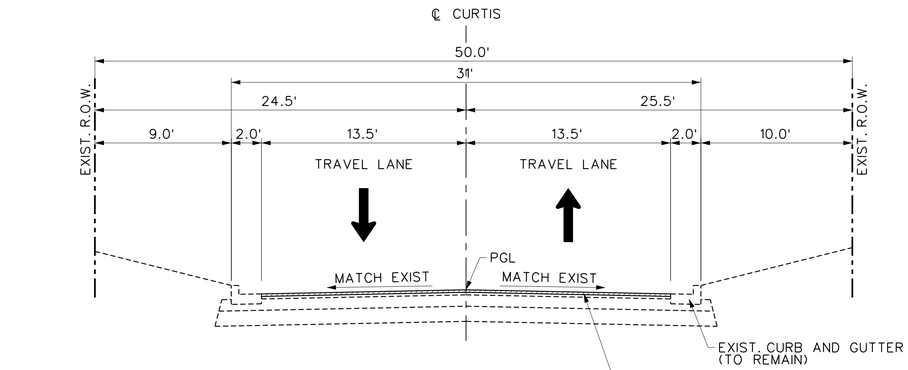
STA.0+40 TO STA.1+42
N.T.S.





RANDOLPH ROAD

STA.1+42 TO STA.1+58
N.T.S.



CURTIS AVENUE

STA.0+17 TO STA.0+84
N.T.S.

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

RANDOLPH ROAD AND CURTIS AVENUE PROPOSED TYPICAL ROADWAY SECTIONS

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314.361
DATE 08/17/2026
DESIGNED BP
DRAWN AF
REVISED
CHECKED MB
FILE NAME AU314361-PH3-PROP TYPICAL SECTIONS04.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet adjust scale accordingly

SHEET 24
SEQ. 24 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 - N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-PROP TYPICAL SECTIONS04.SHT
Active Model: PROP Typical Sections (Model)
Plot Scale: 5.000 '' / in Model Default
Date: Aug. 25, 2026 10:57:05 AM Project: Freese and Nichols, Inc.

HORIZONTAL ALIGNMENT MANOR ROAD

Beginning chain CL_MANOR description

Point MANOR10	N	10,077,095.9100	E	3,122,923.9354	Sta 2+00.00
Course from MANOR10 to MANOR20 N 78° 54' 21.43" E Dist 1,800.0000					
Point MANOR20	N	10,077,442.2660	E	3,124,690.2982	Sta 20+00.00

Ending chain CL_MANOR description

HORIZONTAL ALIGNMENT ALEXANDER AVENUE

Beginning chain CL_ALEXANDER description
Feature: Geom_Secondary

Point ALEXANDER10	N	10,077,446.0210	E	3,124,433.4000	Sta 2+00.00
Course from ALEXANDER10 to ALEXANDER20 S 11° 09' 20.45" E Dist 503.1636					
Point ALEXANDER20	N	10,076,952.3647	E	3,124,530.7498	Sta 7+03.16
Course from ALEXANDER20 to ALEXANDER30 S 8° 45' 00.08" E Dist 49.4770					
Point ALEXANDER30	N	10,076,903.4635	E	3,124,538.2764	Sta 7+52.64
Course from ALEXANDER30 to ALEXANDER40 S 11° 12' 19.16" E Dist 347.3594					
Point ALEXANDER40	N	10,076,562.7258	E	3,124,605.7772	Sta 11+00.00

Ending chain CL_ALEXANDER description

HORIZONTAL ALIGNMENT LARRY LANE

Beginning chain CL_LARRY description

Point LARRY10	N	10,077,520.1802	E	3,123,496.5133	Sta 2+00.00
Course from LARRY10 to LARRY20 S 9° 42' 29.05" E Dist 306.2559					
Point LARRY20	N	10,077,218.3100	E	3,123,548.1567	Sta 5+06.26

Ending chain CL_LARRY description

HORIZONTAL ALIGNMENT MERRIE LYNN AVENUE

Beginning chain CL_MERRIELYNN description

Point MERRIELYNN10	N	10,077,579.4410	E	3,123,800.0636	Sta 2+00.00
Course from MERRIELYNN10 to MERRIELYNN20 S 9° 42' 29.05" E Dist 306.0000					
Point MERRIELYNN20	N	10,077,277.8230	E	3,123,851.6639	Sta 5+06.00

Ending chain CL_MERRIELYNN description

HORIZONTAL ALIGNMENT CURTIS AVENUE

Beginning chain CURTIS description

Point CURTIS01	N	10,077,255.8665	E	3,123,739.6889	Sta 0+00.00
Course from CURTIS01 to CURTIS02 S 11° 12' 17.18" E Dist 475.0975					
Point CURTIS02	N	10,076,789.8248	E	3,123,832.0079	Sta 4+75.10

Ending chain CURTIS description

HORIZONTAL ALIGNMENT RANDOLPH AVENUE

Beginning chain CL_RANDOLPH description

Point RAN01	N	10,077,513.9421	E	3,124,125.9174	Sta 0+00.00
Course from RAN01 to RAN02 S 10° 32' 22.71" E Dist 178.9432					
Point RAN02	N	10,077,338.0179	E	3,124,158.6490	Sta 1+78.94

Ending chain CL_RANDOLPH description

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
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08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

HORIZONTAL ALIGNMENT DATA

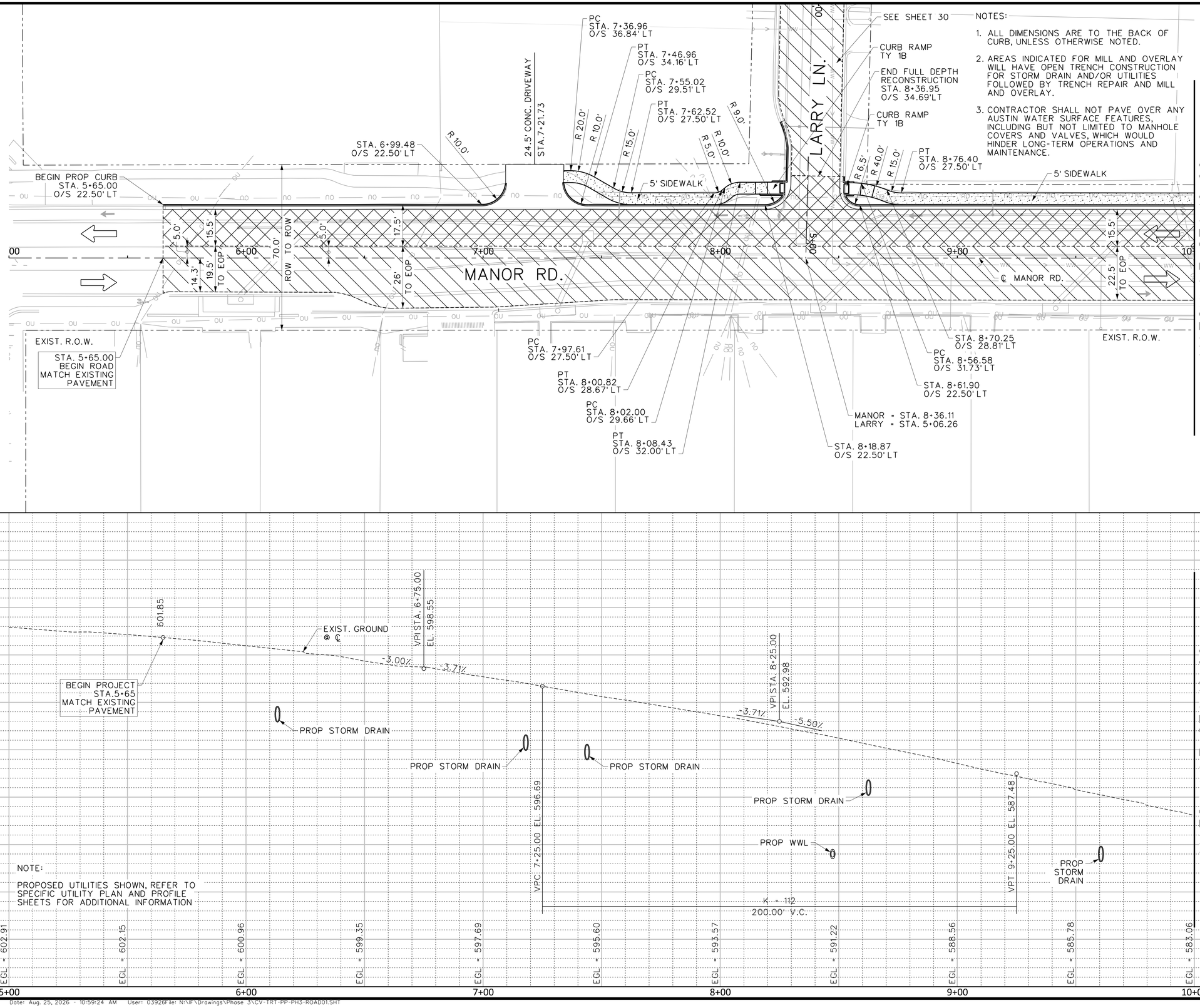
NO.	ISSUES	BY	DATE

F&N JOB NO. AU314.361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-DT-PH3-HAD.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 25
SEQ. 25 OF 143

MicroStation V8 User: 03926Office: On Site
AU314.361 N:\IF\Drawings\Phase 3\CV-TRT-DT-PH3-HAD.SHT
Plot Server: plot06.ffn.com Plotter: HP Designjet 650C/650C+ PS
Plot Scale: 1.0000 '/ In. Model: Default
Date: Aug. 25, 2026 - 10:57:06 AM Project: Freese and Nichols, Inc.



FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

ROADWAY PLAN & PROFILE - MANOR RD STA.4+00 TO STA.10+00

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN AF
CHECKED GGP
REVISED

NO.	ISSUES	BY	DATE

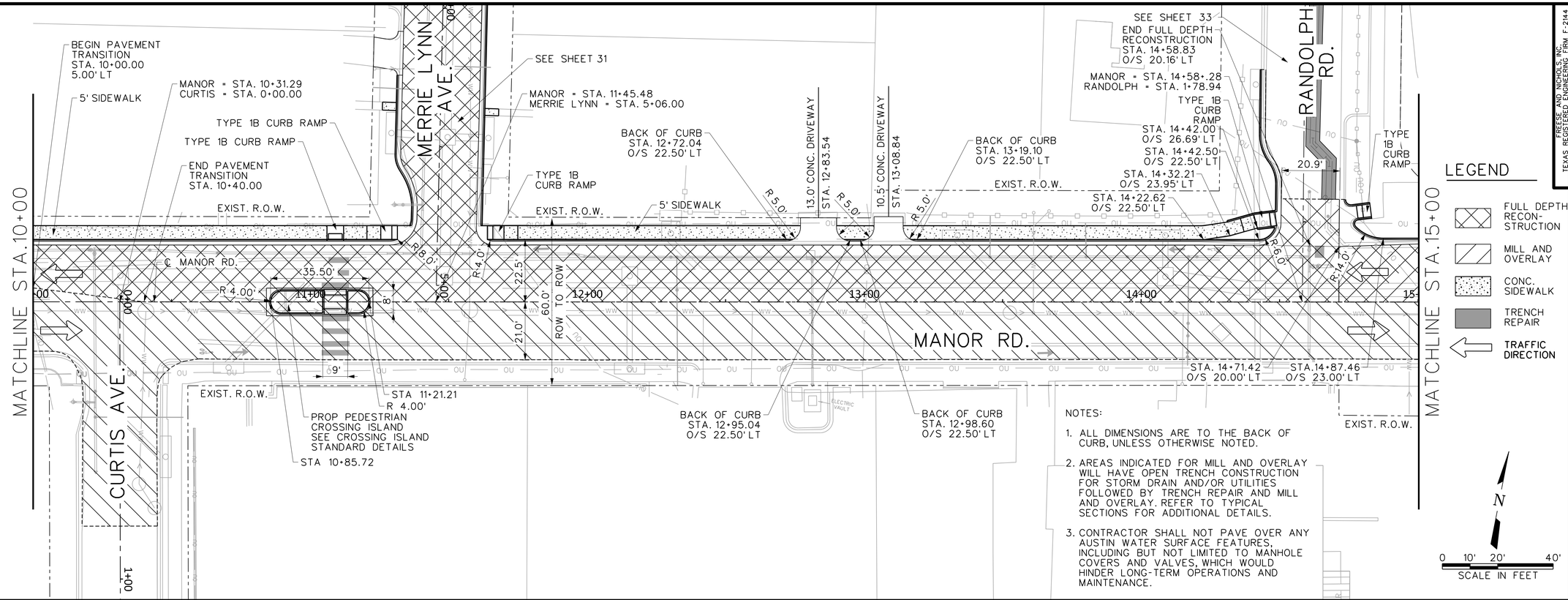
FILE NAME CV-TRT-PP-PH3-ROAD01.SHT

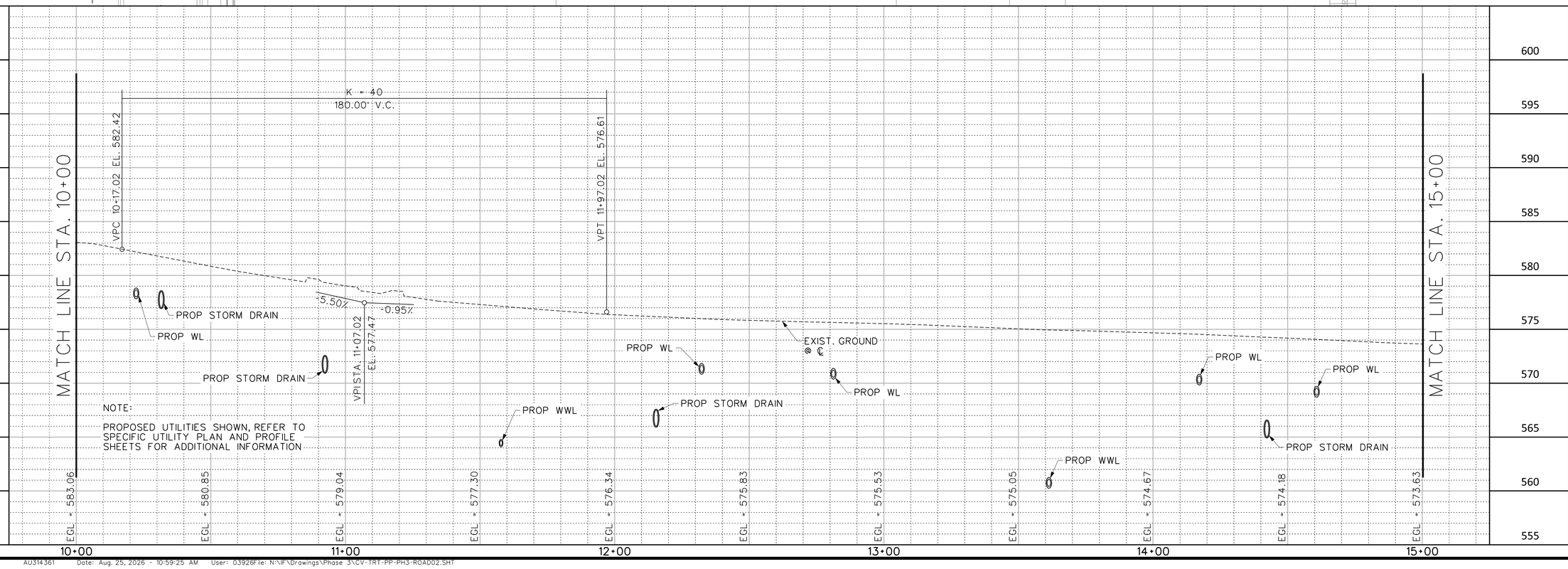
VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 26
SEQ. 26 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PP-PH3-ROAD01.SHT
Model: Default
Plot Scale: 20.0000 '/ in.
Date: Aug 25, 2026 - 10:59:24 AM
Model: Default
Project: Freese and Nichols Inc.

Office: On Site AU314361 Date: Aug. 25, 2026 - 10:59:24 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-PP-PH3-ROAD01.SHT





FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
Heather McNeal
08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

ROADWAY PLAN & PROFILE - MANOR RD STA.10+00 TO STA.15+00

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN AF
REVISED
CHECKED GDP
FILE NAME CV-TRT-PP-PH3-ROAD02.SHT

NO. ISSUES BY DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 27
SEQ. 27 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361
Plot Driver: HP DesignJet 4000ps PostScript
Plot Scale: 20.0000 ' / in.
Plot Date: Aug. 25, 2026 - 09:59:25 AM
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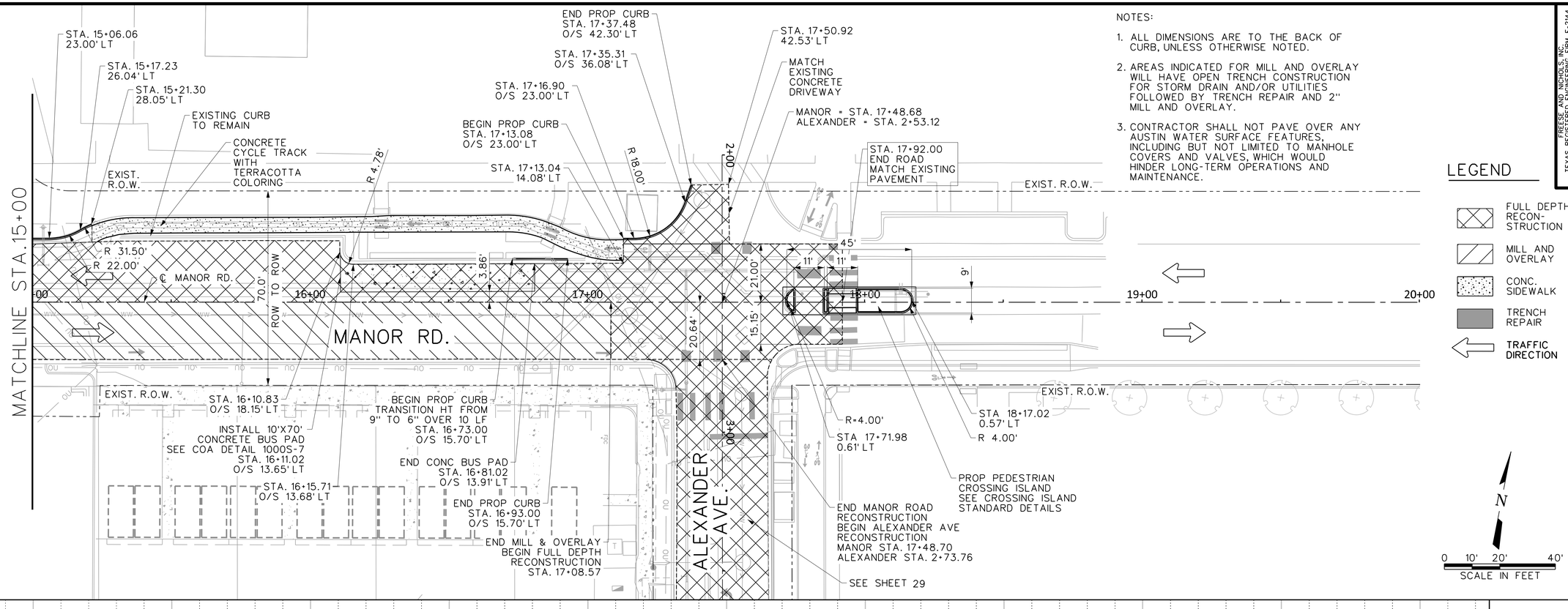
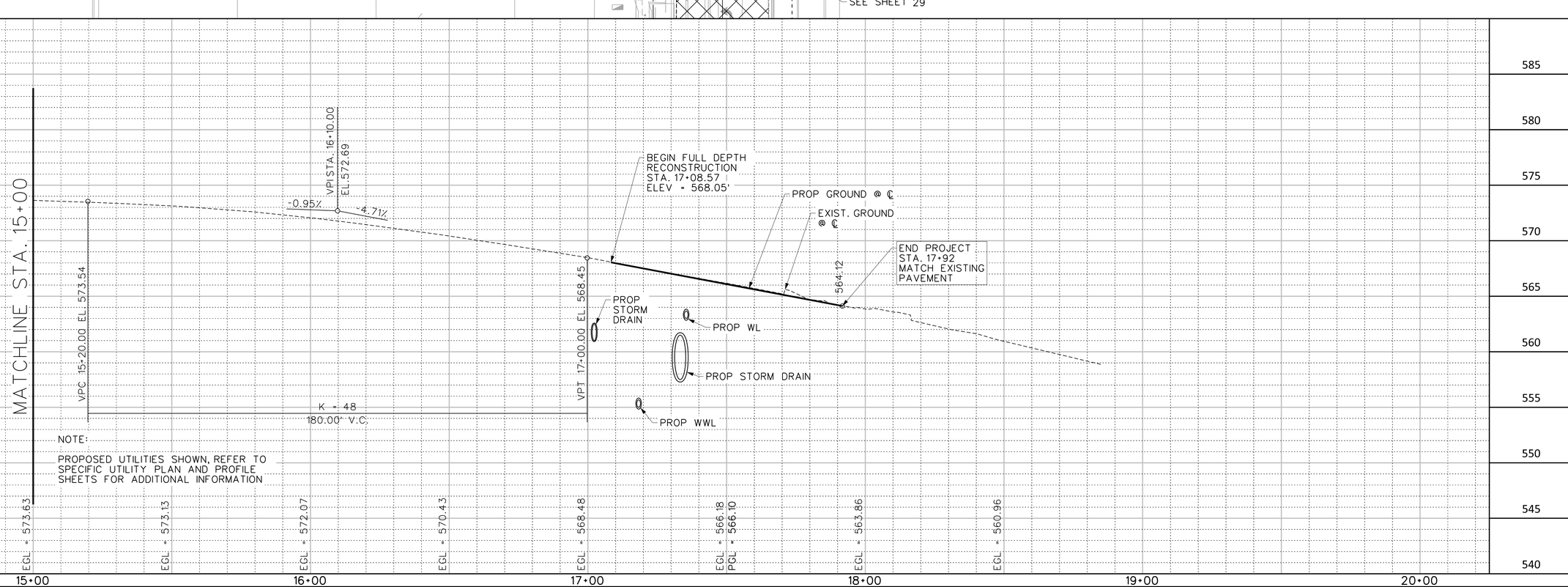
Model: Default
Project: Freese and Nichols, Inc

Office: On Site AU314361 Date: Aug. 25, 2026 - 10:59:25 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-PP-PH3-ROAD02.SHT





FREESE AND NICHOLS, INC.
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CITY OF AUSTIN WATERSHED PROTECTION

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CIVIL

ROADWAY PLAN & PROFILE - MANOR RD STA.15+00 TO STA.20+00

FAN JOB NO.	DATE	BY	NO.	ISSUES
AU314361				
DATE 08/17/2026				
DESIGNED BP				
DRAWN AF				
REVISED				
CHECKED CGP				

FILE NAME CV-TRT-PP-PH3-ROAD03.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 28

SEQ. 28 OF 143

McroStation V8 User: 03926Office: On Site
AU314361
N:\IF\Drawings\Phase 3\CV-TRT-PP-PH3-ROAD03.SHT
Plot Scale: 20.0000 '/ in.
Plot Date: Aug 25, 2026 - 10:59:26 AM
Model: Default
Project: Freese and Nichols Inc.

NOTES:

1. ALL DIMENSIONS ARE TO THE BACK OF CURB, UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL NOT PAVE OVER ANY AUSTIN WATER OR AUSTIN WATERSHED PROTECTION DEPARTMENT SURFACE FEATURES, INCLUDING BUT NOT LIMITED TO MANHOLE COVERS AND VALVES, WHICH WOULD HINDER LONG-TERM OPERATIONS AND MAINTENANCE.

END MANOR ROAD RECONSTRUCTION
BEGIN ALEXANDER AVE RECONSTRUCTION
MANOR STA. 17+48.70
ALEXANDER STA. 2+73.76

END PROJECT
STA. 5+55.00
MATCH EXISTING PAVEMENT

LEGEND

- FULL DEPTH RECONSTRUCTION
- MILL AND OVERLAY
- CONC. SIDEWALK
- TRENCH REPAIR
- TRAFFIC DIRECTION

EXIST. R.O.W.
ALEXANDER AVE.
MANOR RD.
ALLEY
SEE SHEET 28
16.4'
16.4'
50.0' ROW TO ROW
22.5'
℄ ALEXANDER
2+00
3+00
4+00
5+00
6+00
7+00
17+00
14+00

0 10' 20' 40'
SCALE IN FEET

BEGIN RECONSTRUCTION
ALEXANDER STA. 2+73.57
= MANOR STA. 17+48.70
OFFSET 20.46' RT

565.59
VPI STA. 2+88.00
EL. 566.10
VPI STA. 2+93.00
EL. 566.20
VPC 3+25.50 EL. 567.34
VPI STA. 3+88.00
EL. 569.52
VPT 4+50.50 EL. 566.40
561.18
-3.50%
-2.00%
+3.50%
+3.50%
-4.99%
EXIST. GROUND ℄
PROP. GROUND ℄
PROP WWL
PROP WWL
K = 15
125.00' V.C.

EGL = 566.45
EGL = 566.20
EGL = 566.86
PGL = 566.44
EGL = 568.03
PGL = 567.99
EGL = 567.88
PGL = 568.06
EGL = 566.31
PGL = 566.43
EGL = 563.88
PGL = 563.93
EGL = 561.43
PGL = 561.43
EGL = 559.00

NOTE:
PROPOSED UTILITIES SHOWN, REFER TO SPECIFIC UTILITY PLAN AND PROFILE SHEETS FOR ADDITIONAL INFORMATION

580 575 570 565 560 555 550 545 540 535

2+00 3+00 4+00 5+00 6+00 7+00

FREESE AND NICHOLS, INC.
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

ROADWAY PLAN & PROFILE - ALEXANDER AVE
STA.2+00 TO STA.7+00

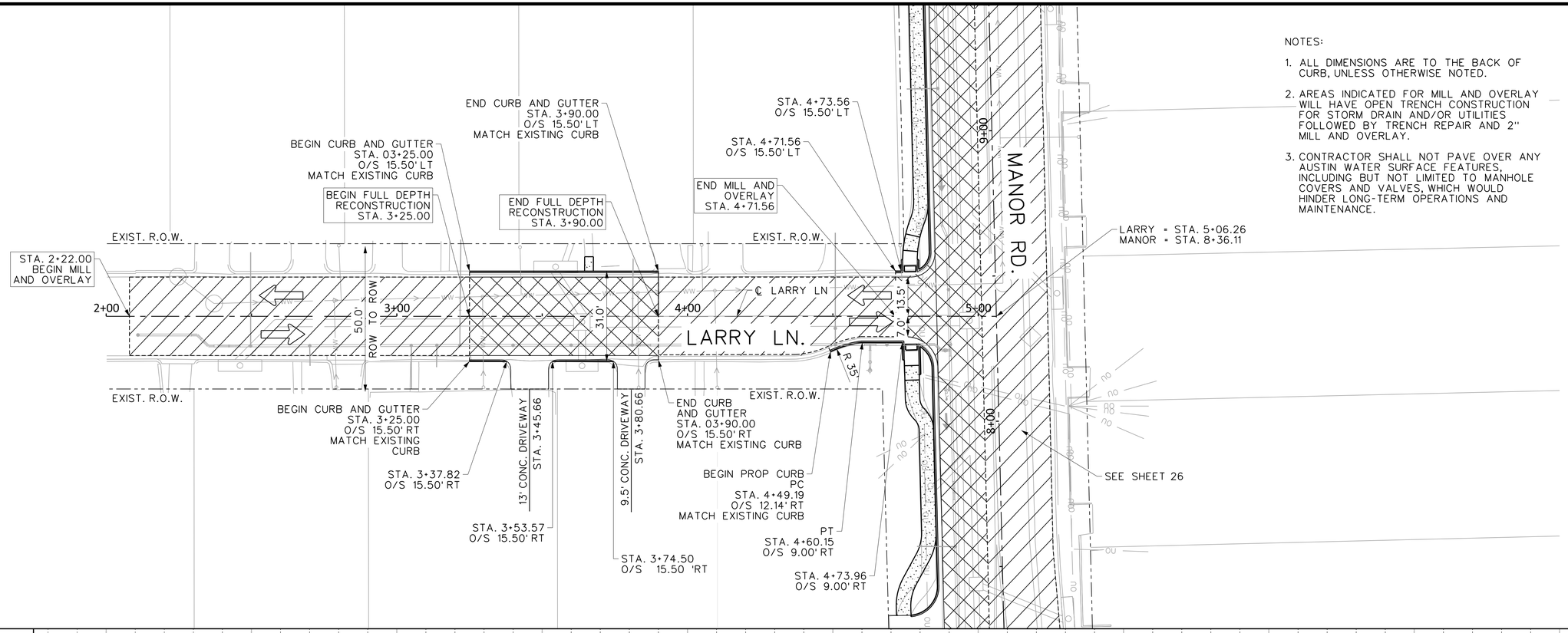
F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN AF
CHECKED GCP
FILE NAME CV-TRT-PP-PH3-ROAD04.SHT

NO. ISSUES | BY | DATE | REVISED

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

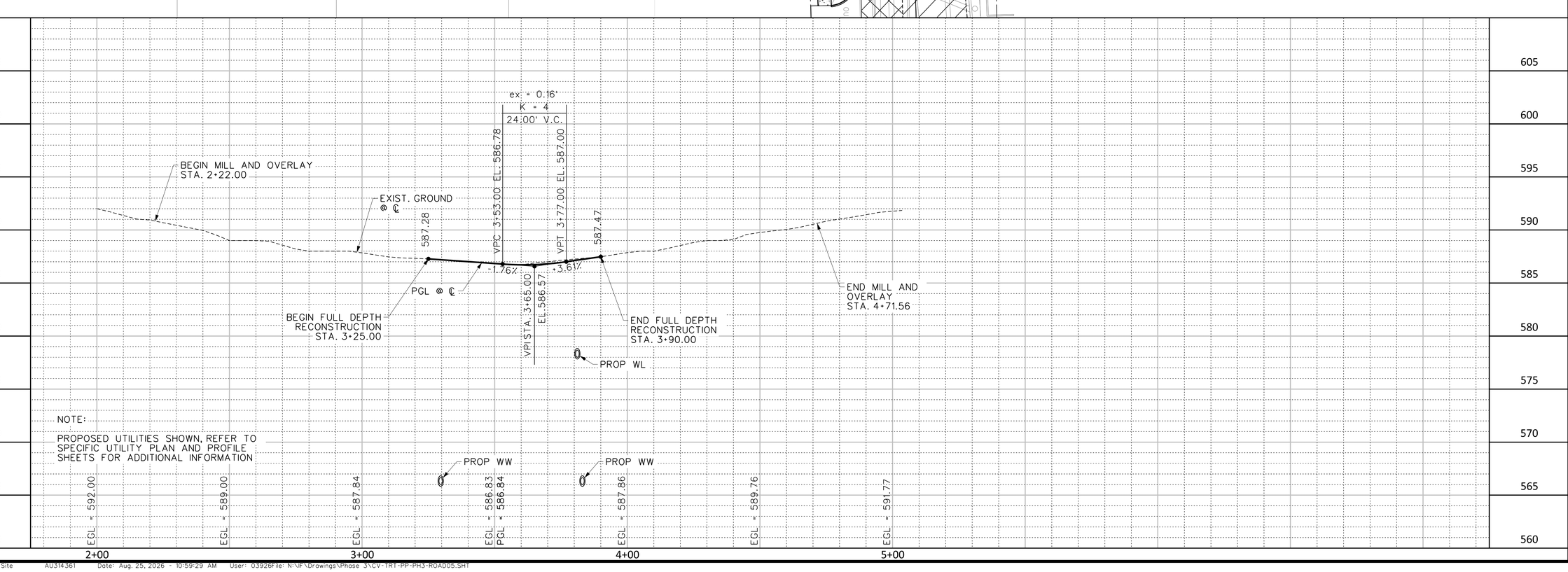
SHEET 29
SEQ. 29 OF 143

MicroStation V8 User: 0392&Office: On Site
AU314361 - N:\IF\Drawings\Phase 3\CV-TRT-PP-PH3-ROAD04.SHT
Plot Driver: HP DesignJet 4500 PostScript Level 2
Plot Scale: 20.0000 '/ in
Date: Aug. 25, 2026 - 10:59:28 AM
Model: Default
Project: Freese and Nichols, Inc.



NOTES:

1. ALL DIMENSIONS ARE TO THE BACK OF CURB, UNLESS OTHERWISE NOTED.
2. AREAS INDICATED FOR MILL AND OVERLAY WILL HAVE OPEN TRENCH CONSTRUCTION FOR STORM DRAIN AND/OR UTILITIES FOLLOWED BY TRENCH REPAIR AND 2" MILL AND OVERLAY.
3. CONTRACTOR SHALL NOT PAVE OVER ANY AUSTIN WATER SURFACE FEATURES, INCLUDING BUT NOT LIMITED TO MANHOLE COVERS AND VALVES, WHICH WOULD HINDER LONG-TERM OPERATIONS AND MAINTENANCE.



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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

ROADWAY PLAN & PROFILE - LARRY LN STA.2+00 TO STA.5+00

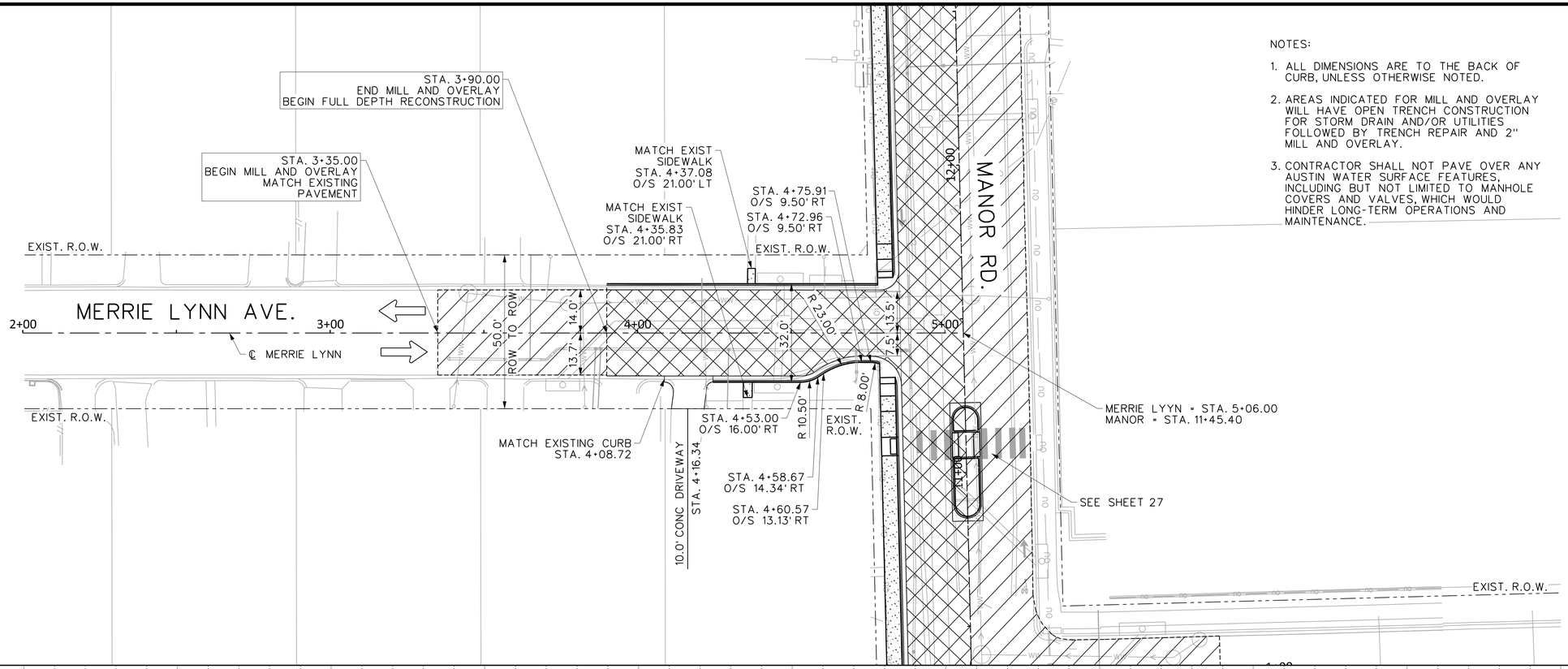
NO.	ISSUES	BY	DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN AF
REVISED
CHECKED CGP
FILE NAME CV-TRT-PP-PH3-ROAD05.SHT

SHEET 30
SEQ. 30 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361
N:\IF\Drawings\Phase 3\CV-TRT-PP-PH3-ROAD05.SHT
Plot Scale: 20.0000 '/ in.
Plot Date: 25 Aug 2026 - 10:59:29 AM
Model: Default
Project: Freese and Nichols, Inc.

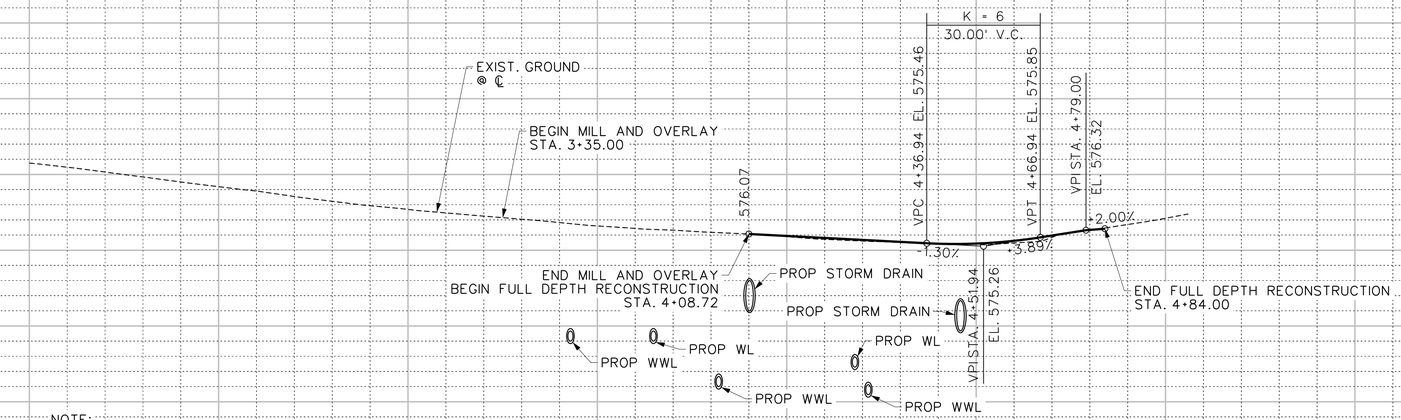


NOTES:

1. ALL DIMENSIONS ARE TO THE BACK OF CURB, UNLESS OTHERWISE NOTED.
2. AREAS INDICATED FOR MILL AND OVERLAY WILL HAVE OPEN TRENCH CONSTRUCTION FOR STORM DRAIN AND/OR UTILITIES FOLLOWED BY TRENCH REPAIR AND 2" MILL AND OVERLAY.
3. CONTRACTOR SHALL NOT PAVE OVER ANY AUSTIN WATER SURFACE FEATURES, INCLUDING BUT NOT LIMITED TO MANHOLE COVERS AND VALVES, WHICH WOULD HINDER LONG-TERM OPERATIONS AND MAINTENANCE.

LEGEND

- FULL DEPTH RECON-STRUCTION
- MILL AND OVERLAY
- CONC. SIDEWALK
- TRENCH REPAIR
- TRAFFIC DIRECTION



FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/25/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

ROADWAY PLAN & PROFILE - MERRIE LYNN AVE
STA.2+00 TO STA.5+00

CIVIL

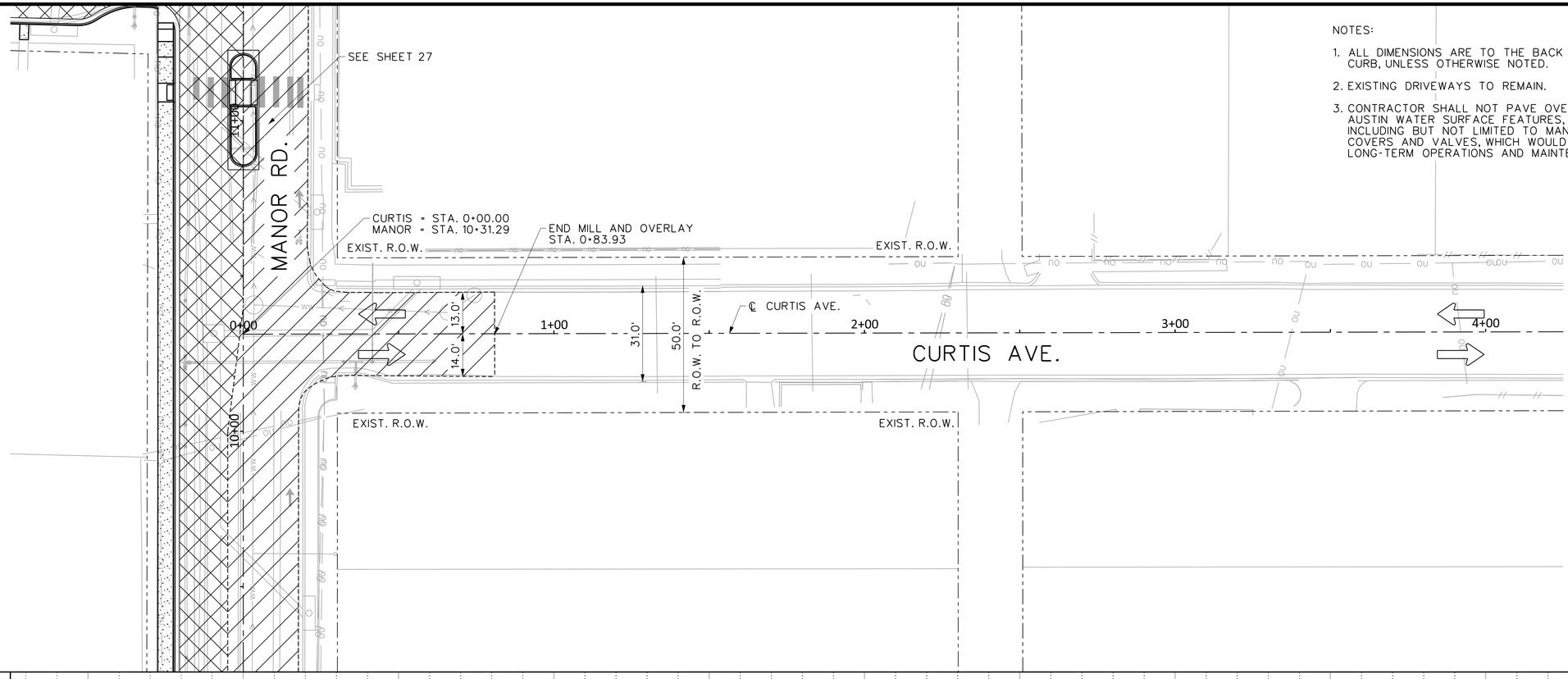
NO.	ISSUES	BY	DATE

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN AF
REVISED
CHECKED GCP
FILE NAME CV-TRT-PP-PH3-ROAD06.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 31
SEQ. 31 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 - N:\IF\Drawings\Phase 3\CV-TRT-PP-PH3-ROAD06.SHT
Plot Driver: HP DesignJet 4500 PS3 - 24" Roll Media.pltcfg
Plot Scale: 20.0000 '' / in.
Date: Aug. 25, 2026 - 10:59:30 AM
Model: Default
Project: Freese and Nichols, Inc.



NOTES:

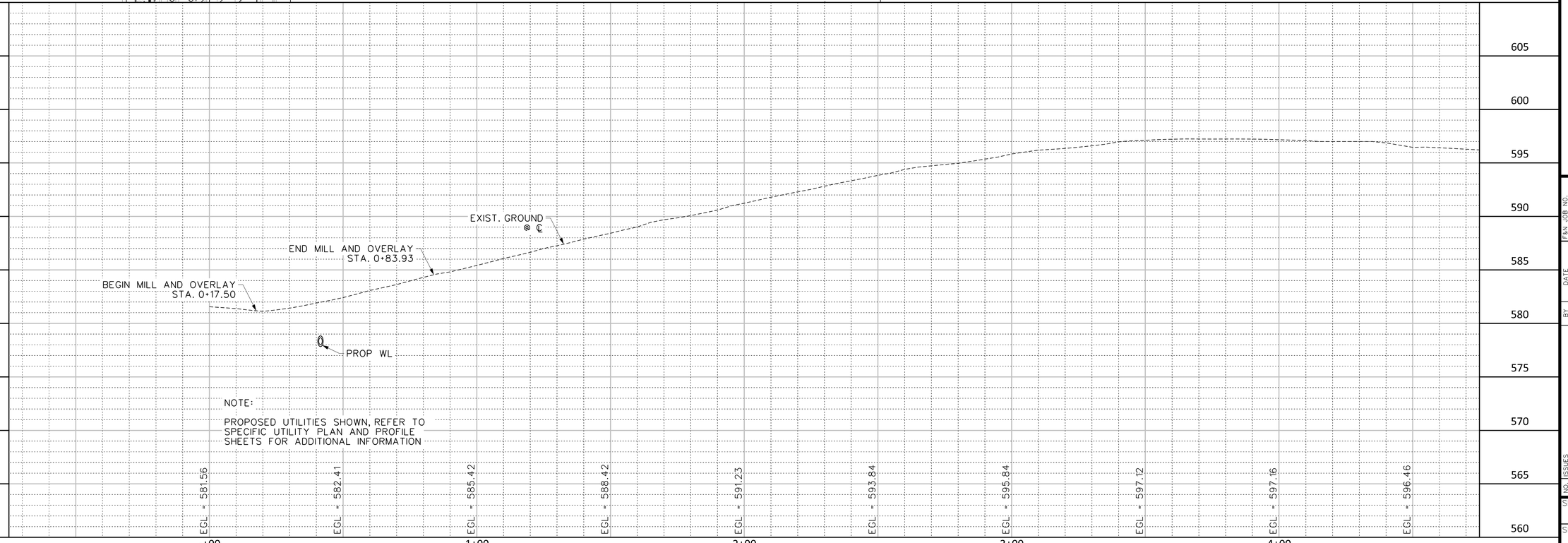
1. ALL DIMENSIONS ARE TO THE BACK OF CURB, UNLESS OTHERWISE NOTED.
2. EXISTING DRIVEWAYS TO REMAIN.
3. CONTRACTOR SHALL NOT PAVE OVER ANY AUSTIN WATER SURFACE FEATURES, INCLUDING BUT NOT LIMITED TO MANHOLE COVERS AND VALVES, WHICH WOULD HINDER LONG-TERM OPERATIONS AND MAINTENANCE.

LEGEND

- FULL DEPTH RECON-STRUCTION
- MILL AND OVERLAY
- CONC. SIDEWALK
- TRENCH REPAIR
- TRAFFIC DIRECTION

N

0 10' 20' 40'
SCALE IN FEET



NOTE:

PROPOSED UTILITIES SHOWN, REFER TO SPECIFIC UTILITY PLAN AND PROFILE SHEETS FOR ADDITIONAL INFORMATION

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
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PROFESSIONAL ENGINEER
Heather McNeal
08/25/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
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Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

ROADWAY PLAN & PROFILE - CURTIS AVE STA.0+00 TO STA.4+25

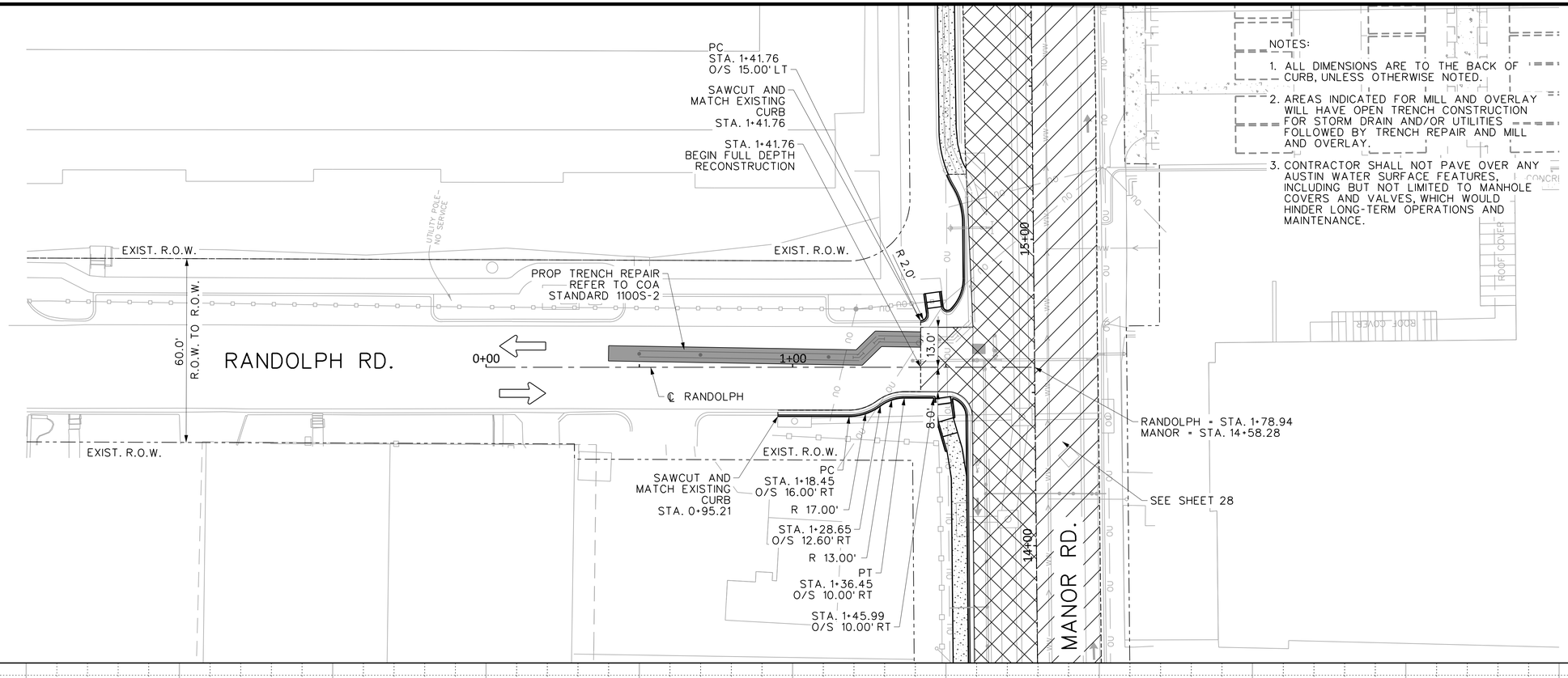
F&N JOB NO. AU314.361
DATE 08/17/2026
DESIGNED BP
DRAWN BP
REVISED
CHECKED GCP
FILE NAME CV-TRT-PP-PH3-ROAD07.SHT

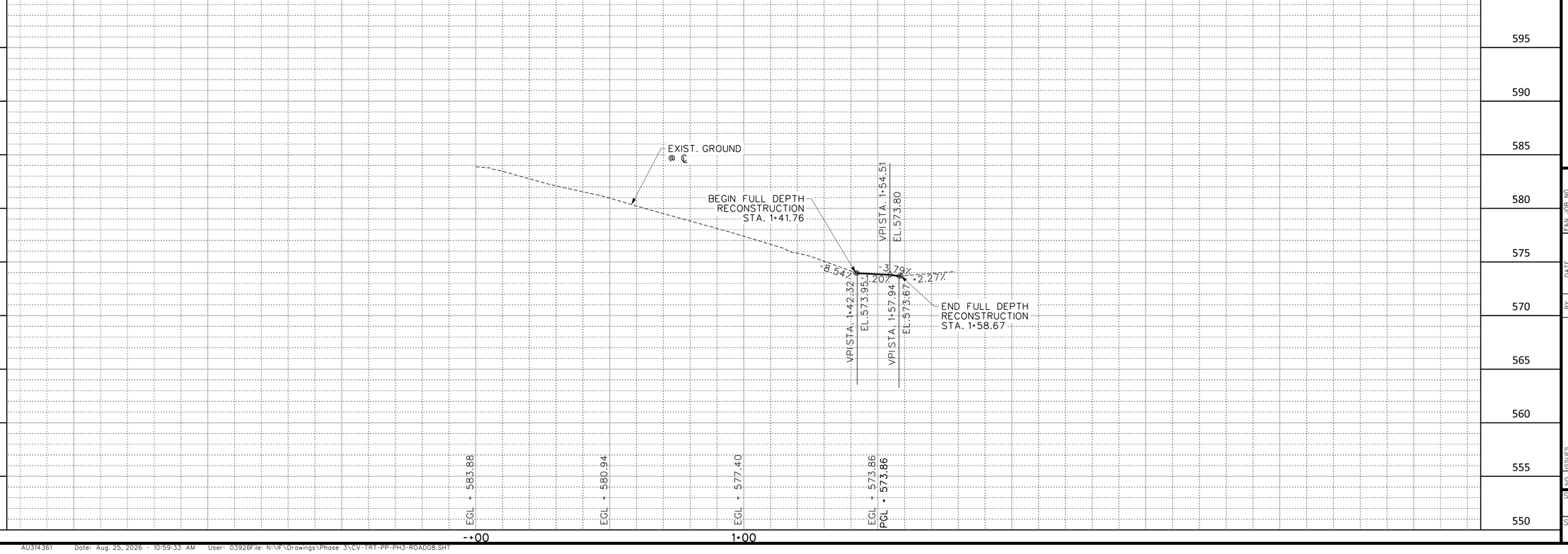
NO. ISSUES
BY
DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 32
SEQ. 32 OF 143

MicroStation V8 User: 03926Office: On Site
AU314.361 N:\IF\Drawings\Phase 3\CV-TRT-PP-PH3-ROAD07.SHT
Plot By: Heather McNeal Plot Group: Default
Plot Scale: 20.0000 '/ in Model: Default
Date: Aug 25, 2026 - 10:59:32 AM Project: Freese and Nichols, Inc.





FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144
STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/25/2026
FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

ROADWAY PLAN & PROFILE - RANDOLPH RD STA.0+00 TO STA.1+00

NO.	ISSUES	BY	DATE

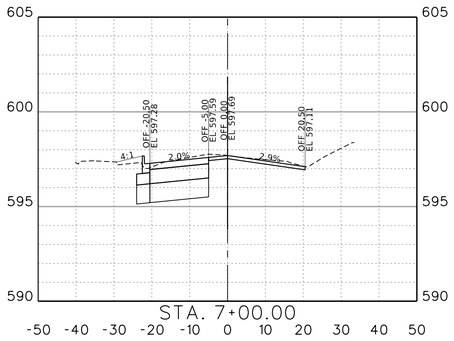
F&N JOB NO. AU31436
DATE 08/17/2026
DESIGNED BP
DRAWN AF
REVISED
CHECKED GGP
FILE NAME CV-TRT-PPP-PH3-ROAD08.SHT

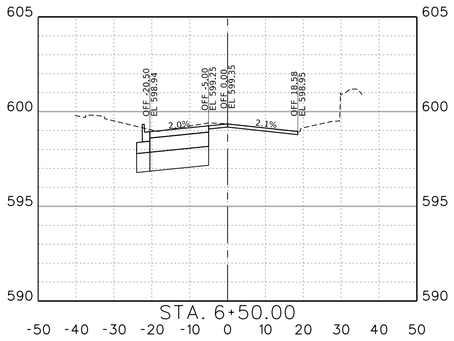
VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

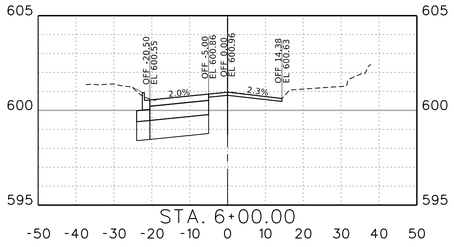
SHEET 33
SEQ. 33 OF 143

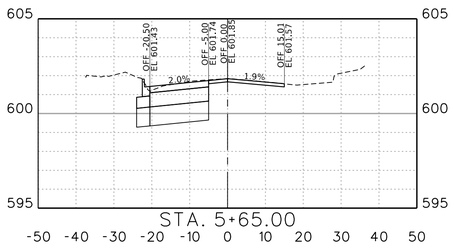
MicroStation V8 User: 03926Office: On Site
AU314361
Plot Driver: HP DesignJet 500 PS.pltcfg
Plot Scale: 20.0000 '/ in.
Plot Date/Time: Aug. 25, 2026 - 10:59:33 AM
Model: Default
Project: Freese and Nichols, Inc.

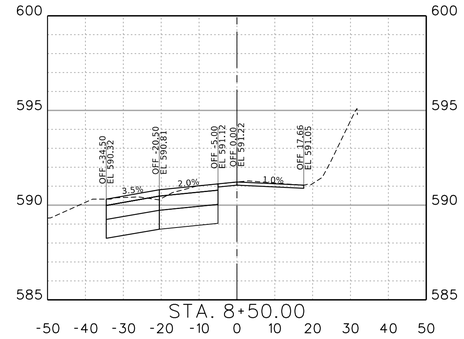
STA.5+65.00 TO STA.8+50.00

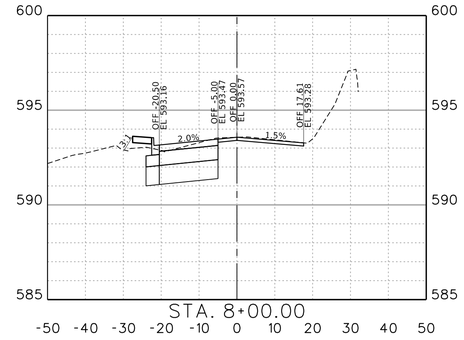


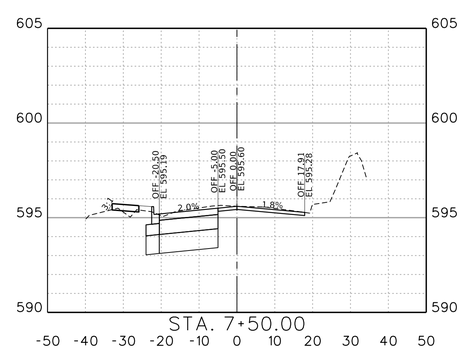


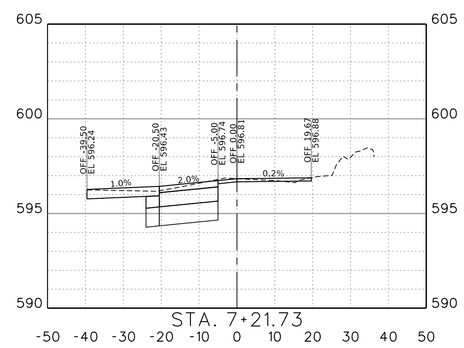












FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/25/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
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Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

MANOR RD CROSS SECTIONS (1 OF 4)
STA.5+65.00 TO STA.8+50.00

NO.	ISSUES	BY	DATE

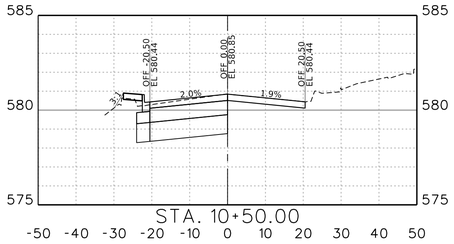
F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN AF
REVISED
CHECKED HM
FILE NAME CV-TRT-XS-PGXS01.SHT

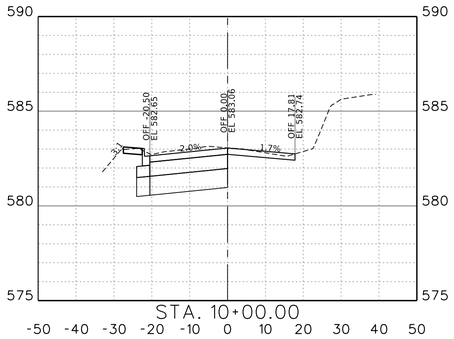
VERIFY SCALE Bar is one inch on orginol drawing. If not one inch on this sheet, adjust scale.
0 1"

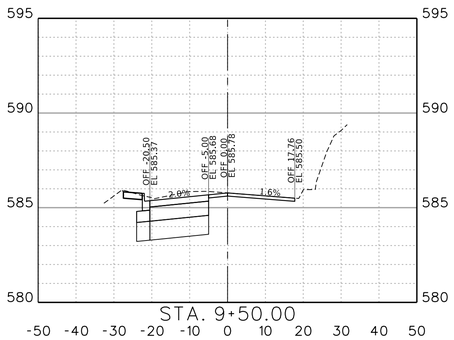
SHEET 34
SEQ. 34 OF 143

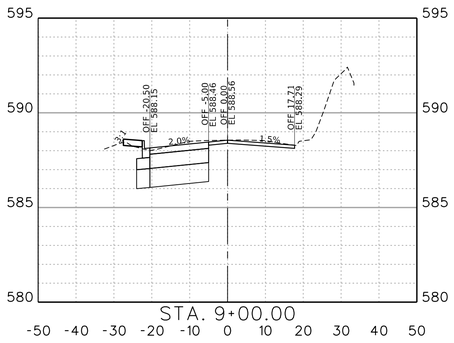
MicroStation V8 User: 03926Office: On Site
AU314361
Plot By: LHolmes - AUSTIN
Plot Scale: 20.000 ' / in
Date: Aug 25, 2026 - 10:59:34 AM
N:\IF\Drawings\Phase 3\CV-TRT-XS-PGXS01.SHT
Model: $cell CL_MANOR_3
Project: Freese and Nichols Inc

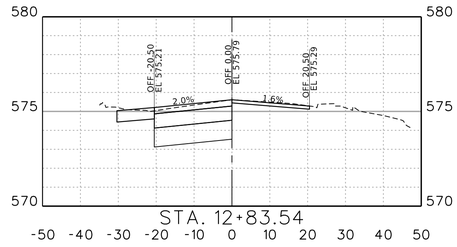
STA.9+00.00 TO STA.12+83.54

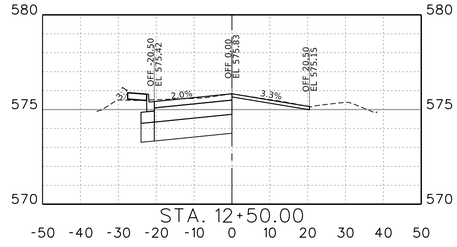


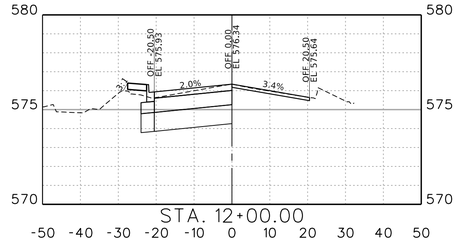


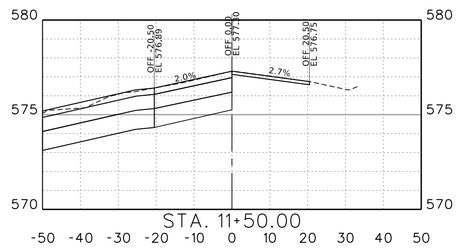


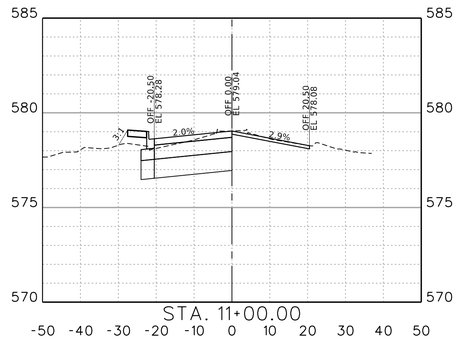












FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/25/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

MANOR RD CROSS SECTIONS (2 OF 4)
STA.9+00.00 TO STA.12+85.54

NO.	ISSUES	BY	DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

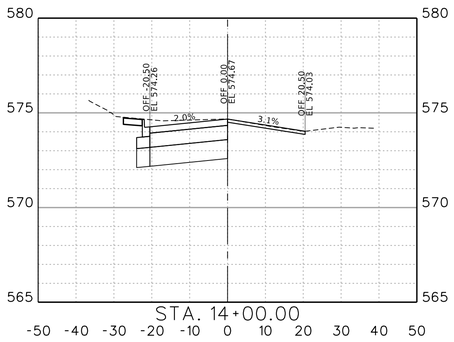
F&N JOB NO.	AU314361
DATE	08/17/2026
DESIGNED	BP
DRAWN	AF
REVISED	
CHECKED	HM
FILE NAME	CV-TRT-XS-PGXS01.SHT

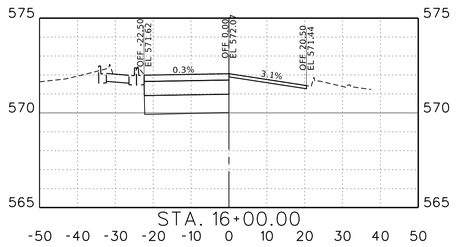
SHEET 35

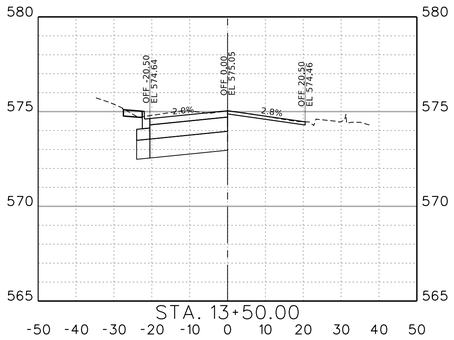
SEQ. 35 OF 143

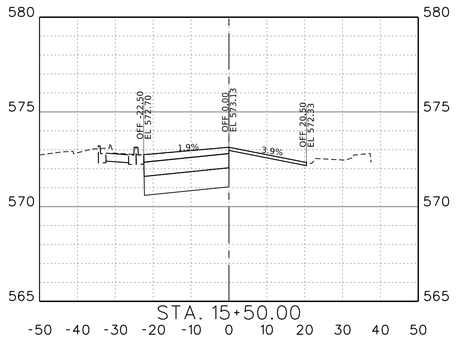
MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-XS-PGXS01.SHT
Ref Files: ..\..\Plotting\AU_TOPO_ANNO.dgn Ref Models: Default
Plot Scale: 20.000 ' / in. Model: 'GPCT CL_MANOR_3
Date: Aug. 25, 2026 - 10:59:35 AM Project: Freese and Nichols, Inc

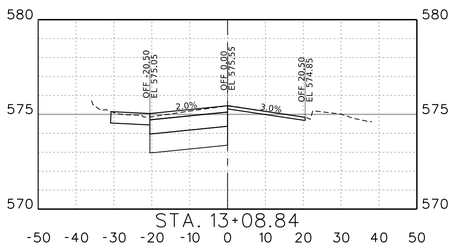
STA.13+00.00 TO STA.16+00.00

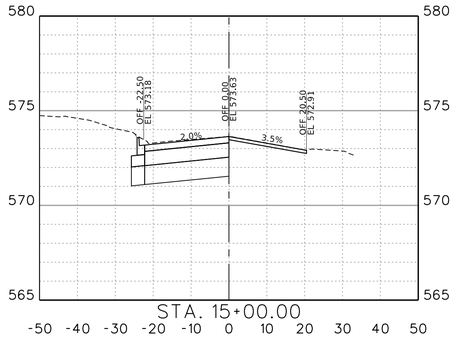


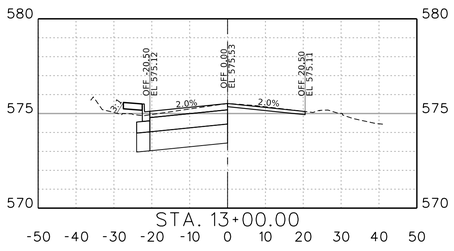


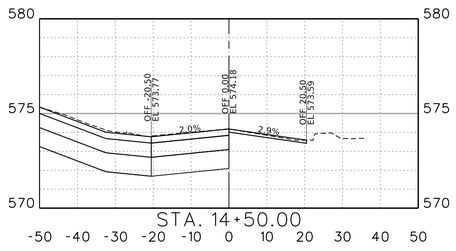












FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

MANOR RD CROSS SECTIONS (3 OF 4)
STA.13+00.00 TO STA.16+00.00

NO.	ISSUES	BY	DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

F&N JOB NO.	AU314361
DATE	08/17/2026
DESIGNED	BP
DRAWN	AF
REVISED	
CHECKED	HM
FILE NAME	CV-TRT-XS-PGXS01.SHT

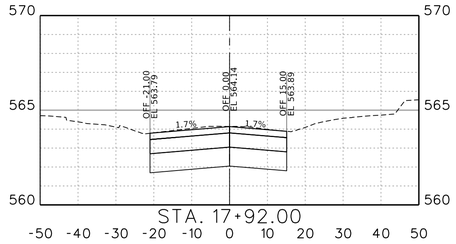
SHEET 36

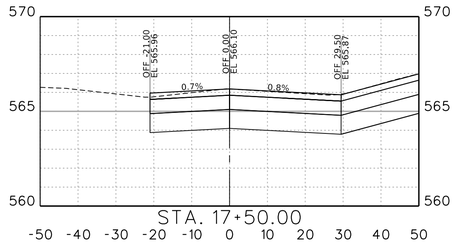
SEQ. 36 OF 143

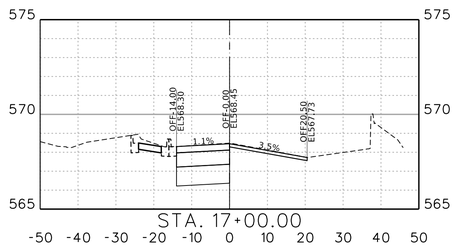
MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-XS-PGXS01.SHT
Active Model: 3D Model (3D) Model Type: Paper Model
Plot Scale: 20.000 '/ in. Model:3pct CL_MANOR_3
Date: Aug. 25, 2026 - 10:59:35 AM Project:Freese and Nichols, Inc.

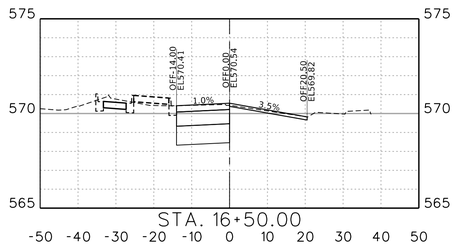
Office: On Site AU314361 Date: Aug. 25, 2026 - 10:59:35 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-XS-PGXS01.SHT

STA.16+50.00 TO STA.17+92.00









FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

MANOR RD CROSS SECTIONS (4 OF 4)
STA.16+50.00 TO STA.17+92.00

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314.361
DATE 08/17/2026
DESIGNED BP
DRAWN AF
REVISED
CHECKED HM
FILE NAME CV-TRT-XS-PGXS01.SHT

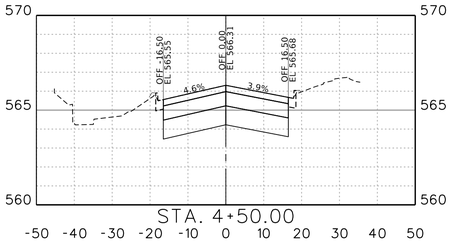
VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

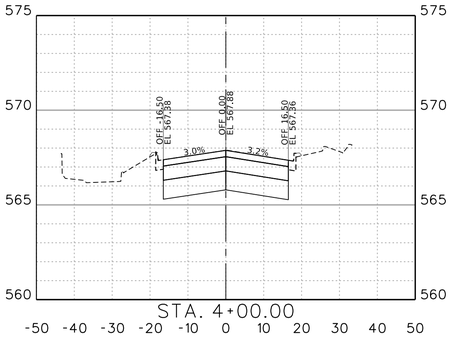
SHEET 37
SEQ. 37 OF 143

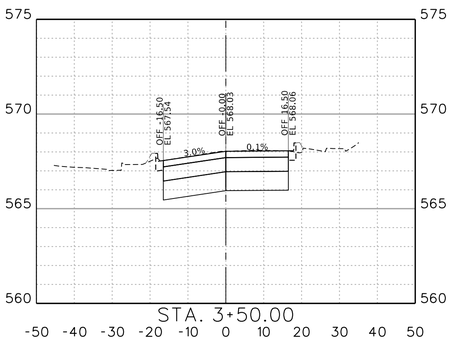
MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-XS-PGXS01.SHT
Plot Date: 8/25/2026 10:59:36 AM
Plot Scale: 20.000 '/ in.
Date: Aug. 25, 2026 - 10:59:36 AM
Model: SHEET CL_MANOR_3
Project Freese and Nichols,Inc.

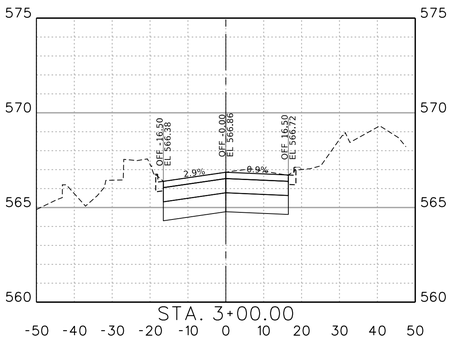
ALEXANDER AVE

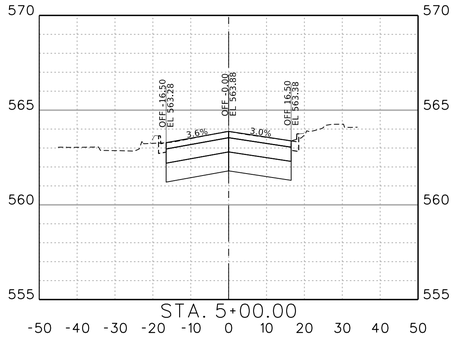
STA.3+00.00 TO STA.5+00.00





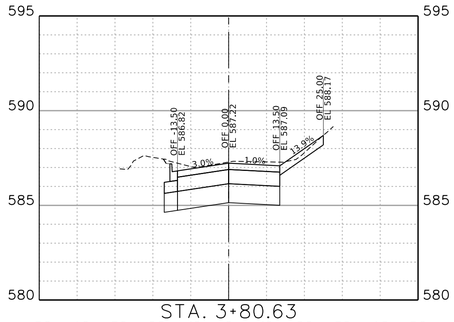


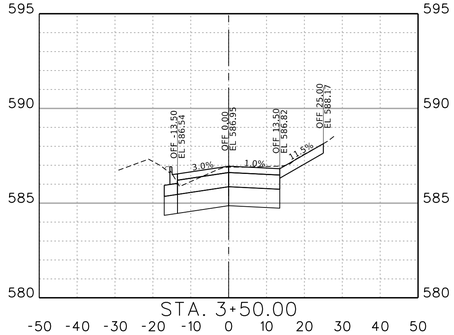


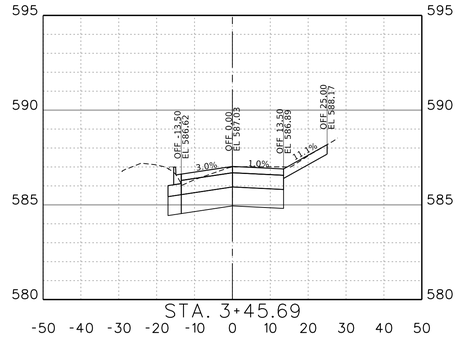


LARRY LN

STA.3+45.69 TO STA.3+80.63

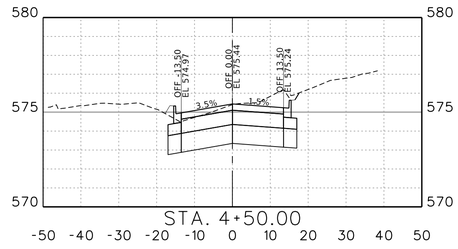


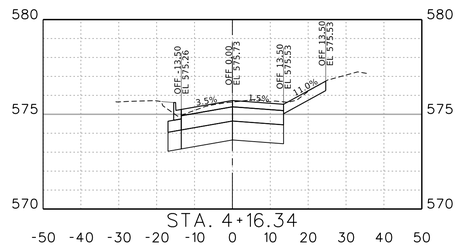


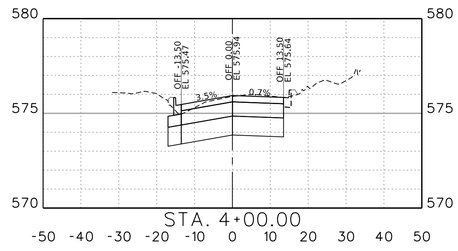


MERRIE LYNN AVE

STA.4+00.00 TO STA.4+50.00







NOTE:
CONTRACTOR TO FIELD VERIFY ALL ELEVATIONS AND OFFSETS BASED ON EXISTING CONDITIONS.

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/25/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
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Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

CROSS SECTIONS
ALEXANDER AVE, LARRY LN, MERRY LYNN AVE

F&N JOB NO.	AU314361
DATE	08/17/2026
DESIGNED	BP
DRAWN	BP
CHECKED	MGB
REVISED	
FILE NAME	CV-TRT-XS-PGXS02.SHT

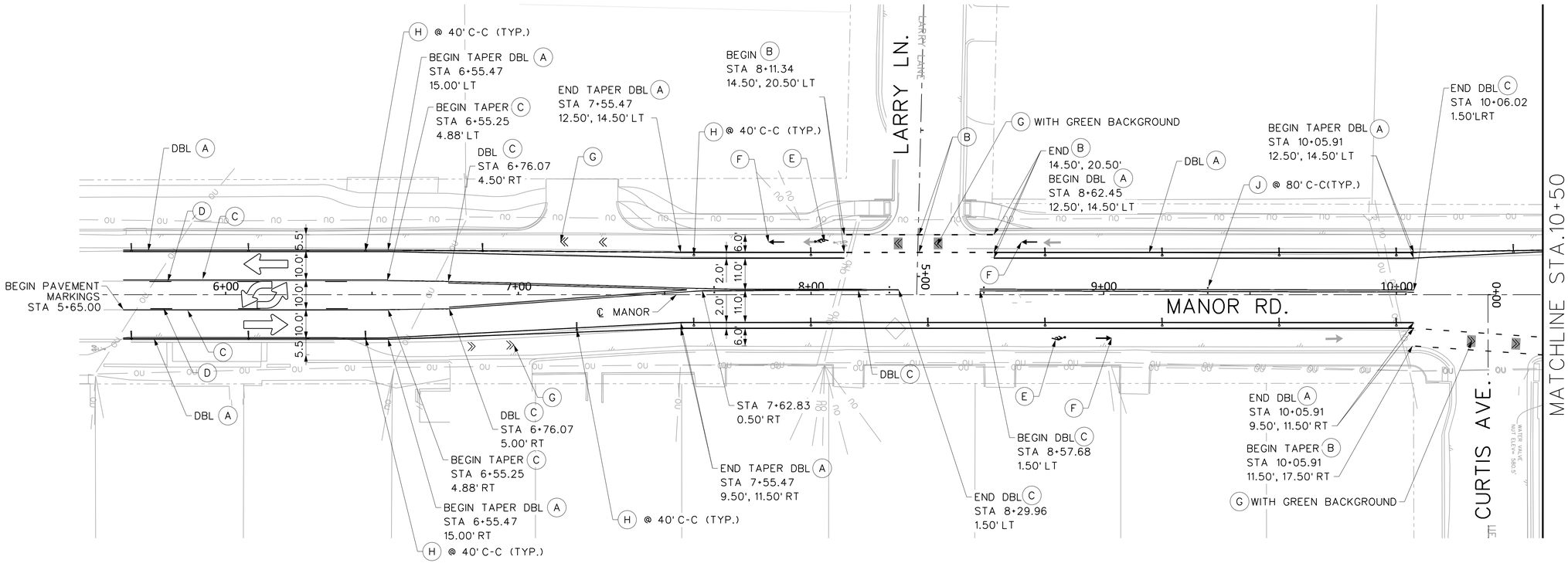
NO. ISSUES | BY | DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 38

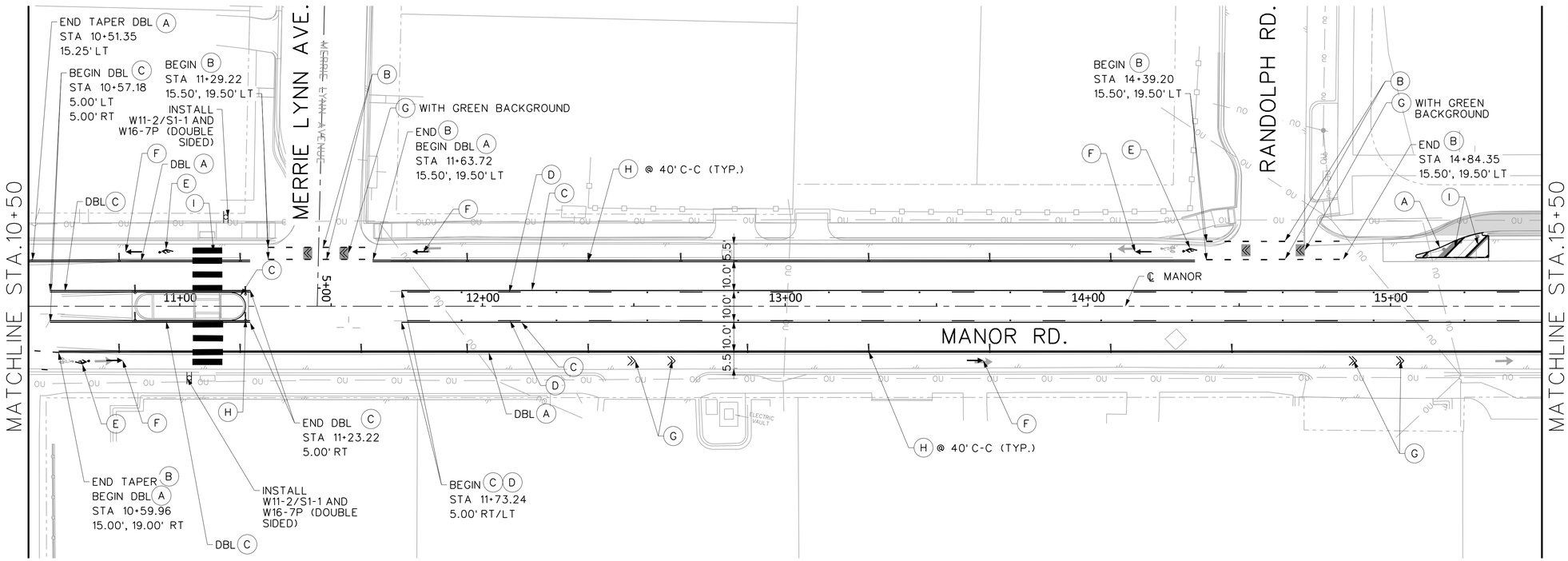
SEQ. 38 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-XS-PGXS02.SHT
Plot Driver: HP DesignJet 4500 PostScript Model: CL_ALEXANDER
Plot Scale: 20.000 '/ in. Project: Freese and Nichols, Inc.
Date: Aug 25, 2026 - 10:59:38 AM



LEGEND

A	REFL PAV MARK TY I (W)(4")(SLD)
B	REFL PAV MARK TY I (W)(4")(DASH)
C	REFL PAV MARK TY I (Y)(4")(SLD)
D	REFL PAV MARK TY I (Y)(4")(BRK)
E	REFL PAV MRKR BICYCLE
F	REFL PAV MRKR BICYCLE ARROW
G	REFL PAV MRKR CHEVRON
H	FLEXIBLE DELINEATOR
I	REFL PAV MARK TY I (W)(24")(SLD)
J	REFL PAV MARKR TY II-A-A



NOTE:
BIKE LANE DIMENSIONS ARE MEASURED FROM CENTER OF STRIPING TO GUTTER LINE.

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
Heather McNeal
08/25/2026

FREESE NICHOLS
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

PAVEMENT MARKING PLAN - MANOR RD STA.5+50 TO STA.15+50

NO.	ISSUES	BY	DATE

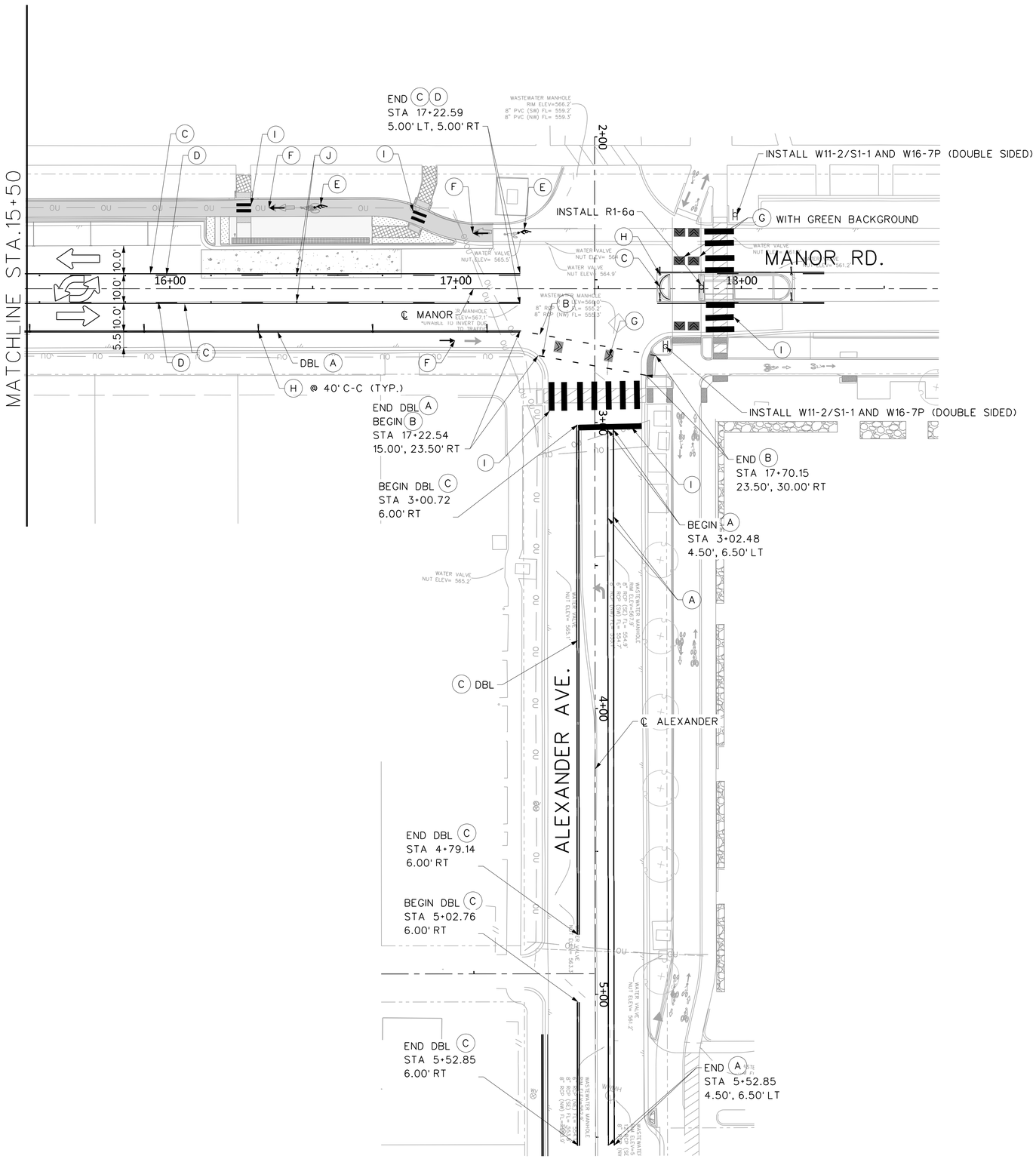
F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN AF
REVISED
CHECKED CGP
FILE NAME CV-TRT-PL-PH3-PVMRK01.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 39
SEQ. 39 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-PVMRK01.SHT
Active Level: [PWRK] Active MDB: Manor_Rd_Phase_3.mdb
Plot Scale: 20.0000 '/ in. Model: Default
Date: Aug. 25, 2026 - 10:58:49 AM Project: Freese and Nichols, Inc.

Office: On Site AU314361 Date: Aug. 25, 2026 - 10:58:49 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-PVMRK01.SHT



N

0 10' 20' 40'
SCALE IN FEET

LEGEND

- (A) REFL PAV MARK TY I (W)(4")(SLD)
- (B) REFL PAV MARK TY I (W)(4")(DASH)
- (C) REFL PAV MARK TY I (Y)(4")(SLD)
- (D) REFL PAV MARK TY I (Y)(4")(BRK)
- (E) REFL PAV MRKR BICYCLE
- (F) REFL PAV MRKR BICYCLE ARROW
- (G) REFL PAV MRKR CHEVRON
- (H) FLEXIBLE DELINEATOR
- (I) REFL PAV MARK TY I (W)(24")(SLD)
- (J) REFL PAV MARKR TY II-A-A

NOTES:

1. BIKE LANE DIMENSIONS ARE MEASURED FROM CENTER OF STRIPING TO GUTTER LINE.

2. CONTRACTOR TO SURVEY AND REPLACE ANY ADDITIONAL PAVEMENT MARKINGS IMPACTED BY CONSTRUCTION AROUND EXISTING BUS STATION.

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
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08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

PAVEMENT MARKING PLAN - MANOR RD STA.15+50 TO STA.20+00

NO.	ISSUES	BY	DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN AF
REVISED
CHECKED GDP
FILE NAME cv-TRT-PL-PH3-PVMRK02.SHT

SHEET 40
SEQ. 40 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-PVMRK02.SHT
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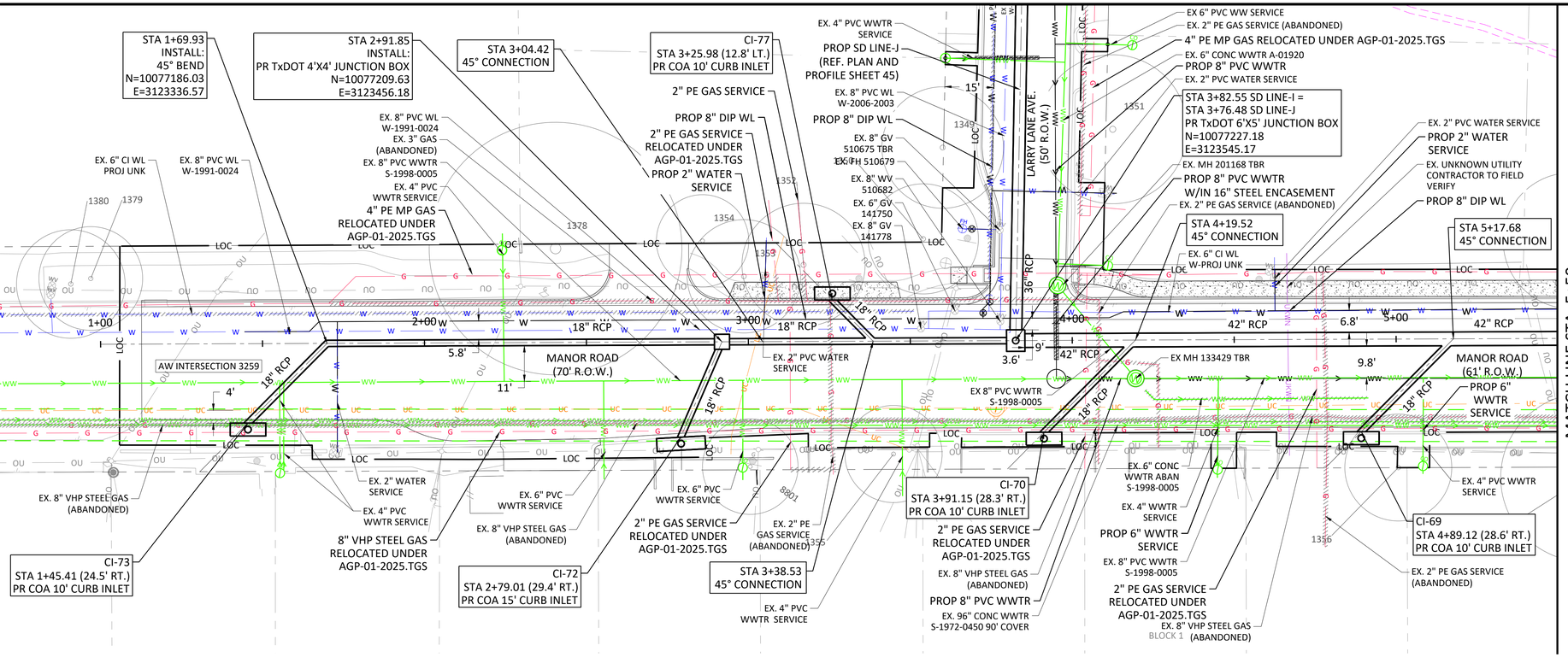
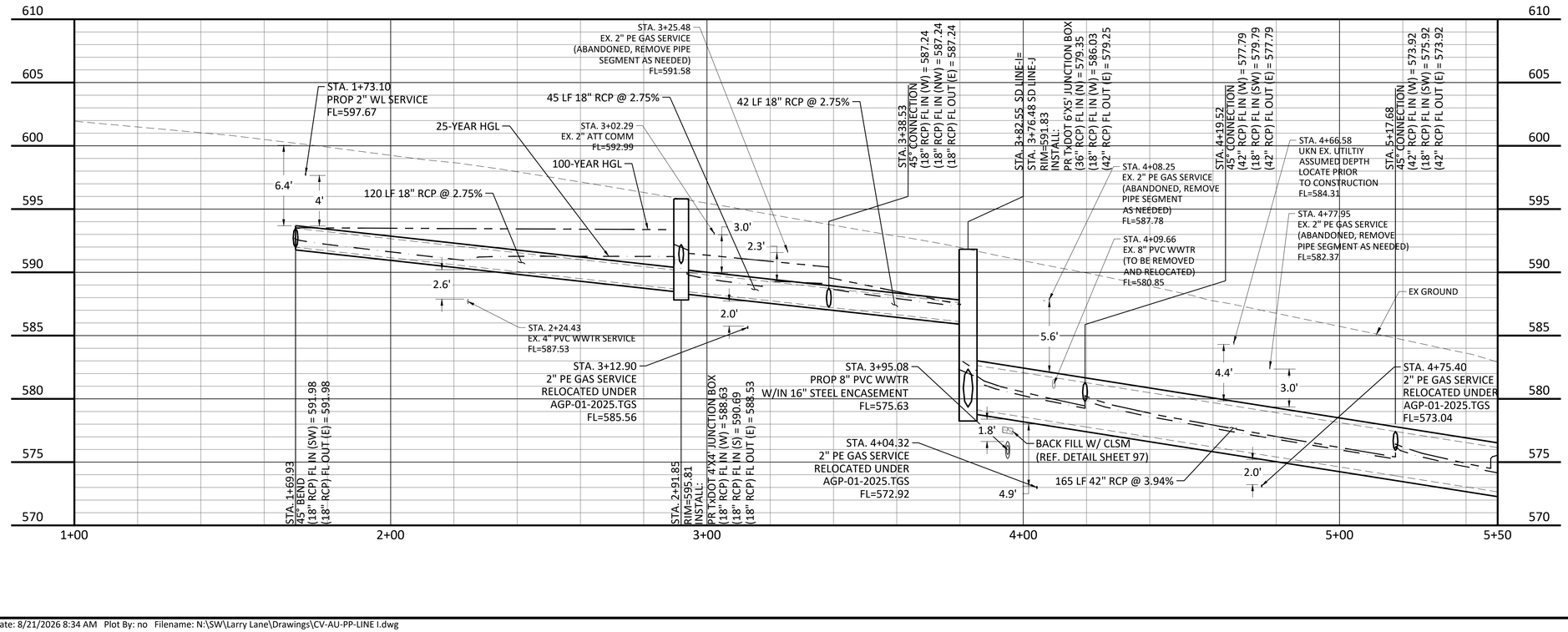
Date: Aug. 25, 2026 - 10:58:50 AM Project: Freese and Nichols Inc.



SD LINE-I



NOTES:

1. MANHOLE AND JUNCTION BOX CALLOUTS STATE INSIDE DIMENSIONS.
2. ALL OFFSET DIMENSIONS ARE REFERENCED FROM PIPE CENTERLINE TO THE CENTER OF JUNCTION BOXES AND MANHOLES AND TO THE FRONT OF CURB AT THE CENTER OF THE INLETS.
3. SEE LATERAL SHEETS 47-50.
4. ALL RCP ARE CLASS III UNLESS OTHERWISE STATED.
5. IF AN EXISTING STORM DRAIN IS FOUND THAT IS NOT SHOWN IN DRAWINGS. CONTACT ENGINEER IMMEDIATELY.
6. REFERENCE SHEETS 26-33 FOR ROADWAY RECONSTRUCTION AND SHEETS 51-76 FOR UTILITY IMPROVEMENTS.
7. STORMCAD HYDRAULIC RESULTS TABLE CAN BE FOUND ON SHEET 14.
8. 2 WEEKS PRIOR TO DOING WORK IN THIS AREA CONTRACTOR SHALL IDENTIFY TYPE AND DEPTH OF UNKNOWN UTILITY AND INFORM THE ENGINEER.
9. ON 01/15/2026 THIS PROJECT RECEIVED APPROVAL FROM THE AUSTIN WATERSHED PROTECTION DEPARTMENT OF A WAIVER TO SECTION 3.2.0 PERMISSIBLE SPREAD OF WATER. AN 11' WATER SPREAD IN THE 25-YEAR STORM EVENT HAS BEEN APPROVED DUE TO SITE CONSTRAINTS. THE LOCATION OF THE WAIVER IS AT CI-72.
10. SEE SHEETS 3 AND 51-75 FOR AUSTIN WATER WAIVERS.

CAUTION!!

OVERHEAD ELECTRIC LINES EXIST WITHIN THE WORK AREA. THE UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND FOR INFORMATION ONLY. ADDITIONAL UTILITIES MAY EXIST WITHIN THE WORK AREA AND MAY NOT BE INDICATED ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL UTILITIES CAUSED BY THE CONTRACTOR'S OPERATION.

LEGEND

- CAP
- PROP STORM DRAIN
- PROP STORM MANHOLE
- PROP STORM JUNCTION BOX
- RECOGNIZED ENVIRONMENTAL CONDITIONS
- w — PROP WATER LINE
- ww ww — PROP WASTEWATER LINE
- STEEL ENCASEMENT
- LOC — LIMITS OF CONSTRUCTION
- PROPERTY LINE
- RIGHT-OF-WAY
- EX DRAINAGE EASEMENT
- EX STORM DRAIN TO BE REMOVED FROM SERVICE. REFERENCE DEMO SHEETS 16-17
- ww ww — EX WASTEWATER LINE
- ww ww — EX 96 INCH WASTEWATER LINE
- w — EX WATERLINE
- UC — EX UNDERGROUND DUCT BANK
- G — EX UNDERGROUND GAS LINE
- EX ABANDONED UNDERGROUND GAS LINE
- EX ABANDONED WATERLINE
- EX ABANDONED WASTEWATER
- UKWN — EX UNKNOWN UTILITY CONTRACTOR TO FIELD VERIFY
- 100-YEAR HGL
- 25-YEAR HGL

N

0 20' 40'
HORIZONTAL

0 5' 10'
VERTICAL

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144
KIMBERLY K. PATAK
97367
LICENSED PROFESSIONAL ENGINEER
8/21/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone - (512) 617-3100
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Web - www.freese.com

CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

DRAINAGE PLAN AND PROFILE STA 1+00.00 TO 5+50.00 SD LINE-I

GRH JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
FILE NAME	CV-AU-PP-LINE I.dwg

NO. | ISSUE | BY | DATE

Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
VERIFY SCALE 0 1"

SHEET 41
SEQ. 41 OF 143

ACAD Rel: 25.1s (LMS Tech)
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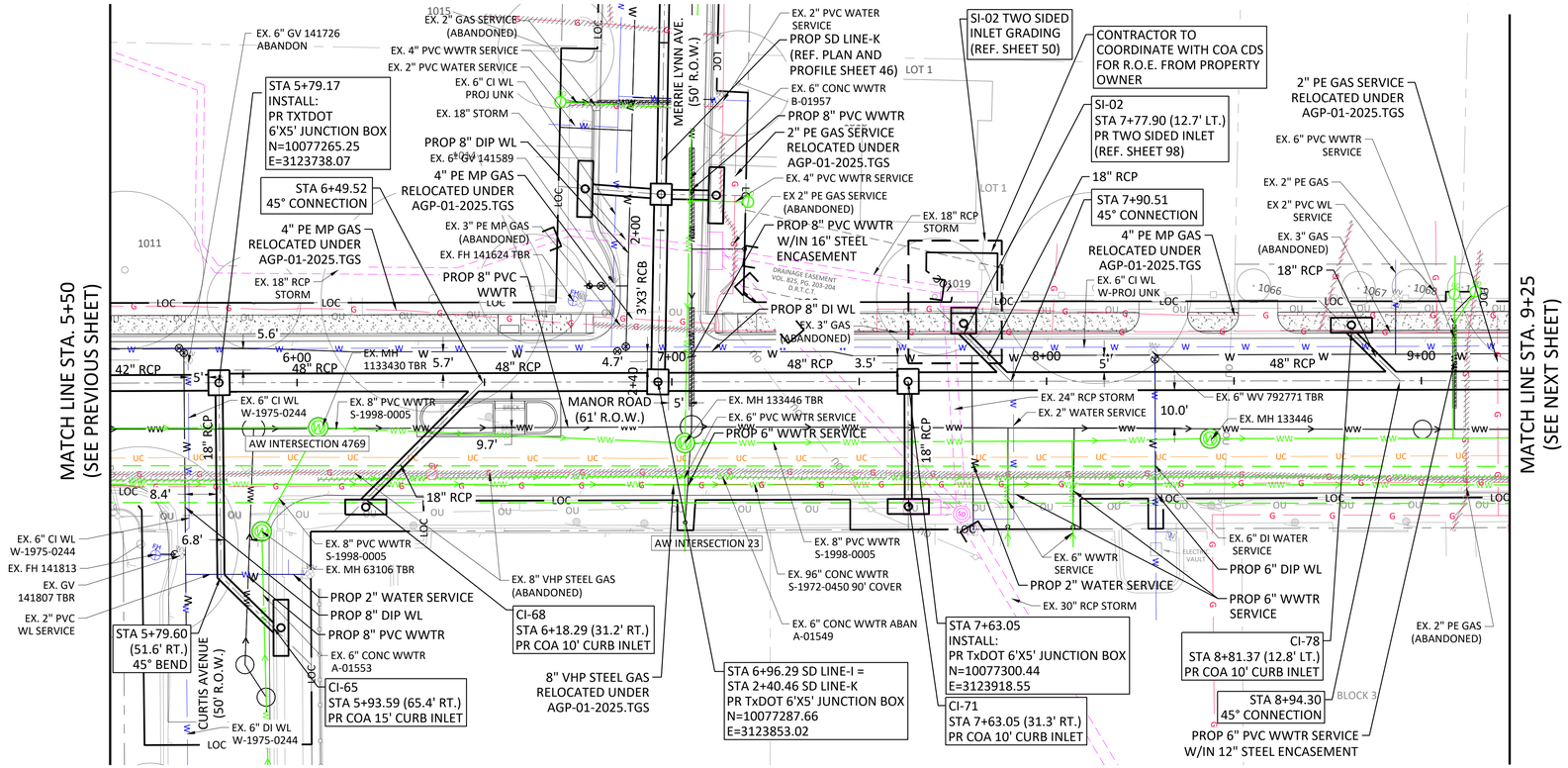
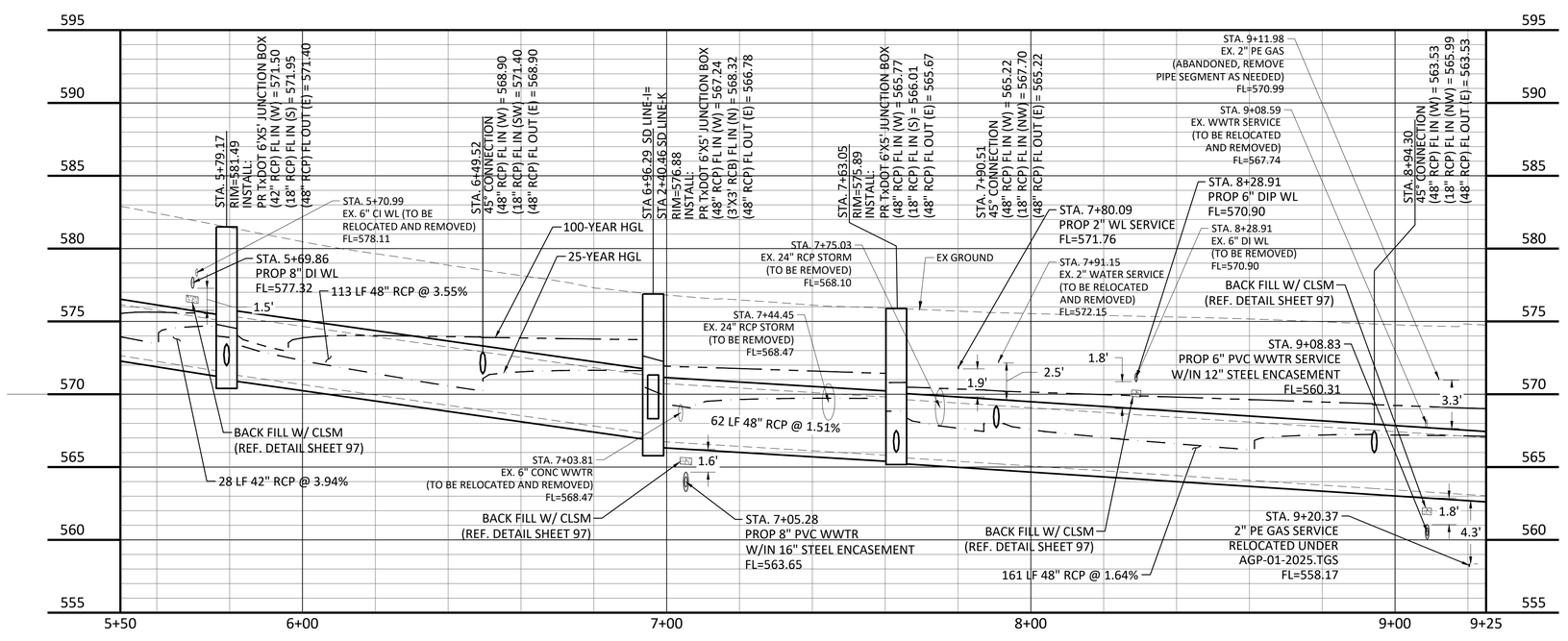
Last Saved: 7/28/2026 9:30 PM Saved By: 02915

Plot Date: 8/21/2026 8:34 AM Plot By: no Filename: N:\SW\Larry Lane\Drawings\CV-AU-PP-LINE I.dwg





NOTES:

1. MANHOLE AND JUNCTION BOX CALLOUTS STATE INSIDE DIMENSIONS.
2. ALL OFFSET DIMENSIONS ARE REFERENCED FROM PIPE CENTERLINE TO THE CENTER OF JUNCTION BOXES AND MANHOLES AND TO THE FRONT OF CURB AT THE CENTER OF THE INLETS.
3. SEE LATERAL SHEETS 47-50.
4. ALL RCP ARE CLASS III UNLESS OTHERWISE STATED.
5. IF AN EXISTING STORM DRAIN IS FOUND THAT IS NOT SHOWN IN DRAWINGS. CONTACT ENGINEER IMMEDIATELY.
6. REFERENCE SHEETS 26-33 FOR ROADWAY RECONSTRUCTION AND SHEETS 51-76 FOR UTILITY IMPROVEMENTS.
7. STORMCAD HYDRAULIC RESULTS TABLE CAN BE FOUND ON SHEET 14.
8. SEE SHEETS 3 AND 51-75 FOR AUSTIN WATER WAIVERS.

CAUTION!!

OVERHEAD ELECTRIC LINES EXIST WITHIN THE WORK AREA. THE UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND FOR INFORMATION ONLY. ADDITIONAL UTILITIES MAY EXIST WITHIN THE WORK AREA AND MAY NOT BE INDICATED ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL UTILITIES CAUSED BY THE CONTRACTOR'S OPERATION.

LEGEND

- CAP
- PROP STORM DRAIN
- PROP STORM MANHOLE
- PROP STORM JUNCTION BOX
- RECOGNIZED ENVIRONMENTAL CONDITIONS
- PROP WATER LINE
- PROP WASTEWATER LINE
- STEEL ENCASEMENT
- LIMITS OF CONSTRUCTION
- PROPERTY LINE
- RIGHT-OF-WAY
- EX DRAINAGE EASEMENT
- EX STORM DRAIN TO BE REMOVED FROM SERVICE. REFERENCE DEMO SHEETS 16-17
- EX WASTEWATER LINE
- EX 96 INCH WASTEWATER LINE
- EX WATERLINE
- EX UNDERGROUND DUCT BANK
- EX UNDERGROUND GAS LINE
- EX ABANDONED UNDERGROUND GAS LINE
- EX ABANDONED WATERLINE
- EX ABANDONED WASTEWATER
- EX UNKNOWN UTILITY CONTRACTOR TO FIELD VERIFY
- 100-YEAR HGL
- 25-YEAR HGL

N

0 20' 40'
HORIZONTAL

0 5' 10'
VERTICAL

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144
KIMBERLY K. PATAK
97367
LICENSED PROFESSIONAL ENGINEER
8/21/2026

FREESE NICHOLS
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Austin, Texas 78759
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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION

BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

DRAINAGE PLAN AND PROFILE
STA 5+50.00 TO 9+25.00 SD LINE-I

F&N JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
FILE NAME	CV-AU-PP-LINE I.dwg

NO.	ISSUE	BY	DATE

Bar is one inch on original drawing, if not one inch on this sheet, adjust scale.

VERIFY SCALE 1 0

SHEET 42

SEQ. 42 OF 143

ACAD Rel: 25.1s (LMS Tech)
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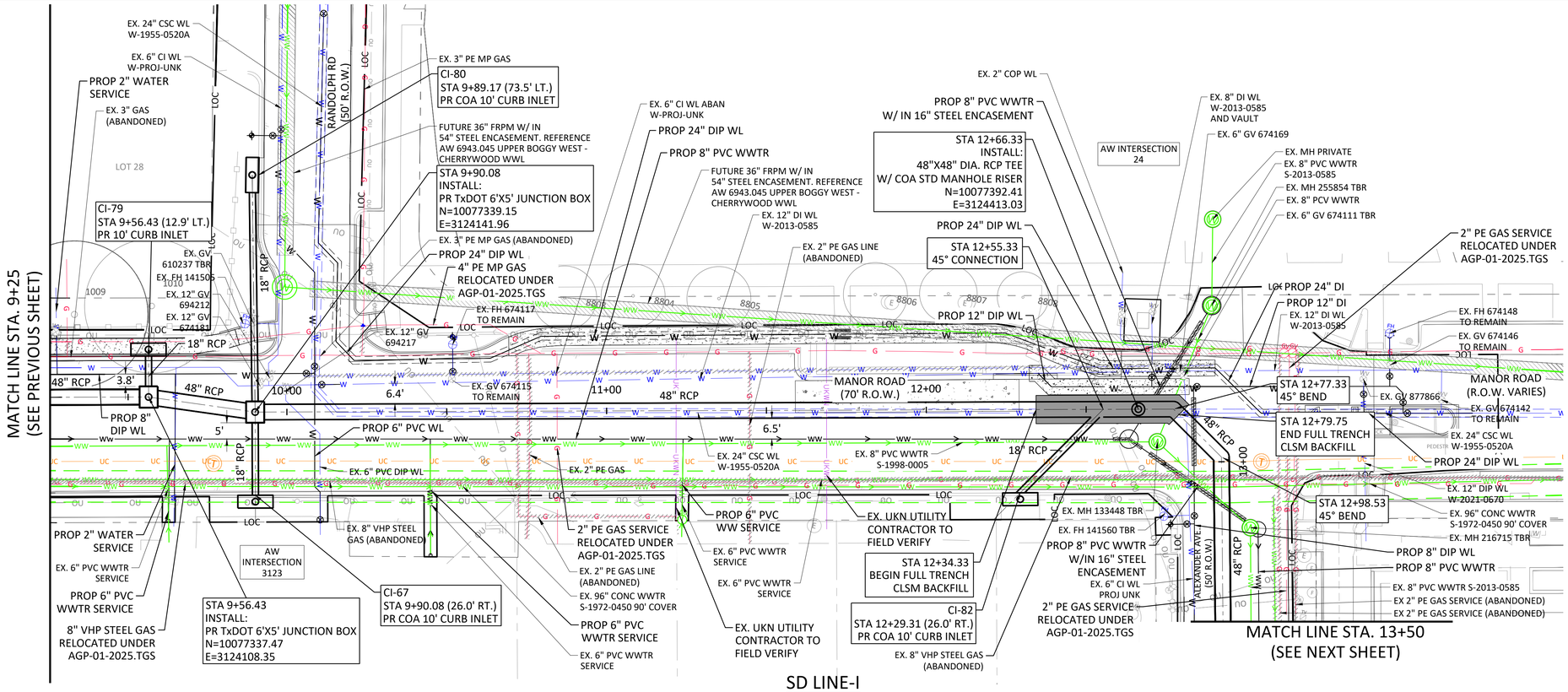
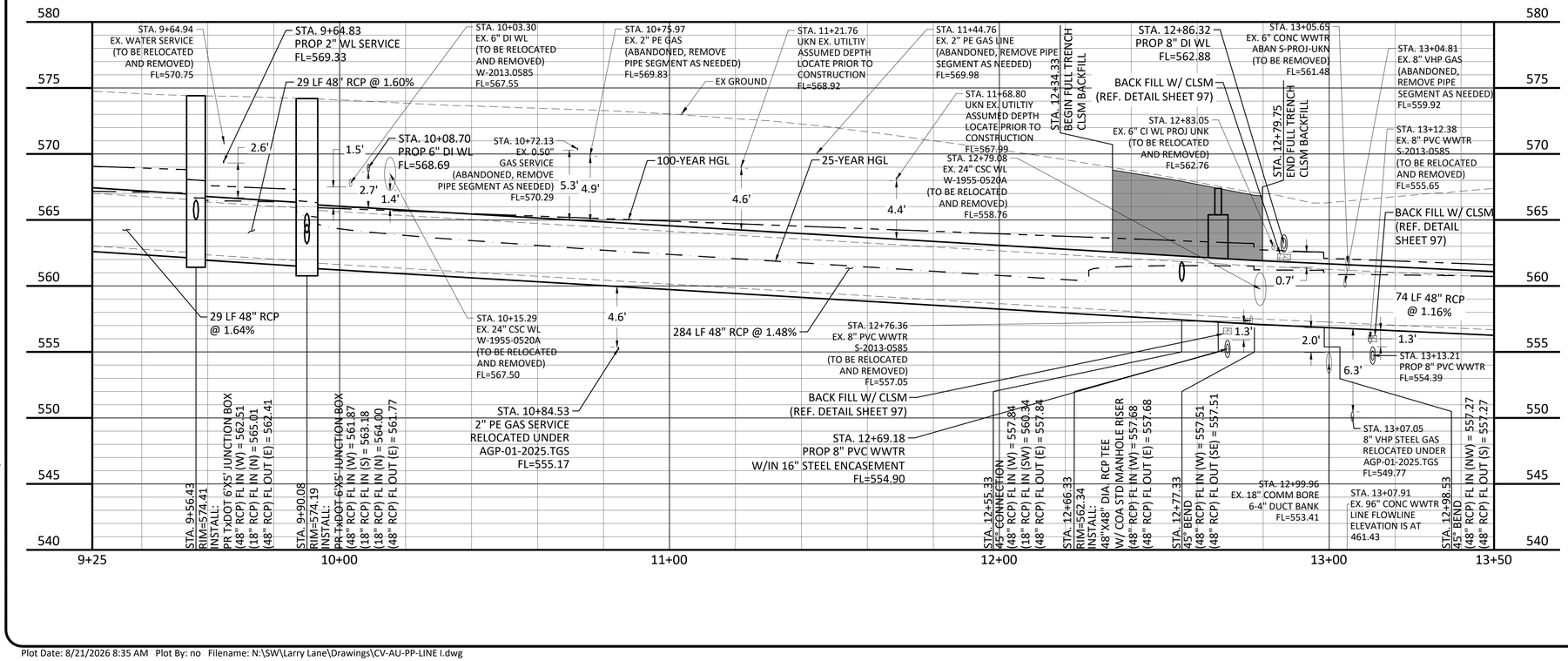
Plot Date: 8/21/2026 8:34 AM Plot By: no Filename: N:\SW\Larry Lane\Drawings\CV-AU-PP-LINE I.dwg

EX 4" PVC WW SERVICE





NOTES:

1. MANHOLE AND JUNCTION BOX CALLOUTS STATE INSIDE DIMENSIONS.
2. ALL OFFSET DIMENSIONS ARE REFERENCED FROM PIPE CENTERLINE TO THE CENTER OF JUNCTION BOXES AND MANHOLES AND TO THE FRONT OF CURB AT THE CENTER OF THE INLETS.
3. SEE LATERAL SHEETS 47-50.
4. ALL RCP ARE CLASS III UNLESS OTHERWISE STATED.
5. IF AN EXISTING STORM DRAIN IS FOUND THAT IS NOT SHOWN IN DRAWINGS. CONTACT ENGINEER IMMEDIATELY.
6. REFERENCE SHEETS 26-33 FOR ROADWAY RECONSTRUCTION AND SHEETS 51-76 FOR UTILITY IMPROVEMENTS.
7. STORMCAD HYDRAULIC RESULTS TABLE CAN BE FOUND ON SHEET 14.
8. 2 WEEKS PRIOR TO DOING WORK IN THIS AREA CONTRACTOR SHALL IDENTIFY TYPE AND DEPTH OF UNKNOWN UTILITY AND INFORM THE ENGINEER.
9. 9. ON 01/15/2026 THIS PROJECT RECEIVED APPROVAL FROM THE AUSTIN WATERSHED PROTECTION DEPARTMENT OF A WAIVER TO SECTION 5.6.1 MANHOLE SPACING. TWO HORIZONTAL 45-DEGREE BENDS IN THE STORM DRAIN TRUNK LINE HAVE BEEN APPROVED DUE TO UTILITY DESIGN CONSTRAINTS. THE LOCATION OF THE WAIVER IS AT STA 12+77.33 AND AT STA 12+98.53.
10. SEE SHEETS 3 AND 51-75 FOR AUSTIN WATER WAIVERS.

CAUTION!!

OVERHEAD ELECTRIC LINES EXIST WITHIN THE WORK AREA. THE UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND FOR INFORMATION ONLY. ADDITIONAL UTILITIES MAY EXIST WITHIN THE WORK AREA AND MAY NOT BE INDICATED ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL UTILITIES CAUSED BY THE CONTRACTOR'S OPERATION.

LEGEND

- CAP
- PROP STORM DRAIN
- PROP STORM MANHOLE
- PROP STORM JUNCTION BOX
- RECOGNIZED ENVIRONMENTAL CONDITIONS
- PROP WATER LINE
- PROP WASTEWATER LINE
- STEEL ENCASEMENT
- LIMITS OF CONSTRUCTION
- PROPERTY LINE
- RIGHT-OF-WAY
- EX DRAINAGE EASEMENT
- EX STORM DRAIN TO BE REMOVED FROM SERVICE. REFERENCE DEMO SHEETS 16-17
- EX WASTEWATER LINE
- EX 96 INCH WASTEWATER LINE
- EX WATERLINE
- EX UNDERGROUND DUCT BANK
- EX UNDERGROUND GAS LINE
- EX ABANDONED UNDERGROUND GAS LINE
- EX ABANDONED WATERLINE
- EX ABANDONED WASTEWATER
- EX 36" FRPM W/ IN 54" STEEL ENCASEMENT
- EX UNKNOWN UTILITY CONTRACTOR TO FIELD VERIFY
- 100-YEAR HGL
- 25-YEAR HGL

N

0 20' 40' HORIZONTAL

0 5' 10' VERTICAL

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144
STATE OF TEXAS
KIMBERLY K. PATAK
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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE
IMPROVEMENTS-PHASE 3

DRAINAGE PLAN AND PROFILE
STA 9+25.00 TO 13+50.00 SD LINE-I

NO.	ISSUE	BY	DATE

FAH JOB NO. AU314361
DATE 12/12/2025
DESIGNED PSK
DRAWN NO
REVISED TRH
CHECKED KKP
FILE NAME CV-AU-PP-LINE I.dwg

VERIFY SCALE 1 0
Bar is one inch on original drawing, if not one inch on this sheet, adjust scale.

SHEET 43
SEQ. 43 OF 143

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Last Saved: 7/28/2026 9:30 PM Saved By: 02915

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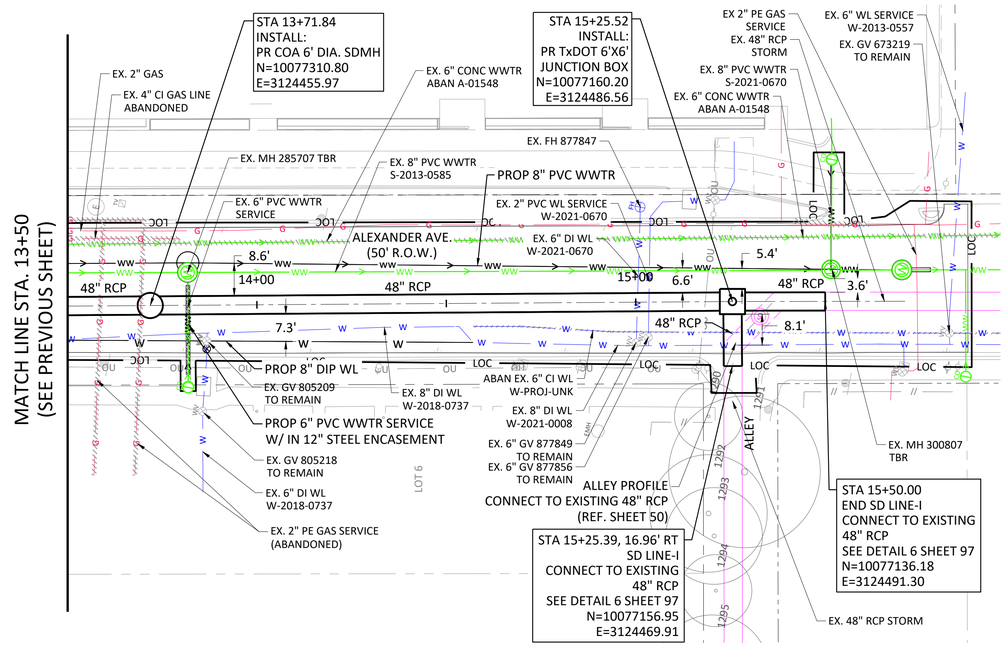

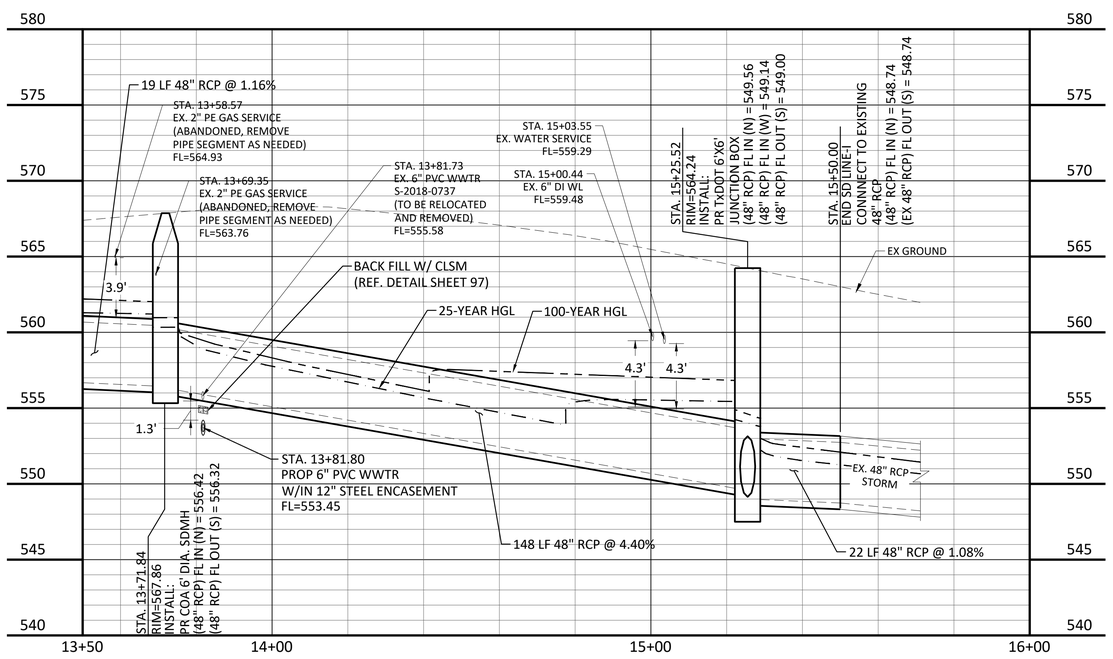

NOTES:

1. MANHOLE AND JUNCTION BOX CALLOUTS STATE INSIDE DIMENSIONS.
2. ALL OFFSET DIMENSIONS ARE REFERENCED FROM PIPE CENTERLINE TO THE CENTER OF JUNCTION BOXES AND MANHOLES AND TO THE FRONT OF CURB AT THE CENTER OF THE INLETS.
3. SEE LATERAL SHEETS 47-50.
4. ALL RCP ARE CLASS III UNLESS OTHERWISE STATED.
5. IF AN EXISTING STORM DRAIN IS FOUND THAT IS NOT SHOWN IN DRAWINGS. CONTACT ENGINEER IMMEDIATELY.
6. REFERENCE SHEETS 26-33 FOR ROADWAY RECONSTRUCTION AND SHEETS 51-76 FOR UTILITY IMPROVEMENTS.
7. STORMCAD HYDRAULIC RESULTS TABLE CAN BE FOUND ON SHEET 14.
8. SEE SHEETS 3 AND 51-75 FOR AUSTIN WATER WAIVERS.

CAUTION!!

OVERHEAD ELECTRIC LINES EXIST WITHIN THE WORK AREA. THE UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND FOR INFORMATION ONLY. ADDITIONAL UTILITIES MAY EXIST WITHIN THE WORK AREA AND MAY NOT BE INDICATED ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL UTILITIES CAUSED BY THE CONTRACTOR'S OPERATION.

LEGEND

- CAP
- PROP STORM DRAIN
- PROP STORM MANHOLE
- PROP STORM JUNCTION BOX
- RECOGNIZED ENVIRONMENTAL CONDITIONS
- PROP WATER LINE
- PROP WASTEWATER LINE
- STEEL ENCASEMENT
- LIMITS OF CONSTRUCTION
- PROPERTY LINE
- RIGHT-OF-WAY
- EX DRAINAGE EASEMENT
- EX STORM DRAIN
- EX STORM DRAIN TO BE REMOVED FROM SERVICE. REFERENCE DEMO SHEETS 16-17
- EX WASTEWATER LINE
- EX 96 INCH WASTEWATER LINE
- EX WATERLINE
- EX UNDERGROUND DUCT BANK
- EX UNDERGROUND GAS LINE
- EX ABANDONED UNDERGROUND GAS LINE
- EX ABANDONED WATERLINE
- EX ABANDONED WASTEWATER
- EX UNKNOWN UTILITY CONTRACTOR TO FIELD VERIFY
- 100-YEAR HGL
- 25-YEAR HGL

CONNECTION TO EXISTING SYSTEM NOTES:

1. REMOVE EXISTING 48" RCP 45-DEGREE BENDS, TEE, AND MANHOLE RISER. SALVAGE FOR REUSE IF UNDAMAGED.
2. REMOVE THE SEAL FROM THE ENDS OF THE EXISTING 48" RCP RCP AT THE CONNECTION JOINTS, CLEAN, AND INSTALL NEW SEAL.
3. INSTALL NEW 48" RCP TO CONNECT TO EXISTING 48" RCP AND TIE INTO NEW JUNCTION BOX.

N

0 20' 40'
HORIZONTAL

0 5' 10'
VERTICAL

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
KIMBERLY K. PAITAK
97367
LICENSED
PROFESSIONAL ENGINEER
8/21/2026

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Web – www.freese.com

CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

DRAINAGE PLAN AND PROFILE STA. 13+50.00 TO END SD LINE-I

NO.	ISSUE	BY	DATE

FAN JOB NO. AU314361
DATE 12/12/2025
DESIGNED PSK
DRAWN NO
REVISED TRH
CHECKED KKP
FILE NAME CV-AU-PP-LINE I.dwg

VERIFY SCALE 1 0
Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

SHEET 44
SEQ. 44 OF 143

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Last Saved: 7/28/2026 9:30 PM Saved By: 02915

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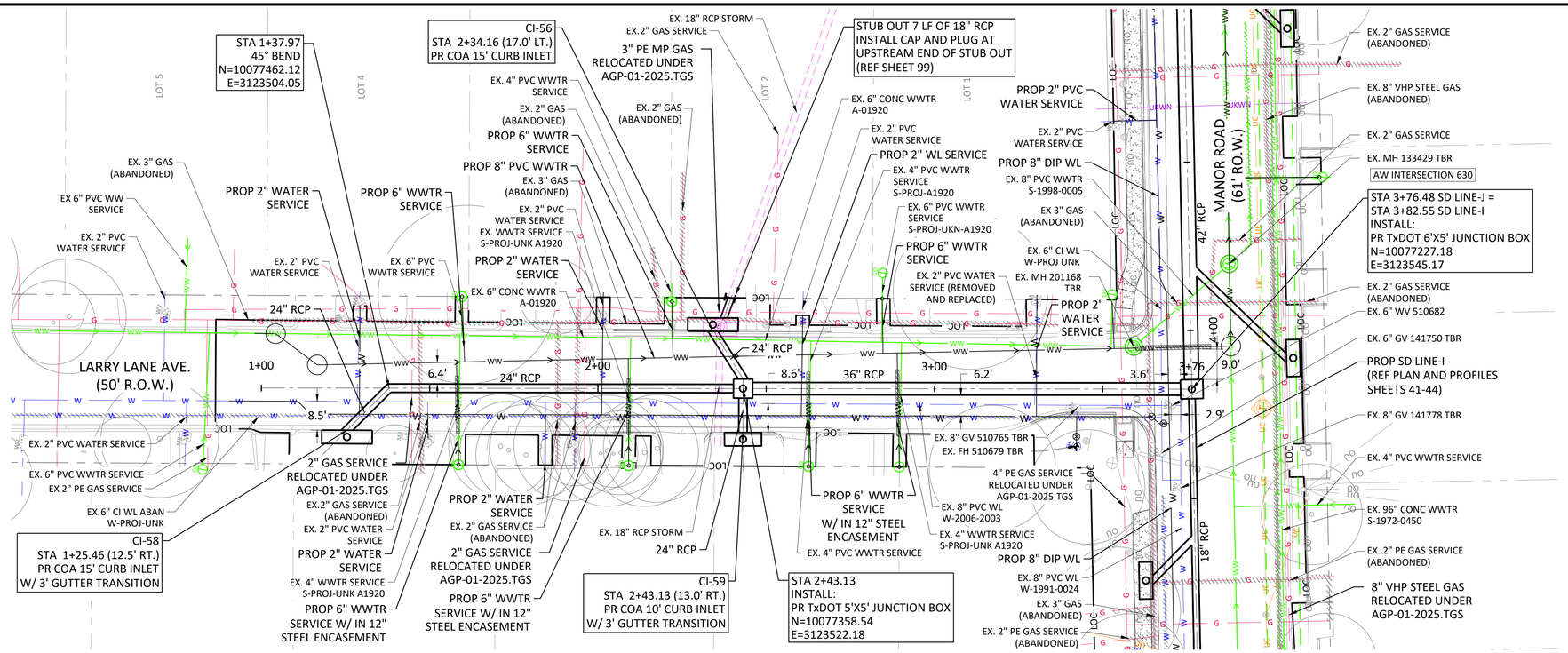
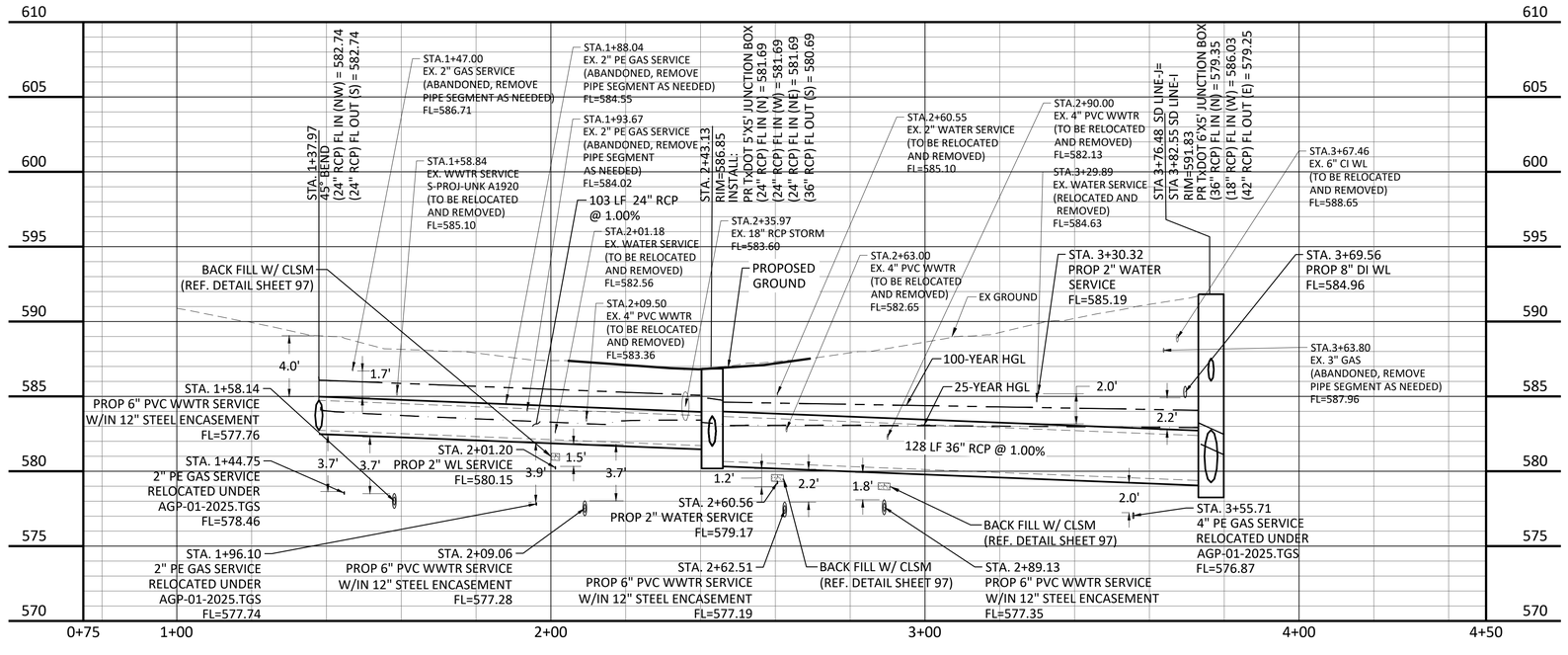


SD LINE-J



NOTES:

1. MANHOLE AND JUNCTION BOX CALLOUTS STATE INSIDE DIMENSIONS.
2. ALL OFFSET DIMENSIONS ARE REFERENCED FROM PIPE CENTERLINE TO THE CENTER OF JUNCTION BOXES AND MANHOLES AND TO THE FRONT OF CURB AT THE CENTER OF THE INLETS.
3. SEE LATERAL SHEETS 47-50.
4. ALL RCP ARE CLASS III UNLESS OTHERWISE STATED.
5. IF AN EXISTING STORM DRAIN IS FOUND THAT IS NOT SHOWN IN DRAWINGS. CONTACT ENGINEER IMMEDIATELY.
6. REFERENCE SHEETS 26-33 FOR ROADWAY RECONSTRUCTION AND SHEETS 51-76 FOR UTILITY IMPROVEMENTS.
7. STORMCAD HYDRAULIC RESULTS TABLE CAN BE FOUND ON SHEET 14.
8. ON 02/09/2026 THIS PROJECT RECEIVED APPROVAL FROM THE AUSTIN WATERSHED PROTECTION DEPARTMENT OF A WAIVER TO SECTION 4.1.0.D CURB INLET TRANSITION. A 3-FT CURB INLET TRANSITION LENGTH HAS BEEN APPROVED DUE TO SITE CONSTRAINTS. THE LOCATIONS OF THE WAIVER ARE AT CI-58 AND CI-59.
9. SEE SHEETS 3 AND 51-75 FOR AUSTIN WATER WAIVERS.

CAUTION!!

OVERHEAD ELECTRIC LINES EXIST WITHIN THE WORK AREA. THE UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND FOR INFORMATION ONLY. ADDITIONAL UTILITIES MAY EXIST WITHIN THE WORK AREA AND MAY NOT BE INDICATED ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL UTILITIES CAUSED BY THE CONTRACTOR'S OPERATION.

LEGEND

- CAP
- PROP STORM DRAIN
- PROP STORM MANHOLE
- PROP STORM JUNCTION BOX
- RECOGNIZED ENVIRONMENTAL CONDITIONS
- PROP WATER LINE
- PROP WASTEWATER LINE
- STEEL ENCASEMENT
- LIMITS OF CONSTRUCTION
- PROPERTY LINE
- RIGHT-OF-WAY
- EX DRAINAGE EASEMENT
- EX STORM DRAIN TO BE REMOVED FROM SERVICE. REFERENCE DEMO SHEETS 16-17
- EX WASTEWATER LINE
- EX 96 INCH WASTEWATER LINE
- EX WATERLINE
- EX UNDERGROUND DUCT BANK
- EX UNDERGROUND GAS LINE
- EX ABANDONED UNDERGROUND GAS LINE
- EX ABANDONED WATERLINE
- EX ABANDONED WASTEWATER
- EX UNKNOWN UTILITY CONTRACTOR TO FIELD VERIFY
- 100-YEAR HGL
- 25-YEAR HGL

N

0 20' 40'
HORIZONTAL

0 5' 10'
VERTICAL

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144
KIMBERLY K. PATAK
97367
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
8/21/2026

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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE
IMPROVEMENTS-PHASE 3
DRAINAGE PLAN AND PROFILE
STA 1+00.00 TO END SD LINE-J

F&N JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
FILE NAME	CV-AU-PP-LINE J.dwg

NO.	ISSUE	BY	DATE

Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

VERIFY SCALE 0 1"

SHEET 45

SEQ. 45 OF 143

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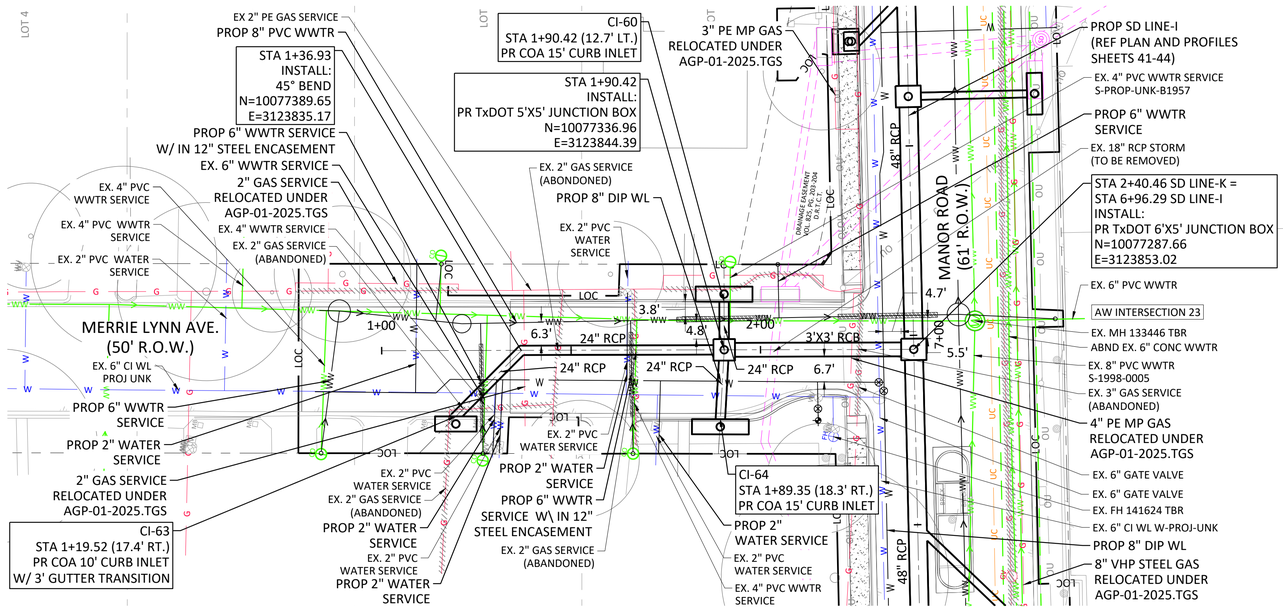
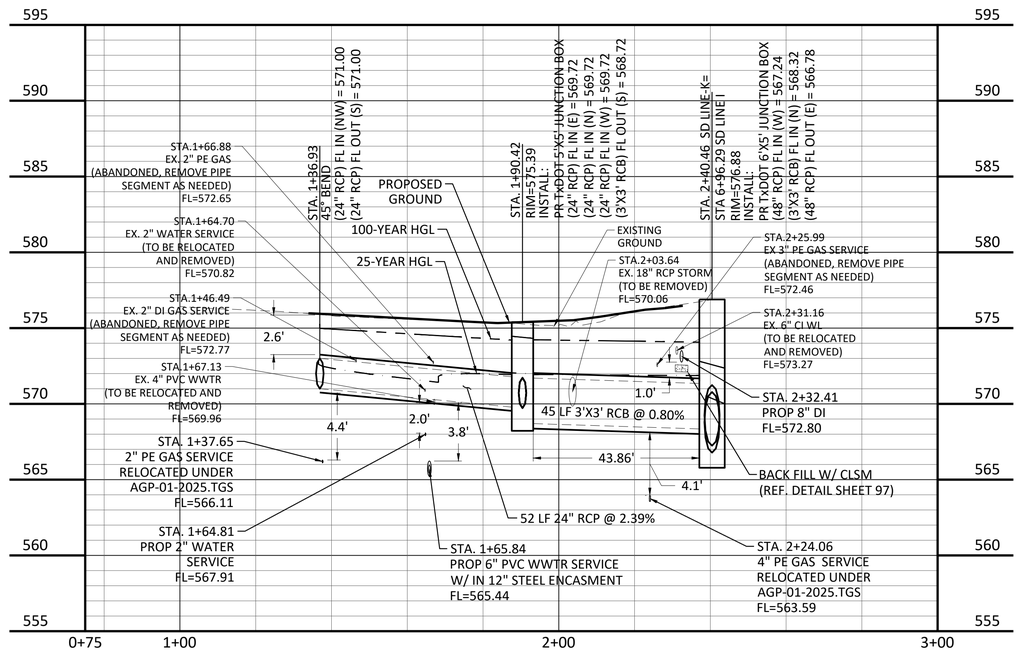


SD LINE-K



NOTES:

1. MANHOLE AND JUNCTION BOX CALLOUTS STATE INSIDE DIMENSIONS.
2. ALL OFFSET DIMENSIONS ARE REFERENCED FROM PIPE CENTERLINE TO THE CENTER OF JUNCTION BOXES AND MANHOLES AND TO THE FRONT OF CURB AT THE CENTER OF THE INLETS.
3. SEE LATERAL SHEETS 47-50.
4. ALL RCP ARE CLASS III UNLESS OTHERWISE STATED.
5. IF AN EXISTING STORM DRAIN IS FOUND THAT IS NOT SHOWN IN DRAWINGS. CONTACT ENGINEER IMMEDIATELY.
6. REFERENCE SHEETS 26-33 FOR ROADWAY RECONSTRUCTION AND SHEETS 51-76 FOR UTILITY IMPROVEMENTS.
7. 7. STORMCAD HYDRAULIC RESULTS TABLE CAN BE FOUND ON SHEET 14.
8. ON 02/09/2026 THIS PROJECT RECEIVED APPROVAL FROM THE AUSTIN WATERSHED PROTECTION DEPARTMENT OF A WAIVER TO SECTION 4.1.0.D CURB INLET TRANSITION. A 3-FT CURB INLET TRANSITION LENGTH HAS BEEN APPROVED DUE TO SITE CONSTRAINTS. THE LOCATION OF THE WAIVER IS AT CI-63.
9. SEE SHEETS 3 AND 51-75 FOR AUSTIN WATER WAIVERS.

CAUTION!!

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LEGEND

- CAP
- PROP STORM DRAIN
- PROP STORM MANHOLE
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- RECOGNIZED ENVIRONMENTAL CONDITIONS
- PROP WATER LINE
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- LIMITS OF CONSTRUCTION
- PROPERTY LINE
- RIGHT-OF-WAY
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- EX STORM DRAIN
- EX WASTEWATER LINE
- EX 96 INCH WASTEWATER LINE
- EX WATERLINE
- EX UNDERGROUND DUCT BANK
- EX UNDERGROUND GAS LINE
- EX ABANDONED UNDERGROUND GAS LINE
- EX ABANDONED WATERLINE
- EX ABANDONED WASTEWATER
- EX UNKNOWN UTILITY CONTRACTOR TO FIELD VERIFY
- 100-YEAR HGL
- 25-YEAR HGL

N

0 20' 40'
HORIZONTAL

0 5' 10'
VERTICAL

Freese and Nichols, Inc.
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STATE OF TEXAS
KIMBERLY K. PATAK
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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

DRAINAGE PLAN AND PROFILE STA 1+00.00 TO END SD LINE-K

FAN JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
FILE NAME	CV-AU-PP-LINE K.dwg

NO. | ISSUE | BY | DATE

VERIFY SCALE
Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
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SHEET 46
SEQ. 46 OF 143

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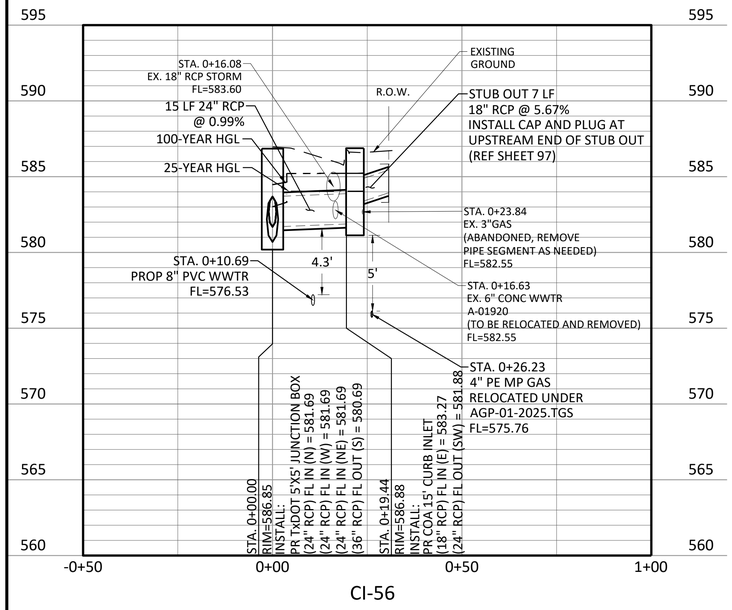
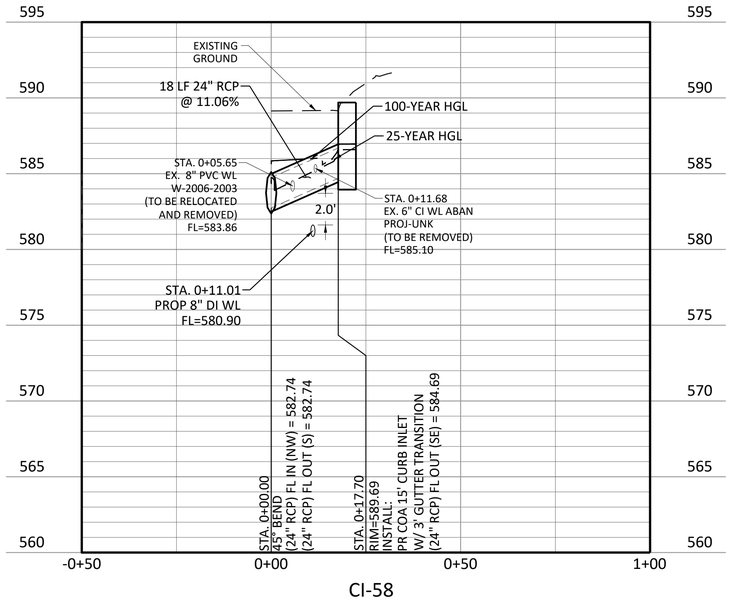
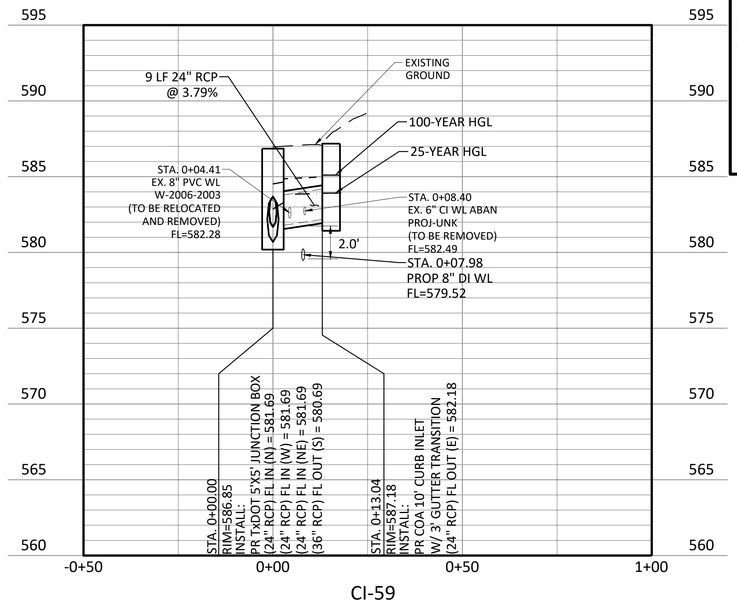


CI-56



CI-58



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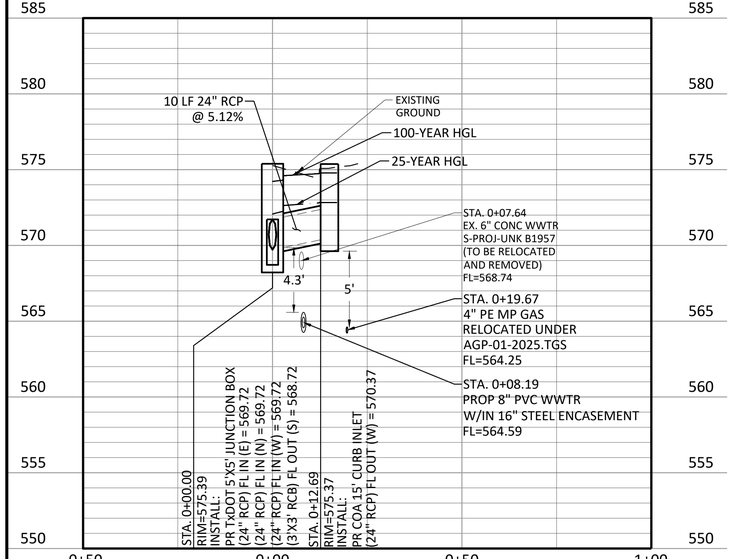

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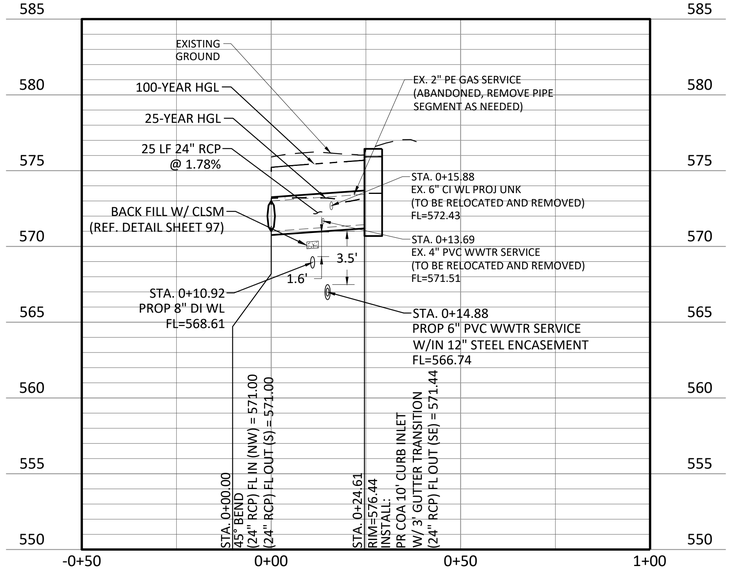

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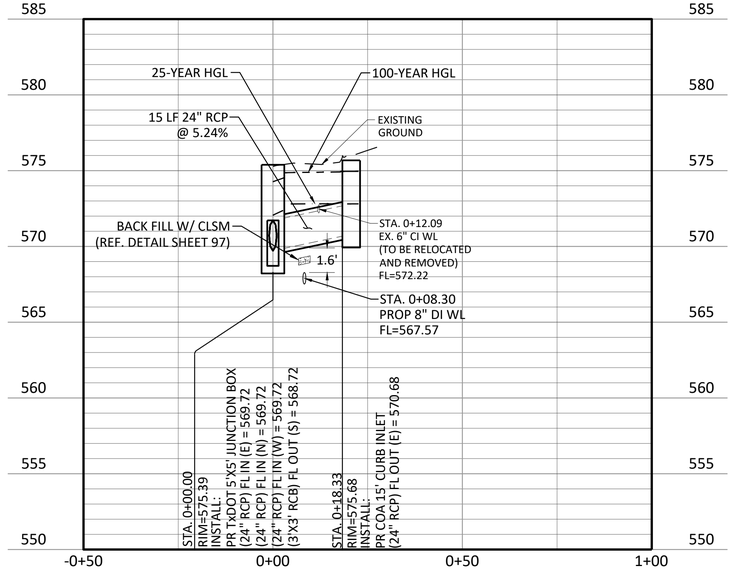

CI-64

NOTES:

1. ALL RCP ARE CLASS III UNLESS OTHERWISE STATED.
2. INLET RIM ELEVATIONS ARE REPRESENTATIVE OF THE TOP OF CURB AND MANHOLE RIM ELEVATIONS ARE REPRESENTATIVE OF THE TOP OF THE ROAD.
3. INLET STA AND OFFSET ARE REFERENCED FROM LINE ALIGNMENT TO THE FRONT OF CURB, CENTER OF INLET.
4. MANHOLE AND JUNCTION BOX STA AND OFFSET ARE REFERENCED FROM ALIGNMENT TO THE CENTER OF THE STRUCTURE.
5. STORMCAD HYDRAULIC RESULTS TABLE CAN BE FOUND ON SHEET 14.

LEGEND

100-YEAR HGL

25-YEAR HGL

0 20' 40'
HORIZONTAL

0 5' 10'
VERTICAL

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
KIMBERLY K. PATAK
97367
LICENSED
PROFESSIONAL ENGINEER
8/21/2026

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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE
IMPROVEMENTS-PHASE 3

DRAINAGE LATERALS 1 OF 4

FAN JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
FILE NAME	prop_alignment.dwg

NO.	ISSUE	BY	DATE

VERIFY SCALE
Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 47
SEQ. 47 OF 143

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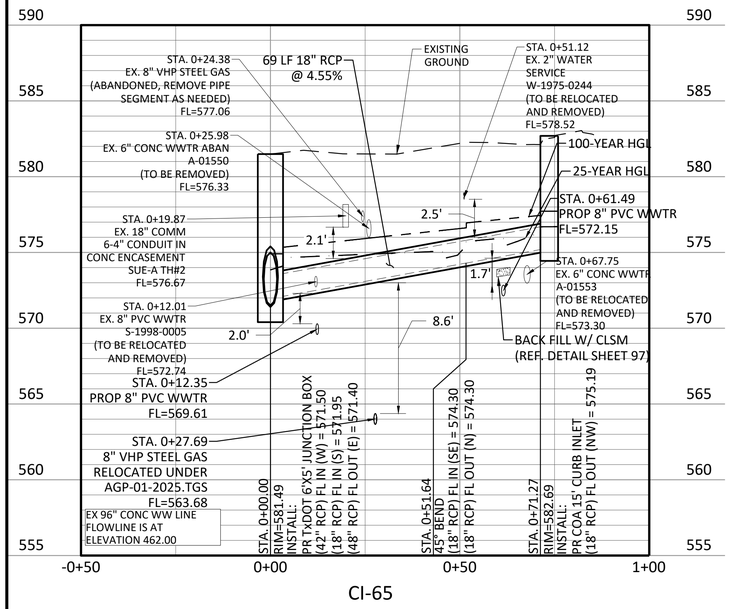
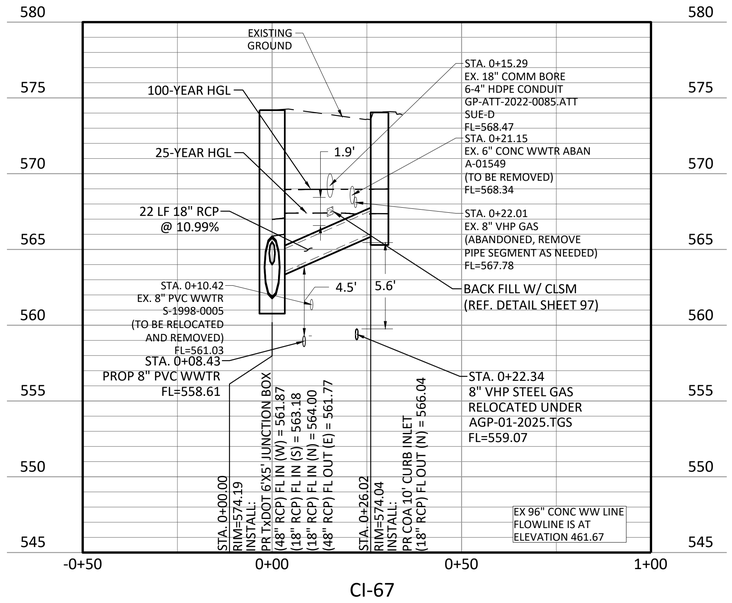
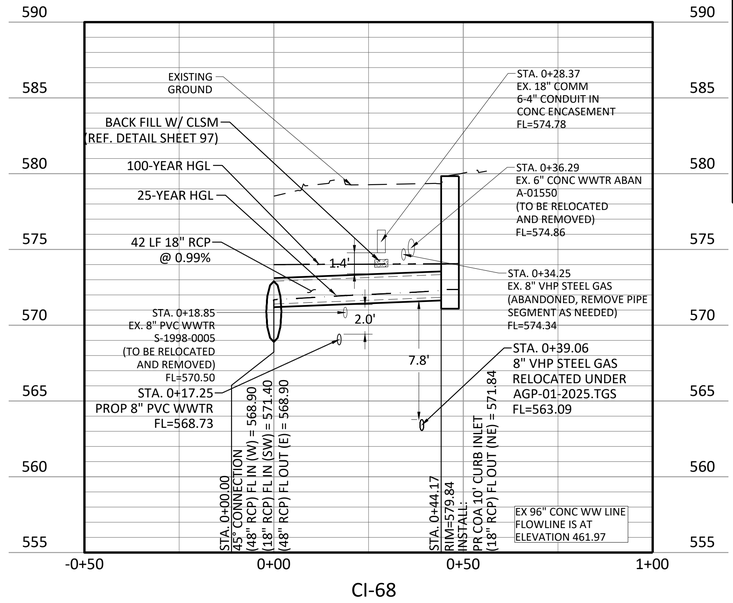
Plot Date: 8/21/2026 8:37 AM Plot By: no Filename: N:\ENG\C3D TOPO\prop_alignment.dwg



CI-65



CI-67



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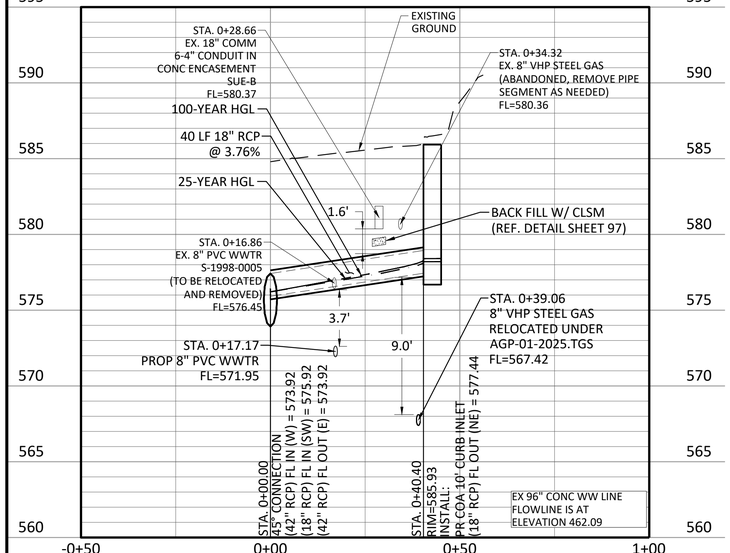

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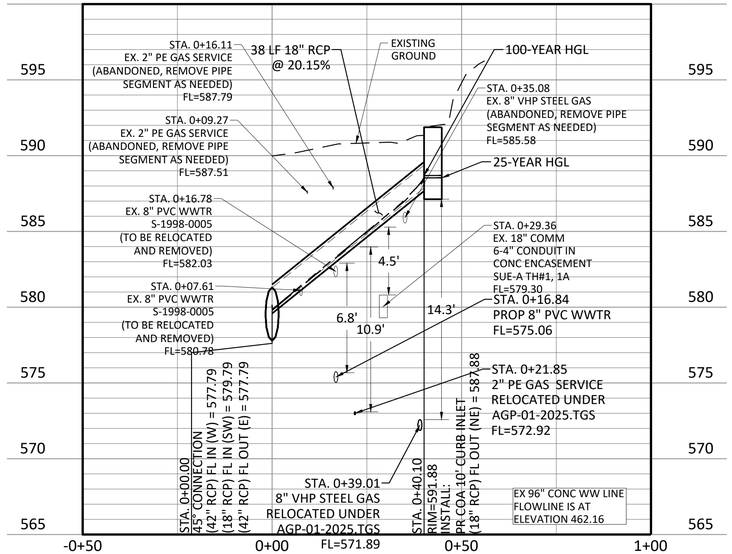

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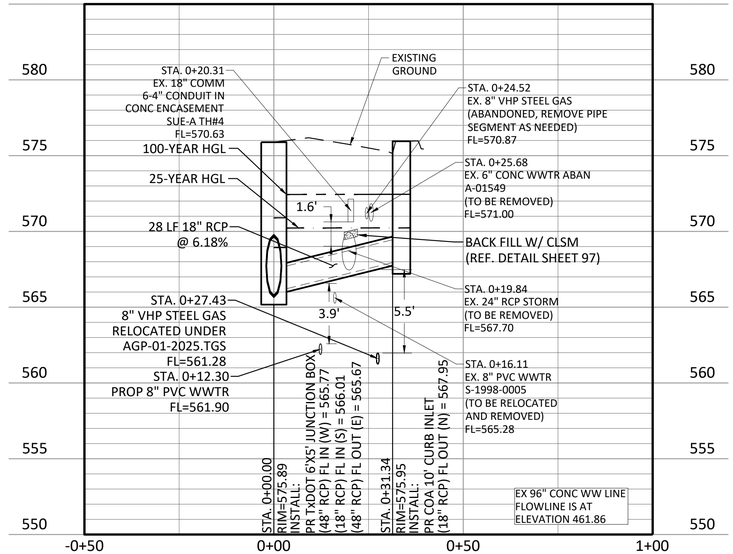

CI-71

LEGEND

100-YEAR HGL

25-YEAR HGL

0 20' 40'
HORIZONTAL

0 5' 10'
VERTICAL

NOTES:

1. ALL RCP ARE CLASS III UNLESS OTHERWISE STATED.
2. INLET RIM ELEVATIONS ARE REPRESENTATIVE OF THE TOP OF CURB AND MANHOLE RIM ELEVATIONS ARE REPRESENTATIVE OF THE TOP OF THE ROAD.
3. INLET STA AND OFFSET ARE REFERENCED FROM LINE ALIGNMENT TO THE FRONT OF CURB, CENTER OF INLET.
4. MANHOLE AND JUNCTION BOX STA AND OFFSET ARE REFERENCED FROM ALIGNMENT TO THE CENTER OF THE STRUCTURE.
5. STORMCAD HYDRAULIC RESULTS TABLE CAN BE FOUND ON SHEET 14.

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

DRAINAGE LATERALS 2 OF 4

NO.	ISSUE	BY	DATE
1			

F&N JOB NO. AU314361
DATE 12/12/2025
DESIGNED PSK
DRAWN NO
REVISED TRH
CHECKED KKP
FILE NAME prop_alignment.dwg

VERIFY SCALE
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1
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SHEET 48
SEQ. 48 OF 143

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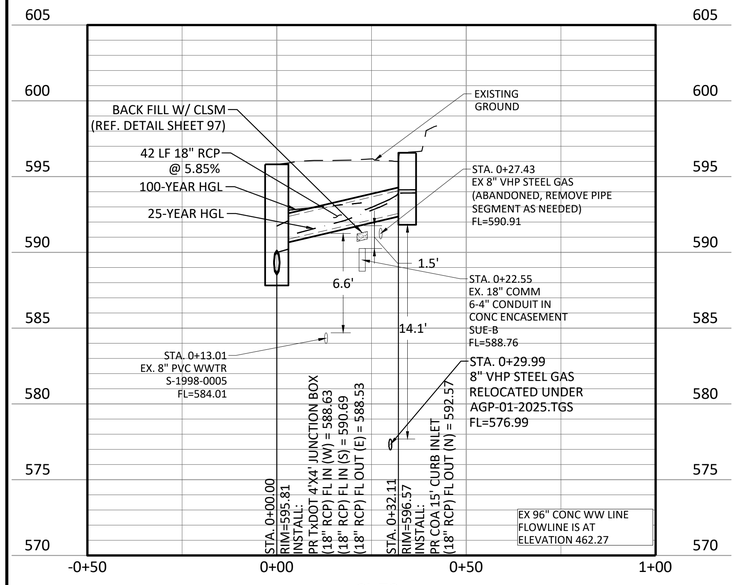
Plot Date: 8/21/2026 8:37 AM Plot By: no Filename: N:\ENG\C3D TOPO\prop_alignment.dwg



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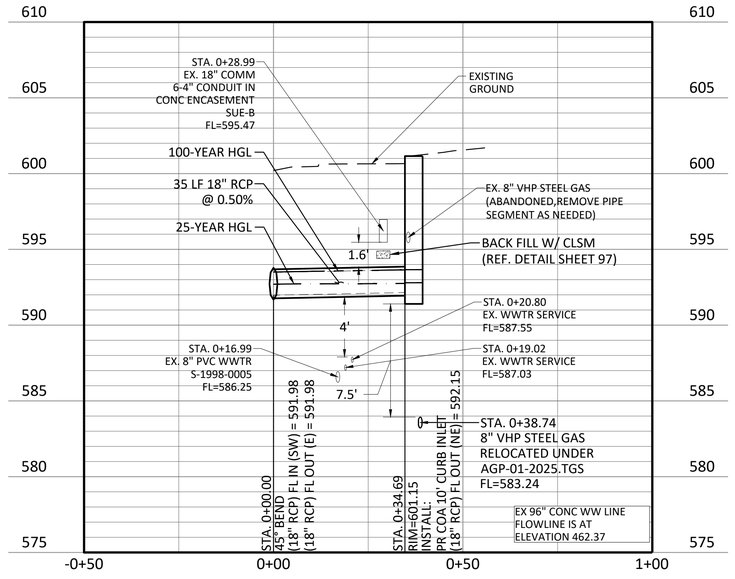

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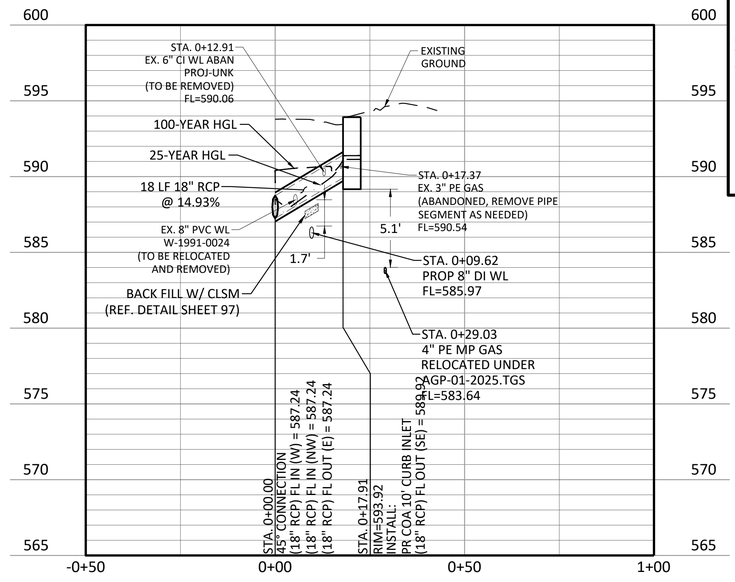

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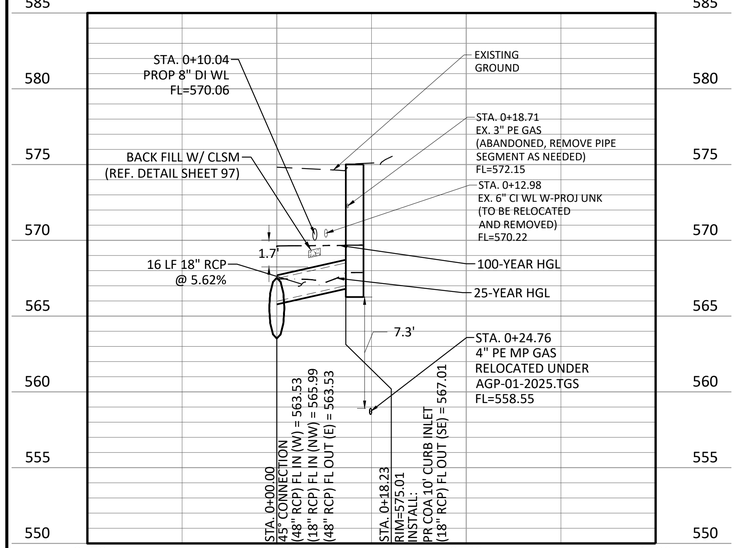
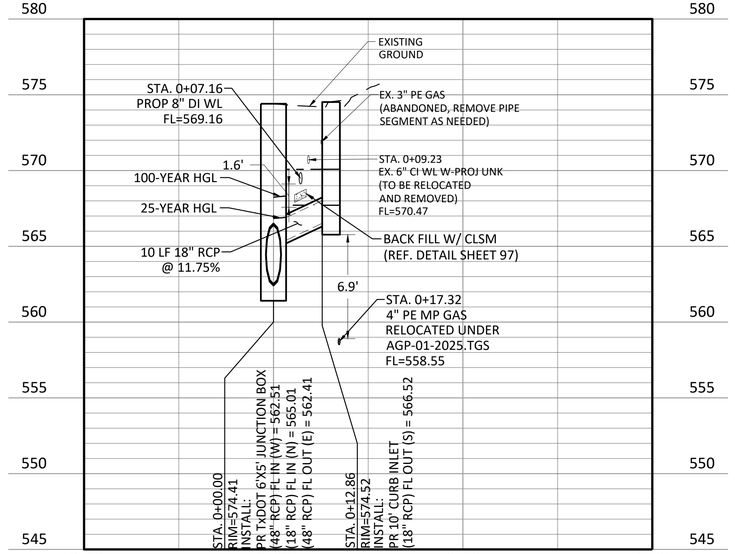
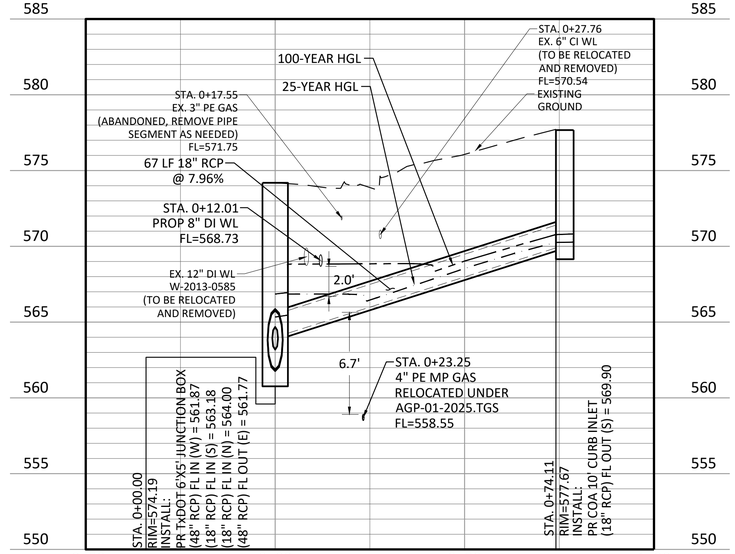


CI-78



CI-79



CI-80

NOTES:

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2. INLET RIM ELEVATIONS ARE REPRESENTATIVE OF THE TOP OF CURB AND MANHOLE RIM ELEVATIONS ARE REPRESENTATIVE OF THE TOP OF THE ROAD.
3. INLET STA AND OFFSET ARE REFERENCED FROM LINE ALIGNMENT TO THE FRONT OF CURB, CENTER OF INLET.
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5. STORMCAD HYDRAULIC RESULTS TABLE CAN BE FOUND ON SHEET 14.

LEGEND

100-YEAR HGL

25-YEAR HGL

0 20' 40'
HORIZONTAL

0 5' 10'
VERTICAL

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

KIMBERLY K. PATAK
97367
LICENSED
PROFESSIONAL
ENGINEER
STATE OF TEXAS

8/21/2026

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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION

BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

DRAINAGE LATERALS 3 OF 4

FAN JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
FILE NAME	prop_alignment.dwg

NO.	ISSUE	BY	DATE

VERIFY SCALE
Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 49

SEQ. 49 OF 143

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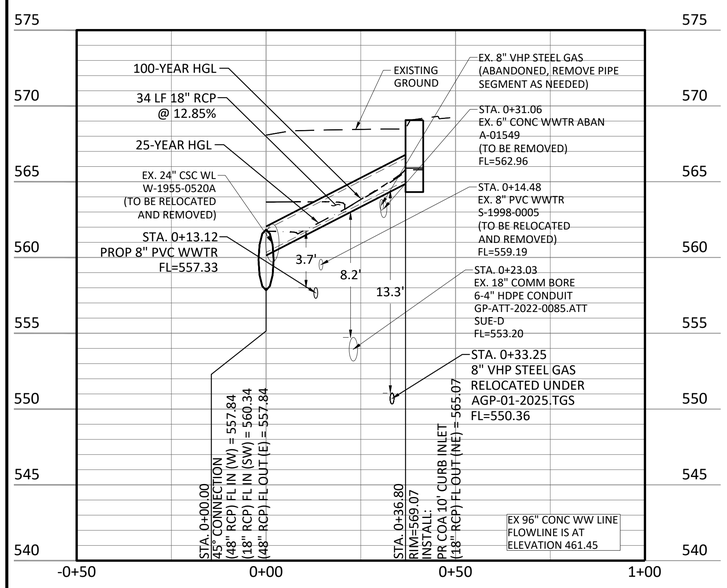
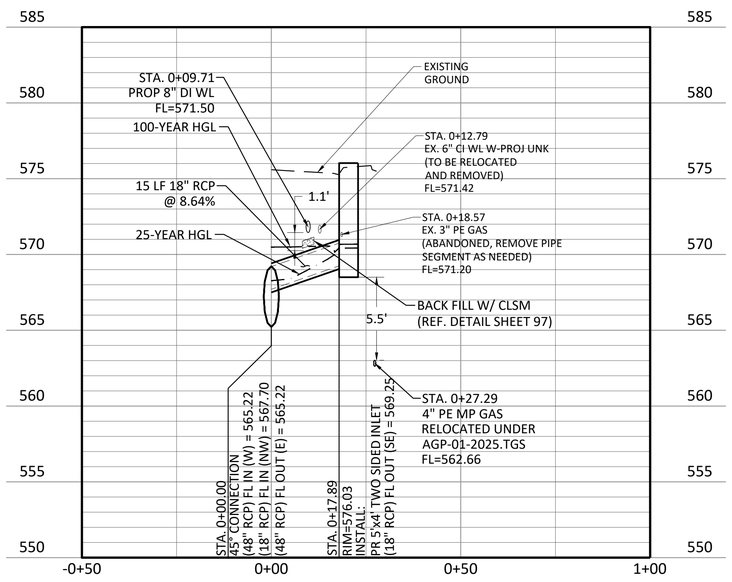
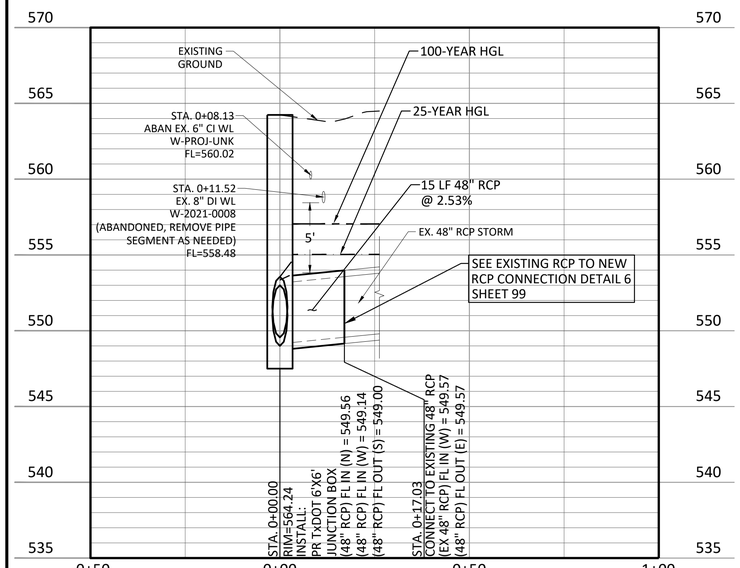
Plot Date: 8/21/2026 8:37 AM Plot By: no Filename: N:\ENG\C3D TOPO\prop_alignment.dwg



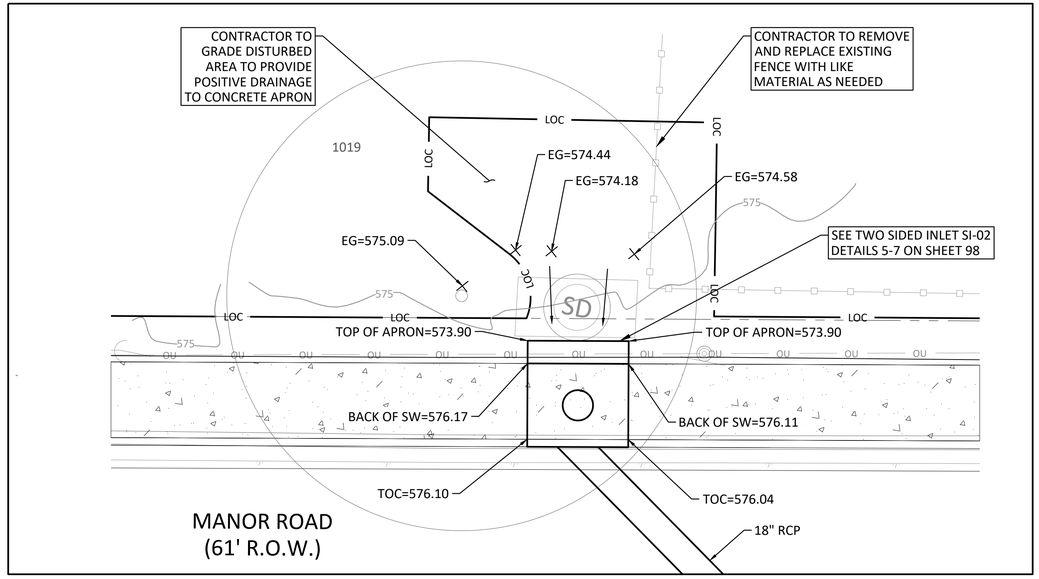
CI-82



SI-02



ALLEY



SI-02 TWO SIDED INLET

1"=5'

N

NOTES:

1. ALL RCP ARE CLASS III UNLESS OTHERWISE STATED.
2. INLET RIM ELEVATIONS ARE REPRESENTATIVE OF THE TOP OF CURB AND MANHOLE RIM ELEVATIONS ARE REPRESENTATIVE OF THE TOP OF THE ROAD.
3. INLET STA AND OFFSET ARE REFERENCED FROM LINE ALIGNMENT TO THE FRONT OF CURB, CENTER OF INLET.
4. MANHOLE AND JUNCTION BOX STA AND OFFSET ARE REFERENCED FROM ALIGNMENT TO THE CENTER OF THE STRUCTURE.
5. STORMCAD HYDRAULIC RESULTS TABLE CAN BE FOUND ON SHEET 14.

LEGEND

100-YEAR HGL

25-YEAR HGL

0 20' 40'
HORIZONTAL

0 5' 10'
VERTICAL

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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE
IMPROVEMENTS-PHASE 3

DRAINAGE LATERALS 4 OF 4

FAN JOB NO.	AU314361
DATE	12/12/2025
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FILE NAME	prop_alignment.dwg

NO. | ISSUE | BY | DATE

VERIFY SCALE 1 0
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SHEET 50

SEQ. 50 OF 143

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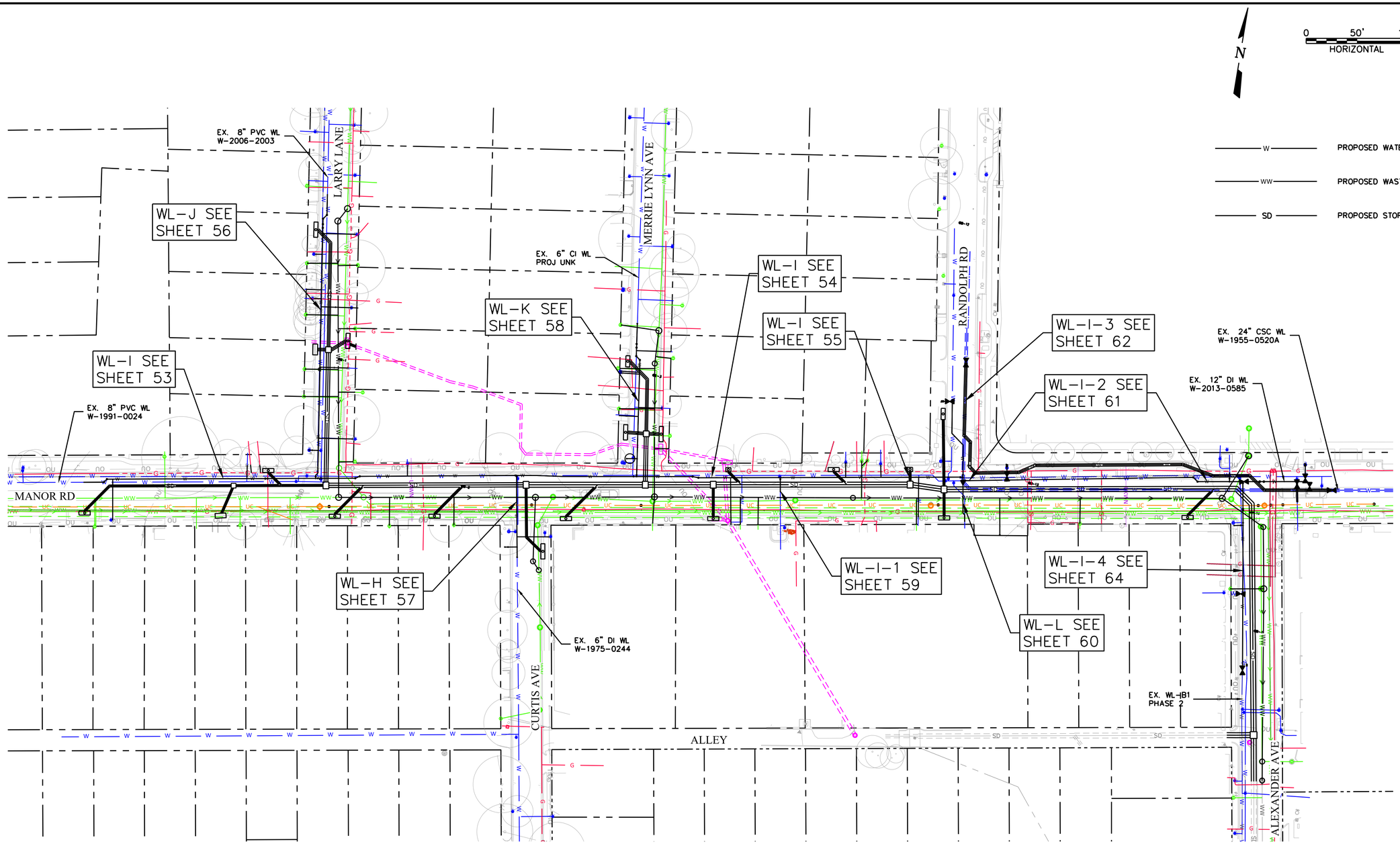

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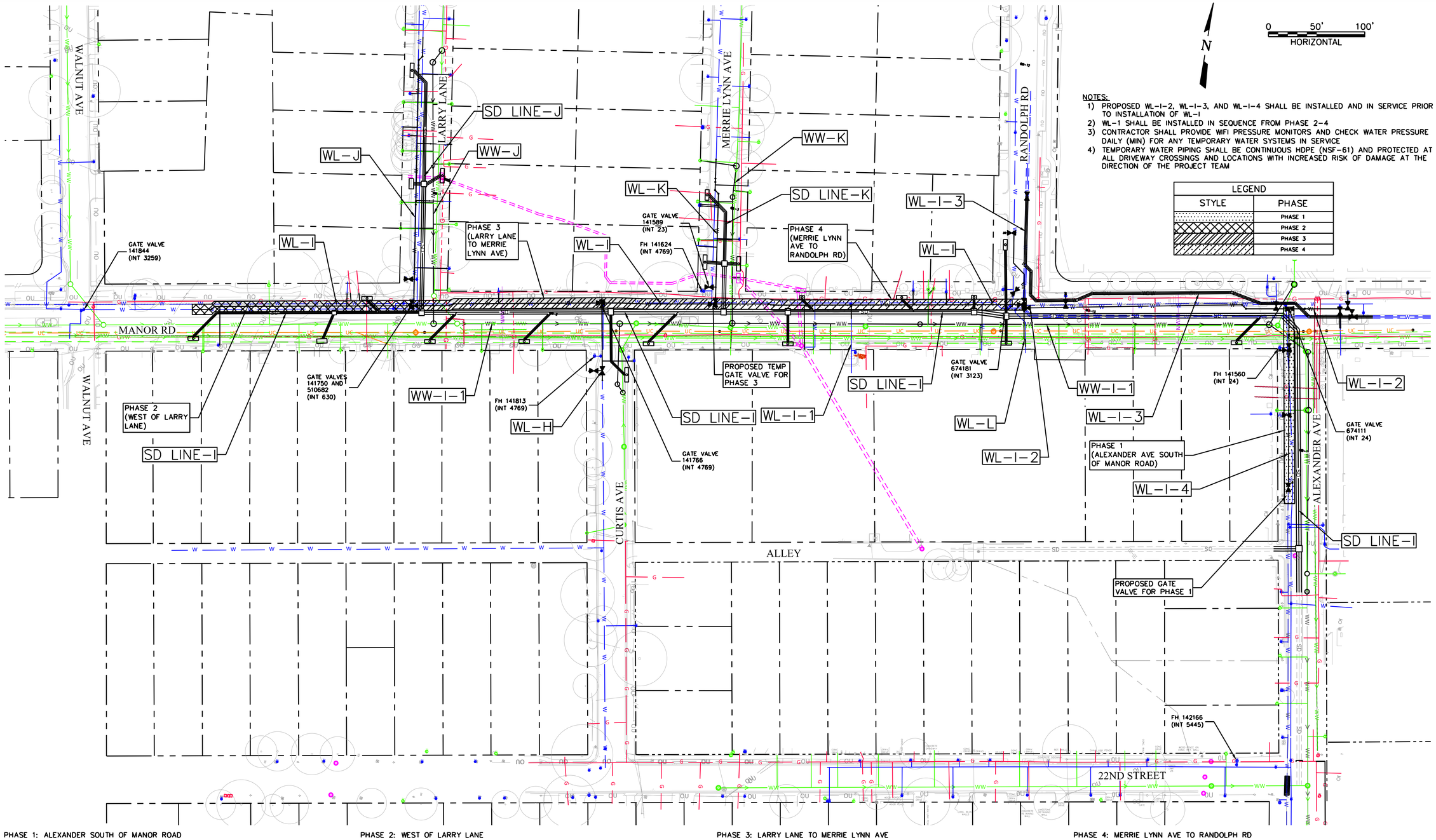
CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WATER LINE OVERALL PLAN

NO.	ISSUE	BY	DATE

FAM JOB NO. AU31436
DATE
DESIGNED JCS
DRAWN JCS
REVISED JCS
CHECKED TDB

VERIFY SCALE Bar is one inch on original drawing. If not, one inch on this sheet, adjust scale.
0 1"

SHEET 51
SEQ. 51 OF 143



NOTES:
1) PROPOSED WL-I-2, WL-I-3, AND WL-I-4 SHALL BE INSTALLED AND IN SERVICE PRIOR TO INSTALLATION OF WL-I
2) WL-1 SHALL BE INSTALLED IN SEQUENCE FROM PHASE 2-4
3) CONTRACTOR SHALL PROVIDE WIFI PRESSURE MONITORS AND CHECK WATER PRESSURE DAILY (MIN) FOR ANY TEMPORARY WATER SYSTEMS IN SERVICE
4) TEMPORARY WATER PIPING SHALL BE CONTINUOUS HDPE (NSF-61) AND PROTECTED AT ALL DRIVEWAY CROSSINGS AND LOCATIONS WITH INCREASED RISK OF DAMAGE AT THE DIRECTION OF THE PROJECT TEAM

LEGEND	
STYLE	PHASE
	PHASE 1
	PHASE 2
	PHASE 3
	PHASE 4

PHASE 1: ALEXANDER SOUTH OF MANOR ROAD
1) INSTALL PROPOSED 8" GATE VALVE SOUTH OF BEGINNING OF PHASE 3 WL-I-4.
2) INSTALL 2" MIN TEMP WATERLINE ON WEST SIDE OF ALEXANDER AVE TO EXISTING SERVICE FOR 2901 MANOR ROAD.
3) INSTALL TEMP WATER CONNECTION AT FH 142166 (INT 5445) AND CONNECT TO TEMP WATERLINE.
4) CONNECT TEMP WATERLINE TO EXISTING SERVICE AT 2901 MANOR ROAD.
5) CLOSE VALVE INSTALLED IN 1) ABOVE AND VALVE 674111 (INT 24)
6) INSTALL WL-I-4 AND SERVICES.
7) TEST WL-I-4, CONNECT TO WL-I-2, AND PUT INTO SERVICE (CONNECT TO EXISTING WATER METER).
8) REMOVE TEMPORARY WATER SYSTEM AND APPURTENANCES.

PHASE 2: WEST OF LARRY LANE
1) INSTALL 2" MIN TEMP WATERLINE ON SOUTH SIDE OF MANOR ROAD FROM WALNUT AVE TO SOUTH OF LARRY LANE.
2) INSTALL 2" TEMP WATER CONNECTION AT FH 141813 (INT 4769) AND CONNECT TO TEMP WATERLINE.
3) CONNECT TEMP WATERLINE TO EXISTING SERVICE(S) ON THE SOUTH SIDE OF MANOR ROAD BETWEEN WALNUT AVE AND LARRY LANE.
4) CLOSE VALVES 141750 AND 510682 (INT 630) AND VALVE 141844 (INT 3259).
5) INSTALL WL-I AND SERVICES STA 1+00 TO STA 3+21.27.
6) TEST WL-I AND PUT INTO SERVICE (CONNECT TO EXISTING WATER METERS).
7) REMOVE TEMPORARY WATER SYSTEM AND APPURTENANCES.

NOTE: LARRY LANE WILL BE A DEAD END UNTIL WL-J IS INSTALLED AND MANOR ROAD BETWEEN LARRY LANE AND MERRIE LYNN WILL BE A DEAD END UNTIL PHASE 2

PHASE 3: LARRY LANE TO MERRIE LYNN AVE
1) INSTALL GATE VALVE ON EXISTING 6" CI WATERLINE (PROJECT UNK) EAST OF THE EXISTING WATERLINE ON MERRIE LYNN AVE. VALVE WILL BE REMOVED AS PART OF THE REMOVAL OF THE EXISTING WATERLINE ON MANOR ROAD.
2) INSTALL 2" MIN TEMP WATERLINE ON NORTH SIDE OF MANOR ROAD FROM MERRIE LYNN TO THE EXISTING SERVICE AT 3201 LARRY LANE.
3) INSTALL TEMP WATER CONNECTION AT FH 141624 (INT 23) AND CONNECT TO TEMP WATERLINE.
4) CONNECT TEMP WATERLINE TO EXISTING SERVICE AT 3201 LARRY LANE.
5) CLOSE VALVES 141776 (INT 4769) AND 141589 (INT 23) AND NEWLY INSTALLED VALVE EAST OF MERRIE LYNN AVE.
6) INSTALL WL-I AND SERVICE FROM LARRY LANE TO MERRIE LYNN AVE.
7) TEST WL-I AND PUT INTO SERVICE (CONNECT TO EXISTING WATER METER).
8) REMOVE TEMPORARY WATER SYSTEM AND APPURTENANCES.

NOTE: CURTIS AVE WILL BE A DEAD END UNTIL WL-H IS INSTALLED AND MERRIE LYNN AVE WILL BE A DEAD END UNTIL WL-K IS INSTALLED

PHASE 4: MERRIE LYNN AVE TO RANDOLPH RD
1) INSTALL 6" MIN TEMP WATERLINE ON SOUTH SIDE OF MANOR ROAD TO EXISTING SERVICE FOR 2805 MANOR ROAD.
2) INSTALL TEMP WATER CONNECTION AT FH 141560 (INT 24) AND CONNECT TO TEMP WATERLINE.
3) CONNECT TEMP WATERLINE TO EXISTING SERVICE AT 2805 MANOR ROAD.
4) VALVES 141589 (INT 23) FROM PHASE 3 TO REMAIN CLOSED. CLOSE VALVE 674181 (INT 3123).
5) INSTALL WL-I AND SERVICE FROM MERRIE LYNN AVE TO 20' FROM PROPOSED TEE IN RANDOLPH.
6) INSTALL TEMPORARY CAP AT OPEN END NEAR RANDOLPH RD TO TEST WL-I.
7) REMOVE TEMPORARY CAP AND INSTALL REMAINING 20' OF WL-I TO PROPOSED TEE AT RANDOLPH AND WL-L WITH A SHUTOUT OF THE INTERSECTION OF RANDOLPH AND MANOR ROAD AND PUT INTO SERVICE (CONNECT TO EXISTING WATER METERS).
8) REMOVE TEMPORARY WATER SYSTEM AND APPURTENANCES.

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WATER LINE TEMPORARY BYPASS PLAN

FAM JOB NO. AU31436
DESIGNED JCS
DRAWN JCS
REVISED JCS
CHECKED TDB

NO.	ISSUE	BY	DATE

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SHEET 52
SEQ. 52 OF 143

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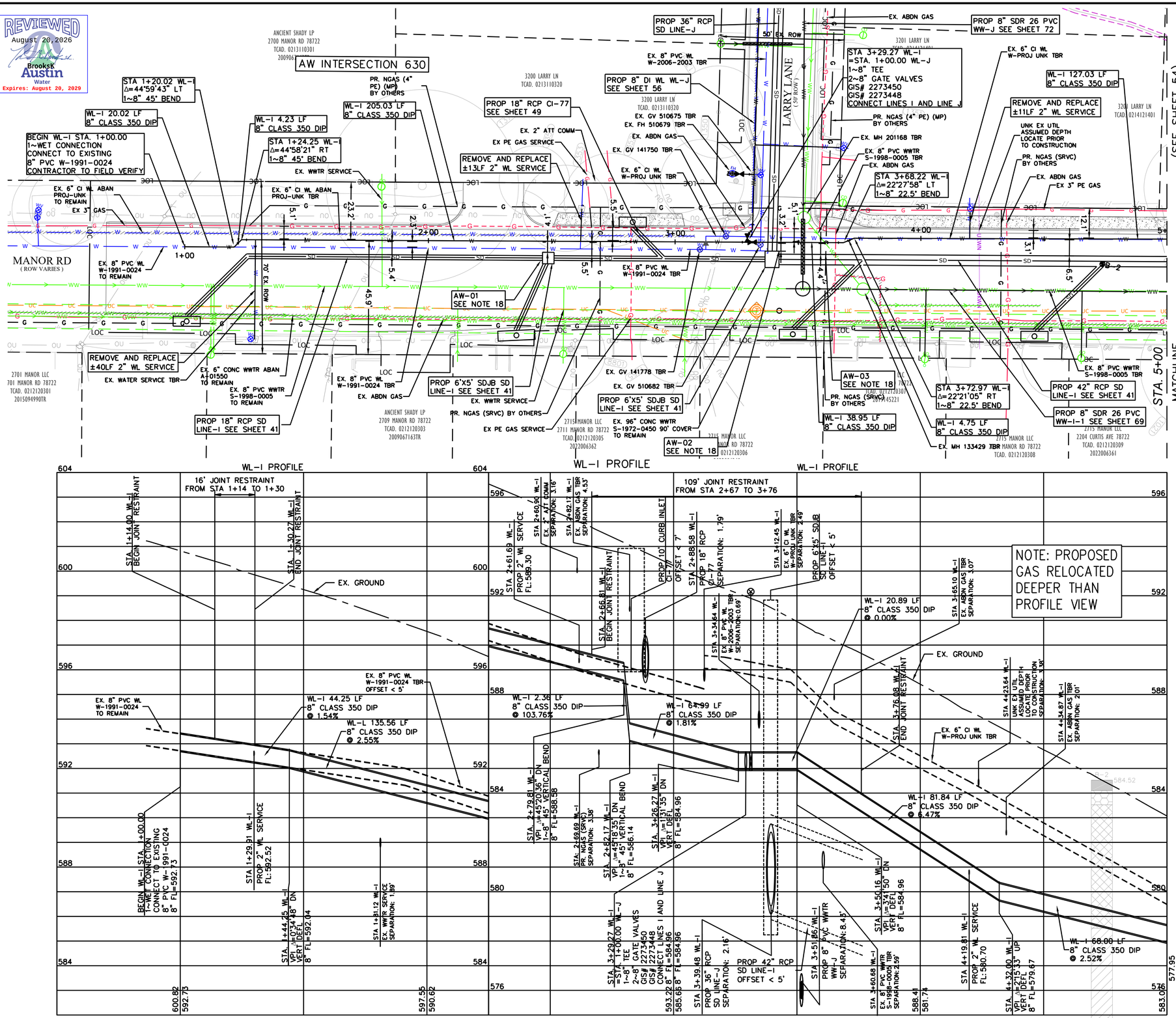
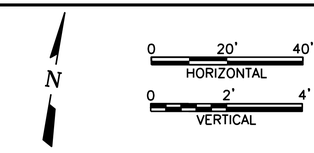
Last Saved: 4/7/2026 3:28 PM Saved By: matthew.warner

REVIEWED
August 20, 2026
Brooksk
Austin
Water
Expires: August 20, 2029





	PROP. WATER LINE
⋈ / ⊕	PROP. GATE VALVE (PLAN / PROFILE)
⌐	PROP. BEND
⊏	PROP. PLUG
⊥	PROP. TEE
⊕ / ⊕	FIRE HYDRANT (PLAN / PROFILE)

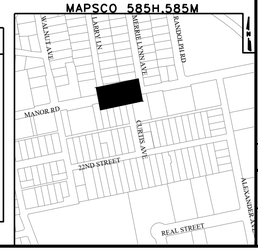
NOTES:
1. AWU WATER DISTRIBUTION SYSTEM MAP SHEETS K23 AND K24.
2. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS AND/OR CROSSINGS TWO WEEKS PRIOR TO CONSTRUCTION.
3. ALL WATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF AUSTIN CRITERIA AND CHAPTER 290 OF THE TEXAS ADMINISTRATIVE CODE.
4. ALL HORIZONTAL AND VERTICAL BENDS (INCLUDING 22-½° AND EXCEEDING 22-½°), VALVES, TEES, PLUGS, AND CAPS SHALL BE RESTRAINED TO THE WATER MAIN USING MECHANICAL JOINT RESTRAINT DEVICES AS APPROVED IN SPL WW-27-A. THE CALCULATED RESTRAINT LENGTH IS INCLUDED AS A DIMENSION IN THE PROFILE VIEW, CALLED OUT FROM BEGINNING STATION TO END STATION. PER UCM SECT. 2.9.2.B.9. CONCRETE THRUST BLOCKING SHALL BE USED FOR BENDS LESS THAN 22-½°. CONTRACTOR TO ADD WARNING TAPE (STAND. SPEC. 510) ON TRENCH LINE TO SHOW RESTRAINED LENGTHS.
5. ALL WATERLINE P.I.'S BOTH HORIZONTAL AND VERTICAL SHALL BE ACHIEVED BASED UPON THE PIPE MANUFACTURER'S SPECIFIED MAXIMUM ALLOWABLE JOINT DEFLECTION. P.I.'S LESS THAN OR EQUAL TO 80% OF THE MANUFACTURER'S MAXIMUM SHALL BE CONSTRUCTED AS A SINGLE JOINT DEFLECTION. P.I.'S IN EXCESS OF 80% OF THE MANUFACTURER'S MAXIMUM ALLOWABLE JOINT DEFLECTION ANGLE SHALL BE CONSTRUCTED AS A SERIES OF EVENLY DISTRIBUTED DEFLECTIONS OVER MULTIPLE JOINTS, SO THAT NO SINGLE DEFLECTION IS GREATER THAN 80% OF THE MAXIMUM.
6. ALL EXISTING PUBLIC UNDERGROUND WATER UTILITIES ARE APPROXIMATE AND SHOWN PER COA RECORDS.
7. ALL VALVES WITHIN PAVED AREAS SHALL HAVE HEAVY-DUTY TRAFFIC BEARING CASTINGS AND COVERS.
8. ALL POTABLE AND FIRE LINE PIPING SHALL BE CLASS 350 DIP UNLESS NOTED OTHERWISE.
9. PROPOSED WATER OR WASTEWATER LINES SHALL NOT BE INSTALLED IN EASEMENTS UNTIL FINAL EASEMENTS HAVE BEEN RECORDED.
10. FUNDING FOR THE CONSTRUCTION OF THIS SECTION OF WATERLINE IS THE RESPONSIBILITY OF THE WATERSHED PROTECTION DEPARTMENT.
11. ALL WATER/WASTEWATER CROSSINGS NEED TO HAVE BOTH PIPES RATED FOR 150 PSI AND EACH PIPE JOINT CENTERED ON EACH OTHER. SEE SPL-227B-1
12. PROPOSED WATER AND/OR WASTEWATER SERVICES INSTALLED PRIOR TO PROPOSED STORM DRAIN IMPROVEMENTS, PER CONSTRUCTION SEQUENCE, WILL ONLY BE PAID FOR AT THE TIME OF INSTALLATION. IF PROPOSED SERVICES ARE SUBSEQUENTLY DAMAGED DURING STORM DRAIN INSTALLATION OR OTHER CONSTRUCTION ACTIVITIES, REPAIR OF THE DAMAGED SERVICE SHALL BE SUBSIDIARY TO ASSOCIATED WORK AND WILL NOT BE PAID FOR SEPARATELY.
13. IF EXISTING WASTEWATER MAINS OR SERVICES LEAK DURING CONSTRUCTION, THEY SHALL BE REPLACED WITH APPROVED MATERIALS WITHIN THE LIMITS OF THE PROPOSED UTILITY TRENCH. THIS WILL BE CONSIDERED A REPAIR AND WILL NOT REQUIRE A MANHOLE TO CHANGE PIPE MATERIALS.
14. UTILITY TRENCH BACKFILL SHALL COMPLY WITH UCM 5.8.3 INCLUDING 12" MINIMUM CLSM AND 7" MINIMUM CLASS J MIX SUBSIDIARY TO UTILITY INSTALLATION.
15. ALL DUCTILE IRON WATER PIPES UP TO 12" SHALL BE CLASS 350 AND CONFORM TO AWWA STANDARD C-150. 16" AND LARGER PIPE SHALL BE CLASS 250 MINIMUM.
16. ALL INSTALLED STEEL CASING SHALL CONFORM TO DETAIL 501-AW-01, SEE SHEET 88
17. FOR DEEP WWTR SERVICE PROFILES SEE SHEETS 73 - 75.
18. SEE AWU WAIVER TABLE ON THIS SHEET AND OVERALL AWU WAIVER TABLE SHEET 3.
19. ALL EXISTING WATER LINES TO BE REPLACED SHALL EITHER BE ABANDONED AND MUST COMPLY WITH COA UCM 2.8.4.A AND 2.8.4.B, OR COMPLETELY REMOVED.
20. ALL RESTRAINED DUCTILE IRON WATER MAINS 24" DIAMETER AND LARGER SHALL BE RESTRAINED WITH INTEGRAL JOINT RESTRAINT, PER SPL WW-27F. ALL RESTRAINED DUCTILE IRON WATER MAINS SMALLER THAN 24" DIAMETER SHALL BE RESTRAINED WITH JOINT RESTRAINT GASKETS, PER SPL WW-27C. ENCASED DI PIPE TO BE FULLY RESTRAINED WITH INTEGRAL JOINT RESTRAINT, PER SPL WW-27F. PIPE CONNECTIONS TO MJ VALVES OR FITTINGS TO BE FULLY RESTRAINED USING WEDGE ACTION JOINT RESTRAINT, PER SPL WW-27A.
21. ALL CAST IRON (CI) CUT IN'S REQUIRE AN SPL APPROVED TRANSITION COUPLING, THEN A SEGMENT OF DI PIPE OR 10' MINIMUM, THEN TEE/APPURTENANCE(S), THEN A SEGMENT OF DI PIPE OR 10' MINIMUM, THEN APPROVED SPL TRANSITION COUPLING.

WATER LINE CONSTRUCTION SEQUENCE:
OTHER THAN WHERE PROPOSED WATER CONFLICTS WITH EXISTING WATER, CONTRACTOR TO CONSTRUCT NEW WATER LINES IN SUCH A MANNER THAT THE EXISTING WATER SERVICES AND WASTEWATER SERVICES WILL HAVE A MAXIMUM OF 4 HOURS OF INTERRUPTIONS TOTAL. CONTRACTOR TO CUT AND PLUG EXISTING WATER LINES AND EXISTING FIRE HYDRANT LEADS AS NEEDED TO CONSTRUCT PROJECT. ALL EXISTING FIRE HYDRANTS SHALL REMAIN IN SERVICE UNTIL THE NEW FIRE HYDRANTS ARE INSTALLED AND OPERATIONAL.

CAUTION!!
UNDERGROUND GAS, WATER, ELECTRIC, TELEPHONE, CABLE TV AND OTHER UTILITIES MAY EXIST WITHIN THE WORK AREA. THE UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND FOR INFORMATION ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO THE UTILITIES CAUSED BY THE CONTRACTOR'S DESIGN

AW#	STATION(S)	WAIVER FOR	CRITERIA
AW-01	2+48.63	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 4" RCP SDJB (4.1')	UCM 2.9.1.B.2
AW-02	3+39.48	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 6'X5' RCP SDJB (3.2')	
AW-03	3+42.16 THRU 3+68.22	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 48" RCP SD (4.4')	

GEOTECH LEGEND
- ASPHALTIC CONCRETE
- TAN FLEX BASE
- SANDY FAT CLAY (CH)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- CLAYEY GRAVEL (GC)



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nwm Design Group

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WL-I STA 1+00 - 5+00

F&N JOB NO. AU3143610
DESIGNED JCS
DRAWN JCS
REVISED JCS
CHECKED TDB

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SHEET 53
SEQ. 53 OF 143

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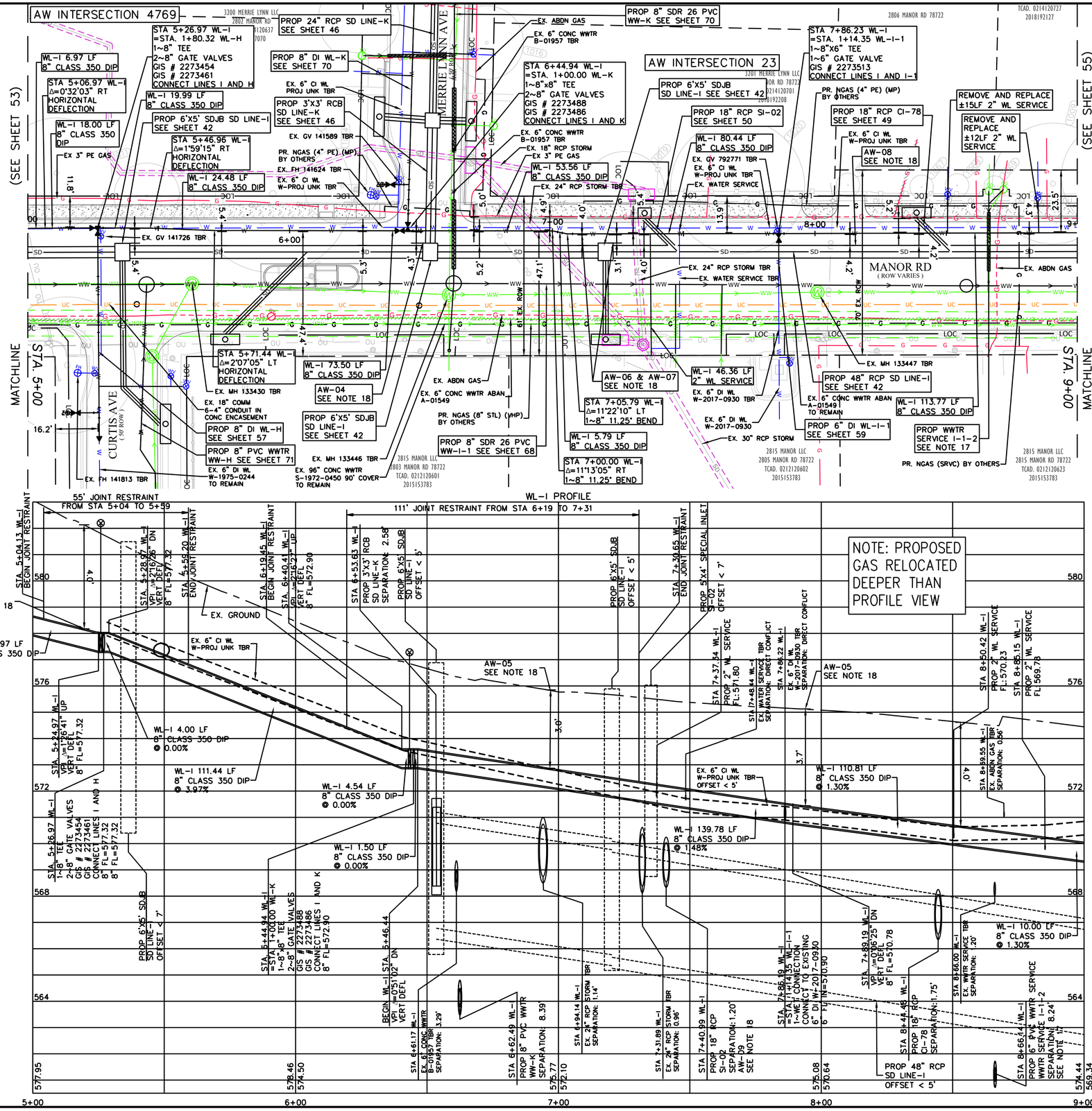
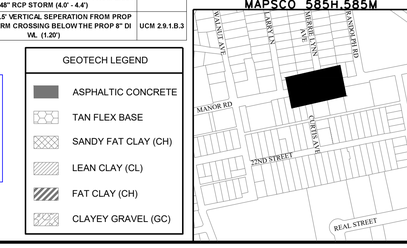


AW#	STATION(S)	WAIVER FOR	CRITERIA
AW-04	6+53.53	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 4' RCP SDJB (4.3')	UCM 2.9.1.B.2
AW-05	5+13.77 THRU 8+67.13	LESS THAN 4.0' COVER BETWEEN EXISTING GROUND AND PROPOSED 8" DI WL (3.0' - 3.99')	UCM 2.9.1.B.4
AW-06	7+05.79 - 7+20.35	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 48" RCP STORM (4')	UCM 2.9.1.B.2
AW-07	7+20.35	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 6'X5' RCP SDJB (3.1')	
AW-08	7+20.35 THRU 9+10.89	LESS THAN 5' HORIZONTAL SEPARATION FROM EXIST 48" RCP STORM (4.0' - 4.4')	
AW-09	7+40.99	LESS THAN 1.5' VERTICAL SEPERATION FROM PROP 18" RCP STORM CROSSING BELOW THE PROP 8" DI WL (1.20')	UCM 2.9.1.B.3



GEOTECH LEGEND
- ASPHALTIC CONCRETE
- TAN FLEX BASE
- SANDY FAT CLAY (CH)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- CLAYEY GRAVEL (GC)

REVIEWED August 20, 2026 Brooks Austin Water Expires: August 20, 2029

N

0 20' 40' HORIZONTAL
0 2' 4' VERTICAL

	PROP. WATER LINE
⋈ / ⚲	PROP. GATE VALVE (PLAN / PROFILE)
⌐	PROP. BEND
⊏	PROP. PLUG
⊥	PROP. TEE
⋈ / ⚲	FIRE HYDRANT (PLAN / PROFILE)

NOTES:
1. AWU WATER DISTRIBUTION SYSTEM MAP SHEETS K23 AND K24.
2. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS AND/OR CROSSINGS TWO WEEKS PRIOR TO CONSTRUCTION.
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10. FUNDING FOR THE CONSTRUCTION OF THIS SECTION OF WATERLINE IS THE RESPONSIBILITY OF THE WATERSHED PROTECTION DEPARTMENT.
11. ALL WATER/WASTEWATER CROSSINGS NEED TO HAVE BOTH PIPES RATED FOR 150 PSI AND EACH PIPE JOINT CENTERED ON EACH OTHER. SEE SPL-227B-1
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STATE OF TEXAS
ANTHONY D. BUONODONO
103439
LICENSED PROFESSIONAL ENGINEER
08/21/2026

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TBPLS FIRM REGISTRATION NO. 10194
WWW.MWMDESIGNGROUP.COM

CITY OF AUSTIN AUSTIN WATER
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WL-I STA 4+50 - 9+00

NO.	ISSUE	BY	DATE

FAH JOB NO. AU314361

	DATE	
DESIGNED		JCS
DRAWN		JCS
REVISED		JCS
CHECKED		TDB

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 54
SEQ. 54 OF 143

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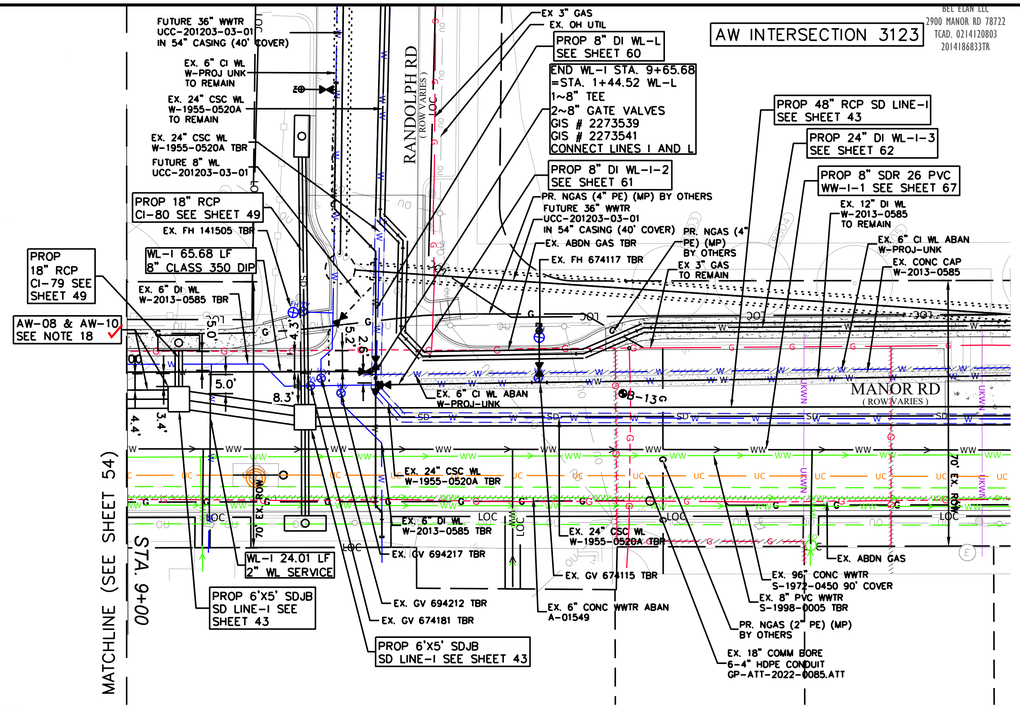

BEL TEAN LEE
2900 MANOR RD 78722
TCAD. 0214120803
2014186833TR

N

0 20' 40' HORIZONTAL

0 2' 4' VERTICAL

	PROP. WATER LINE
⋈ / ⚲	PROP. GATE VALVE (PLAN / PROFILE)
∠	PROP. BEND
⊏	PROP. PLUG
⊥	PROP. TEE
⚲ / ⚲	FIRE HYDRANT (PLAN / PROFILE)

NOTES:

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AW#	STATION(S)	WAIVER FOR	CRITERIA
AW-08	7+20.35 THRU 9+10.89	LESS THAN 5' HORIZONTAL SEPARATION FROM EXIST 48" RCP STORM (4.0' - 4.4')	UCM 2.9.1.B.2
AW-10	9+13.72	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 6'X5' RCP SDJB (3.4')	

REVIEWED
August 20, 2026
Brooks Austin Water
Expires: August 20, 2029

GEOTECH LEGEND
- ASPHALTIC CONCRETE
- TAN FLEX BASE
- SANDY FAT CLAY (CH)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- CLAYEY GRAVEL (GC)

MAPSCO 585H,585M



STATE OF TEXAS
ANTHONY D. BUONODONO
103439
LICENSED PROFESSIONAL ENGINEER
08/21/2026

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Austin, TX 78753
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F: 512.453.1394
TBPE FIRM REGISTRATION NO. 2423
TBPLS FIRM REGISTRATION NO. 10064300
WWW.DESIGNGROUPTEXAS.COM

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WL-I STA 9+00 - END
STA 9+00 - END

NO.	ISSUE	BY	DATE

FBM JOB NO. AU31436

	DATE	
DESIGNED		JCS
DRAWN		JCS
REVISED		JCS
CHECKED		TDB

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 55
SEQ. 55 OF 143

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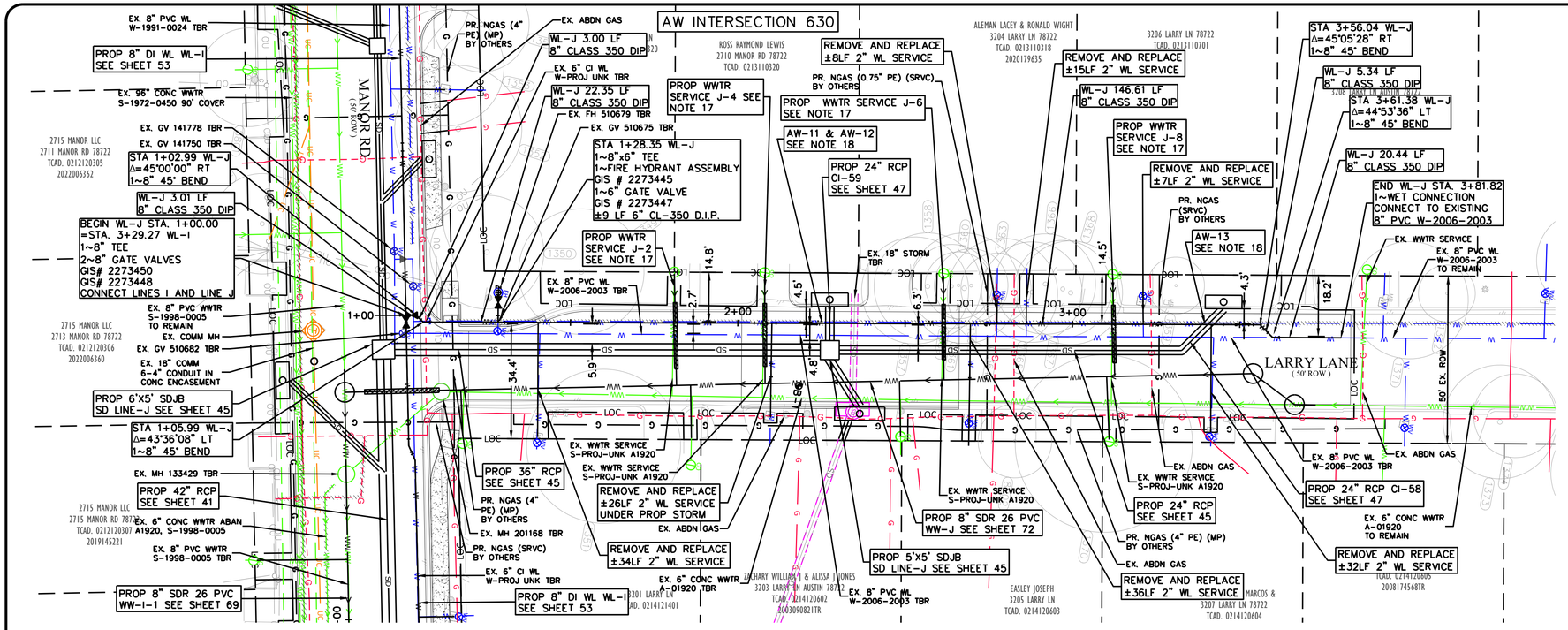

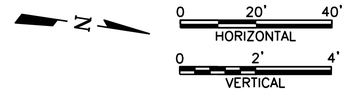

	PROP. WATER LINE
⋈ / ⚲	PROP. GATE VALVE (PLAN / PROFILE)
⌐	PROP. BEND
⊏	PROP. PLUG
⊥	PROP. TEE
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AW#	STATION(S)	WAIVER FOR	CRITERIA
AW-11	2+27.49	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP CI-59 (4.5')	UCM 2.9.1.B.2
AW-12	2+27.49	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 5'X5'' RCP SDJB (4.8')	
AW-13	3+37.60	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP CI-58 (4.3')	

MAPSCO 585H,585M

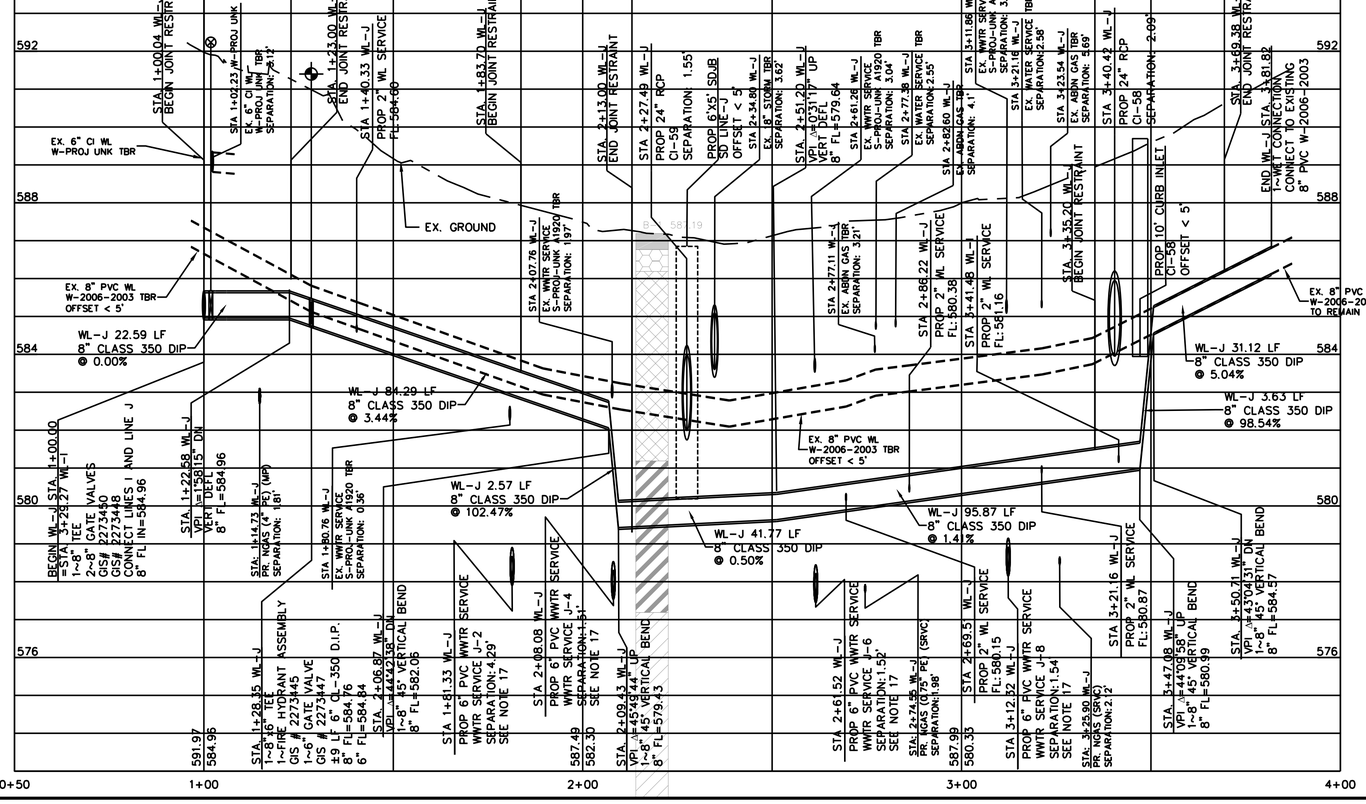


GEOTECH LEGEND

- ASPHALTIC CONCRETE
- TAN FLEX BASE
- SANDY FAT CLAY (CH)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- CLAYEY GRAVEL (GC)

REVIEWED
August 20, 2026
Brooks Austin Water
Expires: August 20, 2029

WL-J PROFILE



STATE OF TEXAS
ANTHONY D. BUONODONO
103439
LICENSED PROFESSIONAL ENGINEER
08/21/2026

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TBPLS FIRM REGISTRATION NO. 10064900
WWW.MWMDESIGNGROUP.COM

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WL-J STA 1+00 - END

NO.	ISSUE	BY	DATE

FAH JOB NO. AU314361
DESIGNED JCS
DRAWN JCS
REVISED JCS
CHECKED TDB

VERIFY SCALE Bar is one inch on original drawing. If not, one inch on this sheet, adjust scale.
0 1"

SHEET 56
SEQ. 56 OF 143

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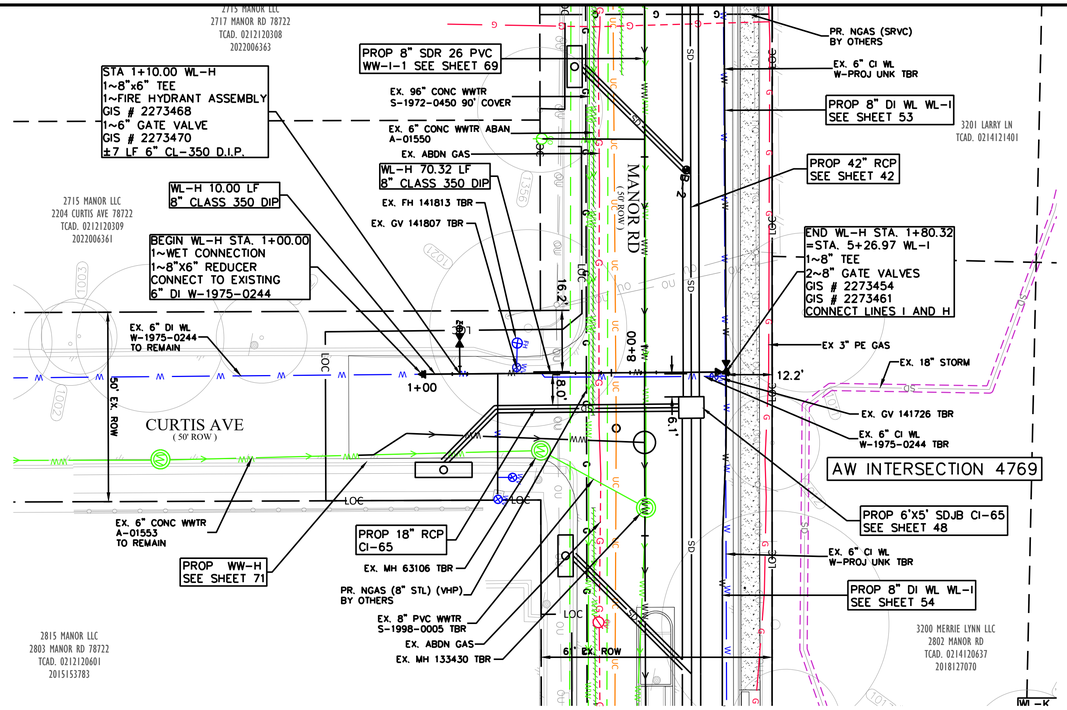

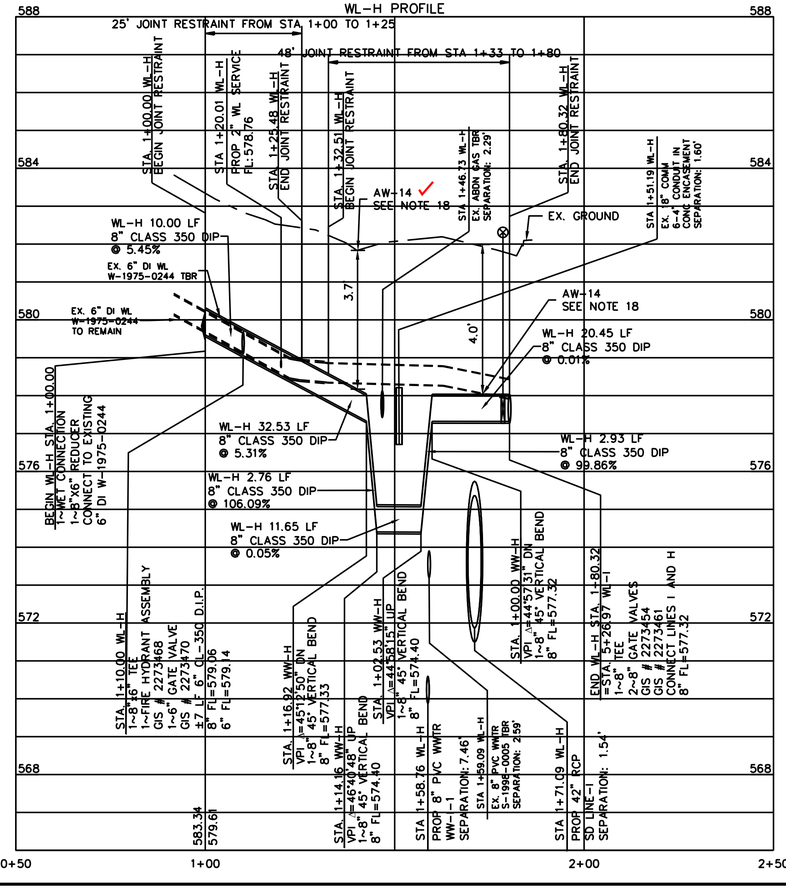

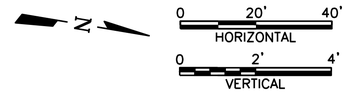

	PROP. WATER LINE
⋈ / ⚲	PROP. GATE VALVE (PLAN / PROFILE)
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12. PROPOSED WATER AND/OR WASTEWATER SERVICES INSTALLED PRIOR TO PROPOSED STORM DRAIN IMPROVEMENTS, PER CONSTRUCTION SEQUENCE, WILL ONLY BE PAID FOR AT THE TIME OF INSTALLATION. IF PROPOSED SERVICES ARE SUBSEQUENTLY DAMAGED DURING STORM DRAIN INSTALLATION OR OTHER CONSTRUCTION ACTIVITIES, REPAIR OF THE DAMAGED SERVICE SHALL BE SUBSIDIARY TO ASSOCIATED WORK AND WILL NOT BE PAID FOR SEPARATELY.
13. IF EXISTING WASTEWATER MAINS OR SERVICES LEAK DURING CONSTRUCTION, THEY SHALL BE REPLACED WITH APPROVED MATERIALS WITHIN THE LIMITS OF THE PROPOSED UTILITY TRENCH. THIS WILL BE CONSIDERED A REPAIR AND WILL NOT REQUIRE A MANHOLE TO CHANGE PIPE MATERIALS.
14. UTILITY TRENCH BACKFILL SHALL COMPLY WITH UCM 5.8.3 INCLUDING 12" MINIMUM CLSM AND 7" MINIMUM CLASS J MIX SUBSIDIARY TO UTILITY INSTALLATION.
15. ALL DUCTILE IRON WATER PIPES UP TO 12" SHALL BE CLASS 350 AND CONFORM TO AWWA STANDARD C-150. 16" AND LARGER PIPE SHALL BE CLASS 250 MINIMUM.
16. ALL INSTALLED STEEL CASING SHALL CONFORM TO DETAIL 501-AW-01, SEE SHEET 88
17. FOR DEEP WWTR SERVICE PROFILES SEE SHEETS 73 - 75.
18. SEE AWU WAIVER TABLE ON THIS SHEET AND OVERALL AWU WAIVER TABLE SHEET 3.
19. ALL EXISTING WATER LINES TO BE REPLACED SHALL EITHER BE ABANDONED AND MUST COMPLY WITH COA UCM 2.8.4.A AND 2.8.4.B, OR COMPLETELY REMOVED.
20. ALL RESTRAINED DUCTILE IRON WATER MAINS 24" DIAMETER AND LARGER SHALL BE RESTRAINED WITH INTEGRAL JOINT RESTRAINT, PER SPL WW-27F. ALL RESTRAINED DUCTILE IRON WATER MAINS SMALLER THAN 24" DIAMETER SHALL BE RESTRAINED WITH JOINT RESTRAINT GASKETS, PER SPL WW-27G. ENCASED DI PIPE TO BE FULLY RESTRAINED WITH INTEGRAL JOINT RESTRAINT, PER WW-27F. PIPE CONNECTIONS TO WJ VALVES OR FITTINGS TO BE FULLY RESTRAINED USING WEDGE ACTION JOINT RESTRAINT, PER SPL WW-27A.
21. ALL CAST IRON (CI) CUT IN'S REQUIRE AN SPL APPROVED TRANSITION COUPLING, THEN A SEGMENT OF DI PIPE OR 10' MINIMUM, THEN TEE/APPURTENANCE(S), THEN A SEGMENT OF DI PIPE OR 10' MINIMUM, THEN APPROVED SPL TRANSITION COUPLING.

WATER LINE CONSTRUCTION SEQUENCE:
OTHER THAN WHERE PROPOSED WATER CONFLICTS WITH EXISTING WATER, CONTRACTOR TO CONSTRUCT NEW WATER LINES IN SUCH A MANNER THAT THE EXISTING WATER SERVICES AND WASTEWATER SERVICES WILL HAVE A MAXIMUM OF 4 HOURS OF INTERRUPTIONS TOTAL. CONTRACTOR TO CUT AND PLUG EXISTING WATER LINES AND EXISTING FIRE HYDRANT LEADS AS NEEDED TO CONSTRUCT PROJECT. ALL EXISTING FIRE HYDRANTS SHALL REMAIN IN SERVICE UNTIL THE NEW FIRE HYDRANTS ARE INSTALLED AND OPERATIONAL.

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AW#	STATION(S)	WAIVER FOR	CRITERIA
AW-14	1+00 THRU 1+42.66, 1+68.94 THRU 1+80.32	LESS THAN 4.0' COVER BETWEEN EXISTING GROUND AND PROPOSED 8" DI WL (3.4' - 3.99')	UCM 2.9.1.B.4

REVIEWED
August 20, 2026
Brooks Austin Water
Expires: August 20, 2029

GEOTECH LEGEND
- ASPHALTIC CONCRETE
- TAN FLEX BASE
- SANDY FAT CLAY (CH)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- CLAYEY GRAVEL (GC)

MAPSCO 585H,585M



ANTHONY D. BUONODONO
103439
LICENSED PROFESSIONAL ENGINEER
08/21/2026

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Suite 110
Austin, Texas 78753
P: 512.451.8037
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TBPE FIRM REGISTRATION NO. 14521
TBPLS FIRM REGISTRATION NO. 10194
WWW.MWMDESIGNGROUP.COM

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WL-H STA 1+00 - END

NO.	ISSUE	BY	DATE

FWM JOB NO. AU314361	DATE	BY
DESIGNED	JCS	
DRAWN	JCS	
REVISED	JCS	
CHECKED	TDB	

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 57
SEQ. 57 OF 143

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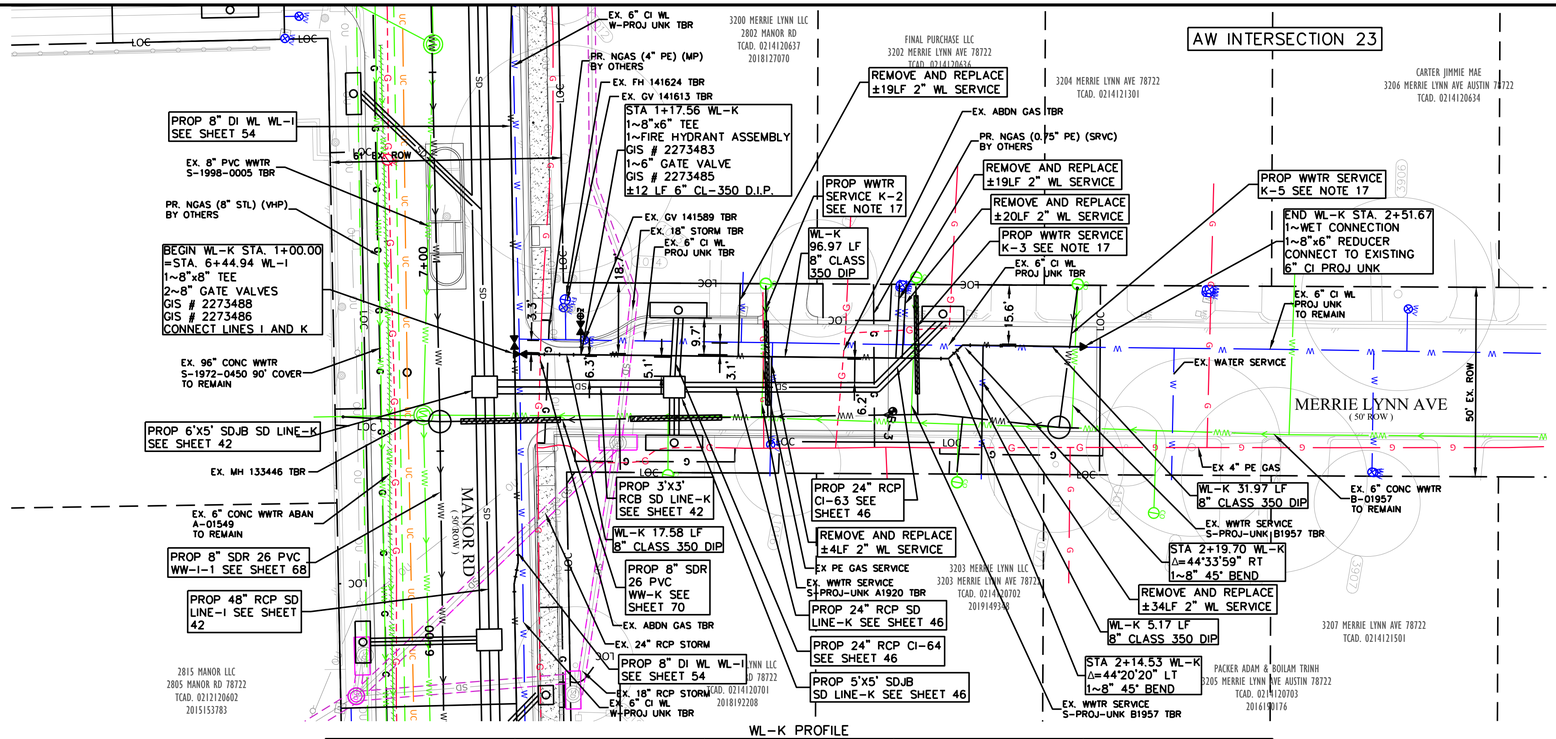

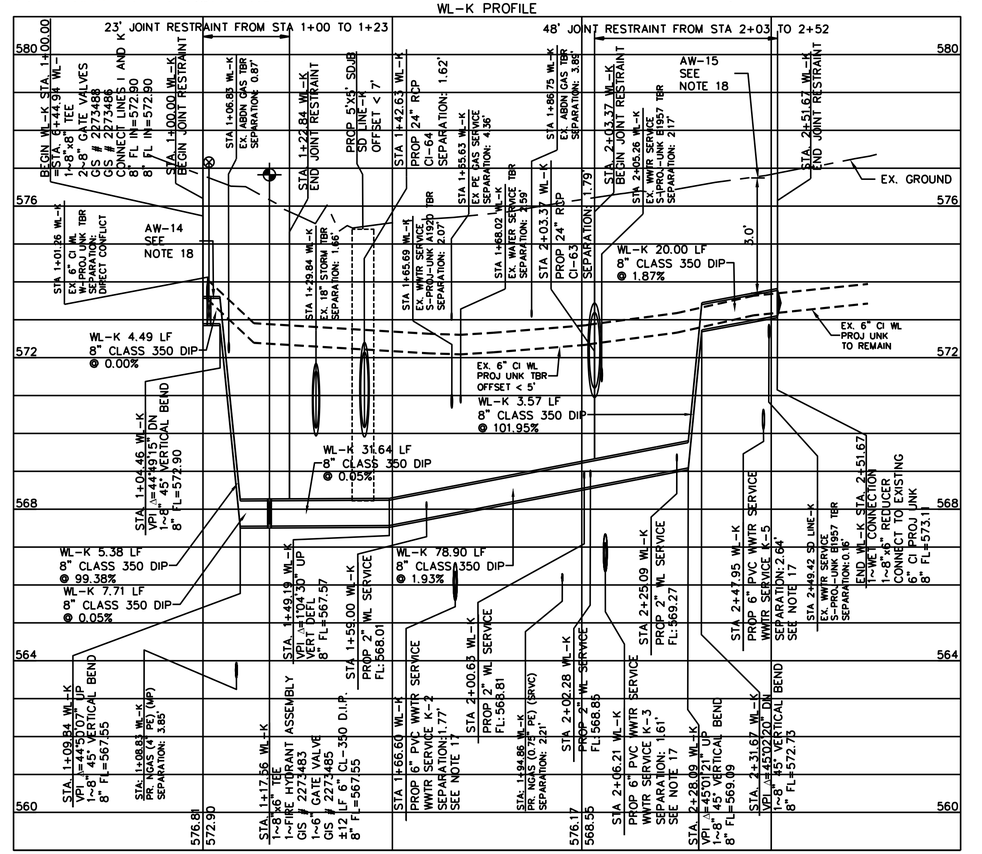

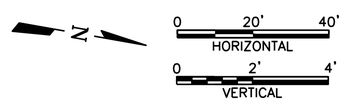

	PROP. WATER LINE
⋈ / ⚲	PROP. GATE VALVE (PLAN / PROFILE)
∠	PROP. BEND
⊏	PROP. PLUG
⊥	PROP. TEE
⚒ / ⚲	FIRE HYDRANT (PLAN / PROFILE)

NOTES:
1. AWU WATER DISTRIBUTION SYSTEM MAP SHEETS K23 AND K24.
2. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS AND/OR CROSSINGS TWO WEEKS PRIOR TO CONSTRUCTION.
3. ALL WATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF AUSTIN CRITERIA AND CHAPTER 290 OF THE TEXAS ADMINISTRATIVE CODE.
4. ALL HORIZONTAL AND VERTICAL BENDS (INCLUDING 22-½° AND EXCEEDING 22-½°), VALVES, TEES, PLUGS, AND CAPS SHALL BE RESTRAINED TO THE WATER MAIN USING MECHANICAL JOINT RESTRAINT DEVICES AS APPROVED IN SPL WW-27-A. THE CALCULATED RESTRAINT LENGTH IS INCLUDED AS A DIMENSION IN THE PROFILE VIEW, CALLED OUT FROM BEGINNING STATION TO END STATION. PER UCM SECT. 2.9.2.B.9. CONCRETE THRUST BLOCKING SHALL BE USED FOR BENDS LESS THAN 22-½°. CONTRACTOR TO ADD WARNING TAPE (STAND. SPEC. 510) ON TRENCH LINE TO SHOW RESTRAINED LENGTHS.
5. ALL WATERLINE P.I.'S BOTH HORIZONTAL AND VERTICAL SHALL BE ACHIEVED BASED UPON THE PIPE MANUFACTURER'S SPECIFIED MAXIMUM ALLOWABLE JOINT DEFLECTION. P.I.'S LESS THAN OR EQUAL TO 80% OF THE MANUFACTURER'S MAXIMUM SHALL BE CONSTRUCTED AS A SINGLE JOINT DEFLECTION. P.I.'S IN EXCESS OF 80% OF THE MANUFACTURER'S MAXIMUM ALLOWABLE JOINT DEFLECTION ANGLE SHALL BE CONSTRUCTED AS A SERIES OF EVENLY DISTRIBUTED DEFLECTIONS OVER MULTIPLE JOINTS, SO THAT NO SINGLE DEFLECTION IS GREATER THAN 80% OF THE MAXIMUM.
6. ALL EXISTING PUBLIC UNDERGROUND WATER UTILITIES ARE APPROXIMATE AND SHOWN PER COA RECORDS.
7. ALL VALVES WITHIN PAVED AREAS SHALL HAVE HEAVY-DUTY TRAFFIC BEARING CASTINGS AND COVERS.
8. ALL POTABLE AND FIRE LINE PIPING SHALL BE CLASS 350 DIP UNLESS NOTED OTHERWISE.
9. PROPOSED WATER OR WASTEWATER LINES SHALL NOT BE INSTALLED IN EASEMENTS UNTIL FINAL EASEMENTS HAVE BEEN RECORDED.
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AW#	STATION(S)	WAIVER FOR	CRITERIA
AW-15	2+31.67 - 2+51.67	LESS THAN 4.0' COVER BETWEEN EXISTING GROUND AND PROPOSED 8" DI WL (3.0')	UCM 2.9.1.B.4

REVIEWED
August 20,2026
Brooks Austin Water
Expires: August 20, 2029

GEOTECH LEGEND
- ASPHALTIC CONCRETE
- TAN FLEX BASE
- SANDY FAT CLAY (CH)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- CLAYEY GRAVEL (GC)

MAPSCO 585H,585M



STATE OF TEXAS
ANTHONY D. BUONODONO
103439
LICENSED PROFESSIONAL ENGINEER
08/21/2026

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9063 N. 95th
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F: 312.253.1394
TBPE FIRM REGISTRATION NO.: 14423
TBPLS FIRM REGISTRATION NO.: 10194382
TEXAS APPROVED FACILITIES: 10194382

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WL-K STA 1+00 - END

NO.	ISSUE	BY	DATE

FMM JOB NO. AU314361
DESIGNED JCS
DRAWN JCS
REVISED JCS
CHECKED TDB

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 58
SEQ. 58 OF 143

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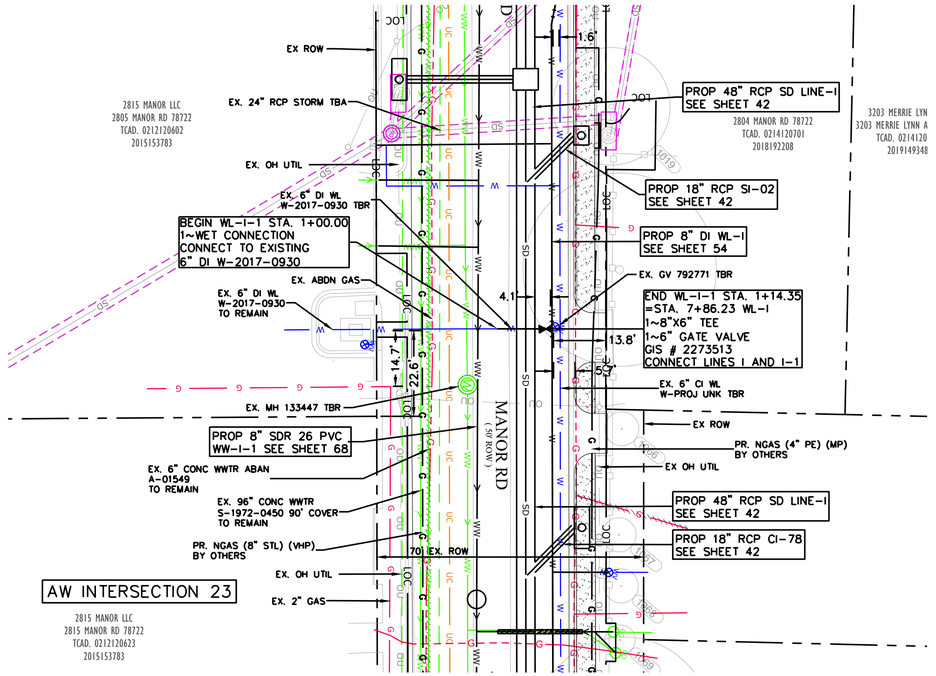

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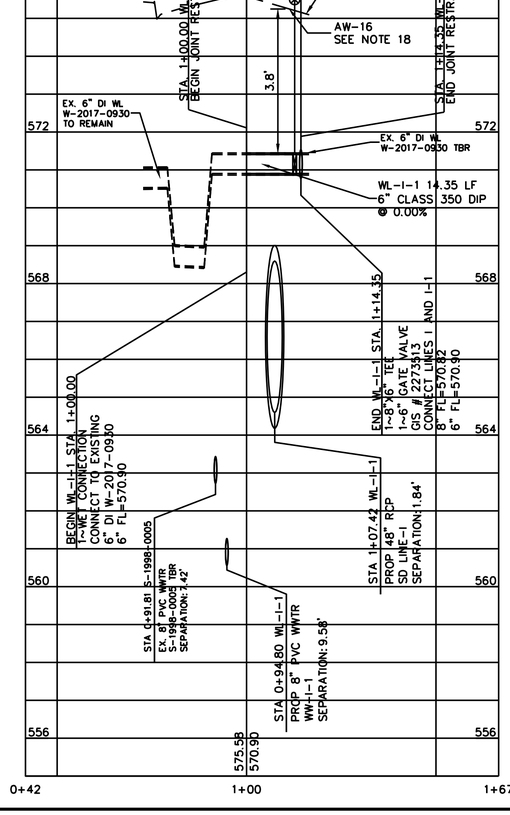

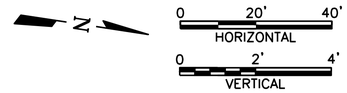

	PROP. WATER LINE
⋈ / ⚲	PROP. GATE VALVE (PLAN / PROFILE)
	PROP. BEND
	PROP. PLUG
	PROP. TEE
⚷ / ⚲	FIRE HYDRANT (PLAN / PROFILE)

NOTES:
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AW#	STATION(S)	WAIVER FOR	CRITERIA
AW-16	1+00 - 1+14.35	LESS THAN 4.0' COVER BETWEEN EXISTING GROUND AND PROPOSED 8" DI WL (3.4' - 3.8')	UCM 2.9.1.B.4

REVIEWED
August 20, 2026
BrooksK
Austin
Water
Expires: August 20, 2029

GEOTECH LEGEND
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MAPSCO 585H,585M



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08/21/2026

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TBPE FIRM REGISTRATION NO. 1453
TBPLS FIRM REGISTRATION NO. 10095800
WWW.DESIGNGROUPTEXAS.COM

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WL-I-1 STA 1+00 - END

BY	DATE	

FAH JOB NO.	AU31436
DATE	
DESIGNED	JCS
DRAWN	JCS
REVISED	JCS
CHECKED	TDB

NO. ISSUE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 59
SEQ. 59 OF 143

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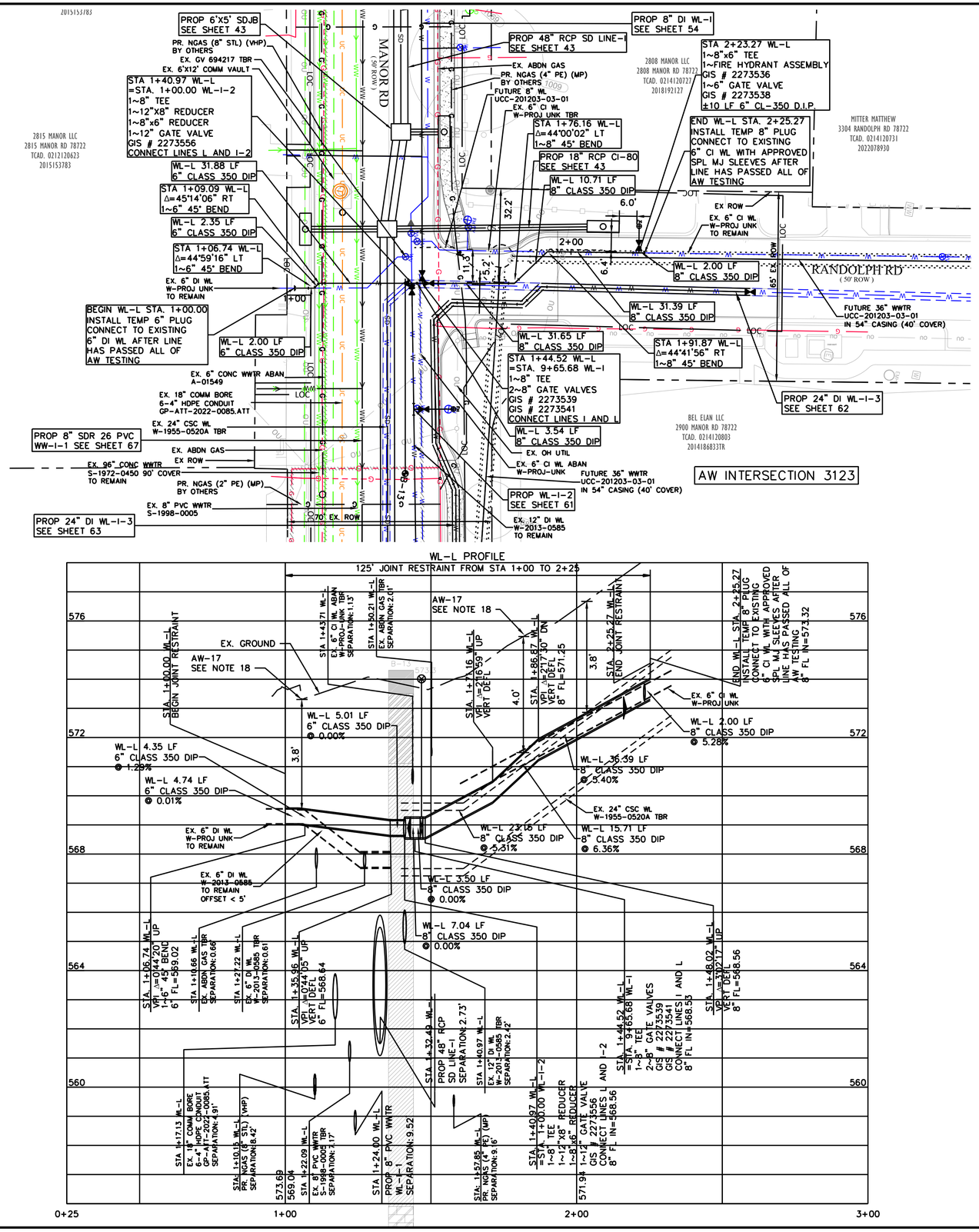

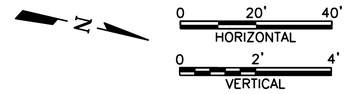

	PROP. WATER LINE
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12. PROPOSED WATER AND/OR WASTEWATER SERVICES INSTALLED PRIOR TO PROPOSED STORM DRAIN IMPROVEMENTS, PER CONSTRUCTION SEQUENCE, WILL ONLY BE PAID FOR AT THE TIME OF INSTALLATION. IF PROPOSED SERVICES ARE SUBSEQUENTLY DAMAGED DURING STORM DRAIN INSTALLATION OR OTHER CONSTRUCTION ACTIVITIES, REPAIR OF THE DAMAGED SERVICE SHALL BE SUBSIDIARY TO ASSOCIATED WORK AND WILL NOT BE PAID FOR SEPARATELY.
13. IF EXISTING WASTEWATER MAINS OR SERVICES LEAK DURING CONSTRUCTION, THEY SHALL BE REPLACED WITH APPROVED MATERIALS WITHIN THE LIMITS OF THE PROPOSED UTILITY TRENCH. THIS WILL BE CONSIDERED A REPAIR AND WILL NOT REQUIRE A MANHOLE TO CHANGE PIPE MATERIALS.
14. UTILITY TRENCH BACKFILL SHALL COMPLY WITH UCM 5.8.3 INCLUDING 12" MINIMUM CLSM AND 7" MINIMUM CLASS J MIX SUBSIDIARY TO UTILITY INSTALLATION.
15. ALL DUCTILE IRON WATER PIPES UP TO 12" SHALL BE CLASS 350 AND CONFORM TO AWWA STANDARD C-150. 16" AND LARGER PIPE SHALL BE CLASS 250 MINIMUM.
16. ALL INSTALLED STEEL CASING SHALL CONFORM TO DETAIL 501-AW-01, SEE SHEET 88
17. FOR DEEP WWTR SERVICE PROFILES SEE SHEETS 73 - 75.
18. SEE AWU WAIVER TABLE ON THIS SHEET AND OVERALL AWU WAIVER TABLE SHEET 3.
19. ALL EXISTING WATER LINES TO BE REPLACED SHALL EITHER BE ABANDONED AND MUST COMPLY WITH COA UCM 2.8.4.A AND 2.8.4.B, OR COMPLETELY REMOVED.
20. ALL RESTRAINED DUCTILE IRON WATER MAINS 24" DIAMETER AND LARGER SHALL BE RESTRAINED WITH INTEGRAL JOINT RESTRAINT, PER SPL WW-27F. ALL RESTRAINED DUCTILE IRON WATER MAINS SMALLER THAN 24" DIAMETER SHALL BE RESTRAINED WITH JOINT RESTRAINT GASKETS, PER SPL WW-27G. ENCASED DI PIPE TO BE FULLY RESTRAINED WITH INTEGRAL JOINT RESTRAINT, PER WW-27F. PIPE CONNECTIONS TO MJ VALVES OR FITTINGS TO BE FULLY RESTRAINED USING WEDGE ACTION JOINT RESTRAINT, PER SPL WW-27A.
21. ALL CAST IRON (CI) CUT IN'S REQUIRE AN SPL APPROVED TRANSITION COUPLING, THEN A SEGMENT OF DI PIPE OR 10' MINIMUM, THEN TEE/APPURTENANCE(S), THEN A SEGMENT OF DI PIPE OR 10' MINIMUM, THEN APPROVED SPL TRANSITION COUPLING.

WATER LINE CONSTRUCTION SEQUENCE:
OTHER THAN WHERE PROPOSED WATER CONFLICTS WITH EXISTING WATER, CONTRACTOR TO CONSTRUCT NEW WATER LINES IN SUCH A MANNER THAT THE EXISTING WATER SERVICES AND WASTEWATER SERVICES WILL HAVE A MAXIMUM OF 4 HOURS OF INTERRUPTIONS TOTAL. CONTRACTOR TO CUT AND PLUG EXISTING WATER LINES AND EXISTING FIRE HYDRANT LEADS AS NEEDED TO CONSTRUCT PROJECT. ALL EXISTING FIRE HYDRANTS SHALL REMAIN IN SERVICE UNTIL THE NEW FIRE HYDRANTS ARE INSTALLED AND OPERATIONAL.

CAUTION!!
UNDERGROUND GAS, WATER, ELECTRIC, TELEPHONE, CABLE TV AND OTHER UTILITIES MAY EXIST WITHIN THE WORK AREA. THE UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND FOR INFORMATION ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO THE UTILITIES CAUSED BY THE CONTRACTOR'S DESIGN

AW#	STATION(S)	WAIVER FOR	CRITERIA
AW-17	1+07.50 THRU 1+14.00, 1+83.26 THRU 2+14.37	LESS THAN 4.0' COVER BETWEEN EXISTING GROUND AND PROPOSED 8" DI WL (3.7' - 3.99')	UCM 2.9.1.B.4

REVIEWED
August 20, 2026
BrooksK
Austin
Water
Expires: August 20, 2029

GEOTECH LEGEND
- ASPHALTIC CONCRETE
- TAN FLEX BASE
- SANDY FAT CLAY (CH)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- CLAYEY GRAVEL (GC)

MAPSCO 585H,585M

ANTHONY D. BUONODONO
103439
LICENSED
PROFESSIONAL ENGINEER
08/21/2026

mwm DesignGroup
9301 N. IH 35
Austin, TX 78753
P: 512.451.8037
F: 512.453.1394
TBPE FIRM REGISTRATION NO. 14923
TBPLS FIRM REGISTRATION NO. 10064400
WWW.MWMDESIGNGROUP.COM

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WL-L STA 1+00 - END

NO.	ISSUE	BY	DATE

FAN JOB NO.	AU314361
DATE	
DESIGNED	JCS
DRAWN	JCS
REVISED	JCS
CHECKED	TDB

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 60
SEQ. 60 OF 143

ACAD Rel: 25.0s (LMS Tech)
Filename: Y:\190-21_MLK_TOD_SD\CAD\PHASE_3\SHEETS\19021-P3-SHT-W-4.dwg
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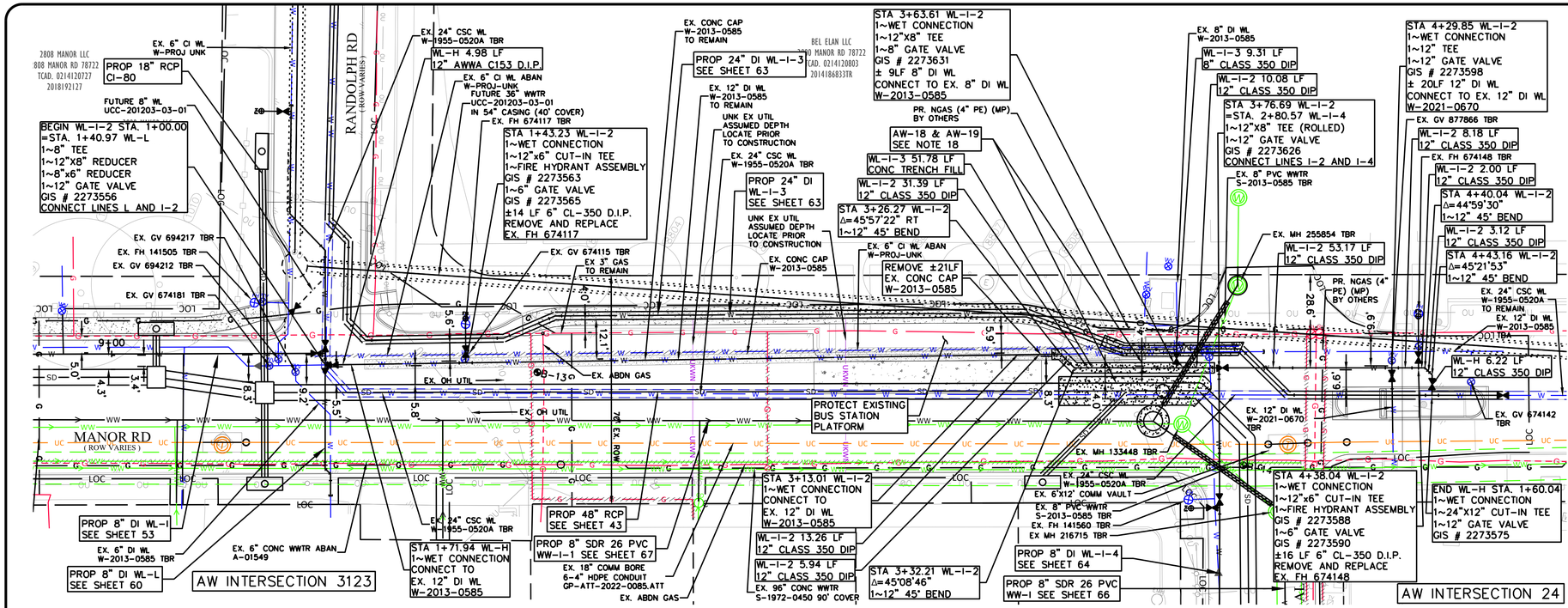
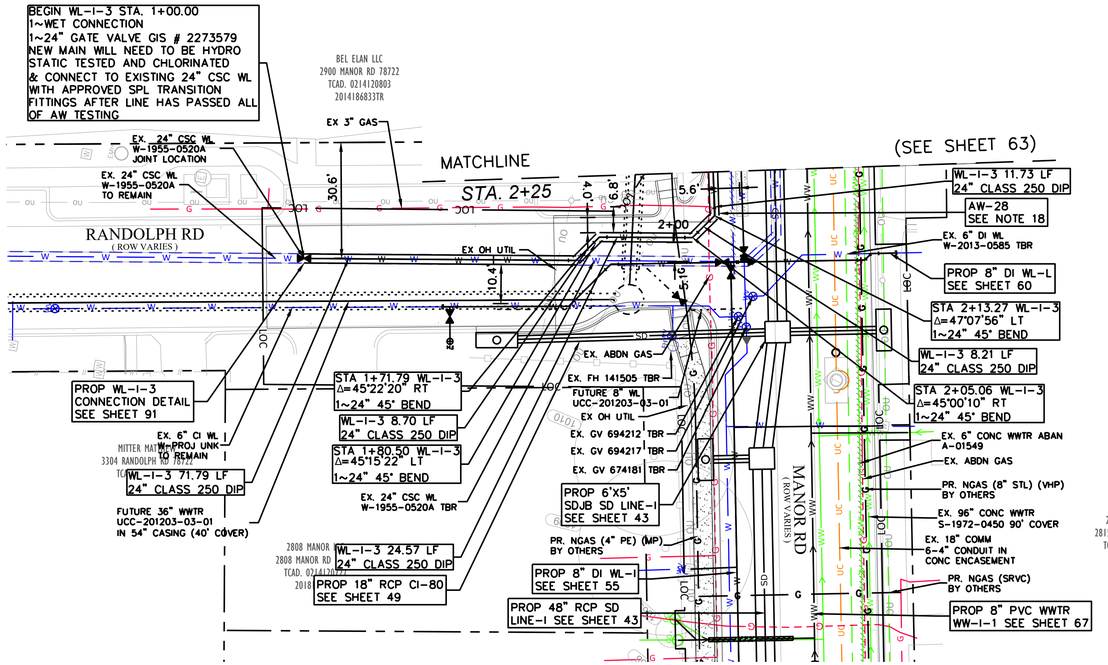
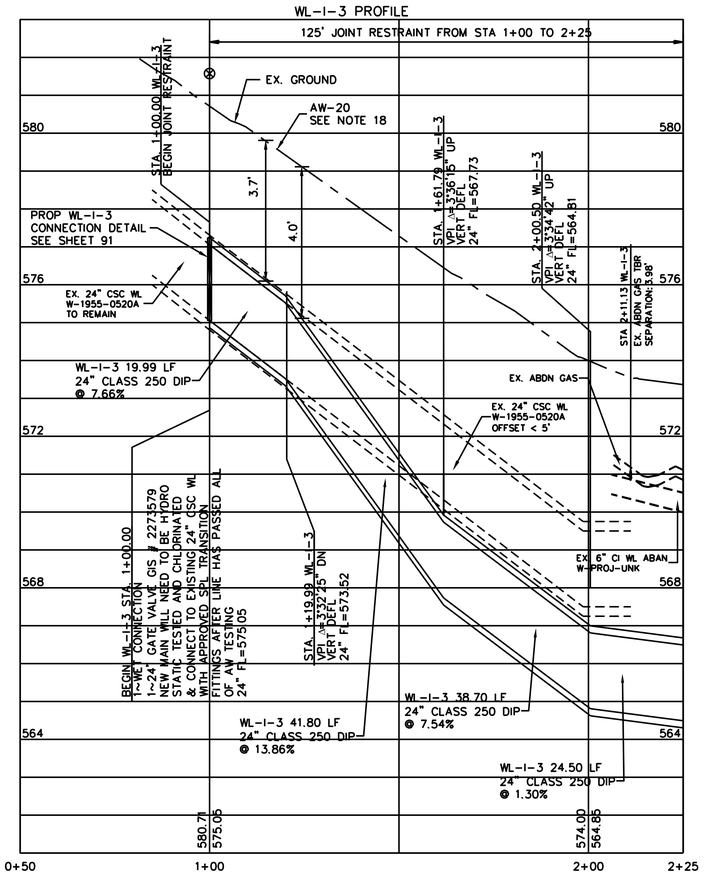
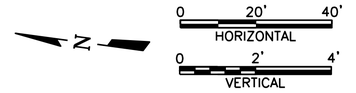

2808 MANOR LLC
808 MANOR RD 78722
TCAD. 0214120727
2018192127
PROP 18" RCP
CI-80
EX. 6" CI WL
W-PROJ UNK
FUTURE 8" WL
UCC-201203-03-01
BEGIN WL-I-2 STA. 1+00.00
=STA. 1+40.97 WL-L
1~8" TEE
1~12"X8" REDUCER
1~8"x6" REDUCER
1~12" GATE VALVE
GIS # 2273556
CONNECT LINES L AND I-2
RANDOLPH RD
(ROW VARIES)
EX. 24" CSC WL
W-1955-0520A TBR
WL-H 4.98 LF
12" AWWA C153 D.I.P.
EX. 6" CI WL ABAN
W-PROJ-UNK
FUTURE 36" WWTR
UCC-201203-03-01
IN 54" CASING (40' COVER)
EX. FH 674117 TBR
STA 1+43.23 WL-I-2
1~WET CONNECTION
1~12"x6" CUT-IN TEE
1~FIRE HYDRANT ASSEMBLY
GIS # 2273563
1~6" GATE VALVE
GIS # 2273565
±14 LF 6" CL-350 D.I.P.
REMOVE AND REPLACE
EX. FH 674117
EX. GV 694217 TBR
EX. FH 141505 TBR
EX. GV 694212 TBR
EX. GV 674181 TBR
EX. GV 674115 TBR
EX 3" GAS
TO REMAIN
EX. OH UTIL
EX. ABDN GAS
MANOR RD
(ROW VARIES)
70' EX. ROW
PROP 8" DI WL-I
SEE SHEET 53
PROP 8" DI WL-L
SEE SHEET 60
EX. 6" DI WL
W-2013-0585 TBR
EX. 6" CONC WWTR ABAN
A-01549
AW INTERSECTION 3123
STA 1+71.94 WL-H
1~WET CONNECTION
CONNECT TO
EX. 12" DI WL
W-2013-0585
EX. 24" CSC WL
W-1955-0520A TBR
PROP 48" RCP
SEE SHEET 43
PROP 8" SDR 26 PVC
WW-I-1 SEE SHEET 67
EX. 18" COMM BORE
6-4" HDPE CONDUIT
GP-ATT-2022-0085.ATT
EX. ABDN GAS
EX. CONC CAP
W-2013-0585
TO REMAIN
PROP 24" DI WL-I-3
SEE SHEET 63
EX. 12" DI WL
W-2013-0585
TO REMAIN
UNK EX UTIL
ASSUMED DEPTH
LOCATE PRIOR
TO CONSTRUCTION
EX. 24" CSC WL
W-1955-0520A TBR
PROP 24" DI
WL-I-3
SEE SHEET 63
UNK EX UTIL
ASSUMED DEPTH
LOCATE PRIOR
TO CONSTRUCTION
EX. 6" CI WL ABAN
W-PROJ-UNK
REMOVE ±21LF
EX. CONC CAP
W-2013-0585
PROTECT EXISTING
BUS STATION
PLATFORM
EX. OH UTIL
EX. ABDN GAS
STA 3+13.01 WL-I-2
1~WET CONNECTION
CONNECT TO
EX. 12" DI WL
W-2013-0585
WL-I-2 13.26 LF
12" CLASS 350 DIP
WL-I-2 5.94 LF
12" CLASS 350 DIP
EX. 96" CONC WWTR
S-1972-0450 90° COVER
STA 3+32.21 WL-I-2
Δ=45°08'46"
1~12" 45° BEND
STA 3+63.61 WL-I-2
1~WET CONNECTION
1~12"X8" TEE
1~8" GATE VALVE
GIS # 2273631
± 9LF 8" DI WL
CONNECT TO EX. 8" DI WL
W-2013-0585
BEL ELAN LLC
3900 MANOR RD 78722
TCAD. 0214120803
2014186833TR
PR. NGAS (4" PE) (MP)
BY OTHERS
AW-18 & AW-19
SEE NOTE 18
WL-I-3 51.78 LF
CONC TRENCH FILL
WL-I-2 31.39 LF
12" CLASS 350 DIP
STA 3+26.27 WL-I-2
Δ=45°57'22" RT
1~12" 45° BEND
EX. 6" CI WL ABAN
W-PROJ-UNK
REMOVE ±21LF
EX. CONC CAP
W-2013-0585
PROP 8" DI WL-I
SEE SHEET 64
PROP 8" SDR 26 PVC
WW-I SEE SHEET 66
EX. 8" DI WL
W-2013-0585
WL-I-3 9.31 LF
8" CLASS 350 DIP
WL-I-2 10.08 LF
12" CLASS 350 DIP
STA 3+76.69 WL-I-2
=STA. 2+80.57 WL-I-4
1~12"X8" TEE (ROLLED)
1~12" GATE VALVE
GIS # 2273626
CONNECT LINES I-2 AND I-4
EX. 8" PVC WWTR
S-2013-0585 TBR
EX. MH 255854 TBR
WL-I-2 53.17 LF
12" CLASS 350 DIP
PR. NGAS (4"
PE) (MP)
BY OTHERS
EX. 12" DI WL
W-2021-0670
TBR
EX. MH 133448 TBR
EX. 24" CSC WL
W-1955-0520A TBR
EX. 6'X12' COMM VAULT
EX. 8" PVC WWTR
S-2013-0585 TBR
EX. FH 141560 TBR
EX MH 216715 TBR
STA 4+38.04 WL-I-2
1~WET CONNECTION
1~12"x6" CUT-IN TEE
1~FIRE HYDRANT ASSEMBLY
GIS # 2273588
1~6" GATE VALVE
GIS # 2273590
±16 LF 6" CL-350 D.I.P.
REMOVE AND REPLACE
EX. FH 674148
AW INTERSECTION 24
STA 4+29.85 WL-I-2
1~WET CONNECTION
1~12" TEE
1~12" GATE VALVE
GIS # 2273598
± 20LF 12" DI WL
CONNECT TO EX. 12" DI WL
W-2021-0670
EX. GV 877866 TBR
WL-I-2 8.18 LF
12" CLASS 350 DIP
EX. FH 674148 TBR
WL-I-2 2.00 LF
12" CLASS 350 DIP
STA 4+40.04 WL-I-2
Δ=44°59'30"
1~12" 45° BEND
WL-I-2 3.12 LF
12" CLASS 350 DIP
STA 4+43.16 WL-I-2
Δ=45°21'53"
1~12" 45° BEND
EX. 24" CSC WL
W-1955-0520A
TO REMAIN
EX. 12" DI WL
W-2013-0585
TBR
WL-H 6.22 LF
12" CLASS 350 DIP
EX. GV 674142
TBR
END WL-H STA. 1+60.04
1~WET CONNECTION
1~24"X12" CUT-IN TEE
1~12" GATE VALVE
GIS # 2273575
WL-I-2 PROFILE
572
568
564
560
556
552
0+50
1+00
2+00
2+50
3+00
4+00
5+00
7' JOINT RESTRAINT
FROM STA 1+00 TO 1+07
136' JOINT RESTRAINT
FROM STA 3+13 TO 4+49
EX. GROUND
PROP 51.78LF
CONC TRENCH FILL
REMOVE ±21LF OF
EX. CONC CAP
W-2013-0585
PROP 48" RCP
SD LINE-I
OFFSET < 5'
PROP 24" DI
WL-I-3
OFFSET < 5'
WL-H 2.14 LF
12" AWWA C153 D.I.P.
@ 0.00%
WL-I-2 4.98 LF
12" AWWA C153 D.I.P.
@ 4.47%
WL-I-2 50.60 LF
12" CLASS 350 DIP
@ 0.75%
WL-I-2 10.08 LF
12" CLASS 350 DIP
@ 0.00%
WL-I-2 3.00 LF
12" CLASS 350 DIP
@ 0.01%
WL-I-2 16.65 LF
12" CLASS 350 DIP
@ 0.00%
WL-I-2 4.02 LF
12" CLASS 350 DIP
@ 97.32%
WL-I-2 32.50 LF
12" CLASS 350 DIP
@ 0.03%
WL-I-2 8.18 LF
12" CLASS 350 DIP
@ 0.03%
WL-I-2 9.34 LF
12" CLASS 350 DIP
@ 0.01%
STA 1+00.00 WL-I-2
BEGIN WL-I-2 STA. 1+00.00
=STA. 1+40.97 WL-L
1~8" TEE
1~12"X8" REDUCER
1~8"x6" REDUCER
1~12" GATE VALVE
GIS # 2273556
CONNECT LINES L AND I-2
8" FL IN=568.56
STA. 1+03.00 WL-I-2
VPI Δ=2°33'05" DN
VERT DEFL
12" FL=568.39
STA 1+07.98 WL-I-2
1~WET CONNECTION
CONNECT TO
EX. 12" DI WL
W-2013-0585
12" FL=568.17
STA 1+43.23 WL-I-2
1~WET CONNECTION
1~FIRE HYDRANT ASSEMBLY
GIS # 2273563
1~6" GATE VALVE
GIS # 2273565
±14 LF 6" CL-350 D.I.P.
REMOVE AND REPLACE
EX. FH 674117
STA. +75.81 WL-I-2
PR. NGAS (2" PE) (MP)
SEPARATION: 2.12'
STA 3+01.01 WL-I-2
1~WET CONNECTION
CONNECT TO
EX. 12" DI WL
W-2013-0585
12" FL=561.84
STA 3+13.01 WL-I-2
BEGIN JOINT RESTRAINT
STA 3+63.61 WL-I-2
1~WET CONNECTION
1~12"X8" TEE
1~8" GATE VALVE
GIS # 2273631
± 9LF 8" DI WL
CONNECT TO EX. 8" DI WL
W-2013-0585
12" FL=561.33
STA 3+89.87 WL-I-2
PROP 24" DI
WL-I-3
SEPARATION: 2.0'
STA 3+93.34 WL-I-2
VPI Δ=44°11'58" DN
1~12" 45° VERTICAL BEND
12" FL=561.23
STA. 4+08.54 WL-I-2
PR. NGAS (4" PE) (MP)
SEPARATION: 3.41'
STA 4+29.85 WL-I-2
1~WET CONNECTION
1~12" TEE
1~12" GATE VALVE
GIS # 2273598
± 20LF 12" DI WL
CONNECT TO EX. 12" DI WL
W-2021-0670
12" FL=557.33
STA 4+40.04 WL-I-2
1~12" 45° BEND
12" FL=557.33
STA 4+49.38 WL-I-2
END JOINT RESTRAINT
END WL-I-2 STA. 4+49.38
1~WET CONNECTION
1~12"x6" CUT-IN TEE
1~FIRE HYDRANT ASSEMBLY
GIS # 2273588
1~6" GATE VALVE
GIS # 2273590
±16 LF 6" CL-350 D.I.P.
REMOVE AND REPLACE
EX. FH 674148
12" FL=557.33
EX. 6" CI WL ABAN
W-PROJ-UNK TBR
OFFSET < 5'
EX. CONC CAP
W-2013-0585
TO REMAIN
EX. 12" DI WL
W-2013-0585 TBR
EX. 12" DI WL
W-2013-0585
TO REMAIN
EX. ABDN GAS
SEPARATION: 2.85'
EX. 24" CSC WL
W-1955-0520A TBR
SEPARATION:
DIRECT CONFLICT
EX. 6" DI WL
W-2021-0670 TBR
SEPARATION:
DIRECT CONFLICT
EX. 12" DI WL
W-2013-0585 TBR
EX. 8" PVC WWTR
S-2013-0585 TBR
SEPARATION:
DIRECT CONFLICT
EX. 12" DI WL
W-2013-0585 TBR
SEPARATION: 2.12'
EX. 8" PVC WWTR
S-2013-0585 TBR
SEPARATION: 5.94'
EX. 12" DI WL
W-2013-0585 TBR
SEPARATION: 2.82'
EX. 12" DI WL
W-2013-0585
TO REMAIN
EX. 12" DI WL
W-2021-0670 TBR
SEPARATION: 2.0'
EX. 12" DI WL
W-2021-0670 TBR
SEPARATION: DIRECT CONFLICT
EX. 6" CI WL ABAN
W-PROJ-UNK TBR
SEPARATION:
DIRECT CONFLICT
EX. 24" CSC WL
W-1955-0520A TBR
SEPARATION:
DIRECT CONFLICT
STA 2+60.11 WL-I-2
UNK EX UTIL
ASSUMED DEPTH
LOCATE PRIOR
TO CONSTRUCTION
SEPARATION: 3.74'
STA 1+07.18 WL-I-2
STA 2+13.08 WL-I-2
UNK EX UTIL
ASSUMED DEPTH
LOCATE PRIOR
TO CONSTRUCTION
SEPARATION: 13.35'
STA 3+23.91 WL-I-2
STA 3+76.69 WL-I-2
=STA. 2+80.57 WL-I-4
1~12"X8" TEE (ROLLED)
1~12" GATE VALVE
GIS # 2273626
CONNECT LINES I-2 AND I-4
12" FL=561.23
8" FL=561.39
STA 3+97.35 WL-I-2
VPI Δ=48°12'25" UP
1~12" 45° VERTICAL BEND
12" FL=557.32
EX. GROUND
EX. 12" DI WL
W-2013-0585 TBR
EX. 12" DI WL
W-2013-0585
TO REMAIN
EX. 24" CSC WL
W-1955-0520A TBR
SEPARATION:
DIRECT CONFLICT
EX. 12" DI WL
W-2021-0670 TBR
SEPARATION:
DIRECT CONFLICT
EX. 8" PVC WWTR
S-2013-0585 TBR
SEPARATION:
DIRECT CONFLICT
EX. 12" DI WL
W-2013-0585 TBR
SEPARATION: 1.5'
EX. 12" DI WL
W-2013-0585
TO REMAIN
EX. 12" DI WL
W-2013-0585 TBR
EX. 12" DI WL
W-2013-0585
TO REMAIN
EX. 12" DI WL
W-2021-0670 TBR
SEPARATION: 2.0'
EX. 12" DI WL
W-2021-0670 TBR
SEPARATION: DIRECT CONFLICT
EX. 6" CI WL ABAN
W-PROJ-UNK TBR
SEPARATION:
DIRECT CONFLICT
EX. 24" CSC WL
W-1955-0520A







	PROP. WATER LINE
⋈ / ⚲	PROP. GATE VALVE (PLAN / PROFILE)
	PROP. BEND
	PROP. PLUG
	PROP. TEE
⚙ / ⚲	FIRE HYDRANT (PLAN / PROFILE)

NOTES:
1. AWU WATER DISTRIBUTION SYSTEM MAP SHEETS K23 AND K24.
2. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS AND/OR CROSSINGS TWO WEEKS PRIOR TO CONSTRUCTION.
3. ALL WATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF AUSTIN CRITERIA AND CHAPTER 290 OF THE TEXAS ADMINISTRATIVE CODE.
4. ALL HORIZONTAL AND VERTICAL BENDS (INCLUDING 22-½° AND EXCEEDING 22-½°), VALVES, TEES, PLUGS, AND CAPS SHALL BE RESTRAINED TO THE WATER MAIN USING MECHANICAL JOINT RESTRAINT DEVICES AS APPROVED IN SPL WW-27-A. THE CALCULATED RESTRAINT LENGTH IS INCLUDED AS A DIMENSION IN THE PROFILE VIEW, CALLED OUT FROM BEGINNING STATION TO END STATION. PER UCM SECT. 2.9.2.B.9. CONCRETE THRUST BLOCKING SHALL BE USED FOR BENDS LESS THAN 22-½°. CONTRACTOR TO ADD WARNING TAPE (STAND. SPEC. 510) ON TRENCH LINE TO SHOW RESTRAINED LENGTHS.
5. ALL WATERLINE P.I.'S BOTH HORIZONTAL AND VERTICAL SHALL BE ACHIEVED BASED UPON THE PIPE MANUFACTURER'S SPECIFIED MAXIMUM ALLOWABLE JOINT DEFLECTION. P.I.'S LESS THAN OR EQUAL TO 80% OF THE MANUFACTURER'S MAXIMUM SHALL BE CONSTRUCTED AS A SINGLE JOINT DEFLECTION. P.I.'S IN EXCESS OF 80% OF THE MANUFACTURER'S MAXIMUM ALLOWABLE JOINT DEFLECTION ANGLE SHALL BE CONSTRUCTED AS A SERIES OF EVENLY DISTRIBUTED DEFLECTIONS OVER MULTIPLE JOINTS, SO THAT NO SINGLE DEFLECTION IS GREATER THAN 80% OF THE MAXIMUM.
6. ALL EXISTING PUBLIC UNDERGROUND WATER UTILITIES ARE APPROXIMATE AND SHOWN PER COA RECORDS.
7. ALL VALVES WITHIN PAVED AREAS SHALL HAVE HEAVY-DUTY TRAFFIC BEARING CASTINGS AND COVERS.
8. ALL POTABLE AND FIRE LINE PIPING SHALL BE CLASS 350 DIP UNLESS NOTED OTHERWISE.
9. PROPOSED WATER OR WASTEWATER LINES SHALL NOT BE INSTALLED IN EASEMENTS UNTIL FINAL EASEMENTS HAVE BEEN RECORDED.
10. FUNDING FOR THIS SECTION OF WATERLINE IS THE RESPONSIBILITY OF THE WATERSHED PROTECTION DEPARTMENT.
11. ALL WATER/WASTEWATER CROSSINGS NEED TO HAVE BOTH PIPES RATED FOR 150 PSI AND EACH PIPE JOINT CENTERED ON EACH OTHER. SEE SPL-227B-1
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21. ALL CAST IRON (CI) CUT IN'S REQUIRE AN SPL APPROVED TRANSITION COUPLING, THEN A SEGMENT OF DI PIPE OR 10' MINIMUM, THEN TEE/APPURTENANCE(S), THEN A SEGMENT OF DI PIPE OR 10' MINIMUM, THEN APPROVED SPL TRANSITION COUPLING.

WATER LINE CONSTRUCTION SEQUENCE:
OTHER THAN WHERE PROPOSED WATER CONFLICTS WITH EXISTING WATER, CONTRACTOR TO CONSTRUCT NEW WATER LINES IN SUCH A MANNER THAT THE EXISTING WATER SERVICES AND WASTEWATER SERVICES WILL HAVE A MAXIMUM OF 4 HOURS OF INTERRUPTIONS TOTAL. CONTRACTOR TO CUT AND PLUG EXISTING WATER LINES AND EXISTING FIRE HYDRANT LEADS AS NEEDED TO CONSTRUCT PROJECT. ALL EXISTING FIRE HYDRANTS SHALL REMAIN IN SERVICE UNTIL THE NEW FIRE HYDRANTS ARE INSTALLED AND OPERATIONAL.

CAUTION!!
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AW #	STATION(S)	WAIVER FOR	CRITERIA
AW-20	1+00 THRU 1+24.18	LESS THAN 4.0' COVER BETWEEN EXISTING GROUND AND PROPOSED 24" DI WL (3.4')	UCM 2.9.1.B.4

REVIEWED
August 20, 2026
Brooks K
Austin
Water
Expires: August 20, 2029

NOTE: PROPOSED GAS RELOCATED DEEPER THAN PROFILE VIEW

GEOTECH LEGEND
- ASPHALTIC CONCRETE
- TAN FLEX BASE
- SANDY FAT CLAY (CH)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- CLAYEY GRAVEL (GC)

MAPSCO 585H,585M



STATE OF TEXAS
ANTHONY D. BUONODONO
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LICENSED PROFESSIONAL ENGINEER
08/21/2026

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TBPLS FIRM REGISTRATION NO. 10194
WWW.MWMDESIGNGROUP.COM

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WL-I-3 STA 1+00 - 2+25

NO.	ISSUE	BY	DATE

FBM JOB NO. AU314361

	DATE	BY
DESIGNED		JCS
DRAWN		JCS
REVISED		JCS
CHECKED		TDB

VERIFY SCALE Bar is one inch on original drawing. If not, one inch on this sheet, adjust scale.
0 1"

SHEET 62
SEQ. 63 OF 143

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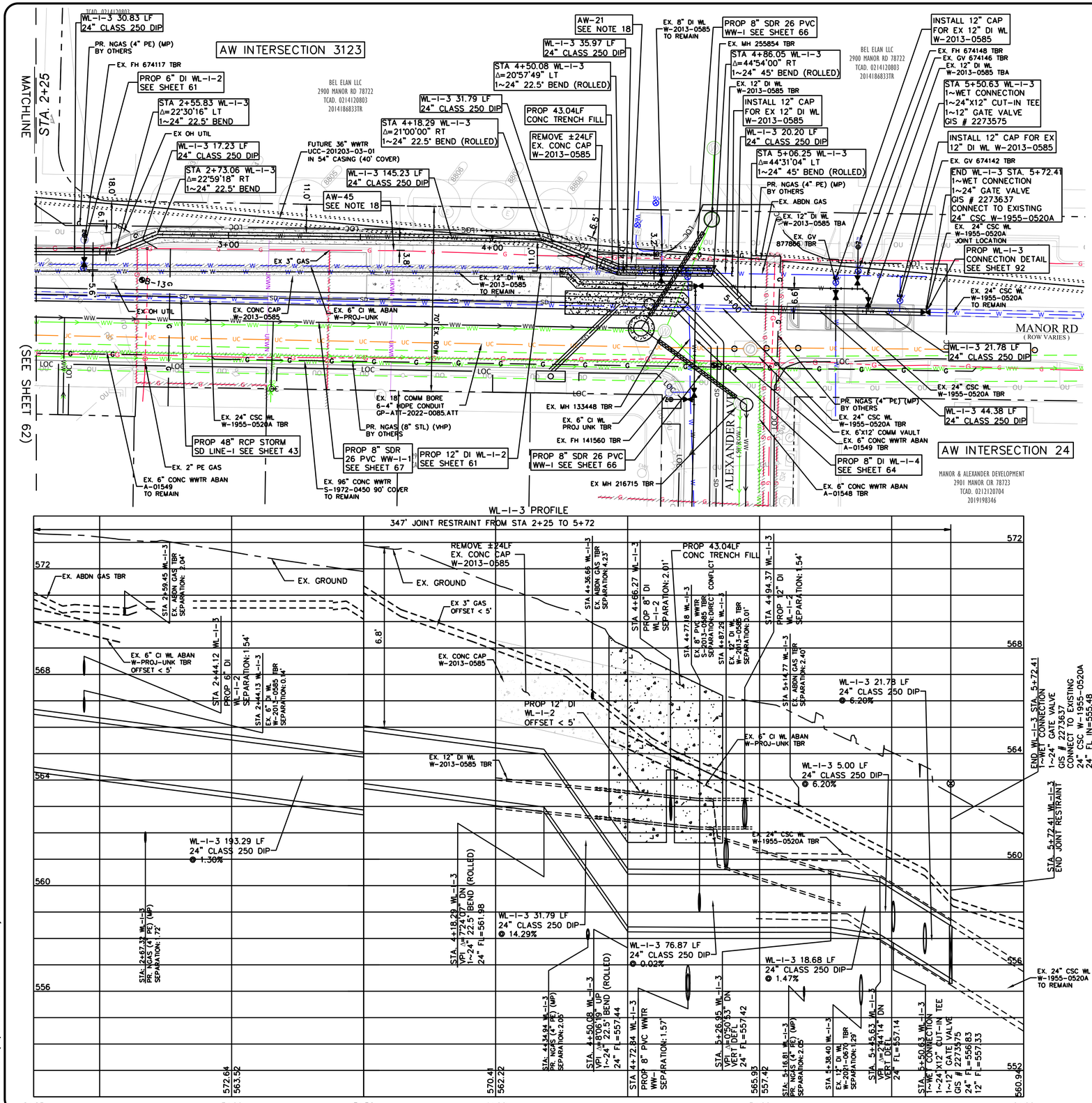

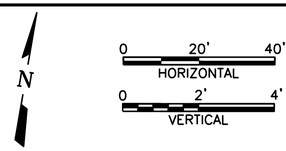

	PROP. WATER LINE
⋈ / ⚲	PROP. GATE VALVE (PLAN / PROFILE)
⌐	PROP. BEND
⊏	PROP. PLUG
⊥	PROP. TEE
⚒ / ⚲	FIRE HYDRANT (PLAN / PROFILE)

NOTES:
1. AWU WATER DISTRIBUTION SYSTEM MAP SHEETS K23 AND K24.
2. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS AND/OR CROSSINGS TWO WEEKS PRIOR TO CONSTRUCTION.
3. ALL WATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF AUSTIN CRITERIA AND CHAPTER 290 OF THE TEXAS ADMINISTRATIVE CODE.
4. ALL HORIZONTAL AND VERTICAL BENDS (INCLUDING 22-½° AND EXCEEDING 22-½°), VALVES, TEES, PLUGS, AND CAPS SHALL BE RESTRAINED TO THE WATER MAIN USING MECHANICAL JOINT RESTRAINT DEVICES AS APPROVED IN SPL WW-27-A. THE CALCULATED RESTRAINT LENGTH IS INCLUDED AS A DIMENSION IN THE PROFILE VIEW, CALLED OUT FROM BEGINNING STATION TO END STATION. PER UCM SECT. 2.9.2.B.9. CONCRETE THRUST BLOCKING SHALL BE USED FOR BENDS LESS THAN 22-½°. CONTRACTOR TO ADD WARNING TAPE (STAND. SPEC. 510) ON TRENCH LINE TO SHOW RESTRAINED LENGTHS.
5. ALL WATERLINE P.I.'S BOTH HORIZONTAL AND VERTICAL SHALL BE ACHIEVED BASED UPON THE PIPE MANUFACTURER'S SPECIFIED MAXIMUM ALLOWABLE JOINT DEFLECTION. P.I.'S LESS THAN OR EQUAL TO 80% OF THE MANUFACTURER'S MAXIMUM SHALL BE CONSTRUCTED AS A SINGLE JOINT DEFLECTION. P.I.'S IN EXCESS OF 80% OF THE MANUFACTURER'S MAXIMUM ALLOWABLE JOINT DEFLECTION ANGLE SHALL BE CONSTRUCTED AS A SERIES OF EVENLY DISTRIBUTED DEFLECTIONS OVER MULTIPLE JOINTS, SO THAT NO SINGLE DEFLECTION IS GREATER THAN 80% OF THE MAXIMUM.
6. ALL EXISTING PUBLIC UNDERGROUND WATER UTILITIES ARE APPROXIMATE AND SHOWN PER COA RECORDS.
7. ALL VALVES WITHIN PAVED AREAS SHALL HAVE HEAVY-DUTY TRAFFIC BEARING CASTINGS AND COVERS.
8. ALL POTABLE AND FIRE LINE PIPING SHALL BE CLASS 350 DIP UNLESS NOTED OTHERWISE.
9. PROPOSED WATER OR WASTEWATER LINES SHALL NOT BE INSTALLED IN EASEMENTS UNTIL FINAL EASEMENTS HAVE BEEN RECORDED.
10. FUNDING FOR THE CONSTRUCTION OF THIS SECTION OF WATERLINE IS THE RESPONSIBILITY OF THE WATERSHED PROTECTION DEPARTMENT.
11. ALL WATER/WASTEWATER CROSSINGS NEED TO HAVE BOTH PIPES RATED FOR 150 PSI AND EACH PIPE JOINT CENTERED ON EACH OTHER. SEE SPL-227B-1
12. PROPOSED WATER AND/OR WASTEWATER SERVICES INSTALLED PRIOR TO PROPOSED STORM DRAIN IMPROVEMENTS, PER CONSTRUCTION SEQUENCE, WILL ONLY BE PAID FOR AT THE TIME OF INSTALLATION. IF PROPOSED SERVICES ARE SUBSEQUENTLY DAMAGED DURING STORM DRAIN INSTALLATION OR OTHER CONSTRUCTION ACTIVITIES, REPAIR OF THE DAMAGED SERVICE SHALL BE SUBSIDIARY TO ASSOCIATED WORK AND WILL NOT BE PAID FOR SEPARATELY.
13. IF EXISTING WASTEWATER MAINS OR SERVICES LEAK DURING CONSTRUCTION, THEY SHALL BE REPLACED WITH APPROVED MATERIALS WITHIN THE LIMITS OF THE PROPOSED UTILITY TRENCH. THIS WILL BE CONSIDERED A REPAIR AND WILL NOT REQUIRE A MANHOLE TO CHANGE PIPE MATERIALS.
14. UTILITY TRENCH BACKFILL SHALL COMPLY WITH UCM 5.8.3 INCLUDING 12" MINIMUM CLSM AND 7" MINIMUM CLASS J MIX SUBSIDIARY TO UTILITY INSTALLATION.
15. ALL DUCTILE IRON WATER PIPES UP TO 12" SHALL BE CLASS 350 AND CONFORM TO AWWA STANDARD C-150. 16" AND LARGER PIPE SHALL BE CLASS 250 MINIMUM.
16. ALL INSTALLED STEEL CASING SHALL CONFORM TO DETAIL 501-AW-01, SEE SHEET 89
17. FOR DEEP WWTR SERVICE PROFILES SEE SHEETS 73 - 75.
18. SEE AWU WAIVER TABLE ON THIS SHEET AND OVERALL AWU WAIVER TABLE SHEET 3.
19. ALL EXISTING WATER LINES TO BE REPLACED SHALL EITHER BE ABANDONED AND MUST COMPLY WITH COA UCM 2.8.4.A AND 2.8.4.B, OR COMPLETELY REMOVED.
20. ALL RESTRAINED DUCTILE IRON WATER MAINS 24" DIAMETER AND LARGER SHALL BE RESTRAINED WITH INTEGRAL JOINT RESTRAINT, PER SPL WW-27F. ALL RESTRAINED DUCTILE IRON WATER MAINS SMALLER THAN 24" DIAMETER SHALL BE RESTRAINED WITH JOINT RESTRAINT GASKETS, PER SPL WW-27G. ENCASED DI PIPE TO BE FULLY RESTRAINED WITH INTEGRAL JOINT RESTRAINT, PER WW-27F. PIPE CONNECTIONS TO MJ VALVES OR FITTINGS TO BE FULLY RESTRAINED USING WEDGE ACTION JOINT RESTRAINT, PER SPL WW-27A.
21. ALL CAST IRON (CI) CUT IN'S REQUIRE AN SPL APPROVED TRANSITION COUPLING, THEN A SEGMENT OF DI PIPE OR 10' MINIMUM, THEN TEE/APPURTENANCE(S), THEN A SEGMENT OF DI PIPE OR 10' MINIMUM, THEN APPROVED SPL TRANSITION COUPLING.

WATER LINE CONSTRUCTION SEQUENCE:
OTHER THAN WHERE PROPOSED WATER CONFLICTS WITH EXISTING WATER, CONTRACTOR TO CONSTRUCT NEW WATER LINES IN SUCH A MANNER THAT THE EXISTING WATER SERVICES AND WASTEWATER SERVICES WILL HAVE A MAXIMUM OF 4 HOURS OF INTERRUPTIONS TOTAL. CONTRACTOR TO CUT AND PLUG EXISTING WATER LINES AND EXISTING FIRE HYDRANT LEADS AS NEEDED TO CONSTRUCT PROJECT. ALL EXISTING FIRE HYDRANTS SHALL REMAIN IN SERVICE UNTIL THE NEW FIRE HYDRANTS ARE INSTALLED AND OPERATIONAL.

CAUTION!!
UNDERGROUND GAS, WATER, ELECTRIC, TELEPHONE, CABLE TV AND OTHER UTILITIES MAY EXIST WITHIN THE WORK AREA. THE UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND FOR INFORMATION ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO THE UTILITIES CAUSED BY THE CONTRACTOR'S DESIGN

AW#	STATION(S)	WAIVER FOR	CRITERIA
AW-45	2+73.06 THRU 4+18.29	LESS THAN 5' HORIZONTAL SEPARATION FROM EXISTING 3" GAS LINE (3.8')	UCM 2.9.1.B.2
AW-21	4+50.08 THRU 4+86.05	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 12" DI WL(4')	UCM 2.9.1.B.2

REVIEWED
August 20, 2026
BrooksK
Austin
Water
Expires: August 20, 2029

GEOTECH LEGEND
- ASPHALTIC CONCRETE
- TAN FLEX BASE
- SANDY FAT CLAY (CH)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- CLAYEY GRAVEL (GC)

MAPSCO 585H,585M


STATE OF TEXAS
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WWW.MWMDESIGNGROUP.COM

CITY OF AUSTIN AUSTIN WATER
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WL-I-3 STA 2+25 - END

FMH JOB NO.	AU314365		
	DATE	DESIGNED	JCS
		DRAWN	JCS
		REVISED	JCS
		CHECKED	TDB

NO.	ISSUE	DATE	BY

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 63
SEQ. 63 OF 143

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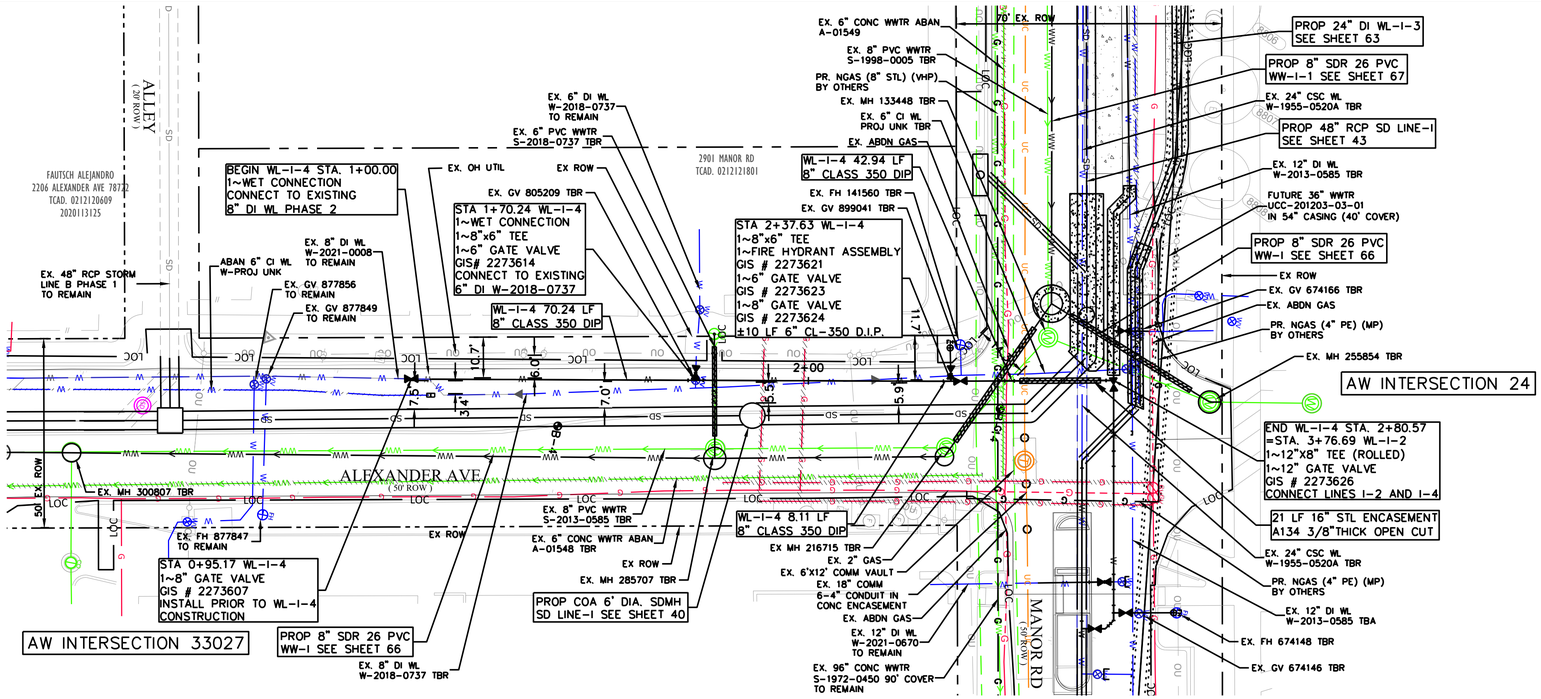
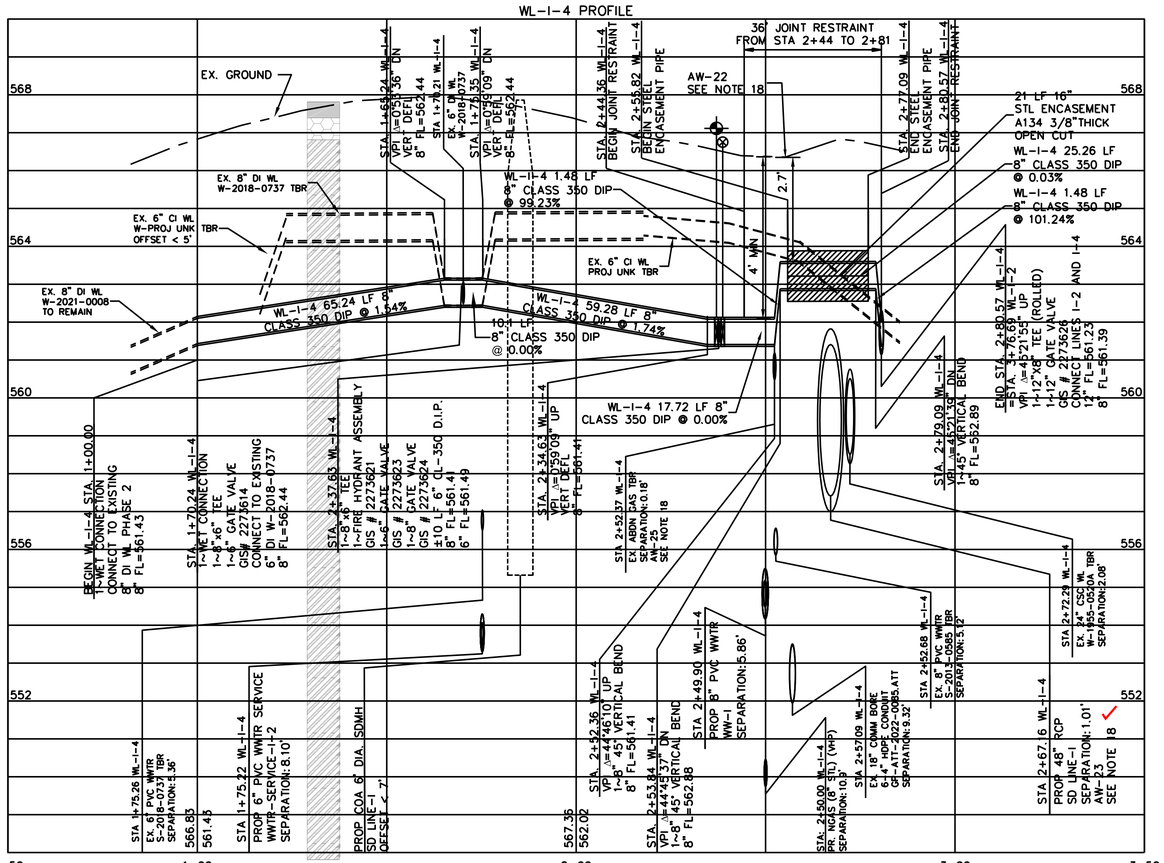
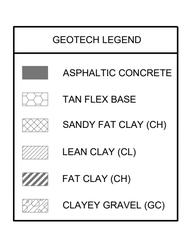




AW#	STATION(S)	WAIVER FOR	CRITERIA
AW-22	2+52.59 THRU 2+80.57	LESS THAN 4.0' COVER BETWEEN EXISTING GROUND AND PROPOSED 8" DI WL (2.7' - 3.23')	UCM 2.9.1.B.4
AW-23	2+67.16	LESS THAN 1.5' VERTICAL SEPERATION FROM PROP 48" RCP SD CROSSING BELOW THE PROP 8" DI WL (1.01')	UCM 2.9.1.B.3





REVIEWED
August 20, 2026
Brooks
Austin
Water
Expires: August 20, 2029

0 20' 40'
HORIZONTAL
0 2' 4'
VERTICAL

	PROP. WATER LINE
⋈ / ⚲	PROP. GATE VALVE (PLAN / PROFILE)
∠	PROP. BEND
⊏	PROP. PLUG
⊥	PROP. TEE
⚒ / ⚲	FIRE HYDRANT (PLAN / PROFILE)

NOTES:
1. AWU WATER DISTRIBUTION SYSTEM MAP SHEETS K23 AND K24.
2. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS AND/OR CROSSINGS TWO WEEKS PRIOR TO CONSTRUCTION.
3. ALL WATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF AUSTIN CRITERIA AND CHAPTER 290 OF THE TEXAS ADMINISTRATIVE CODE.
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15. ALL DUCTILE IRON WATER PIPES UP TO 12" SHALL BE CLASS 350 AND CONFORM TO AWWA STANDARD C-150. 16" AND LARGER PIPE SHALL BE CLASS 250 MINIMUM.
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17. FOR DEEP WWTR SERVICE PROFILES SEE SHEETS 73 - 75.
18. SEE AWU WAIVER TABLE ON THIS SHEET AND OVERALL AWU WAIVER TABLE SHEET 3.
19. ALL EXISTING WATER LINES TO BE REPLACED SHALL EITHER BE ABANDONED AND MUST COMPLY WITH COA UCM 2.8.4.A AND 2.8.4.B, OR COMPLETELY REMOVED.
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21. ALL CAST IRON (CI) CUT IN'S REQUIRE AN SPL APPROVED TRANSITION COUPLING, THEN A SEGMENT OF DI PIPE OR 10' MINIMUM, THEN TEE/APPURTENANCE(S), THEN A SEGMENT OF DI PIPE OR 10' MINIMUM, THEN APPROVED SPL TRANSITION COUPLING.

WATER LINE CONSTRUCTION SEQUENCE:
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STATE OF TEXAS
ANTHONY D. BUONODONO
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WWW.MWMDESIGNGROUP.COM

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WL-I-4 STA 1+00 - END

NO.	ISSUE	BY	DATE

FBM JOB NO. AU314365

	BY	DATE
DESIGNED	JCS	
DRAWN	JCS	
REVISED	JCS	
CHECKED	TDB	

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 64
SEQ. 64 OF 143

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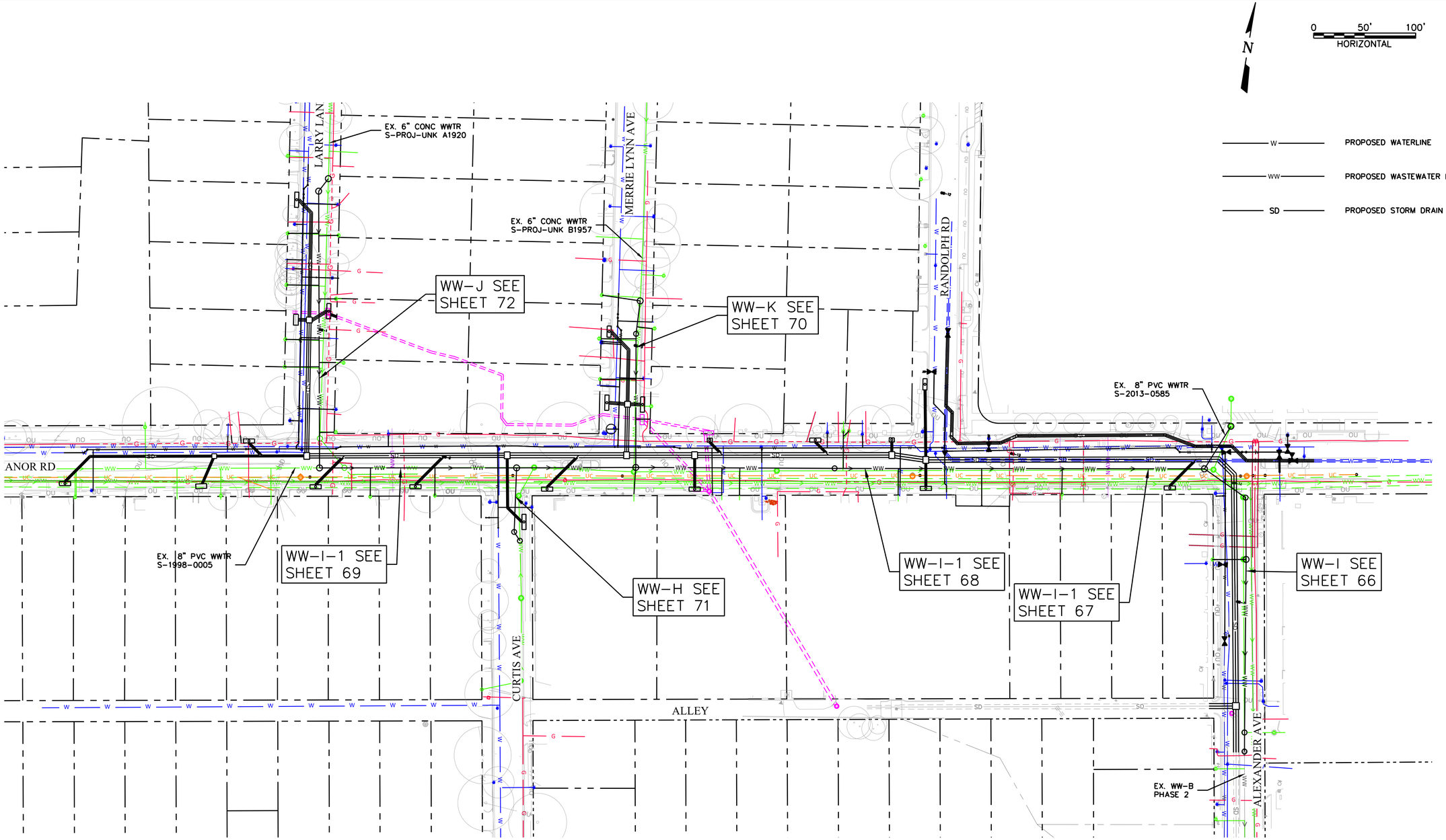

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STATE OF TEXAS
ANTHONY D. BUONODONO
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TBPLS FIRM REGISTRATION NO. 10018800

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WASTEWATER OVERALL PLAN

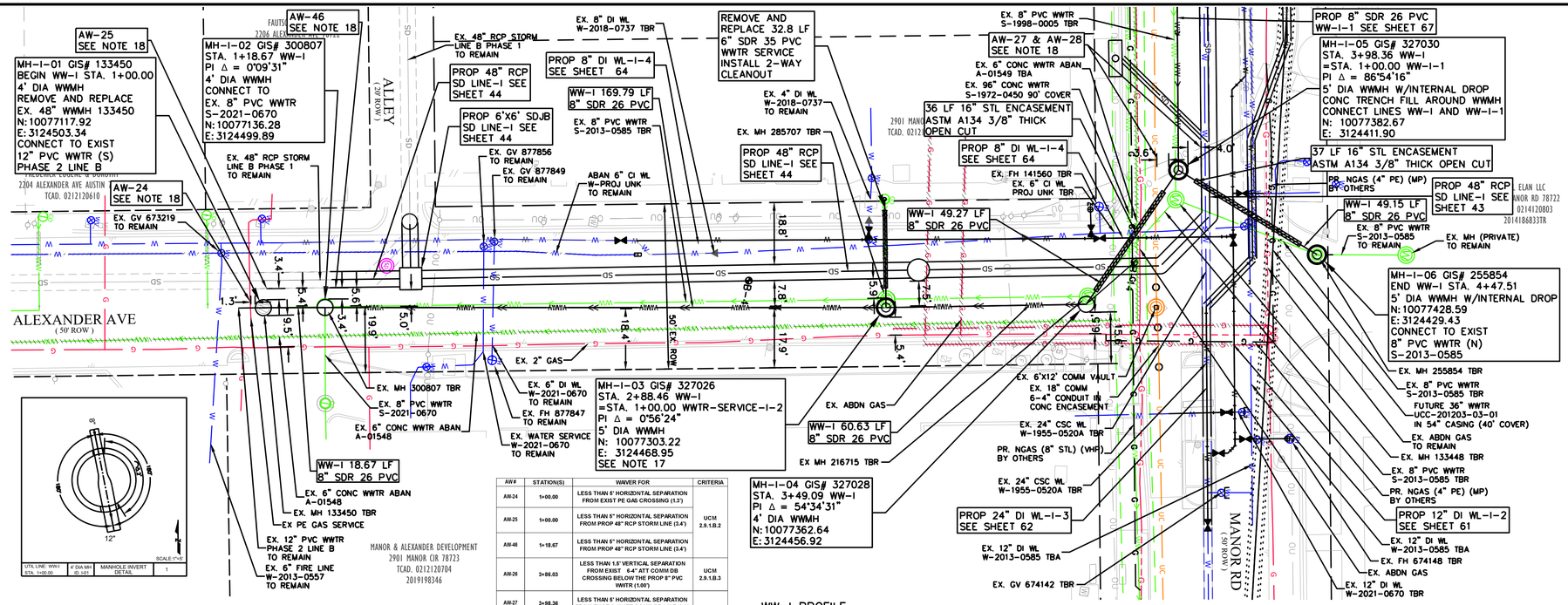
NO.	ISSUE	BY	DATE

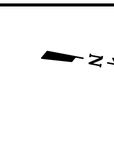
FAH JOB NO. AU314361

	DATE	
DESIGNED	JCS	
DRAWN	JCS	
REVISED	JCS	
CHECKED	TDB	

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 65
SEQ. 65 OF 143





REVIEWED
August 20, 2026
Brookst
Austin
Water
Expires: August 20, 2029

STATE OF TEXAS
ANTHONY D. BUONODONO
103439
LICENSED
PROFESSIONAL ENGINEER
08/21/2026

WW	PROP. WASTEWATER LINE
○	PROP. WASTEWATER MANHOLE
○	PROP. WASTEWATER CLEAN OUT

NOTES:
1. AWU WASTEWATER COLLECTION SYSTEM MAP SHEET#S K23 AND K24
2. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS AND/OR CROSSINGS TWO WEEKS PRIOR TO CONSTRUCTION.
3. SEE SHEET 3 FOR ADDITIONAL UTILITY NOTES.
4. ALL WASTEWATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF AUSTIN CRITERIA AND CHAPTER 217 OF THE TEXAS ADMINISTRATIVE CODE.
5. EXISTING PUBLIC UNDERGROUND WASTEWATER UTILITIES ARE APPROXIMATE AND ARE BASED ON A FIELD SURVEY PROVIDED BY MCGRAY & MCGRAY LAND SURVEYORS, INC.
6. THE PROPOSED PHASE 2 WASTEWATER IMPROVEMENTS ARE BASED ON FIELD SURVEY DATA.
7. WASTEWATER MAIN AND SERVICE CONNECTIONS SHALL REMAIN ACTIVE DURING CONSTRUCTION AND BYPASS PUMPING SHALL BE USED AS NECESSARY.
8. UNLESS ALTERNATIVE METHODS ARE APPROVED BY ENGINEER, MAINTAIN 10' OF SEPARATION BETWEEN ALL POTABLE WATER LINES AND WASTEWATER LINES.
9. ALL CLEANOUTS AND MANHOLES WITHIN PAVED AREAS SHALL HAVE HEAVY-DUTY TRAFFIC BEARING CASTINGS AND COVERS.
10. ALL WASTEWATER PIPE SHALL BE PVC ASTM D3034 SDR-26 UNLESS NOTED OTHERWISE.
11. PROPOSED WATER OR WASTEWATER LINES SHALL NOT BE INSTALLED IN EASEMENTS UNTIL FINAL EASEMENTS HAVE BEEN RECORDED.
12. ALL WATER/WASTEWATER CROSSINGS NEED TO HAVE BOTH PIPES RATED FOR 150 PSI AND EACH PIPE JOINT CENTERED ON EACH OTHER. SEE SPL 227B-1.
13. PROPOSED WATER AND/OR WASTEWATER SERVICES INSTALLED PRIOR TO PROPOSED STORM DRAIN IMPROVEMENTS, PER CONSTRUCTION SEQUENCE, WILL ONLY BE PAID FOR AT THE TIME OF INSTALLATION. IF PROPOSED SERVICES ARE SUBSEQUENTLY DAMAGED DURING STORM DRAIN INSTALLATION OR OTHER CONSTRUCTION ACTIVITIES, REPAIR OF THE DAMAGED SERVICE SHALL BE SUBSIDIARY TO ASSOCIATED WORK AND WILL NOT BE PAID FOR SEPARATELY.
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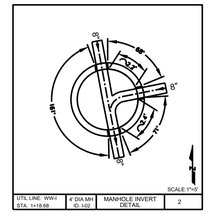
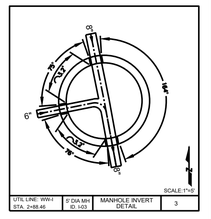
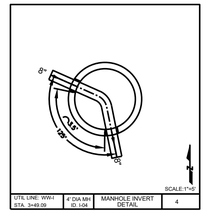
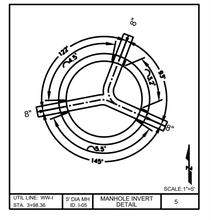
15. UTILITY TRENCH BACKFILL SHALL COMPLY WITH UCM 5.8.3 INCLUDING 12" MINIMUM CLSM AND 7" MINIMUM CLASS J MIX SUBSIDIARY TO UTILITY INSTALLATION
16. ALL 6"-15" DIAMETER PVC WASTEWATER PIPES SHALL CONFORM TO ASTM STANDARD D3034.
17. ALL WWTR DEEP SERVICE CONNECTIONS SHALL CONFORM TO DETAIL 520-AW-01C ON SHEET 89, FOR DEEP SERVICE PROFILES SEE SHEETS 73 - 75.
18. SEE AWU WAIVER TABLE ON THIS SHEET AND OVERALL AWU WAIVER TABLE SHEET 3.

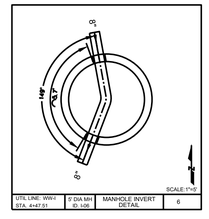
WASTEWATER CONSTRUCTION SEQUENCE NOTES:
1. CONTRACTOR SHALL SUBMIT BYPASS PUMPING PLAN FOR REVIEW.
2. SEE SS1540 FOR BY-PASS PUMPING SPECIAL SPECIFICATION.
3. SET UP BYPASS PUMPING FOR THE CONSTRUCTION OF PROPOSED WASTEWATER MANHOLES AND CONSTRUCT NEW WASTEWATER LINE BETWEEN EXISTING MANHOLES.
4. CONNECT WW SERVICES TO NEW WASTEWATER LINE.
5. REPEAT 3 AND 4 AS NECESSARY.













CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WW-I STA 1+00 - END

NO.	ISSUE	BY	DATE

FAH JOB NO. AU314361

	DATE
DESIGNED	JCS
DRAWN	JCS
REVISED	JCS
CHECKED	TDB

SHEET 66
SEQ. 66 OF 143

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

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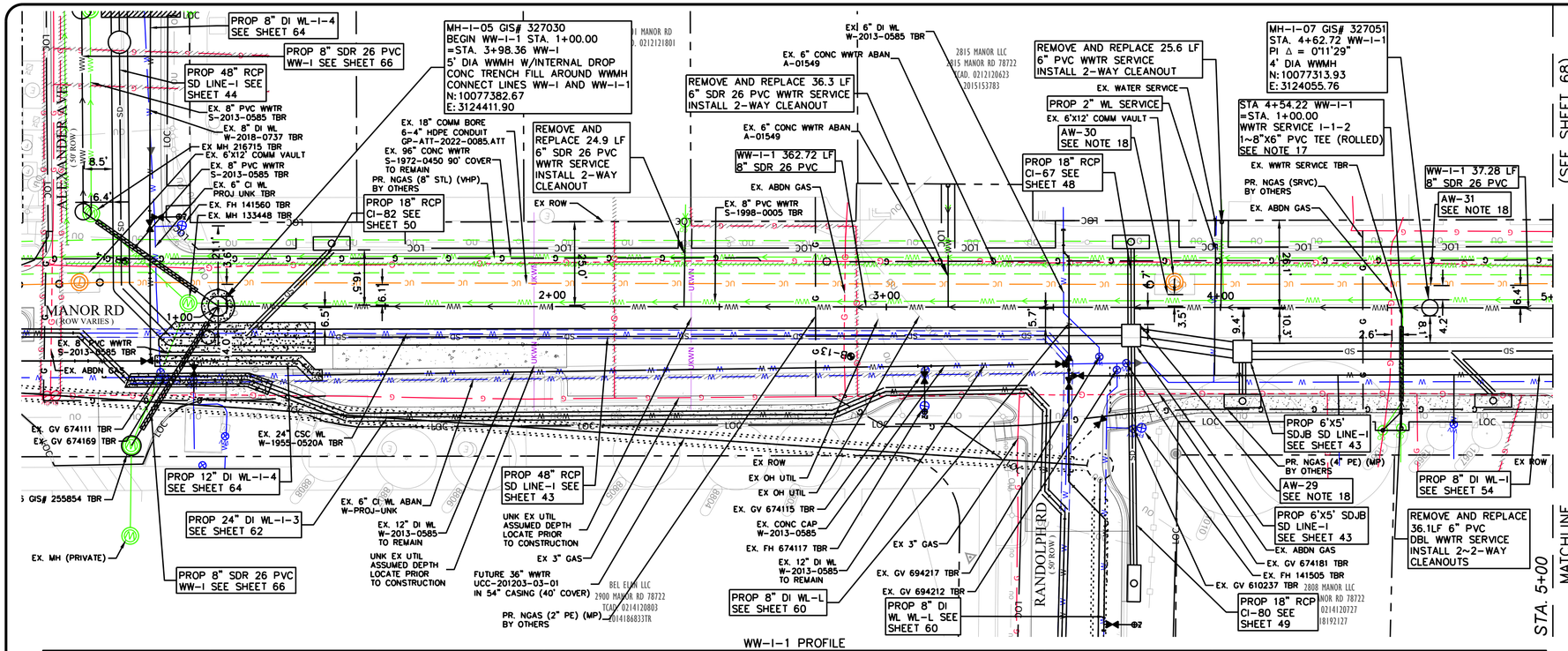
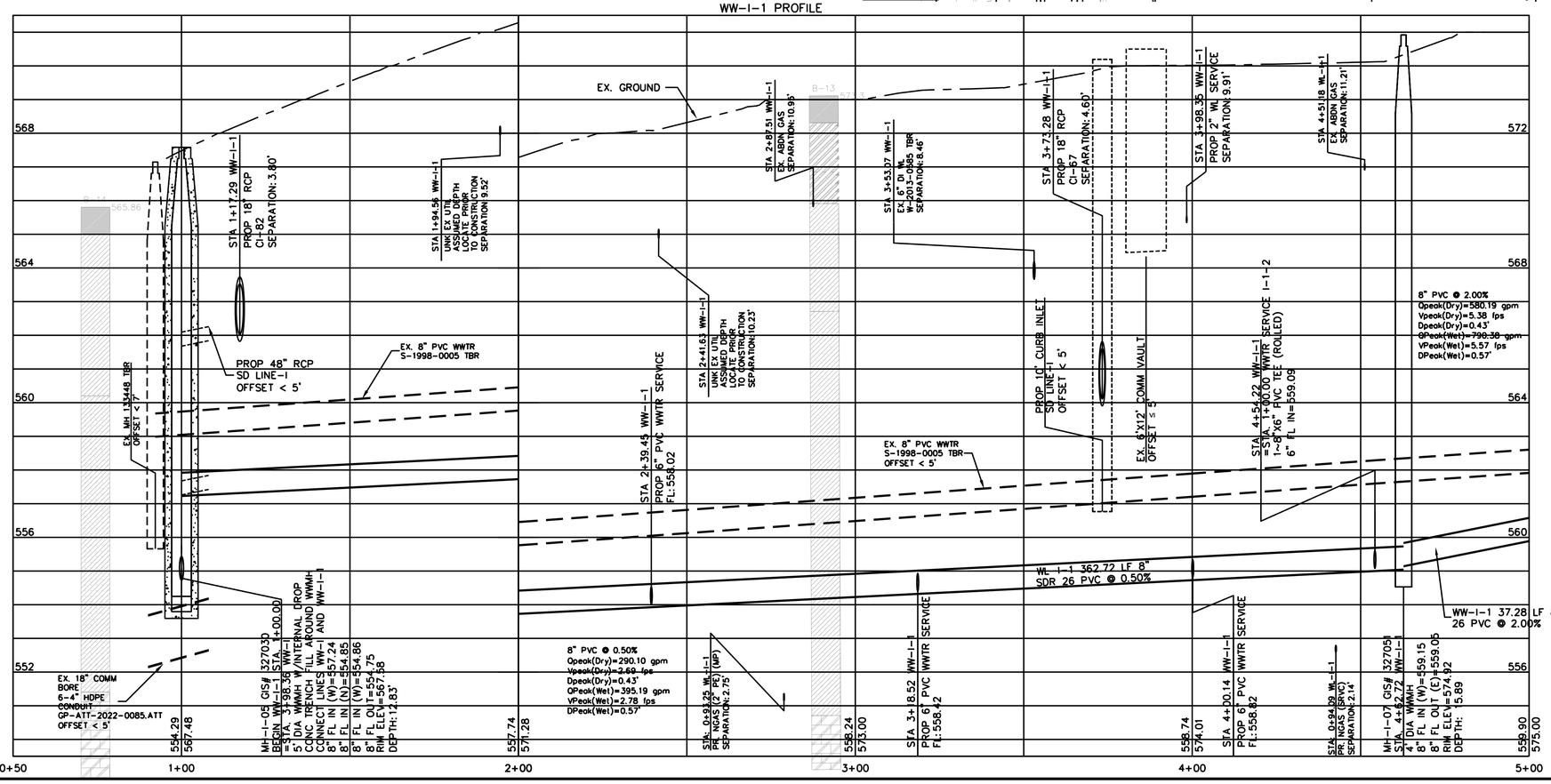
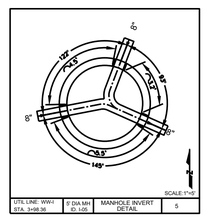
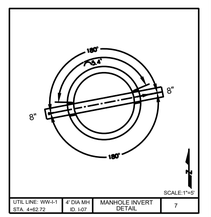


WW-I-1 PROFILE







AW#	STATION(S)	WAIVER FOR	CRITERIA
AW-29	3+76.13	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP STORM JB (4.7')	UCM 2.9.1.B.2
AW-30	3+86.22	LESS THAN 5' HORIZONTAL SEPARATION FROM EXIST ATT COMM VAULT (3.5')	
AW-31	4+62.72	LESS THAN 5' HORIZONTAL SEPARATION FROM EXIST 6-4" ATT COMM DB LINE (4.2')	

GEOTECH LEGEND
- ASPHALTIC CONCRETE
- TAN FLEX BASE
- SANDY FAT CLAY (CH)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- CLAYEY GRAVEL (GC)



N

0 20' 40' HORIZONTAL
0 2' 4' VERTICAL

REVIEWED August 20, 2026 Brooks Austin Water Expires: August 20, 2029

STATE OF TEXAS ANTHONY D. BUONODONO 103439 LICENSED PROFESSIONAL ENGINEER 08/21/2026

WW	PROP. WASTEWATER LINE
	PROP. WASTEWATER MANHOLE
	PROP. WASTEWATER CLEAN OUT

NOTES:
1. AWU WASTEWATER COLLECTION SYSTEM MAP SHEETS K23 AND K24
2. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS AND/OR CROSSINGS TWO WEEKS PRIOR TO CONSTRUCTION.
3. SEE SHEET 3 FOR ADDITIONAL UTILITY NOTES.
4. ALL WASTEWATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF AUSTIN CRITERIA AND CHAPTER 217 OF THE TEXAS ADMINISTRATIVE CODE.
5. EXISTING PUBLIC UNDERGROUND WASTEWATER UTILITIES ARE APPROXIMATE AND ARE BASED ON A FIELD SURVEY PROVIDED BY MCGRAY & MCGRAY LAND SURVEYORS, INC.
6. THE PROPOSED PHASE 2 WASTEWATER IMPROVEMENTS ARE BASED ON FIELD SURVEY DATA.
7. WASTEWATER MAIN AND SERVICE CONNECTIONS SHALL REMAIN ACTIVE DURING CONSTRUCTION AND BYPASS PUMPING SHALL BE USED AS NECESSARY.
8. UNLESS ALTERNATIVE METHODS ARE APPROVED BY ENGINEER, MAINTAIN 10' OF SEPARATION BETWEEN ALL POTABLE WATER LINES AND WASTEWATER LINES.
9. ALL CLEANOUTS AND MANHOLES WITHIN PAVED AREAS SHALL HAVE HEAVY-DUTY TRAFFIC BEARING CASTINGS AND COVERS.
10. ALL WASTEWATER PIPE SHALL BE PVC ASTM D3034 SDR-26 UNLESS NOTED OTHERWISE.
11. PROPOSED WATER OR WASTEWATER LINES SHALL NOT BE INSTALLED IN EASEMENTS UNTIL FINAL EASEMENTS HAVE BEEN RECORDED.
12. ALL WATER/WASTEWATER CROSSINGS NEED TO HAVE BOTH PIPES RATED FOR 150 PSI AND EACH PIPE JOINT CENTERED ON EACH OTHER. SEE SPL 227B-1.
13. PROPOSED WATER AND/OR WASTEWATER SERVICES INSTALLED PRIOR TO PROPOSED STORM DRAIN IMPROVEMENTS, PER CONSTRUCTION SEQUENCE, WILL ONLY BE PAID FOR AT THE TIME OF INSTALLATION. IF PROPOSED SERVICES ARE SUBSEQUENTLY DAMAGED DURING STORM DRAIN INSTALLATION OR OTHER CONSTRUCTION ACTIVITIES, REPAIR OF THE DAMAGED SERVICE SHALL BE SUBSIDIARY TO ASSOCIATED WORK AND WILL NOT BE PAID FOR SEPARATELY.
14. IF EXISTING WASTEWATER MAINS OR SERVICES LEAK DURING CONSTRUCTION, THEY SHALL BE REPLACED WITH APPROVED MATERIALS WITHIN THE LIMITS OF THE PROPOSED UTILITY TRENCH. THIS WILL BE CONSIDERED A REPAIR AND WILL NOT REQUIRE A MANHOLE TO CHANGE PIPE MATERIALS.
15. UTILITY TRENCH BACKFILL SHALL COMPLY WITH UCM 5.8.3 INCLUDING 12" MINIMUM CLSM AND 7" MINIMUM CLASS J MIX SUBSIDIARY TO UTILITY INSTALLATION
16. ALL 6"-15" DIAMETER PVC WASTEWATER PIPES SHALL CONFORM TO ASTM STANDARD D3034.
17. ALL WWTR DEEP SERVICE CONNECTIONS SHALL CONFORM TO DETAIL 520-AW-01C ON SHEET 89, FOR DEEP SERVICE PROFILES SEE SHEETS 73 - 75.
18. SEE AWU WAIVER TABLE ON THIS SHEET AND OVERALL AWU WAIVER TABLE SHEET 3.

WASTEWATER CONSTRUCTION SEQUENCE NOTES:
1. CONTRACTOR SHALL SUBMIT BYPASS PUMPING PLAN FOR REVIEW.
2. SEE SS1540 FOR BY-PASS PUMPING SPECIAL SPECIFICATION.
3. SET UP BYPASS PUMPING FOR THE CONSTRUCTION OF PROPOSED WASTEWATER MANHOLES AND CONSTRUCT NEW WASTEWATER LINE BETWEEN EXISTING MANHOLES.
4. CONNECT WW SERVICES TO NEW WASTEWATER LINE.
5. REPEAT 3 AND 4 AS NECESSARY.

9063 N. IH35 Austin, TX 78753 P: 512.451.1191 F: 512.453.1194
TBPE FIRM REGISTRATION NO. 14521 TBPLS FIRM REGISTRATION NO. 10064000
nwm DesignGroup

CITY OF AUSTIN AUSTIN WATER UTILITY WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WW-I-1 STA 1+00 - 5+00

NO.	ISSUE	BY	DATE

FAH JOB NO. AU314361

	DATE	BY
DESIGNED		JCS
DRAWN		JCS
REVISED		JCS
CHECKED		TDB

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 67
SEQ. 67 OF 143

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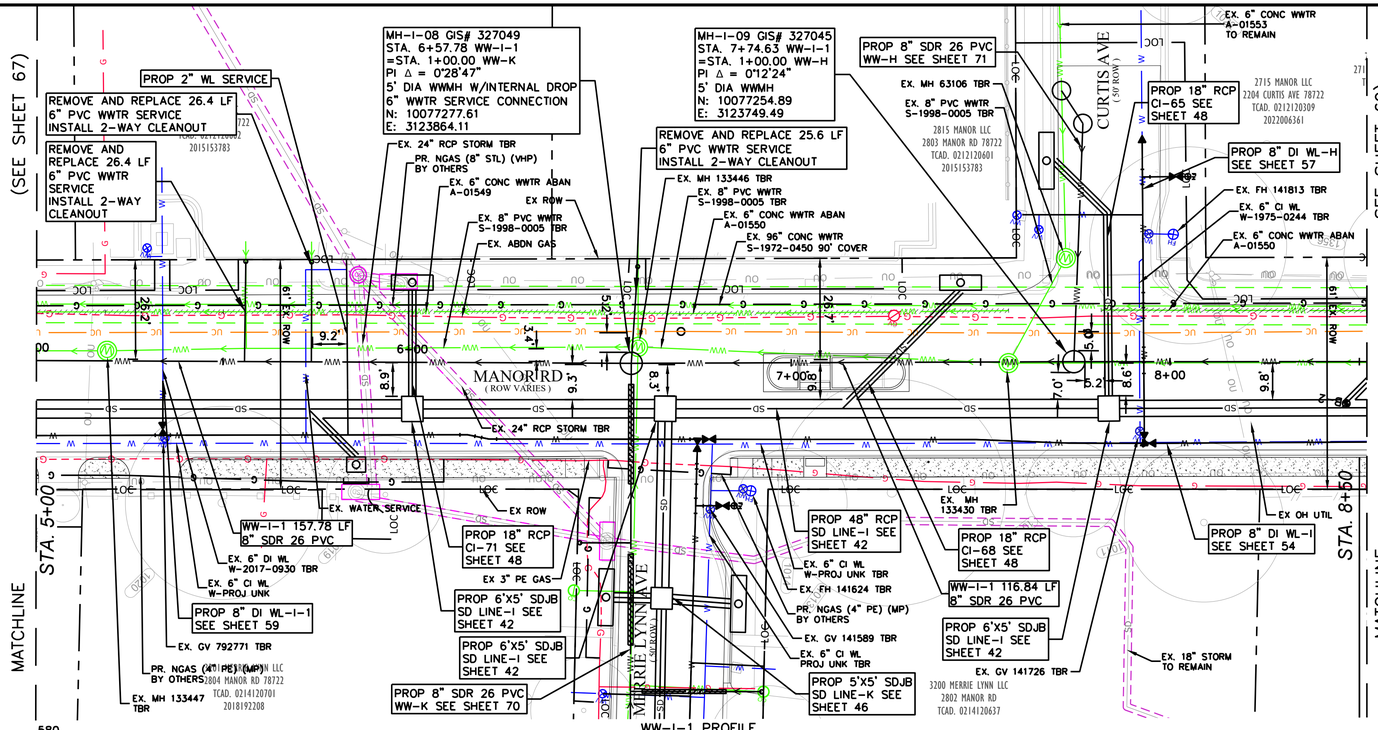

0 20' 40'
HORIZONTAL
0 2' 4'
VERTICAL

WW	PROP. WASTEWATER LINE
	PROP. WASTEWATER MANHOLE
	PROP. WASTEWATER CLEAN OUT

NOTES:
1. AWU WASTEWATER COLLECTION SYSTEM MAP SHEET#S K23 AND K24
2. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS AND/OR CROSSINGS TWO WEEKS PRIOR TO CONSTRUCTION.
3. SEE SHEET 3 FOR ADDITIONAL UTILITY NOTES.
4. ALL WASTEWATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF AUSTIN CRITERIA AND CHAPTER 217 OF THE TEXAS ADMINISTRATIVE CODE.
5. EXISTING PUBLIC UNDERGROUND WASTEWATER UTILITIES ARE APPROXIMATE AND ARE BASED ON A FIELD SURVEY PROVIDED BY MCGRAY & MCGRAY LAND SURVEYORS, INC.
6. THE PROPOSED PHASE 2 WASTEWATER IMPROVEMENTS ARE BASED ON FIELD SURVEY DATA.
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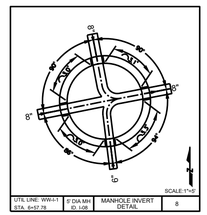
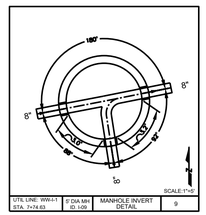
8. UNLESS ALTERNATIVE METHODS ARE APPROVED BY ENGINEER, MAINTAIN 10' OF SEPARATION BETWEEN ALL POTABLE WATER LINES AND WASTEWATER LINES.
9. ALL CLEANOUTS AND MANHOLES WITHIN PAVED AREAS SHALL HAVE HEAVY-DUTY TRAFFIC BEARING CASTINGS AND COVERS.
10. ALL WASTEWATER PIPE SHALL BE PVC ASTM D3034 SDR-26 UNLESS NOTED OTHERWISE.
11. PROPOSED WATER OR WASTEWATER LINES SHALL NOT BE INSTALLED IN EASEMENTS UNTIL FINAL EASEMENTS HAVE BEEN RECORDED.
12. ALL WATER/WASTEWATER CROSSINGS NEED TO HAVE BOTH PIPES RATED FOR 150 PSI AND EACH PIPE JOINT CENTERED ON EACH OTHER. SEE SPL 227B-1.
13. PROPOSED WATER AND/OR WASTEWATER SERVICES INSTALLED PRIOR TO PROPOSED STORM DRAIN IMPROVEMENTS, PER CONSTRUCTION SEQUENCE, WILL ONLY BE PAID FOR AT THE TIME OF INSTALLATION. IF PROPOSED SERVICES ARE SUBSEQUENTLY DAMAGED DURING STORM DRAIN INSTALLATION OR OTHER CONSTRUCTION ACTIVITIES, REPAIR OF THE DAMAGED SERVICE SHALL BE SUBSIDIARY TO ASSOCIATED WORK AND WILL NOT BE PAID FOR SEPARATELY.
14. IF EXISTING WASTEWATER MAINS OR SERVICES LEAK DURING CONSTRUCTION, THEY SHALL BE REPLACED WITH APPROVED MATERIALS WITHIN THE LIMITS OF THE PROPOSED UTILITY TRENCH. THIS WILL BE CONSIDERED A REPAIR AND WILL NOT REQUIRE A MANHOLE TO CHANGE PIPE MATERIALS.
15. UTILITY TRENCH BACKFILL SHALL COMPLY WITH UCM 5.8.3 INCLUDING 12" MINIMUM CLSM AND 7" MINIMUM CLASS J MIX SUBSIDIARY TO UTILITY INSTALLATION
16. ALL 6"-15" DIAMETER PVC WASTEWATER PIPES SHALL CONFORM TO ASTM STANDARD D3034.
17. ALL WWTR DEEP SERVICE CONNECTIONS SHALL CONFORM TO DETAIL 520-AW-01C ON SHEET 89, FOR DEEP SERVICE PROFILES SEE SHEETS 73 - 75.
18. SEE AWU WAIVER TABLE ON THIS SHEET AND OVERALL AWU WAIVER TABLE SHEET 3.

WASTEWATER CONSTRUCTION SEQUENCE NOTES:
1. CONTRACTOR SHALL SUBMIT BYPASS PUMPING PLAN FOR REVIEW.
2. SEE SS1540 FOR BY-PASS PUMPING SPECIAL SPECIFICATION.
3. SET UP BYPASS PUMPING FOR THE CONSTRUCTION OF PROPOSED WASTEWATER MANHOLES AND CONSTRUCT NEW WASTEWATER LINE BETWEEN EXISTING MANHOLES.
4. CONNECT WW SERVICES TO NEW WASTEWATER LINE.
5. REPEAT 3 AND 4 AS NECESSARY.





REVIEWED
August 20, 2026
Brooks
Austin
Water
Expires: August 20, 2029

GEOTECH LEGEND
- ASPHALTIC CONCRETE
- TAN FLEX BASE
- SANDY FAT CLAY (CH)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- CLAYEY GRAVEL (GC)



STATE OF TEXAS
ANTHONY D. BUONODONO
103439
LICENSED
PROFESSIONAL ENGINEER
08/21/2026

mwm DesignGroup
9063 N. IH 35
Austin, TX 78753
P: 512.451.8037
F: 512.453.1394
TBPE FIRM REGISTRATION NO.: 2423
TBPLS FIRM REGISTRATION NO.: 10064000
WWW.MWMDESIGNGROUP.COM

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WW-I-1 STA 5+00 - 8+50

F&M JOB NO. AU31436

NO.	ISSUE	BY	DATE

	DATE	
DESIGNED		JCS
DRAWN		JCS
REVISED		JCS
CHECKED		TDB

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0 1"

SHEET 68
SEQ. 68 OF 143

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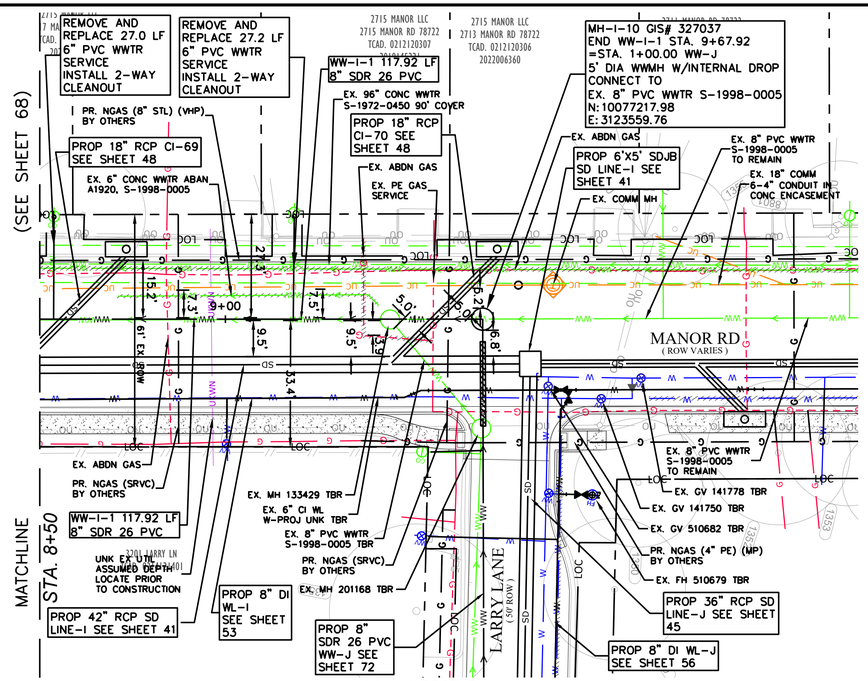

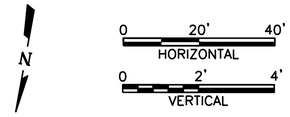

WW	PROP. WASTEWATER LINE
	PROP. WASTEWATER MANHOLE
	PROP. WASTEWATER CLEAN OUT

NOTES:
1. AWU WASTEWATER COLLECTION SYSTEM MAP SHEET#S K23 AND K24
2. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS AND/OR CROSSINGS TWO WEEKS PRIOR TO CONSTRUCTION.
3. SEE SHEET 3 FOR ADDITIONAL UTILITY NOTES.
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9. ALL CLEANOUTS AND MANHOLES WITHIN PAVED AREAS SHALL HAVE HEAVY-DUTY TRAFFIC BEARING CASTINGS AND COVERS.
10. ALL WASTEWATER PIPE SHALL BE PVC ASTM D3034 SDR-26 UNLESS NOTED OTHERWISE.
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12. ALL WATER/WASTEWATER CROSSINGS NEED TO HAVE BOTH PIPES RATED FOR 150 PSI AND EACH PIPE JOINT CENTERED ON EACH OTHER. SEE SPL 227B-1.
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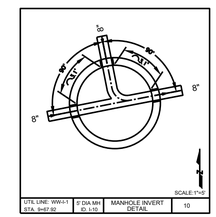
WASTEWATER CONSTRUCTION SEQUENCE NOTES:
1. CONTRACTOR SHALL SUBMIT BYPASS PUMPING PLAN FOR REVIEW.
2. SEE SS1540 FOR BY-PASS PUMPING SPECIAL SPECIFICATION.
3. SET UP BYPASS PUMPING FOR THE CONSTRUCTION OF PROPOSED WASTEWATER MANHOLES AND CONSTRUCT NEW WASTEWATER LINE BETWEEN EXISTING MANHOLES.
4. CONNECT WW SERVICES TO NEW WASTEWATER LINE.
5. REPEAT 3 AND 4 AS NECESSARY.



REVIEWED
August 20, 2026
Brooks Austin
Water
Expires: August 20, 2029

GEOTECH LEGEND
- ASPHALTIC CONCRETE
- TAN FLEX BASE
- SANDY FAT CLAY (CH)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- CLAYEY GRAVEL (GC)



STATE OF TEXAS
ANTHONY D. BUONODONO
103439
LICENSED
PROFESSIONAL ENGINEER
08/21/2026

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TBPE FIRM REGISTRATION NO.: 14521
TBPLS FIRM REGISTRATION NO.: 10064900
WWW.MWMDESIGNGROUP.COM
mwm DesignGroup

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WW-I-1 STA-8+50 - END

FAH JOB NO.	AU314361		
	DATE	DESIGNED	JCS
		DRAWN	JCS
		REVISED	JCS
		CHECKED	TDB

NO.	ISSUE	BY	DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 69
SEQ. 69 OF 143

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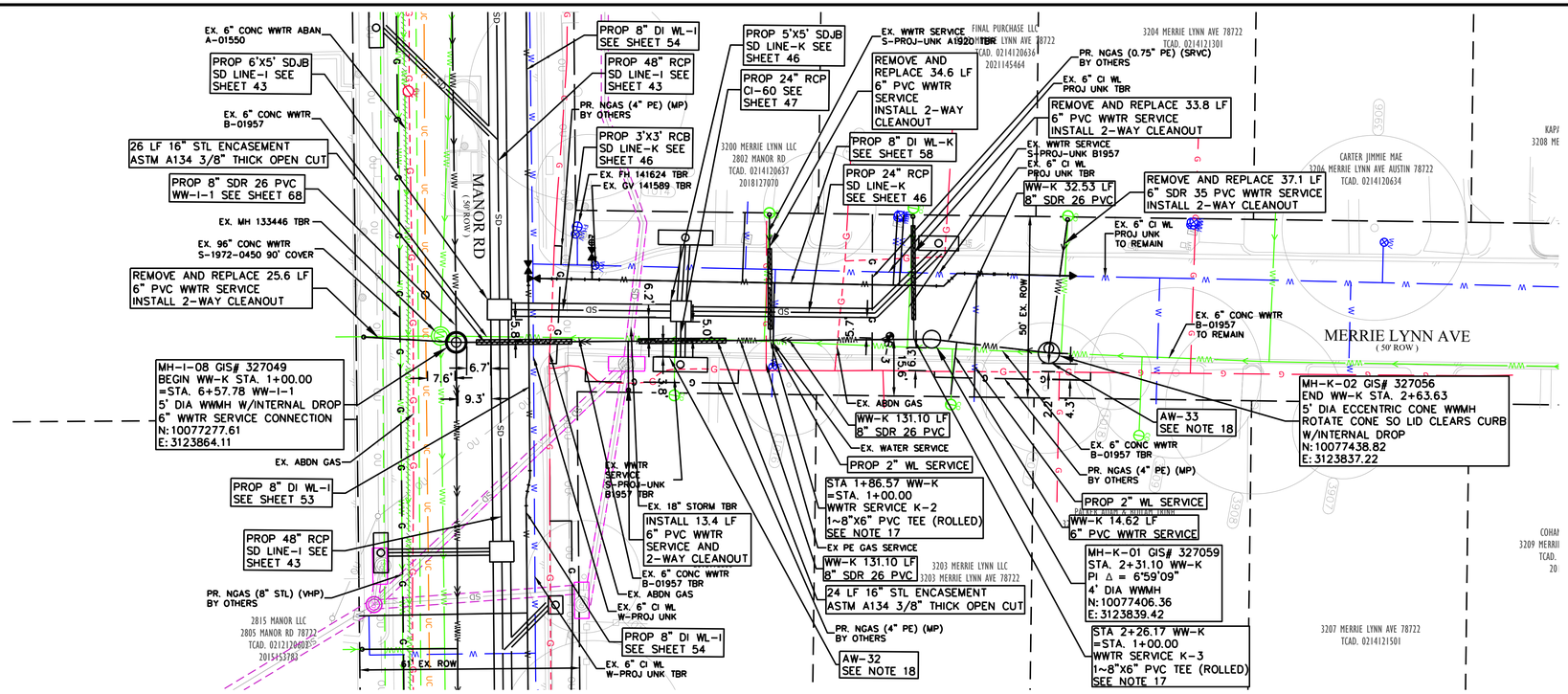
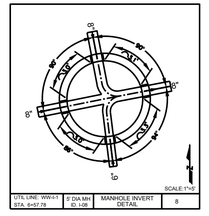
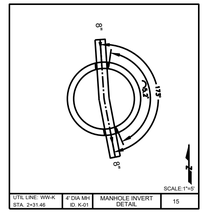
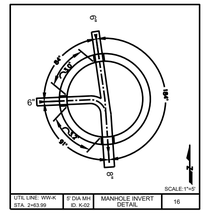


AW#	STATION(S)	WAIVER FOR	CRITERIA
AW-32	1+53.94	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP CI-60 (3.8')	UCM 2.9.1.B.2
AW-33	2+63.99	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 3" PE GAS LINE (4.3')	









GEOTECH LEGEND
ASPHALTIC CONCRETE
TAN FLEX BASE
SANDY FAT CLAY (CH)
LEAN CLAY (CL)
FAT CLAY (CH)
CLAYEY GRAVEL (GC)

REVIEWED
August 20, 2026
Brooks Austin Water
Expires: August 20, 2029

LEGEND	
WW	PROP. WASTEWATER LINE
○	PROP. WASTEWATER MANHOLE
○	PROP. WASTEWATER CLEAN OUT

0 20' 40' HORIZONTAL
0 2' 4' VERTICAL

NOTES:
1. AWU WASTEWATER COLLECTION SYSTEM MAP SHEET#S K23 AND K24
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11. PROPOSED WATER OR WASTEWATER LINES SHALL NOT BE INSTALLED IN EASEMENTS UNTIL FINAL EASEMENTS HAVE BEEN RECORDED.
12. ALL WATER/WASTEWATER CROSSINGS NEED TO HAVE BOTH PIPES RATED FOR 150 PSI AND EACH PIPE JOINT CENTERED ON EACH OTHER. SEE SPL 227B-1.
13. PROPOSED WATER AND/OR WASTEWATER SERVICES INSTALLED PRIOR TO PROPOSED STORM DRAIN IMPROVEMENTS, PER CONSTRUCTION SEQUENCE, WILL ONLY BE PAID FOR AT THE TIME OF INSTALLATION. IF PROPOSED SERVICES ARE SUBSEQUENTLY DAMAGED DURING STORM DRAIN INSTALLATION OR OTHER CONSTRUCTION ACTIVITIES, REPAIR OF THE DAMAGED SERVICE SHALL BE SUBSIDIARY TO ASSOCIATED WORK AND WILL NOT BE PAID FOR SEPARATELY.
14. IF EXISTING WASTEWATER MAINS OR SERVICES LEAK DURING CONSTRUCTION, THEY SHALL BE REPLACED WITH APPROVED MATERIALS WITHIN THE LIMITS OF THE PROPOSED UTILITY TRENCH. THIS WILL BE CONSIDERED A REPAIR AND WILL NOT REQUIRE A MANHOLE TO CHANGE PIPE MATERIALS.
15. UTILITY TRENCH BACKFILL SHALL COMPLY WITH UCM 5.8.3 INCLUDING 12" MINIMUM CLSM AND 7" MINIMUM CLASS J MIX SUBSIDIARY TO UTILITY INSTALLATION
16. ALL 6"-15" DIAMETER PVC WASTEWATER PIPES SHALL CONFORM TO ASTM STANDARD D3034.
17. ALL WWTR DEEP SERVICE CONNECTIONS SHALL CONFORM TO DETAIL 520-AW-01C ON SHEET 89, FOR DEEP SERVICE PROFILES SEE SHEETS 73 - 75.
18. SEE AWU WAIVER TABLE ON THIS SHEET AND OVERALL AWU WAIVER TABLE SHEET 3.

WASTEWATER CONSTRUCTION SEQUENCE NOTES:
1. CONTRACTOR SHALL SUBMIT BYPASS PUMPING PLAN FOR REVIEW.
2. SEE SS1540 FOR BY-PASS PUMPING SPECIAL SPECIFICATION.
3. SET UP BYPASS PUMPING FOR THE CONSTRUCTION OF PROPOSED WASTEWATER MANHOLES AND CONSTRUCT NEW WASTEWATER LINE BETWEEN EXISTING MANHOLES.
4. CONNECT WW SERVICES TO NEW WASTEWATER LINE.
5. REPEAT 3 AND 4 AS NECESSARY.

STATE OF TEXAS
ANTHONY D. BUONODONO
103439
LICENSED
PROFESSIONAL ENGINEER
08/21/2026

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TBPE FIRM REGISTRATION NO.: 14521
TBPLS FIRM REGISTRATION NO.: 10064300
WWW.DESIGNGROUPTEXAS.COM

CITY OF AUSTIN AUSTIN WATER
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WW-K STA 1+00 - END

F&M JOB NO. AU31436

NO.	ISSUE	BY	DATE

	DATE	
DESIGNED		JCS
DRAWN		JCS
REVISED		JCS
CHECKED		TDB

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 70
SEQ. 70 OF 143

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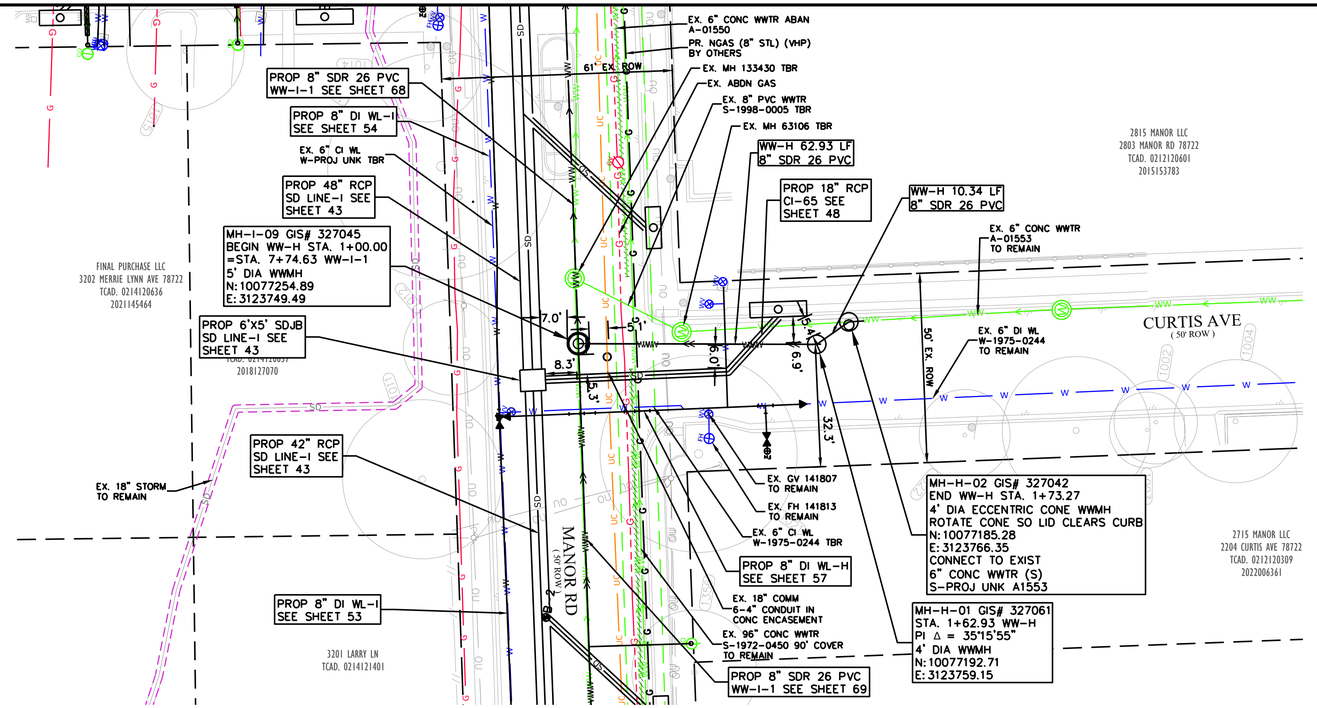
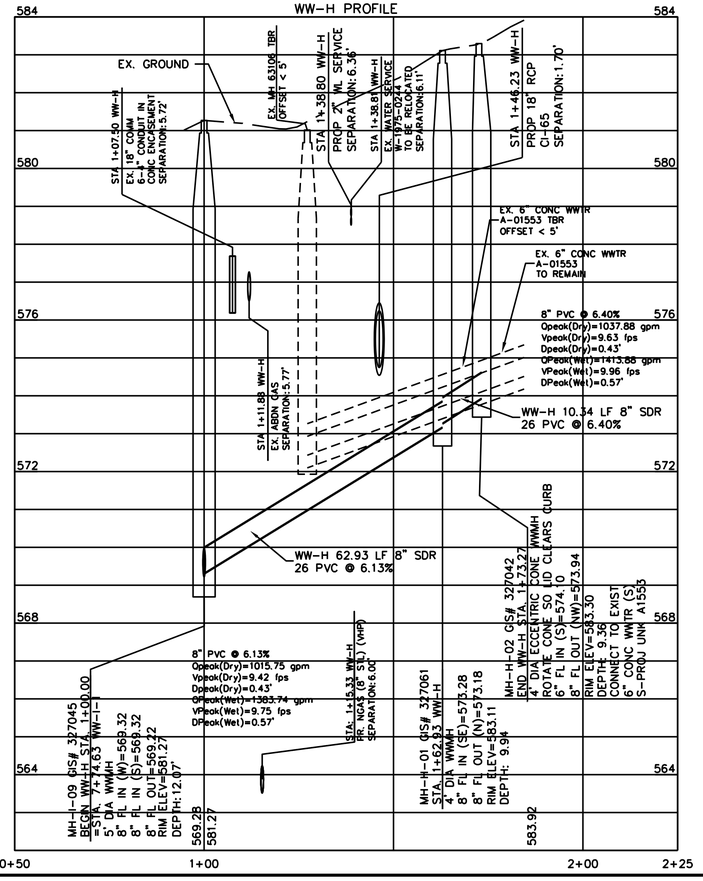




N

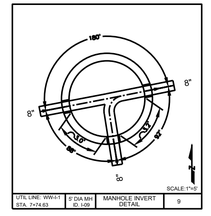
0 20' 40'
HORIZONTAL

0 2' 4'
VERTICAL

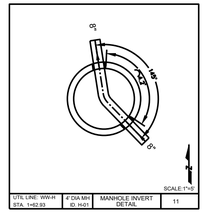
WW	PROP. WASTEWATER LINE
	PROP. WASTEWATER MANHOLE
	PROP. WASTEWATER CLEAN OUT

NOTES:
1. AWU WASTEWATER COLLECTION SYSTEM MAP SHEETS K23 AND K24
2. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS AND/OR CROSSINGS TWO WEEKS PRIOR TO CONSTRUCTION.
3. SEE SHEET 3 FOR ADDITIONAL UTILITY NOTES.
4. ALL WASTEWATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF AUSTIN CRITERIA AND CHAPTER 217 OF THE TEXAS ADMINISTRATIVE CODE.
5. EXISTING PUBLIC UNDERGROUND WASTEWATER UTILITIES ARE APPROXIMATE AND ARE BASED ON A FIELD SURVEY PROVIDED BY MCGRAY & MCGRAY LAND SURVEYORS, INC.
6. THE PROPOSED PHASE 2 WASTEWATER IMPROVEMENTS ARE BASED ON FIELD SURVEY DATA.
7. WASTEWATER MAIN AND SERVICE CONNECTIONS SHALL REMAIN ACTIVE DURING CONSTRUCTION AND BYPASS PUMPING SHALL BE USED AS NECESSARY.
8. UNLESS ALTERNATIVE METHODS ARE APPROVED BY ENGINEER, MAINTAIN 10' OF SEPARATION BETWEEN ALL POTABLE WATER LINES AND WASTEWATER LINES.
9. ALL CLEANOUTS AND MANHOLES WITHIN PAVED AREAS SHALL HAVE HEAVY-DUTY TRAFFIC BEARING CASTINGS AND COVERS.
10. ALL WASTEWATER PIPE SHALL BE PVC ASTM D3034 SDR-26 UNLESS NOTED OTHERWISE.
11. PROPOSED WATER OR WASTEWATER LINES SHALL NOT BE INSTALLED IN EASEMENTS UNTIL FINAL EASEMENTS HAVE BEEN RECORDED.
12. ALL WATER/WASTEWATER CROSSINGS NEED TO HAVE BOTH PIPES RATED FOR 150 PSI AND EACH PIPE JOINT CENTERED ON EACH OTHER. SEE SPL 227B-1.
13. PROPOSED WATER AND/OR WASTEWATER SERVICES INSTALLED PRIOR TO PROPOSED STORM DRAIN IMPROVEMENTS, PER CONSTRUCTION SEQUENCE, WILL ONLY BE PAID FOR AT THE TIME OF INSTALLATION. IF PROPOSED SERVICES ARE SUBSEQUENTLY DAMAGED DURING STORM DRAIN INSTALLATION OR OTHER CONSTRUCTION ACTIVITIES, REPAIR OF THE DAMAGED SERVICE SHALL BE SUBSIDIARY TO ASSOCIATED WORK AND WILL NOT BE PAID FOR SEPARATELY.
14. IF EXISTING WASTEWATER MAINS OR SERVICES LEAK DURING CONSTRUCTION, THEY SHALL BE REPLACED WITH APPROVED MATERIALS WITHIN THE LIMITS OF THE PROPOSED UTILITY TRENCH. THIS WILL BE CONSIDERED A REPAIR AND WILL NOT REQUIRE A MANHOLE TO CHANGE PIPE MATERIALS.
15. UTILITY TRENCH BACKFILL SHALL COMPLY WITH UCM 5.8.3 INCLUDING 12" MINIMUM CLSM AND 7" MINIMUM CLASS J MIX SUBSIDIARY TO UTILITY INSTALLATION
16. ALL 6"-15" DIAMETER PVC WASTEWATER PIPES SHALL CONFORM TO ASTM STANDARD D3034.
17. ALL WWTR DEEP SERVICE CONNECTIONS SHALL CONFORM TO DETAIL 520-AW-01C ON SHEET 89, FOR DEEP SERVICE PROFILES SEE SHEETS 73 - 75.
18. SEE AWU WAIVER TABLE ON THIS SHEET AND OVERALL AWU WAIVER TABLE SHEET 3.

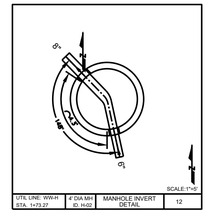
WASTEWATER CONSTRUCTION SEQUENCE NOTES:
1. CONTRACTOR SHALL SUBMIT BYPASS PUMPING PLAN FOR REVIEW.
2. SEE SS1540 FOR BY-PASS PUMPING SPECIAL SPECIFICATION.
3. SET UP BYPASS PUMPING FOR THE CONSTRUCTION OF PROPOSED WASTEWATER MANHOLES AND CONSTRUCT NEW WASTEWATER LINE BETWEEN EXISTING MANHOLES.
4. CONNECT WW SERVICES TO NEW WASTEWATER LINE.
5. REPEAT 3 AND 4 AS NECESSARY.



UTIL LINE: WW-I-1 STA. 7+74.63 | 5' DIA MH ID: I-09 | MANHOLE INVERT DETAIL | 9



UTIL LINE: WW-H STA. 1+62.93 | 4' DIA MH ID: H-01 | MANHOLE INVERT DETAIL | 11



UTIL LINE: WW-H STA. 1+73.27 | 4' DIA MH ID: H-02 | MANHOLE INVERT DETAIL | 12

REVIEWED
August 20, 2026
Brooks Austin Water
Expires: August 20, 2029

GEOTECH LEGEND
- ASPHALTIC CONCRETE
- TAN FLEX BASE
- SANDY FAT CLAY (CH)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- CLAYEY GRAVEL (GC)



STATE OF TEXAS
ANTHONY D. BUONODONO
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TBPE FIRM REGISTRATION NO.: 2423
TBPLS FIRM REGISTRATION NO.: 10064300
WWW.MWMDESIGNGROUP.COM

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WW-H STA 1+00 - END

F&M JOB NO. AU31436

NO.	ISSUE	BY	DATE

	DATE	
DESIGNED		JCS
DRAWN		JCS
REVISED		JCS
CHECKED		TDB

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 71
SEQ. 71 OF 143

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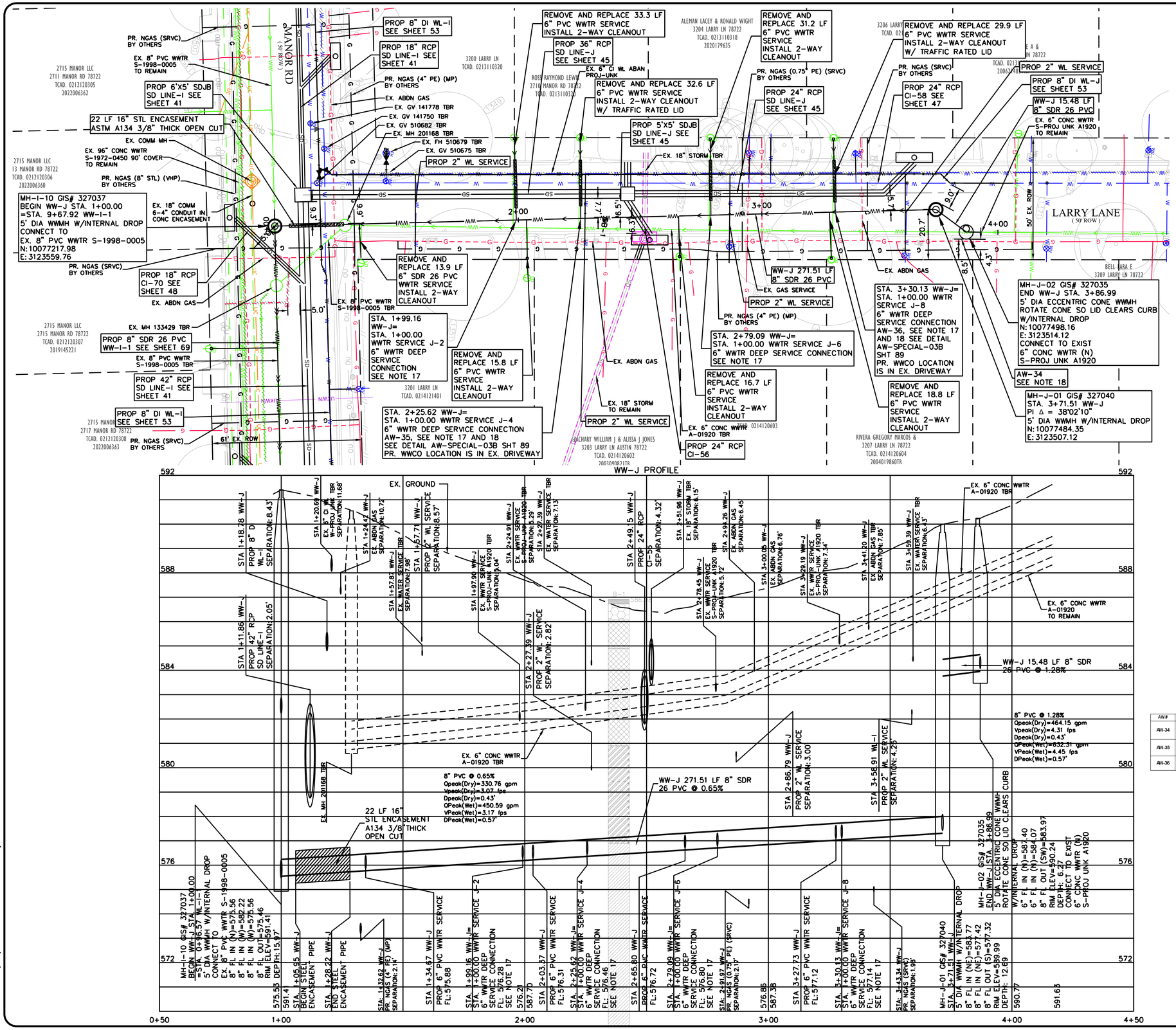

0 20' 40'
HORIZONTAL
0 2' 4'
VERTICAL

WW	PROP. WASTEWATER LINE
○	PROP. WASTEWATER MANHOLE
○	PROP. WASTEWATER CLEAN OUT

NOTES:
1. AWU WASTEWATER COLLECTION SYSTEM MAP SHEET#S K23 AND K24
2. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS AND/OR CROSSINGS TWO WEEKS PRIOR TO CONSTRUCTION.
3. SEE SHEET 3 FOR ADDITIONAL UTILITY NOTES.
4. ALL WASTEWATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF AUSTIN CRITERIA AND CHAPTER 217 OF THE TEXAS ADMINISTRATIVE CODE.
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9. ALL CLEANOUTS AND MANHOLES WITHIN PAVED AREAS SHALL HAVE HEAVY-DUTY TRAFFIC BEARING CASTINGS AND COVERS.
10. ALL WASTEWATER PIPE SHALL BE PVC ASTM D3034 SDR-26 UNLESS NOTED OTHERWISE.
11. PROPOSED WATER OR WASTEWATER LINES SHALL NOT BE INSTALLED IN EASEMENTS UNTIL FINAL EASEMENTS HAVE BEEN RECORDED.
12. ALL WATER/WASTEWATER CROSSINGS NEED TO HAVE BOTH PIPES RATED FOR 150 PSI AND EACH PIPE JOINT CENTERED ON EACH OTHER. SEE SPL 227B-1.
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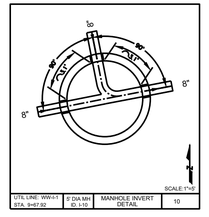
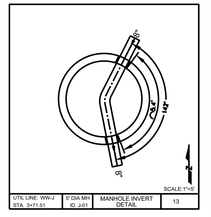
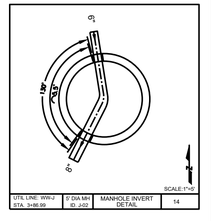
15. UTILITY TRENCH BACKFILL SHALL COMPLY WITH UCM 5.8.3 INCLUDING 12" MINIMUM CLSM AND 7" MINIMUM CLASS J MIX SUBSIDIARY TO UTILITY INSTALLATION
16. ALL 6"-15" DIAMETER PVC WASTEWATER PIPES SHALL CONFORM TO ASTM STANDARD D3034.
17. ALL WWTR DEEP SERVICE CONNECTIONS SHALL CONFORM TO DETAIL 520-AW-01C ON SHEET 89, FOR DEEP SERVICE PROFILES SEE SHEETS 73 - 75.
18. SEE AWU WAIVER TABLE ON THIS SHEET AND OVERALL AWU WAIVER TABLE SHEET 3.

WASTEWATER CONSTRUCTION SEQUENCE NOTES:
1. CONTRACTOR SHALL SUBMIT BYPASS PUMPING PLAN FOR REVIEW.
2. SEE SS1540 FOR BY-PASS PUMPING SPECIAL SPECIFICATION.
3. SET UP BYPASS PUMPING FOR THE CONSTRUCTION OF PROPOSED WASTEWATER MANHOLES AND CONSTRUCT NEW WASTEWATER LINE BETWEEN EXISTING MANHOLES.
4. CONNECT WW SERVICES TO NEW WASTEWATER LINE.
5. REPEAT 3 AND 4 AS NECESSARY.





AW#	STATION(S)	WAIVER FOR	CRITERIA
AW-34	3+86.99	LESS THAN 5' HORIZONTAL SEPARATION FROM PROP 3" PE GAS LINE (4.3')	UCM 2.9.1.B.2
AW-35	2+25.62	PR. WWCO LOCATION IS IN EX. DRIVEWAY	UCM 2.9.4.G.6
AW-36	3+30.13	PR. WWCO LOCATION IS IN EX. DRIVEWAY	



REVIEWED
August 20, 2026
BrooksK
Austin
Water
Expires: August 20, 2029

GEOTECH LEGEND
- ASPHALTIC CONCRETE
- TAN FLEX BASE
- SANDY FAT CLAY (CH)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- CLAYEY GRAVEL (GC)



ANTHONY D. BUONODONO
103439
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08/21/2026

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TBPE FIRM REGISTRATION NO. 14923
TBPLS FIRM REGISTRATION NO. 10064300
WWW.MWMDESIGNGROUP.COM

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
PROPOSED WW-J STA 1+00 - END

FAH JOB NO.	AU31436		
BY	DATE		
		DESIGNED	JCS
		DRAWN	JCS
		REVISED	JCS
		CHECKED	TDB

NO.	ISSUE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 72
SEQ. 72 OF 143

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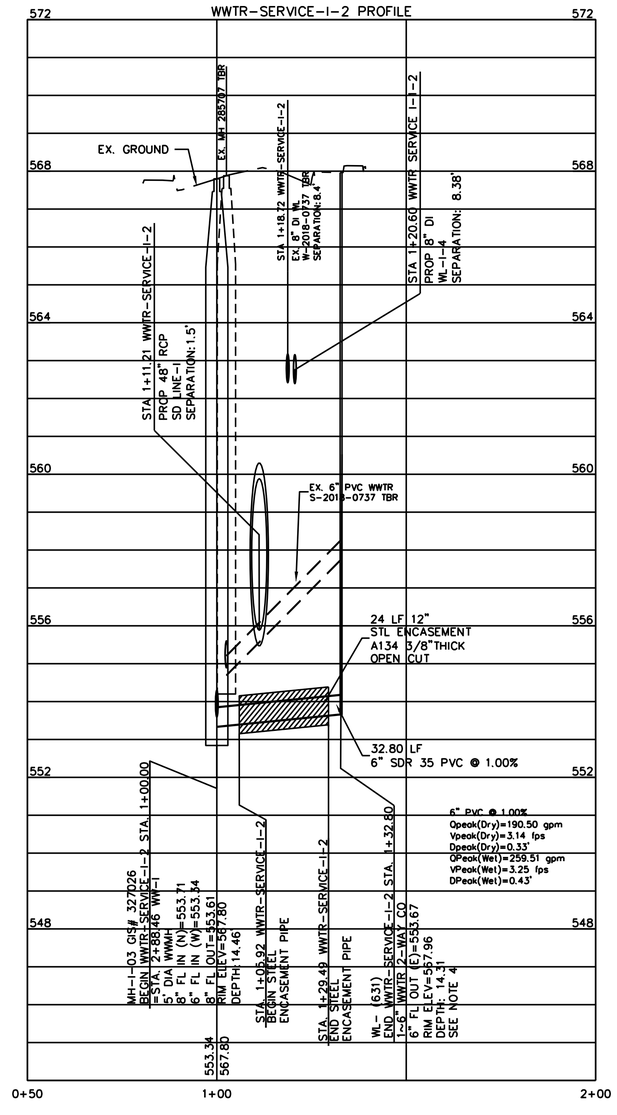
Last Saved: 7/31/2026 3:20 PM Saved By: matthew.warner

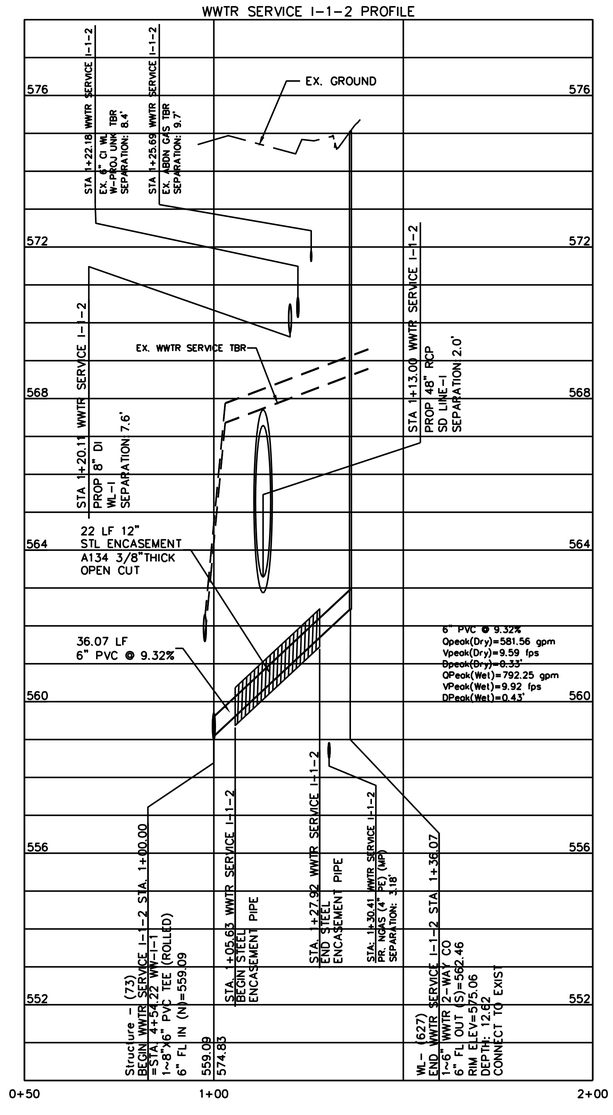
0 20' 40'
HORIZONTAL
0 2' 4'
VERTICAL

NOTES:

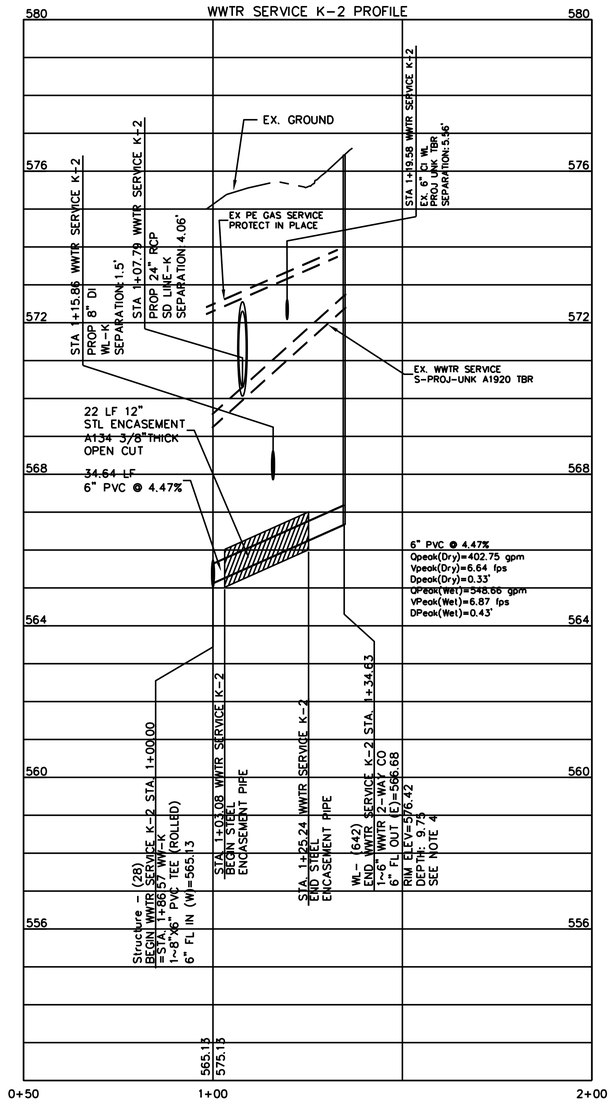
1. ALL WWTR DEEP SERVICE CONNECTIONS SHALL CONFORM TO DETAIL 520-AW-01C, SEE SHEET 89
2. ALL EXISTING SERVICES ARE AT ASSUMED DEPTHS.
3. CONTRACTOR SHALL VERIFY TIE-IN LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING WORK
4. SEE AWU WAIVER TABLE ON THIS SHEET AND OVERALL AWU WAIVER TABLE SHEET 3.



FOR PLAN VIEW SEE SHEET 66



FOR PLAN VIEW SEE SHEET 67



FOR PLAN VIEW SEE SHEET 70

REVIEWED
August 20, 2026
Brooks K
Austin Water
Expires: August 20, 2029

AW#	STATION(S)	WAIVER FOR	CRITERIA
AW-37	1+32.80	PROPOSED CO DEPTH IS GREATER THAN 6FT (14.31')	UCM 2.9.1.G.5
AW-38	1+36.07	PROPOSED CO DEPTH IS GREATER THAN 6FT (12.62')	
AW-39	1+34.63	PROPOSED CO DEPTH IS GREATER THAN 6FT (9.75')	

STATE OF TEXAS
ANTHONY D. BUONODONO
103439
LICENSED PROFESSIONAL ENGINEER
08/21/2026

mwm DesignGroup
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TBPE FIRM REGISTRATION NO. 1423
TBPLS FIRM REGISTRATION NO. 10095800
WWW.MWMDESIGNGROUP.COM

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
DEEP WASTEWATER SERVICE PROFILES (1 OF 3)

NO.	ISSUE	BY	DATE

F&M JOB NO. AU314361

	DATE
DESIGNED	JCS
DRAWN	JCS
REVISED	JCS
CHECKED	TDB

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 73
SEQ. 73 OF 143

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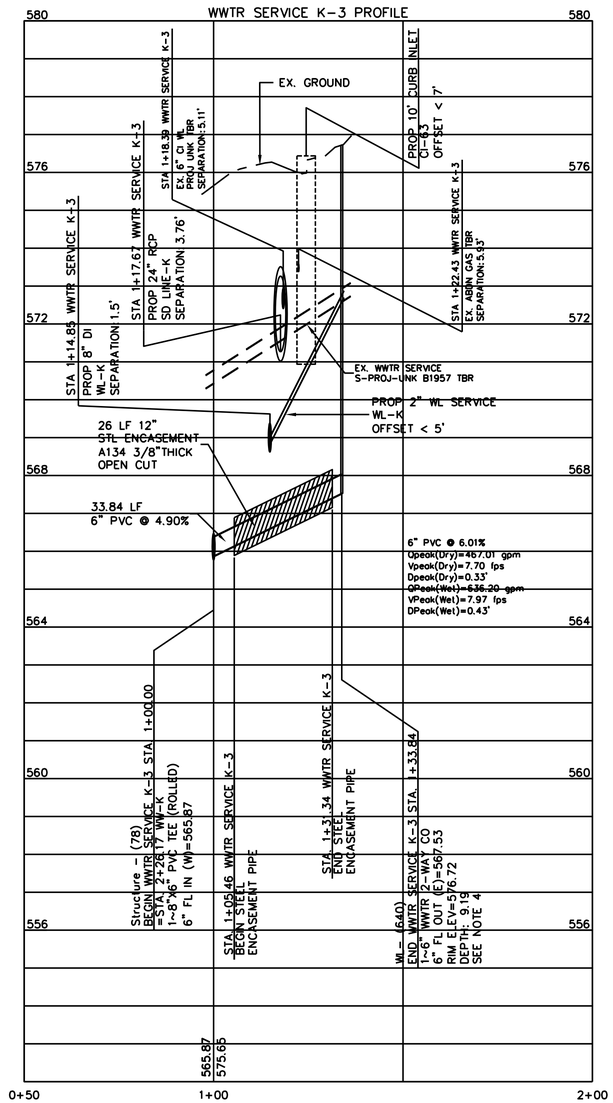
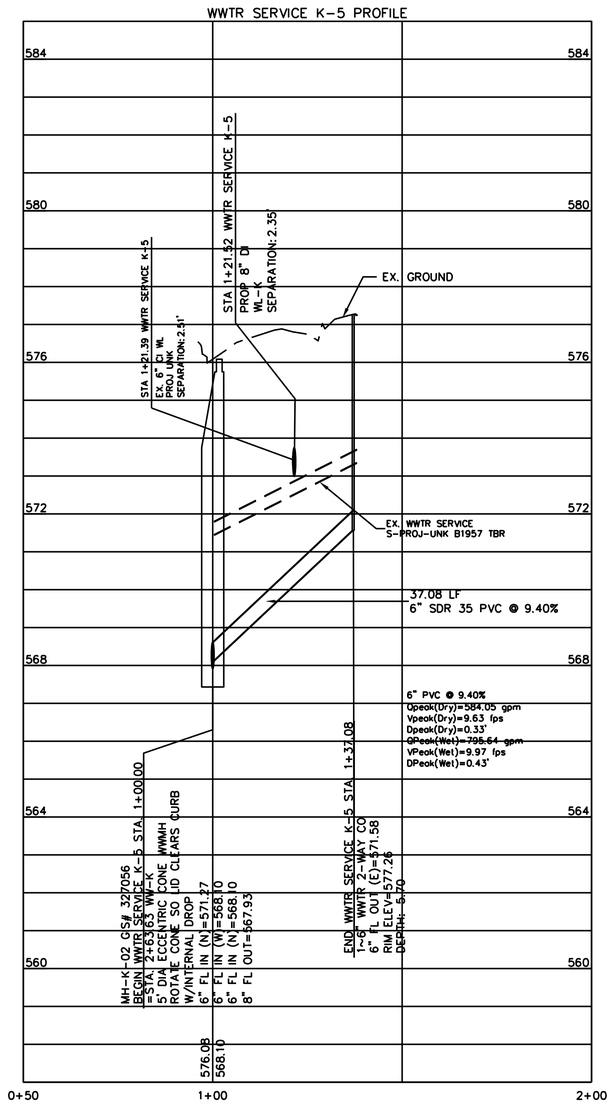
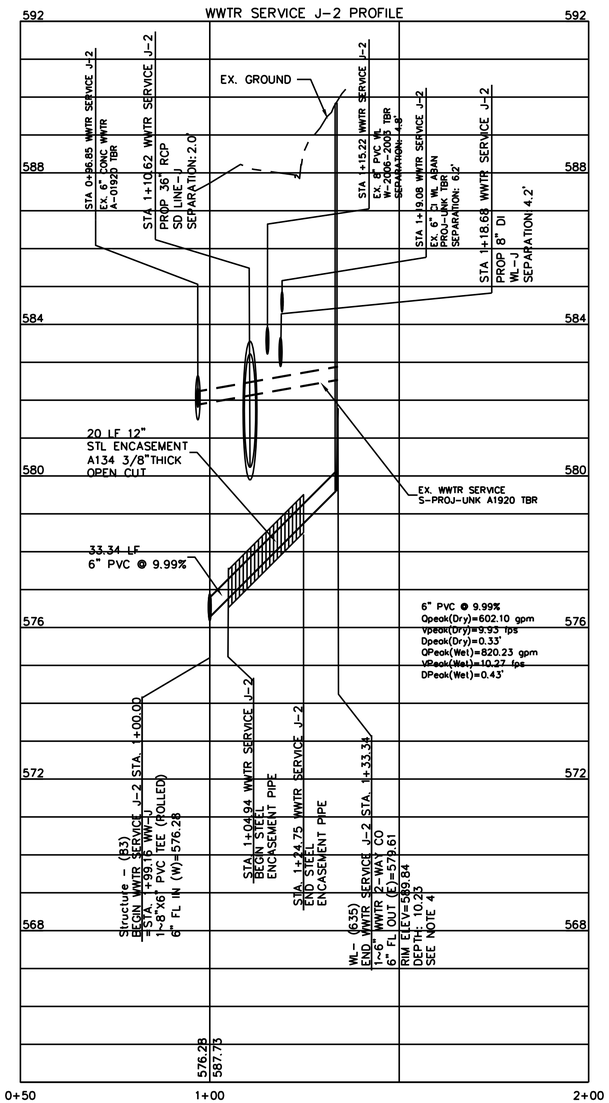


FOR PLAN VIEW SEE SHEET 70



FOR PLAN VIEW SEE SHEET 70



FOR PLAN VIEW SEE SHEET 72

0 20' 40'
HORIZONTAL
0 2' 4'
VERTICAL

NOTES:

1. ALL WWTR DEEP SERVICE CONNECTIONS SHALL CONFORM TO DETAIL 520-AW-01C, SEE SHEET 89
2. ALL EXISTING SERVICES ARE AT ASSUMED DEPTHS.
3. CONTRACTOR SHALL VERIFY TIE-IN LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING WORK
4. SEE AWU WAIVER TABLE ON THIS SHEET AND OVERALL AWU WAIVER TABLE SHEET 3.

AW#	STATION(S)	WAIVER FOR	CRITERIA
AW-40	1+33.84	PROPOSED CO DEPTH IS GREATER THAN 6FT (9.09')	UCM 2.9.1.G.5
AW-41	1+32.63	PROPOSED CO DEPTH IS GREATER THAN 6FT (10.23')	

REVIEWED
August 20, 2026
BrooksK
Austin
Water
Expires: August 20, 2029

STATE OF TEXAS
ANTHONY D. BUONODONO
103439
LICENSED
PROFESSIONAL ENGINEER
08/21/2026

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Austin, TX 78753
P: 512.451.8037
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TBPE FIRM REGISTRATION NO. 1452
TBPLS FIRM REGISTRATION NO. 10194
WWW.MWMDESIGNGROUP.COM
mwm DesignGroup

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
DEEP WASTEWATER SERVICE PROFILES (2 OF 3)

NO.	ISSUE	BY	DATE

FAN JOB NO. AU314361

	DATE	
DESIGNED		JCS
DRAWN		JCS
REVISED		JCS
CHECKED		TDB

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 74
SEQ. 74 OF 143

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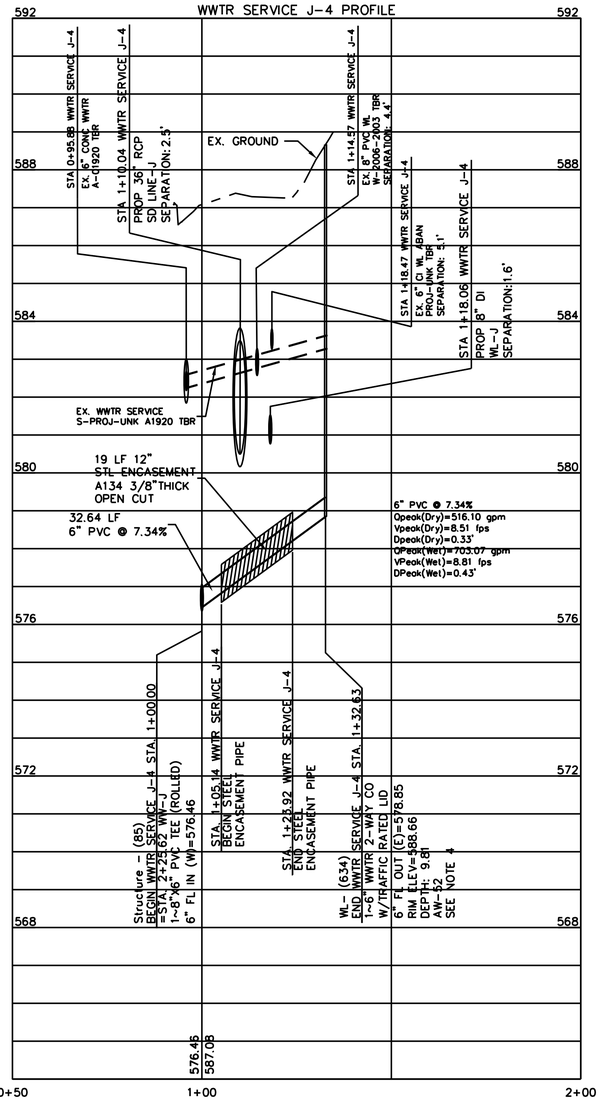
Last Saved: 7/31/2026 3:45 PM Saved By: matthew.warner

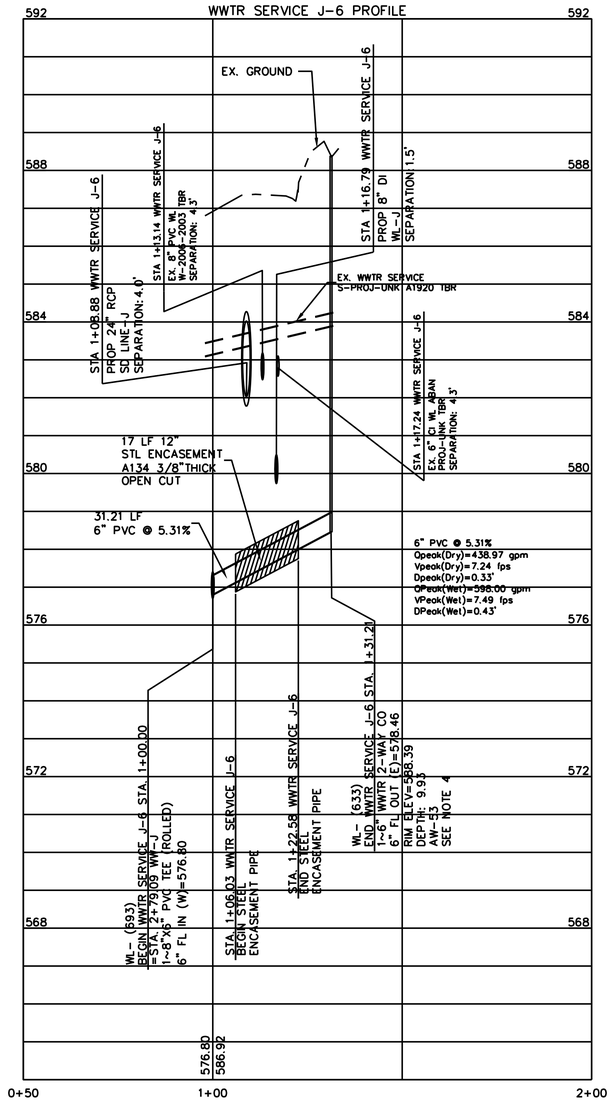
0 20' 40'
HORIZONTAL
0 2' 4'
VERTICAL

NOTES:

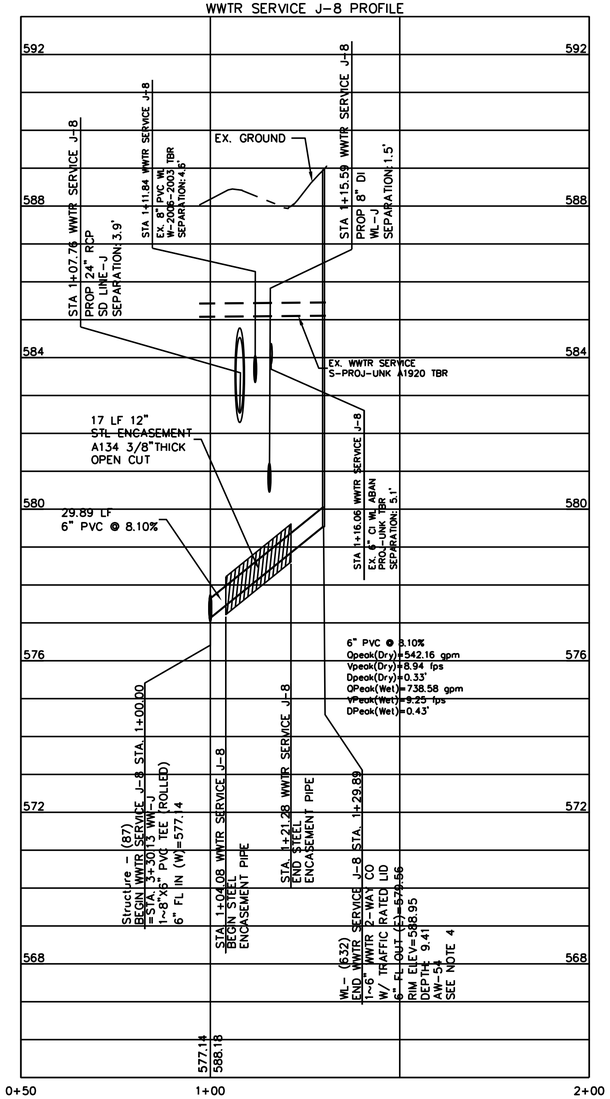
1. ALL WWTR DEEP SERVICE CONNECTIONS SHALL CONFORM TO DETAIL 520-AW-01C, SEE SHEET 89
2. ALL EXISTING SERVICES ARE AT ASSUMED DEPTHS.
3. CONTRACTOR SHALL VERIFY TIE-IN LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING WORK
4. SEE AWU WAIVER TABLE ON THIS SHEET AND OVERALL AWU WAIVER TABLE SHEET 3.



FOR PLAN VIEW SEE SHEET 72



FOR PLAN VIEW SEE SHEET 72



FOR PLAN VIEW SEE SHEET 72

AW#	STATION(S)	WAIVER FOR	CRITERIA
AW-42	1+32.63	PROPOSED CO DEPTH IS GREATER THAN 6FT (9.81')	UCM 2.9.1.G.5
AW-43	1+31.21	PROPOSED CO DEPTH IS GREATER THAN 6FT (9.93')	
AW-44	1+29.89	PROPOSED CO DEPTH IS GREATER THAN 6FT (9.41')	

REVIEWED
August 20, 2026
Brooks
Austin
Water
Expires: August 20, 2029

STATE OF TEXAS
ANTHONY D. BUONODONO
103439
LICENSED PROFESSIONAL ENGINEER
08/21/2026

mwm DesignGroup
9901 N. IH35
Austin, TX 78753
P: 512.346.9393
F: 512.233.1394
TBPE FIRM REGISTRATION NO. F-423
TBPLS FIRM REGISTRATION NO. 10011900
WWW.MWMDESIGNGROUP.COM

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3
DEEP WASTEWATER SERVICE PROFILES (3 OF 3)

NO.	ISSUE	BY	DATE

FAN JOB NO. AU31436.1

	DATE
DESIGNED	JCS
DRAWN	JCS
REVISED	JCS
CHECKED	TDB

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 75
SEQ. 75 OF 143

ACAD Rel: 25.0s (LMS Tech)
Filename: Y:\190-21_MLK_TOD_SD\CAD\PHASE_3\SHEETS\19021-P3-SHT-WWTR-3.dwg
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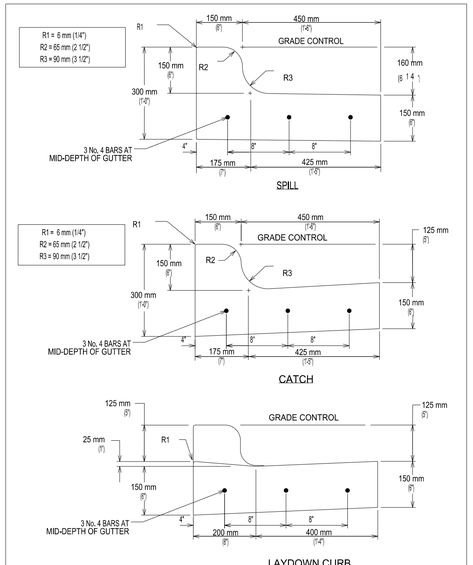
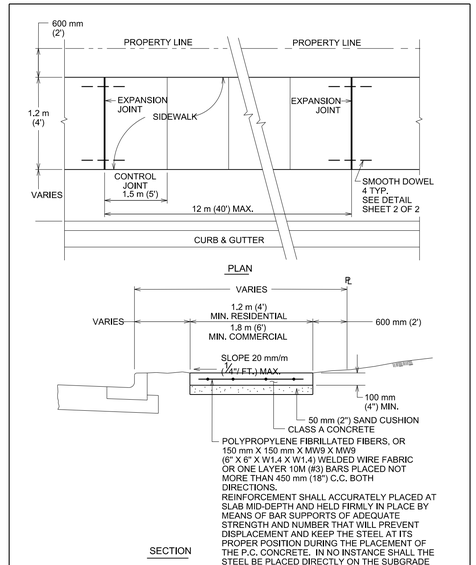
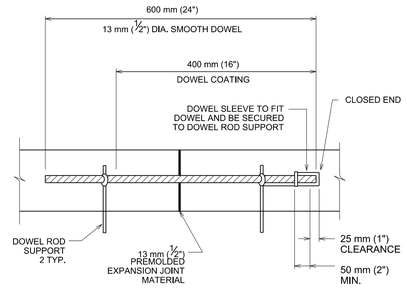


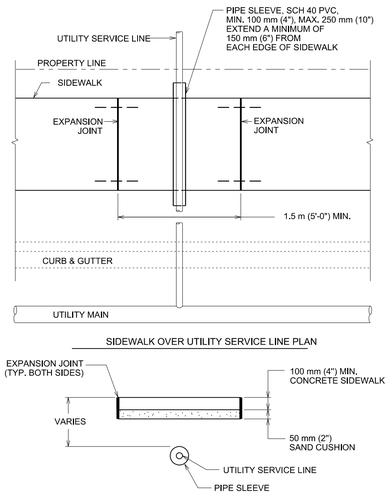
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		REINFORCED CURB AND GUTTER SECTION	
RECORD COPY SIGNED BY SAM ANGOORI	*01/04/10* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 430S-2



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SIDEWALK	
RECORD COPY SIGNED BY BILL GARDNER	03/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 1 OF 3

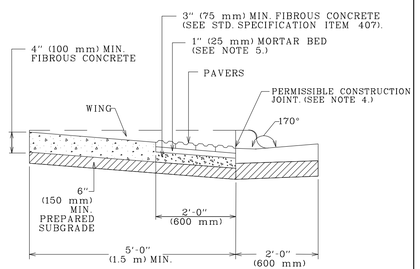


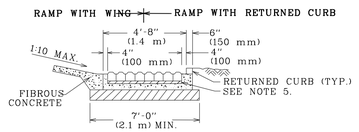
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SIDEWALK	
RECORD COPY SIGNED BY BILL GARDNER	03/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 2 OF 3



NOTES:
1. THIS STANDARD APPLIES TO THE INSTALLATION OF NEW UTILITIES OR UTILITIES BEING REPLACED BY A NEW LINE.
2. NO JOINTS IN UTILITY SERVICE PIPE TO BE LOCATED INSIDE PVC PIPE SLEEVE.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SIDEWALK	
RECORD COPY SIGNED BY BILL GARDNER	03/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 3 OF 3



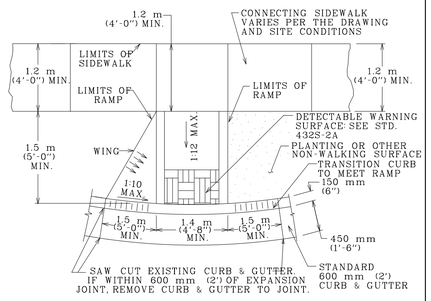


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		DETECTABLE WARNING-PAVER (CITY PROPERTY/EASEMENTS)	
RECORD COPY SIGNED BY BILL GARDNER	*06/21/07* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-2A 1 OF 2

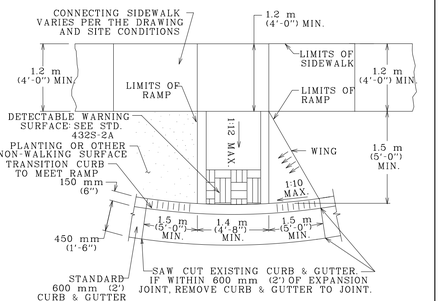
GENERAL NOTES:

1. THIS STANDARD IS APPLICABLE FOR RAMP CONSTRUCTION ON CITY PROPERTY AND EASEMENT AREAS ONLY.
2. PAVERS ARE REQUIRED FOR ALL CURB RAMP INSTALLATIONS.
3. PAVERS WILL HAVE DETECTABLE WARNING THAT CONSISTS OF RAISED TRUNCATED DOMES WITH A DIAMETER OF 0.9" (23 mm), A NOMINAL HEIGHT OF 0.2" (5 mm) AND A NOMINAL CENTER TO CENTER SPACING OF 2.35" (60 mm) AND SHALL CONSTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT (Re: ADAAG SECTION 4.29.2). MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. PAVER PATTERN SHALL BE BASKET WEAVE UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
4. TYPICAL SIDEWALK WIDTHS AND CURB RADII ARE SHOWN FOR ILLUSTRATION ONLY. REFER TO THE TRANSPORTATION CRITERIA MANUAL FOR SIDEWALK WIDTHS, CURB RADII AND CURB BASIS.
5. THE PERMISSIBLE CONSTRUCTION JOINT BETWEEN THE PAVERS AND THE ADJOINING SURFACE SHALL BE LIMITED TO 1/4" (6 mm) JOINT SIZE. GAPS LARGER THAN 1/4" (6 mm) MUST BE APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. ALL JOINTS BETWEEN BRICKS AND ADJOINING SURFACE SHALL BE MORTAR FILLED UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
6. MORTAR SHALL CONFORM TO STD. SPECIFICATION ITEM SECTION 403S.3.5. MORTAR AND GROUT. ALL OTHER CONCRETE SHALL CONFORM TO STD. SPECIFICATION ITEM 403S. CONCRETE FOR STRUCTURES, UNLESS OTHERWISE NOTED.
7. CURB RAMPS WITH RETURNED CURB MAY ONLY BE USED WHERE PEDESTRIANS WOULD NOT NORMALLY WALK DIAGONALLY ACROSS THE RAMP.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		DETECTABLE WARNING-PAVER (CITY PROPERTY/EASEMENTS)	
RECORD COPY SIGNED BY BILL GARDNER	*06/21/07* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-2A 2 OF 2



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE 1A SIDEWALK CURB RAMP WITH LEFT FLARE	
RECORD COPY SIGNED BY BILL GARDNER	*06/16/08* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-5A 1 OF 2



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE 1A SIDEWALK CURB RAMP WITH RIGHT FLARE	
RECORD COPY SIGNED BY BILL GARDNER	*06/16/08* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-5A 2 OF 2

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144
STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/26/2026
FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

STANDARD DETAILS 1 OF 9

NO.	ISSUES	BY	DATE

F&N JOB NO. AU31436
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-DT- ROAD.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 76
SEQ. 76 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-DT- ROAD.SHT
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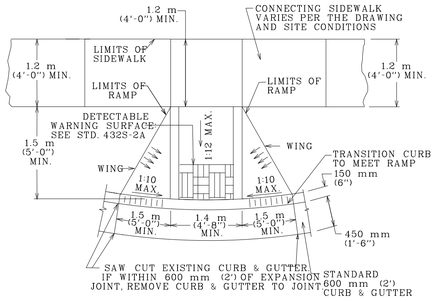
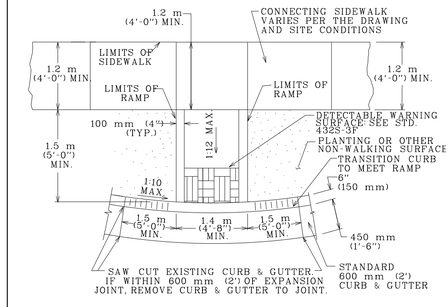
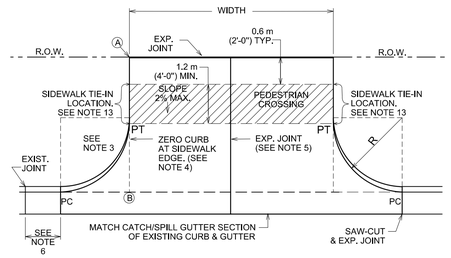


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE 1 SIDEWALK CURB RAMP	
RECORD COPY SIGNED BY BILL GARDNER	9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-5

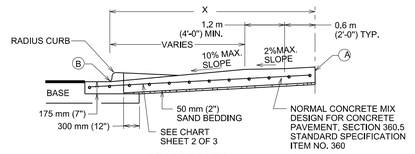


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE 1B SIDEWALK CURB RAMP	
RECORD COPY SIGNED BY BILL GARDNER	9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-5B



PLAN

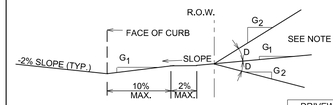
NOTE: ALL DRIVEWAYS SHALL BE SLOPED TOWARDS THE STREET FROM THE R.O.W. LINE. ELEVATION OF POINT Ⓐ ABOVE POINT Ⓑ IS, TYPICALLY A MINIMUM OF 150 mm (6") PLUS 20 mm/m (¼" RISE/FOOT) OVER DISTANCE "X" IN METERS (FEET).



CROSS SECTION

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE II DRIVEWAY	
RECORD COPY SIGNED BY CUONG TRAN	02/24/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 1 OF 2

USE	THICKNESS	REINFORCEMENT
DRIVEWAYS FOR PASSENGER VEHICLE PARKING LOTS	150 mm (6") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS
ALL OTHERS	175 mm (7") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS



ALLOWABLE GRADES

DRIVEWAY VOLUME (ADT)	D=GRADE CHANGE STD.	MAX
>1500	0%	3%
500-1500	3%	6%
< 500	6%	15%

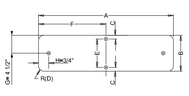
NOTES:
1. ALL TYPE II DRIVEWAYS SHALL HAVE RADIUS ENDS.
2. DRIVEWAY WIDTHS AND RADII DIMENSIONS, ONE/TWO WAY TRAVEL REQUIREMENTS, AND GEOMETRIC LAY-OUT ARE HIGHLY VARIABLE, SUBJECT TO SITE SPECIFIC CONDITIONS AND REQUIREMENTS. SEE TRANSPORTATION CRITERIA MANUAL, SECTION 5 "DRIVEWAYS".
3. THE DRIVEWAY EDGE SHALL BE SMOOTHLY TRANSITITIONED INTO THE SIDEWALK TIE-IN LOCATION BEGINNING AT THE RADIUS PC LINE.
4. "ZERO" CURB AT PT OR SIDEWALK EDGE, WHICHEVER IS ENCOUNTERED FIRST.
5. PLACE AN EXPANSION JOINT DOWN THE CENTER OF DRIVEWAY ALL DRIVEWAYS.
6. IF DIMENSION IS LESS THAN 1.5 METERS (5 FEET), REMOVE CURB AND GUTTER TO EXISTING JOINT AND POUR MONOLITHICALLY WITH DRIVEWAY.
7. IF THE BASE IS OVER-EXCAVATED WHERE THE CURB AND GUTTER WERE REMOVED, BACKFILL WITH CONCRETE MONOLITHICALLY WITH THE DRIVEWAY.
8. TYPE II DRIVEWAYS ARE TO BE LOCATED NO CLOSER TO THE CORNER OF INTERSECTING RIGHT OF WAY THAN 60% OF PARCEL FRONTAGE AT 30 METERS (100 FEET); WHICHEVER IS LESS.
9. DRIVEWAY SHALL NOT BE CONSTRUCTED WITHIN THE CURB RETURN OF A STREET INTERSECTION.
10. WHILE THE PROPERTY OWNER REMAINS RESPONSIBLE FOR GRADE BREAKS WITHIN PRIVATE PROPERTY, THE FIRE DEPARTMENT SHALL BE CONSULTED WHERE THE DRIVEWAY IS ESSENTIAL TO EMERGENCY VEHICLE ACCESS AND "G2 IS GREATER THAN 15%.
11. USE 12 MM (1/2") ASPHALT BOARD OR OTHER APPROVED MATERIAL FOR CURB AND GUTTER EXPANSION JOINTS: SIDEWALK, AT THE R.O.W. LINE AND AT MIDWIDTH, SEE NOTE 5.
12. SEE TRANSPORTATION CRITERIA MANUAL, SECTION 5 FOR OTHER DRIVEWAY REQUIREMENTS.
13. THE SIDEWALK, REGARDLESS OF ITS LOCATION WITH RESPECT TO THE CURB OR PROPERTY LINE, SHALL BE CONNECTED TO THE DRIVEWAY AT THESE LOCATIONS.
14. WATER METER BOXES AND WASTEWATER CLEAN OUTS ARE PROHIBITED FROM BEING LOCATED IN DRIVEWAY AREAS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE II DRIVEWAY	
RECORD COPY SIGNED BY CUONG TRAN	02/24/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 2 OF 2

NOTE: ALL DRIVEWAYS ARE TO BE CONSTRUCTED WITH HIGH EARLY STRENGTH CONCRETE (TYPE III CONCRETE PER COA SPEC 403S.3.A).



GROUND MOUNTED STREET NAME SIGN



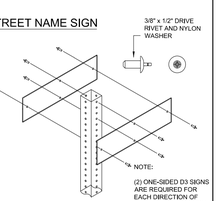


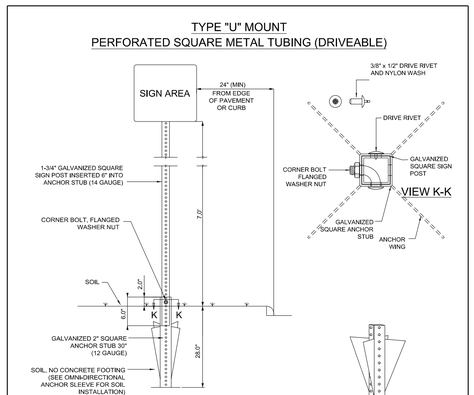
TABLE - D3 SIGNS

A	B	C	D	E	F	T
24"	9"	1/2"	3/4"	8"	12"	0.08"
30"	9"	1/2"	3/4"	8"	15"	0.08"
36"	9"	1/2"	3/4"	8"	18"	0.08"
42"	9"	1/2"	3/4"	8"	21"	0.08"
48"	9"	1/2"	3/4"	8"	24"	0.08"
54"	9"	1/2"	3/4"	8"	27"	0.08"

SIGN TO POLE INSTALLATION

HEIGHT	9"
LENGTH	24" MIN. 54 MAX. 6" INCREMENTS OF LENGTH
THICKNESS	0.08"
SUBSTRATE	ALUMINUM ALLOY, 6061-T-6, OR TYPE IV 5052-H38 (ASTM B-209)
SIGN FACE MATERIALS	GREEN FILM OVER HIGH INTENSITY PRISMATIC SHEETING
LEGENDS AND SYMBOLS	SERIES D (USUAL) SERIES C OR B FOR MAXIMUM LENGTH SIGN BLANK, IF NECESSARY
COLOR	WHITE LEGEND ON GREEN BACKGROUND WITH ½" WHITE BORDER

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		GROUND MOUNTED TRAFFIC AND STREET NAME SIGNS	
RECORD COPY SIGNED BY KERI JUAREZ	01/04/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 824-2 1 OF 3



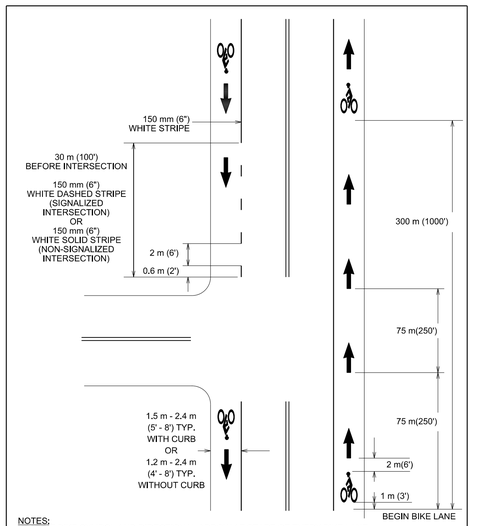
MULTI-DIRECTIONAL ANCHOR

FOR USE IN SOIL

SIGN POST:
12 GAUGE
2" SQUARE x 30"

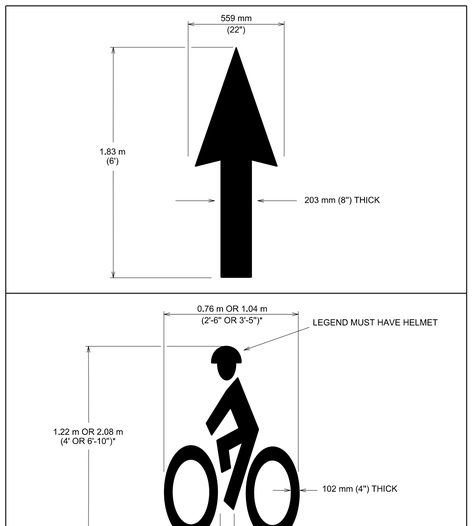
WINGS:
10 GAUGE
4" x 12"
ASTM A569 COM. QUALITY WELDED TO ALL 4 CORNERS STARTING 2 1/2" DOWN FROM TOP

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		GROUND MOUNTED TRAFFIC AND STREET NAME SIGNS - SOIL	
RECORD COPY SIGNED BY KERI JUAREZ	01/04/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 824-2 2 OF 3



NOTES:
1. PLACE BIKE SYMBOL AND DIRECTIONAL ARROW AT START OF EVERY BIKE LANE.
2. PLACE BIKE SYMBOL AND DIRECTIONAL ARROW EVERY 300 m (1000') AND AFTER EACH INTERSECTION
3. PLACE DIRECTIONAL ARROW AT 75 m (250') INTERVALS BETWEEN BIKE SYMBOL/ARROW GROUPS.
4. LANE WIDTHS ARE MEASURED FROM CENTER OF BIKE LANE STRIPE TO THE FACE OF CURB OR EDGE OF PAVEMENT AT THE SHOULDER FOR A ROAD WITHOUT A CURB

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		BICYCLE LANE MARKINGS	
RECORD COPY SIGNED BY COUNG TRAN	09/26/12 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 829S-1A 1 OF 2



* DIMENSION IS DEPENDENT ON LANE WIDTH

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		BICYCLE LANE MARKINGS	
RECORD COPY SIGNED BY COUNG TRAN	09/26/12 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 829S-1A 2 OF 2

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144
STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/26/2026
FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
STANDARD DETAILS 2 OF 9

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
CHECKED MB
REVISED
FILE NAME CV-TRT-DT- ROAD.SHT

NO.	ISSUES	BY	DATE

VERIFY SCALE Bar is one inch on orignal drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 77
SEQ. 77 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 - PLOT\Drawings\Phase 3\CV-TRT-DT- ROAD.SHT
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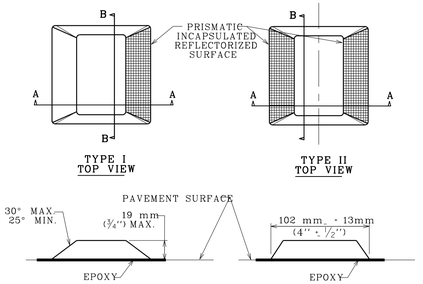
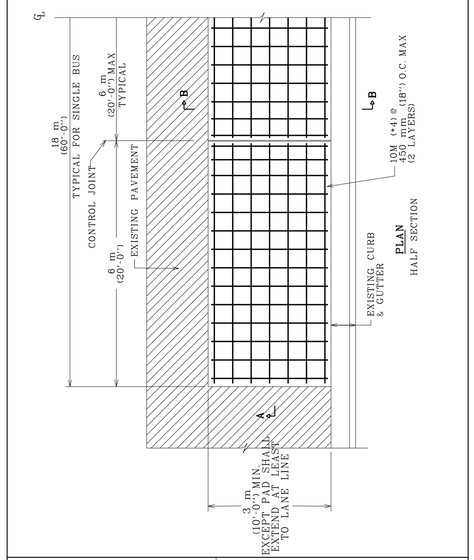
Date: Aug 25, 2026 - 04:46:00 PM



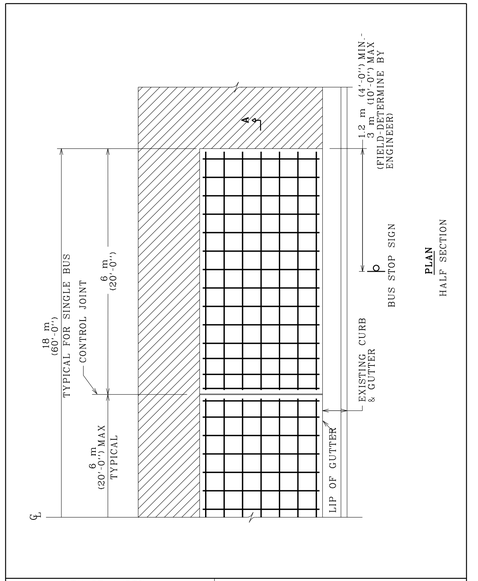
NOTE:

MINIMUM AREA OF MARKER EXPOSED TO TRAFFIC SHALL NOTE BE LESS THAN 8000 SQUARE MILLIMETERS (12.5 SQUARE INCHES).

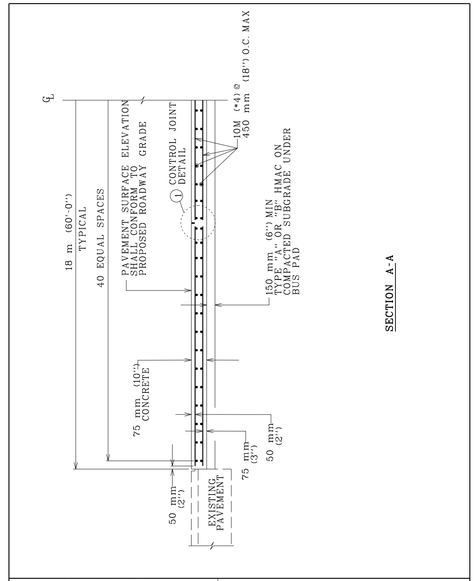
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		PAVEMENT MARKERS (REFLECTORIZED - TYPE I & II)	
RECORD COPY SIGNED BY LINO RIVERA	9/29/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 863S-1



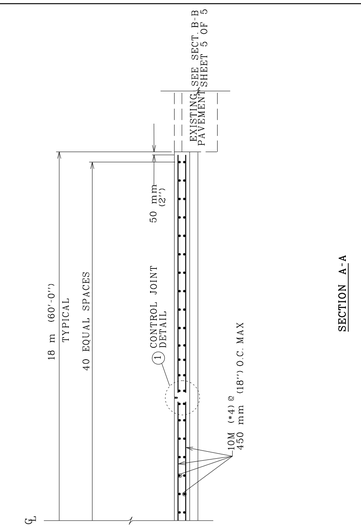
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		BUS STOP PAVING	
RECORD COPY SIGNED BY LEON BARBA	11/17/03 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1000S-7 1 OF 5



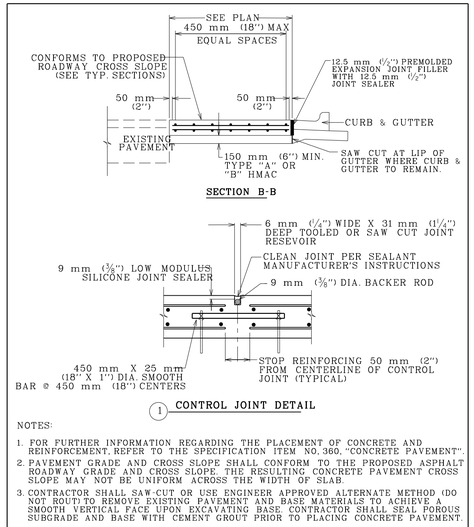
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		BUS STOP PAVING	
RECORD COPY SIGNED BY LEON BARBA	11/17/03 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1000S-7 2 OF 5



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		BUS STOP PAVING	
RECORD COPY SIGNED BY LEON BARBA	11/17/03 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1000S-7 3 OF 5



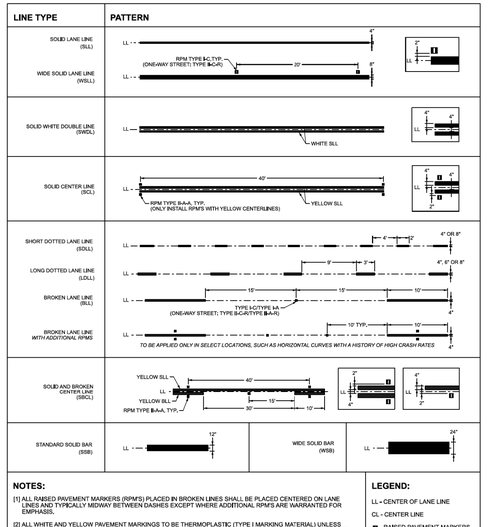
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		BUS STOP PAVING	
RECORD COPY SIGNED BY LEON BARBA	11/17/03 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1000S-7 4 OF 5



NOTES:

1. FOR FURTHER INFORMATION REGARDING THE PLACEMENT OF CONCRETE AND REINFORCEMENT, REFER TO THE SPECIFICATION ITEM NO. 360, "CONCRETE PAVEMENT".
2. PAVEMENT GRADE AND CROSS SLOPE SHALL CONFORM TO THE PROPOSED ASPHALT ROADWAY GRADE AND CROSS SLOPE. THE RESULTING CONCRETE PAVEMENT CROSS SLOPE MAY NOT BE UNIFORM ACROSS THE WIDTH OF SLAB.
3. CONTRACTOR SHALL SAW-CUT OR USE ENGINEER APPROVED ALTERNATE METHOD (DO NOT ROUT) TO REMOVE EXISTING PAVEMENT AND BASE MATERIALS TO ACHIEVE A SMOOTH VERTICAL FACE UPON EXCAVATING BASE. CONTRACTOR SHALL SEAL POROUS SUBGRADE AND BASE WITH CEMENT GROUT PRIOR TO PLACING CONCRETE PAVEMENT.
4. NO CONSTRUCTION JOINTS SHALL BE ALLOWED UNLESS APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
5. CONCRETE BUS PAD SHALL BE PLACED SUCH THAT THERE IS A SMOOTH INTERFACE BETWEEN THE PROPOSED ROADWAY SURFACE AND THE FINISHED BUS PAD SURFACE.
6. SURFACE OF CONCRETE BUS PAD SHALL BE A BURLAP OR ASTRO-TURF DRAG FINISH.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		BUS STOP PAVING	
RECORD COPY SIGNED BY LEON BARBA	11/17/03 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1000S-7 5 OF 5



NOTES:

[1] ALL RAISED PAVEMENT MARKERS (RPM'S) PLACED IN BROKEN LINES SHALL BE PLACED CENTERED ON LANE LINES AND TYPICALLY MIDWAY BETWEEN DASHES EXCEPT WHERE ADDITIONAL RPM'S ARE WARRANTED FOR EMPHASIS.

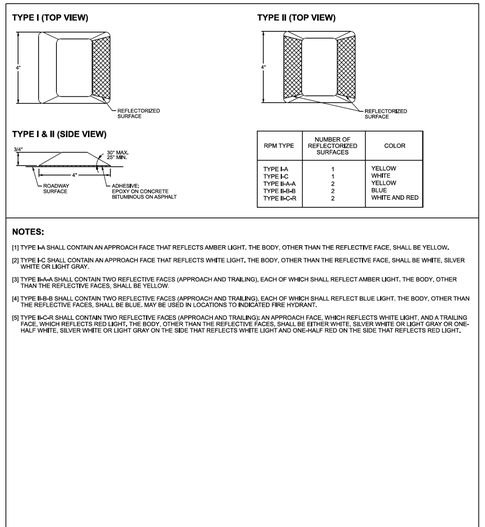
[2] ALL WHITE AND YELLOW PAVEMENT MARKINGS TO BE THERMOPLASTIC (TYPE I MARKING MATERIAL) UNLESS OTHERWISE APPROVED BY CITY ENGINEER. SEE CITY OF AUSTIN SPECIFICATION 8715 FOR DETAILS. IF APPLIED TO CONCRETE, BLACK BOUNDING RETANGULAR MASK WITH A 4" MARGIN USING TYPE B MARKING MATERIAL TO BE APPLIED BENEATH ANY WHITE SYMBOLS, EXCEPT ON TERRACOTTA-COLORED CONCRETE AND EXCEPT FOR LONGITUDINAL LINES.

LEGEND:

LL - CENTER OF LANE LINE
CL - CENTER LINE
■ - RAISED PAVEMENT MARKERS

NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT		PAVEMENT MARKINGS LONGITUDINAL LINES	
DRAFT FOR USE ON PROJECTS		THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 871S (DRAFT) 1 OF 1



RPM TYPE	NUMBER OF REFLECTORIZED SURFACES	COLOR
TYPE I-A	1	YELLOW
TYPE I-C	1	WHITE
TYPE II-A-A	2	YELLOW
TYPE II-B-B	2	BLUE
TYPE II-C-R	2	WHITE AND RED

NOTES:

[1] TYPE I-A SHALL CONTAIN AN APPROACH FACE THAT REFLECTS AMBER LIGHT. THE BODY, OTHER THAN THE REFLECTIVE FACE, SHALL BE YELLOW.

[2] TYPE I-C SHALL CONTAIN AN APPROACH FACE THAT REFLECTS WHITE LIGHT, THE BODY, OTHER THAN THE REFLECTIVE FACE, SHALL BE WHITE, SILVER WHITE OR LIGHT GRAY.

[3] TYPE II-A-A SHALL CONTAIN TWO REFLECTIVE FACES (APPROACH AND TRAILING), EACH OF WHICH SHALL REFLECT AMBER LIGHT. THE BODY, OTHER THAN THE REFLECTIVE FACES, SHALL BE YELLOW.

[4] TYPE II-B-B SHALL CONTAIN TWO REFLECTIVE FACES (APPROACH AND TRAILING), EACH OF WHICH SHALL REFLECT BLUE LIGHT. THE BODY, OTHER THAN THE REFLECTIVE FACES, SHALL BE BLUE, MAY BE USED IN LOCATIONS TO INDICATED FIRE HYDRANT.

[5] TYPE II-C-R SHALL CONTAIN TWO REFLECTIVE FACES (APPROACH AND TRAILING) AN APPROACH FACE, WHICH REFLECTS WHITE LIGHT, AND A TRAILING FACE, WHICH REFLECTS RED LIGHT, THE BODY, OTHER THAN THE REFLECTIVE FACES, SHALL BE EITHER WHITE, SILVER WHITE OR LIGHT GRAY OR ONE-HALF WHITE, SILVER WHITE OR LIGHT GRAY ON THE SIDE THAT REFLECTS WHITE LIGHT AND ONE-HALF RED ON THE SIDE THAT REFLECTS RED LIGHT.

NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT		PAVEMENT MARKINGS PAVEMENT MARKERS (REFLECTORIZED - TYPE I & II)	
DRAFT FOR USE ON PROJECTS		THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 871S (DRAFT) 1 OF 1

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144
STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/26/2026
FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

STANDARD DETAILS 3 OF 9

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314.361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-DT- ROAD.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

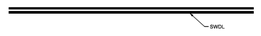
SHEET 78

SEQ. 78 OF 143

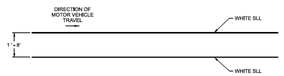
MicroStation V8 User: 03926Office: On Site
AU314.361 N:\IF\Drawings\Phase 3\CV-TRT-DT- ROAD.SHT
Plot Save: 11/17/03 11:46:02 AM Mowrey, Joe
Plot Scale: 1.0000 '/ in. Model: Default
Date: Aug 25, 2025 - 04:46:02 PM Project: Freese and Nichols, Inc.

Office: On Site AU314361 Date: Aug. 25, 2026 - 04:46:02 PM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-DT- ROAD.SHT

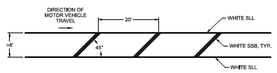
BIKE LANE (NO BUFFER)



PROTECTED BIKE LANE BUFFER (1'-8' WIDE)



PROTECTED BIKE LANE BUFFER (GREATER THAN 8' WIDE)



NOTES:

[1] ALL WHITE AND YELLOW PAVEMENT MARKINGS TO BE THERMOPLASTIC (TYPE I MARKING MATERIAL) UNLESS OTHERWISE APPROVED BY CITY ENGINEER, SEE CITY OF AUSTIN SPECIFICATION 671S FOR DETAILS. IF APPLIED TO CONCRETE, BLACK BOUNDING RETANGULAR MASK WITH A 4" MARGIN USING TYPE II MARKING MATERIAL TO BE APPLIED BENEATH ANY WHITE SYMBOLS, EXCEPT ON TERRACOTTA-COLORED CONCRETE AND EXCEPT FOR LONGITUDINAL LINES.

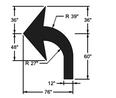
NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	PAVEMENT MARKINGS PAINTED BUFFER LINES	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 671S *(DRAFT)* 5 OF 17

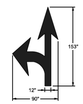
STRAIGHT ARROW



TURN ARROW



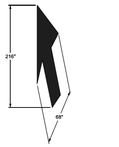
LEFT-TURN / STRAIGHT ARROW



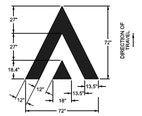
RIGHT-TURN / STRAIGHT ARROW



LANE MERGE ARROW



VERTICAL DEFLECTION



ONLY MARKING



BUS MARKING



BIKE MARKING



NOTES:

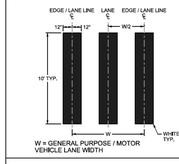
[1] ALL SYMBOLS TO BE WHITE THERMOPLASTIC (TYPE I MARKING MATERIAL) UNLESS OTHERWISE APPROVED BY CITY ENGINEER, SEE CITY OF AUSTIN SPECIFICATION 671S FOR DETAILS. IF APPLIED TO CONCRETE, BLACK BOUNDING RETANGULAR MASK WITH A 4" MARGIN USING TYPE II MARKING MATERIAL TO BE APPLIED BENEATH ANY WHITE SYMBOLS, EXCEPT ON TERRACOTTA-COLORED CONCRETE AND EXCEPT FOR LONGITUDINAL LINES.

[2] FOR RIGHT-TURN OR MERGE RIGHT ARROWS, USE MIRROR IMAGE OF LEFT ARROWS.

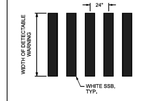
NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	PAVEMENT MARKINGS GENERAL PURPOSE / MOTOR VEHICLE LANE SYMBOLS	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 671S *(DRAFT)* 6 OF 17

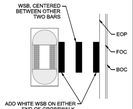
CROSSWALK



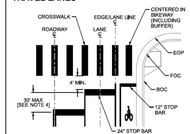
BIKE LANE PEDESTRIAN CROSSING



CROSSWALK ACROSS SINGLE TRAVEL LANE



CROSSWALK ACROSS MULTIPLE TRAVEL LANES



STOP BAR



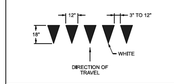
24" (WSB) WHEN IN GENERAL PURPOSE / MOTOR VEHICLE LANES. UNBUFFERED BIKE LANES, OR IN BUFFERED BIKE LANE AND ALIGNED WITH STOP BAR IN ADJACENT TRAVEL LANE.

12" (SSB) WHEN IN PROTECTED OR BUFFERED BIKE LANES, WHERE THE STOP BAR CAN BE SET IN ADVANCE OF THE GENERAL TRAVEL LANE STOP BAR.

SCHOOL ZONE LIMIT LINE



BIKE LANE YIELD LINE



GENERAL PURPOSE / MOTOR VEHICLE LANE YIELD LINE



NOTES:

[1] STOP BAR, YIELD LINE, AND CROSSWALK MARKINGS SHOULD NOT BE PAINTED IN THE GUTTER PAN.

[2] ALL WHITE AND YELLOW PAVEMENT MARKINGS TO BE THERMOPLASTIC (TYPE I MARKING MATERIAL) UNLESS OTHERWISE APPROVED BY CITY ENGINEER, SEE CITY OF AUSTIN SPECIFICATION 671S FOR DETAILS. IF APPLIED TO CONCRETE, BLACK BOUNDING RETANGULAR MASK WITH A 4" MARGIN USING TYPE II MARKING MATERIAL TO BE APPLIED BENEATH ANY WHITE SYMBOLS, EXCEPT ON TERRACOTTA-COLORED CONCRETE AND EXCEPT FOR LONGITUDINAL LINES.

[3] STOP BAR MAY BE SET BACK WHEN NEEDED TO ACCOMMODATE VEHICLE TURNING MOVEMENTS.

[4] YIELD LINE MARKINGS TO BE EVENLY SPACED AND NOT EXTEND INTO GUTTER PAN, IF PRESENT.

[5] GENERAL PURPOSE/MOTOR VEHICLE LANE STOP AND YIELD LINES SHOULD BE PLACED A MINIMUM OF 4 FEET IN ADVANCE OF THE NEAREST CROSSWALK LINE AT CONTROLLED INTERSECTIONS.

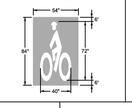
NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	PAVEMENT MARKINGS CROSSWALKS, STOP BARS, AND YIELD LINES	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 671S *(DRAFT)* 8 OF 17

BIKE SYMBOL



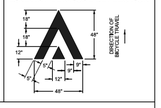
GREEN-BACKED BIKE SYMBOL



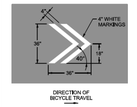
PEDESTRIAN MARKING



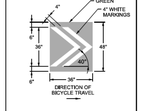
BIKEWAY VERTICAL DEFLECTION



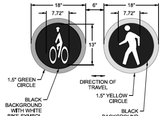
CHEVRON ON TERRACOTTA CONCRETE



GREEN-BACKED CHEVRON



SHARED USE PATH SYMBOLS



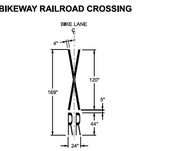
TWO-WAY CHEVRON PAIR ON TERRACOTTA CONCRETE



TWO-WAY GREEN-BACKED CHEVRON PAIR



BIKEWAY RAILROAD CROSSING



NOTES:

[1] ALL GREEN PAVEMENT MARKINGS TO BE TYPE I MATERIAL.

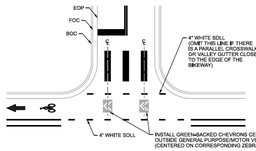
[2] ALL WHITE AND YELLOW PAVEMENT MARKINGS TO BE THERMOPLASTIC (TYPE I MARKING MATERIAL) UNLESS OTHERWISE APPROVED BY CITY ENGINEER, SEE CITY OF AUSTIN SPECIFICATION 671S FOR DETAILS. IF APPLIED TO CONCRETE, BLACK BOUNDING RETANGULAR MASK WITH A 4" MARGIN USING TYPE II MARKING MATERIAL TO BE APPLIED BENEATH ANY WHITE SYMBOLS, EXCEPT ON TERRACOTTA-COLORED CONCRETE AND EXCEPT FOR LONGITUDINAL LINES.

[3] VERTICAL DEFLECTION PAVEMENT MARKING ONLY TO BE USED IN BIKE RAMPS WHEN GRADE BREAKS AT BOTTOM OF RAMP EXCEEDS 5%.

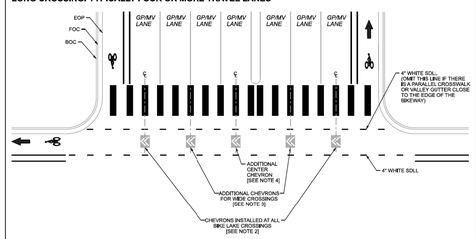
NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	PAVEMENT MARKINGS BIKEWAY AND SHARED-USE PATH SYMBOLS	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 871S *(DRAFT)* 9 OF 17

SHORT CROSSING: TYPICALLY LESS THAN FOUR TRAVEL LANES



LONG CROSSING: TYPICALLY FOUR OR MORE TRAVEL LANES



NOTES:

[1] ALL BICYCLE-RELATED PAVEMENT MARKING SYMBOLS SHOULD NOT BE INSTALLED WITHIN THE BOUNDS OF CROSSWALKS, EVEN IF UNMARKED.

[2] INSTALL GREEN-BACKED CHEVRONS CENTERED ON OUTSIDE GENERAL PURPOSE / MOTOR VEHICLE LANES AND LATERALLY CENTERED WITHIN THE BIKE LANE (EXCLUDING ANY BUFFER WIDTH).

[3] WHEN SPANNING 4 OR MORE GENERAL PURPOSE / MOTOR VEHICLE LANES, INSTALL GREEN-BACKED CHEVRON CENTERED ON ZEBRA STRIPE CLOSEST TO THE MIDPOINT BETWEEN THE OUTSIDE CHEVRONS.

[4] WHEN SPANNING 7 OR MORE GENERAL PURPOSE / MOTOR VEHICLE LANES, INSTALL 2 ADDITIONAL GREEN-BACKED CHEVRONS ROUGHLY CENTERED BETWEEN THE OTHERS BUT CENTER-ALIGNED TO THE NEAREST ZEBRA STRIPE.

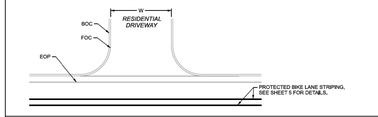
[5] REFER TO PLANS FOR CHEVRON PLACEMENT AS SITE SPECIFIC FACTORS MAY ALTER THE TYPICAL LOCATIONS.

[6] THE INDICATED CHEVRON SPACING AND PLACEMENT ALSO APPLIES TO TWO-WAY BIKE LANES, BUT WITH CHEVRONS INSTALLED IN STACKED PAIRS. SEE SHEET 9 FOR SETTING OF STACKED CHEVRONS IN A TWO-WAY BIKE LANE CROSSING.

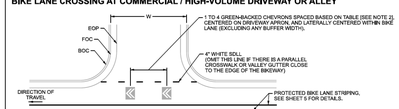
NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	PAVEMENT MARKINGS PROTECTED BIKE LANE INTERSECTION CROSSINGS	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 871S *(DRAFT)* 10 OF 17

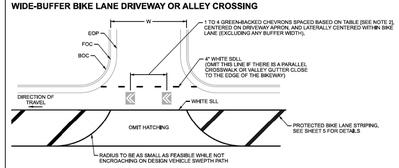
BIKE LANE CROSSING AT RESIDENTIAL / LOW-VOLUME DRIVEWAY OR ALLEY



BIKE LANE CROSSING AT COMMERCIAL / HIGH-VOLUME DRIVEWAY OR ALLEY



WIDE-BUFFER BIKE LANE DRIVEWAY OR ALLEY CROSSING



NOTES:

[1] ALL BICYCLE-RELATED PAVEMENT MARKING SYMBOLS SHOULD NOT BE INSTALLED WITHIN THE BOUNDS OF CROSSWALKS, EVEN IF UNMARKED.

[2] CHEVRON SPACING AT COMMERCIAL/HIGH-VOLUME DRIVEWAY OR ALLEY:

INTERSECTION WIDTH (W)	NUMBER OF CHEVRONS*	SPACING
<21'	1	CENTERED
21' - 30'	2	12'
31' - 40'	2	18'
41' - 60'	3	12'
>60'	4	18'

* DOUBLE FOR TWO-WAY BIKEWAYS

[3] REFER TO PLANS FOR CHEVRON PLACEMENT AS SITE SPECIFIC FACTORS MAY ALTER THE TYPICAL LOCATIONS.

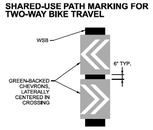
NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	PAVEMENT MARKINGS PROTECTED BIKE LANE DRIVEWAY CROSSINGS	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 871S *(DRAFT)* 11 OF 17

SHARED-USE PATH MARKING FOR ONE-WAY BIKE TRAVEL

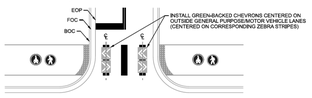


SHARED-USE PATH MARKING FOR TWO-WAY BIKE TRAVEL



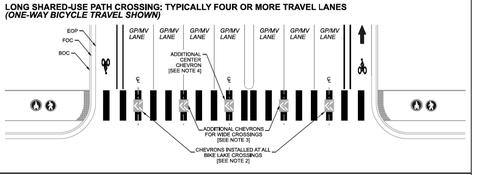
SHORT SHARED-USE PATH CROSSING: TYPICALLY LESS THAN FOUR TRAVEL LANES

(TWO-WAY BICYCLE TRAVEL SHOWN)



LONG SHARED-USE PATH CROSSING: TYPICALLY FOUR OR MORE TRAVEL LANES

(ONE-WAY BICYCLE TRAVEL SHOWN)



NOTES:

[1] INSTALL GREEN-BACKED CHEVRONS CENTERED ON OUTSIDE GENERAL PURPOSE / MOTOR VEHICLE LANES AND LATERALLY CENTERED WITHIN THE BIKE LANE (EXCLUDING ANY BUFFER WIDTH).

[2] WHEN SPANNING 4 OR MORE GENERAL PURPOSE / MOTOR VEHICLE LANES, INSTALL GREEN-BACKED CHEVRON CENTERED ON ZEBRA STRIPE CLOSEST TO THE MIDPOINT BETWEEN THE OUTSIDE CHEVRONS.

[3] WHEN SPANNING 7 OR MORE GENERAL PURPOSE / MOTOR VEHICLE LANES, INSTALL 2 ADDITIONAL GREEN-BACKED CHEVRONS ROUGHLY CENTERED BETWEEN THE OTHERS BUT CENTER-ALIGNED TO THE NEAREST ZEBRA STRIPE.

[4] REFER TO PLANS FOR CHEVRON PLACEMENT AS SITE SPECIFIC FACTORS MAY ALTER THE TYPICAL LOCATIONS.

[5] THE INDICATED CHEVRON SPACING AND PLACEMENT ALSO APPLIES TO TWO-WAY BIKE LANES, BUT WITH CHEVRONS INSTALLED IN STACKED PAIRS. SEE SHEET 9 FOR SETTING OF STACKED CHEVRONS IN A TWO-WAY BIKE LANE CROSSING.

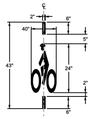
[6] ALL GREEN PAVEMENT MARKINGS TO BE TYPE I MATERIAL.

[7] ALL WHITE AND YELLOW PAVEMENT MARKINGS TO BE THERMOPLASTIC (TYPE I MARKING MATERIAL) UNLESS OTHERWISE APPROVED BY CITY ENGINEER. SEE CITY OF AUSTIN SPECIFICATION 671S FOR DETAILS. IF APPLIED TO CONCRETE, BLACK BOUNDING RETANGULAR MASK WITH A 4" MARGIN USING TYPE II MARKING MATERIAL TO BE APPLIED BENEATH ANY WHITE SYMBOLS, EXCEPT ON TERRACOTTA-COLORED CONCRETE AND EXCEPT FOR LONGITUDINAL LINES.

NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	PAVEMENT MARKINGS SHARED-USE PATH INTERSECTION CROSSINGS	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 871S *(DRAFT)* 12 OF 17

BIKE LOOP DETECTION



BIKE LANE LEFT-TURN ARROW

BIKE LANE RIGHT-TURN ARROW

BIKE LANE STRAIGHT ARROW

BIKE LANE LEFT-TURN/STRAIGHT ARROW

BIKE LANE RIGHT-TURN/STRAIGHT ARROW

BIKE LANE SYMBOL WITH TURN ARROW

BIKE LANE SYMBOL WITH STRAIGHT ARROW

GREEN-BACKED BIKE LANE SYMBOL WITH STRAIGHT ARROW

NOTES:

[1] USE OF ARROWS WITH BIKE SYMBOLS IS OPTIONAL, EXCEPT ON ONE-WAY STREETS.

[2] ALL SYMBOLS TO BE WHITE THERMOPLASTIC (TYPE I MARKING MATERIAL) UNLESS OTHERWISE APPROVED BY CITY ENGINEER, SEE CITY OF AUSTIN SPECIFICATION 671S FOR DETAILS. IF APPLIED TO CONCRETE, BLACK BOUNDING RETANGULAR MASK WITH A 4" MARGIN USING TYPE II MARKING MATERIAL TO BE APPLIED BENEATH ANY WHITE SYMBOLS, EXCEPT ON TERRACOTTA-COLORED CONCRETE AND EXCEPT FOR LONGITUDINAL LINES.

NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	PAVEMENT MARKINGS BIKEWAY WAYFINDING SYMBOLS	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 871S *(DRAFT)* 13 OF 17

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/26/2026

FREESE NICHOLS
10431 Morado Circle Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

STANDARD DETAIL 4 OF 9

F&N JOB NO. AU314.361
DATE DA 08/17/2026
BY DESIGNED BP
DRAWN MIC
CHECKED MB
FILE NAME CV-TRT-DT- ROAD.SHT

NO. ISSUES

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 79
SEQ. 79 OF 143

MicroStation V8 User: 03926Office: On Site
AU314.361 - N:\IF\Drawings\Phase 3\CV-TRT-DT- ROAD.SHT
Plot Date: 25 AUG 2026 - 04:46:07 PM
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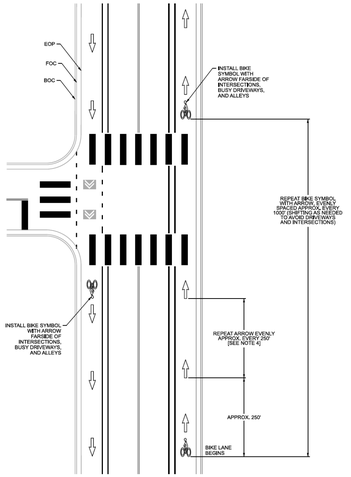
Model: Default
Date: Aug 25, 2026 - 04:46:07 PM
Project: Freese and Nichols, Inc.

Office: On Site AU314.361 Date: Aug. 25, 2026 - 04:46:07 PM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-DT- ROAD.SHT



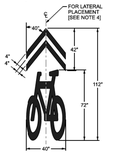
NOTES:

[1] BIKE SYMBOL WITH ARROW TO BE INSTALLED AT THE BEGINNING OF ALL CONVENTIONAL, BUFFERED, AND PROTECTED BIKE LANES.
[2] BIKE SYMBOLS WITH ARROW TO BE SPACED APPROXIMATELY EVERY 1,000 FEET.
[3] BIKE SYMBOL WITH ARROW TO BE INSTALLED DOWNSTREAM OF ALL INTERSECTIONS, BUSY DRIVEWAYS, AND ALLEYS TO CLARIFY THE LANE DESIGNATION TO TURNING DRIVERS.
[4] ARROWS TO BE SPACED APPROXIMATELY EVERY 250 FEET AND MAY BE OMMITTED IF THEY ROUGHLY COINCIDE WITH OTHER BIKEWAY MARKINGS, SUCH AS A CHEVRON AT AN INTERSECTION, ALLEY, OR DRIVEWAY.
[5] BIKE SYMBOLS AND DIRECTIONAL ARROWS SHOULD NOT BE INSTALLED OVERLAPPING GUTTER PAN.

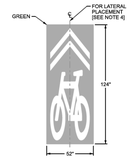
NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	PAVEMENT MARKINGS TYPICAL ROADWAY - GRADE BICYCLE SYMBOL LAYOUT	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 871S *(DRAFT)* 14 OF 17

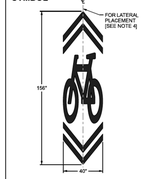
SHARED-LANE SYMBOL (SHARROW)



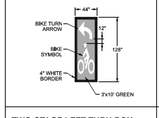
GREEN-BACKED SHARED-LANE SYMBOL



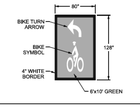
TWO-WAY SHARED-LANE SYMBOL



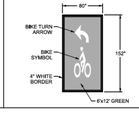
TWO-STAGE LEFT TURN BOX 3'x10'



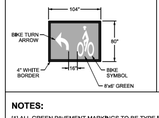
TWO-STAGE LEFT TURN BOX 6' x 10'



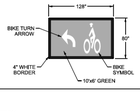
TWO-STAGE LEFT TURN BOX 6' x 12'



TWO-STAGE LEFT TURN BOX 8'x6'



TWO-STAGE LEFT TURN BOX 10'x6'

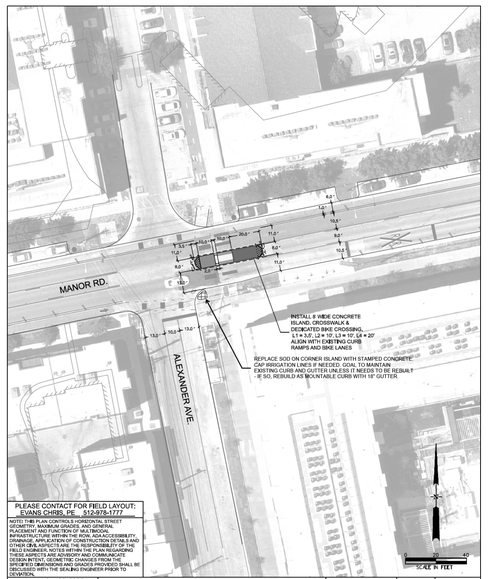


NOTES:

[1] ALL GREEN PAVEMENT MARKINGS TO BE TYPE I MATERIAL.
[2] ALL SYMBOLS TO BE WHITE THERMOPLASTIC (TYPE I MARKING MATERIAL) EXCEPT WHERE INDICATED AND UNLESS OTHERWISE APPROVED BY CITY ENGINEER. SEE CITY OF AUSTIN SPECIFICATION §715 FOR DETAILS. IF APPLIED TO CONCRETE, BLACK BOUNDING RETANGULAR MASK WITH A 4" MARGIN USING TYPE II MARKING MATERIAL TO BE APPLIED BENEATH ANY WHITE SYMBOLS, EXCEPT ON TERRACOTTA-COLORED CONCRETE AND EXCEPT FOR LONGITUDINAL LINES.
[3] FOR SHARED-LANE SHARROWS, USE MIRROR IMAGE OF LEFT ARROWS.
[4] SHARROWS ARE TO BE LATERALLY CENTERED IN THEIR CORRESPONDING TRAVEL LANE, ENSURING THAT THE FOLLOWING MINIMUMS ARE MET:
*11'6" MIN. FROM EOP WHERE ADJACENT ON-STREET PARKING IS NOT PERMITTED.
*12'FT MIN. FROM CURB FACE (OR EOP ON CURBLESS STREETS) WHERE ADJACENT ON-STREET PARKING IS PERMITTED.

NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	PAVEMENT MARKINGS SHARED-LANE AND TWO-STAGE TURN BOX SYMBOLS	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 871S *(DRAFT)* 15 OF 17



PLEASE CONTACT FOR FIELD LAYOUT:
EVANS CHRIS, PE 512-975-1777

NOTE: THIS PLAN CONTROLS HORIZONTAL STREET GEOMETRY, MAXIMUM GRADES, AND GENERAL CONSTRUCTION LIMITS. ALL OTHER PUBLIC INFRASTRUCTURE WITHIN THE ROW, ADA ACCESSIBILITY, DRAINAGE, APPLICATION OF CONSTRUCTION DETAILS AND SPECIFICATIONS, AND FINAL GRADES SHALL BE THE FIELD ENGINEER. NOTES WITHIN THE PLAN REGARDING THESE ASPECTS ARE ADVISORY AND COMMUNICATE THE DESIGN INTENT. ALL CONSTRUCTION SHALL BE SPECIFIED DIMENSIONS AND GRADES PROVIDED SHALL BE DISCUSSED WITH THE SEALING ENGINEER PRIOR TO DEVIATION.

November 30, 2023

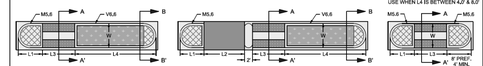
CITY OF AUSTIN, TEXAS
AUSTIN TRANSPORTATION DEPARTMENT

MANOR RD AND ALEXANDER AVE CROSSING ISLAND
PROJECT_Name
CONSTRUCTION SCHEMATIC
SHEET TITLE

NOTES	NAME	DATE
DESIGNED	BY	AM 11/2023
CHECKED	BY	MC 11/2023
SHEET NUMBER	1	OF 1

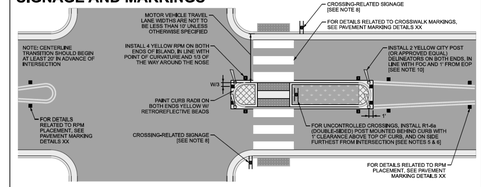
ISLAND GEOMETRY

TYPICAL CONDITION | **CROSSWALK & DEDICATED BIKE CROSSING** | **CONSTRAINED CONDITION** USE WHEN L4 IS BETWEEN 4.0' & 8.0'



	PEDESTRIAN REFUGE				SHARED-USE PATH REFUGE		DEDICATED BICYCLE REFUGE	
	NOSE LENGTH (L1)	TAIL LENGTH (L4)	REFUGE WIDTH (W)	REFUGE LENGTH (L3)	REFUGE WIDTH (W)	REFUGE LENGTH (L3)	REFUGE WIDTH (W)	L2
CONSTRAINED MINIMUM	4.0'	4.0'	4.0'	6.0'	6.0'	8.0'	6.0'	MATCH BIKE CROSSING WIDTH
TYPICAL	6.0'	20.0'	6.0'	8.0'	8.0'	WIDER OF CROSSING WIDTH OR SLIP LANE WIDTH	8.0'	
PREFERRED	8.0'	20.0'	8.0+'	8.0' LEVEL 1 STREETS 10.0' LEVEL 2, 3 AND 4 STREETS	10.0'+		10.0'+	

SIGNAGE AND MARKINGS



NOTES:

[1] POSITION ISLAND AND SET DIMENSIONS IN ACCORDANCE WITH TCM GUIDANCE, AND TO MAINTAIN DRIVEWAY ACCESS AS NEEDED.
[2] DO NOT REMOVE TRAFFIC CONTROL UNTIL NOSES ARE PAINTED AND DELINEATORS ARE INSTALLED.
[3] CENTERLINE TRANSITIONS SHOULD BEGIN AT LEAST 20' IN ADVANCE OF INTERSECTIONS AND IDEALLY BE ACCOMMODATED OUTSIDE INTERSECTIONS. THEIR LENGTH WILL VARY DEPENDING ON FACTORS SUCH AS DESIGN SPEEDS, LANE ASSIGNMENT AND ALIGNMENTS. SEE SHEET 3 FOR OPTIONS TO ACCOMMODATE TRANSITIONS THROUGH THE INTERSECTION FOR CONSTRAINED CONDITIONS.
[4] PLANTED AREA IS PREFERRED. ENGINEER MAY SUBSTITUTE STAMPED CONCRETE FOR PLANTED AREA IN L3 BASED ON SITE CONDITIONS, SUCH AS LARGE VEHICLE TRACKING IN INDUSTRIAL OR ARTERIAL CONTEXTS.
[5] OMIT R1-6a, W11-2, S1-1, AND W16-7P SIGNS AT SIGNALIZED INTERSECTIONS.
[6] SEE CONCRETE CURB AND GUTTER DETAILS XX FOR INFORMATION ON CURB TYPES.
[7] STAMPED CONCRETE TO USE "CUT STONE COBBLE" STAMP PATTERN AT 0.5" - 1" IMPRESSION DEPTH (PAVERS OPTIONAL).
[8] FOR UNCONTROLLED CROSSINGS, INSTALL THE FOLLOWING UPSTREAM OF THE CROSSING IN A LANDSCAPED BUFFER BEHIND CURB IF PRESENT, OTHERWISE PLACE BEHIND BACK OF SIDEWALK:
- W11-2(S-1-1 AND W16-7P (DOUBLE-SIDED) FOR CROSSWALKS.
- W11-15 (DOUBLE-SIDED) FOR SHARED-USE PATH CROSSINGS.
- W11-15 (DOUBLE-SIDED) FOR BICYCLE-ONLY CROSSINGS.

[9] RELOCATE ANY R1-6a SIGNS THAT OVERLAP WITH DESIGN OR CONTROL VEHICLE SWEPT PATHS, INCLUDING THE FRONT OVERHANG AND / OR DEPLOYED FRONT BIKE RACK ON A CAPMETRO BUS. OMIT SUCH SIGNAGE IF RELOCATION OUT OF THE SWEPT PATH IS NOT FEASIBLE.
[10] RELOCATE ANY CITY POSTS THAT OVERLAP WITH DESIGN VEHICLE SWEPT PATHS, INCLUDING THE FRONT OVERHANG AND / OR DEPLOYED FRONT BIKE RACK ON A CAPMETRO BUS. OMIT SUCH POSTS AND / OR SIGNAGE IF RELOCATION OUT OF THE SWEPT PATH IS NOT FEASIBLE.

LEGEND:

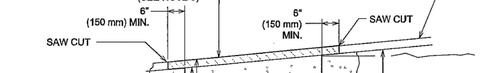
- STAMPED CONCRETE [SEE NOTE 7]
- LOW-MAINTENANCE PLANTED AREA [SEE NOTE 4]
- RAISED PAVEMENT MARKER (RPM)
- CITY POST
- DETECTABLE WARNING SURFACE (DWS)

NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	CONCRETE CROSSING ISLAND INTERSECTION	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 434S *(DRAFT)* 1 OF 4

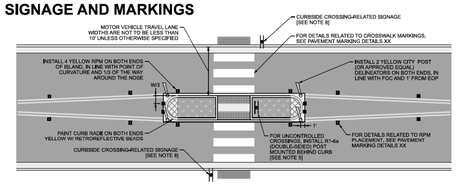
ISLAND GEOMETRY

TYPICAL CONDITION | **CROSSWALK & DEDICATED BIKE CROSSING** | **CONSTRAINED CONDITION** USE WHEN L4 IS BETWEEN 4.0' & 8.0'



	PEDESTRIAN REFUGE				SHARED-USE PATH REFUGE		DEDICATED BICYCLE REFUGE	
	NOSE LENGTH (L1)	TAIL LENGTH (L4)	REFUGE WIDTH (W)	REFUGE LENGTH (L3)	REFUGE WIDTH (W)	REFUGE LENGTH (L3)	REFUGE WIDTH (W)	L2
CONSTRAINED MINIMUM	4.0'	4.0'	4.0'	6.0'	6.0'	8.0'	6.0'	MATCH BIKE CROSSING WIDTH
TYPICAL	6.0'	20.0'	6.0'	8.0'	8.0'	WIDER OF CROSSING WIDTH OR SLIP LANE WIDTH	8.0'	
PREFERRED	8.0'	20.0'	8.0+'	8.0' LEVEL 1 STREETS 10.0' LEVEL 2, 3 AND 4 STREETS	10.0'+		10.0'+	

SIGNAGE AND MARKINGS



NOTES:

[1] POSITION ISLAND AND SET DIMENSIONS IN ACCORDANCE WITH TCM GUIDANCE, AND TO MAINTAIN DRIVEWAY ACCESS AS NEEDED.
[2] DO NOT REMOVE TRAFFIC CONTROL UNTIL NOSES ARE PAINTED AND DELINEATORS ARE INSTALLED.
[3] SEE CONCRETE CURB AND GUTTER DETAILS XX FOR INFORMATION ON CURB TYPES.
[4] CENTERLINE TRANSITIONS SHOULD BEGIN AT LEAST 20' IN ADVANCE OF INTERSECTIONS AND IDEALLY BE ACCOMMODATED OUTSIDE INTERSECTIONS. THEIR LENGTH WILL VARY DEPENDING ON FACTORS SUCH AS DESIGN SPEEDS, LANE ASSIGNMENT AND ALIGNMENTS.
[5] PLANTED AREA IS PREFERRED. ENGINEER MAY SUBSTITUTE STAMPED CONCRETE FOR PLANTED AREA IN L3 BASED ON SITE CONDITIONS, SUCH AS LARGE VEHICLE TRACKING IN INDUSTRIAL OR ARTERIAL CONTEXTS.
[6] STAMPED CONCRETE TO USE "CUT STONE COBBLE" STAMP PATTERN AT 0.5" - 1" IMPRESSION DEPTH (PAVERS OPTIONAL).

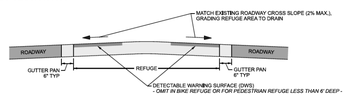
LEGEND:

- STAMPED CONCRETE [SEE NOTE 6]
- LOW-MAINTENANCE PLANTED AREA [SEE NOTE 5]
- RAISED PAVEMENT MARKER (RPM)
- CITY POST
- DETECTABLE WARNING SURFACE (DWS)

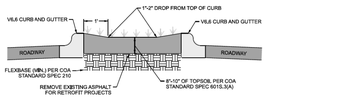
NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	CONCRETE CROSSING ISLAND OPTIONAL TREATMENTS	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 434S *(DRAFT)* 4 OF 4

CROSS SECTION A-A'



CROSS SECTION B-B'



NOTES:

[1] SEE CONCRETE CURB AND GUTTER DETAILS XX FOR INFORMATION ON CURB TYPES.
[2] PLANTED AREA IS PREFERRED. ENGINEER MAY SUBSTITUTE STAMPED CONCRETE FOR PLANTED AREA IN L3 BASED ON SITE CONDITIONS, SUCH AS LARGE VEHICLE TRACKING IN INDUSTRIAL OR ARTERIAL CONTEXTS.

LEGEND:

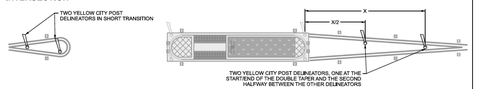
- LOW-MAINTENANCE PLANTED AREA [SEE NOTE 2]

NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	CONCRETE CROSSING ISLAND CROSS SECTIONS	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 434S *(DRAFT)* 3 OF 4

DELINEATORS IN ADVANCE OF ISLAND (OPTIONAL)

INTERSECTION



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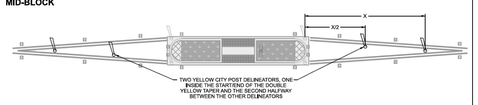
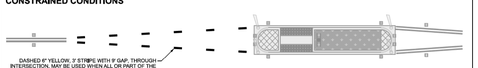


DASHED TRANSITION (OPTIONAL)

CONSTRAINED CONDITIONS



NOTES:

[1] POSITION ISLAND AND SET DIMENSIONS IN ACCORDANCE WITH TCM GUIDANCE, AND TO MAINTAIN DRIVEWAY ACCESS AS NEEDED.
[2] DO NOT REMOVE TRAFFIC CONTROL UNTIL NOSES ARE PAINTED AND DELINEATORS ARE INSTALLED.
[3] SEE CONCRETE CURB AND GUTTER DETAILS XX FOR INFORMATION ON CURB TYPES.
[4] CENTERLINE TRANSITIONS SHOULD BEGIN AT LEAST 20' IN ADVANCE OF INTERSECTIONS AND IDEALLY BE ACCOMMODATED OUTSIDE INTERSECTIONS. THEIR LENGTH WILL VARY DEPENDING ON FACTORS SUCH AS DESIGN SPEEDS, LANE ASSIGNMENT AND ALIGNMENTS.
[5] PLANTED AREA IS PREFERRED. ENGINEER MAY SUBSTITUTE STAMPED CONCRETE FOR PLANTED AREA IN L3 BASED ON SITE CONDITIONS, SUCH AS LARGE VEHICLE TRACKING IN INDUSTRIAL OR ARTERIAL CONTEXTS.
[6] STAMPED CONCRETE TO USE "CUT STONE COBBLE" STAMP PATTERN AT 0.5" - 1" IMPRESSION DEPTH (PAVERS OPTIONAL).

LEGEND:

- STAMPED CONCRETE [SEE NOTE 6]
- LOW-MAINTENANCE PLANTED AREA [SEE NOTE 5]
- RAISED PAVEMENT MARKER (RPM)
- CITY POST
- DETECTABLE WARNING SURFACE (DWS)

NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	CONCRETE CROSSING ISLAND OPTIONAL TREATMENTS	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 434S *(DRAFT)* 4 OF 4

TRENCH REPAIR IN ASPHALTIC SURFACE OVER FLEXIBLE BASE
(UCM SECTION 5.8.0)

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	FLEXIBLE BASE WITH ASPHALT SURFACE TRENCH REPAIR-EXISTING PAVEMENT	
ADOPTED 1/4/11	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-2 1 OF 2

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/26/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
STANDARD DETAIL 5 OF 9

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314.361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
CHECKED MB
REVISED
FILE NAME CV-TRT-DT- ROAD.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 80
SEQ. 80 OF 143

MicroStation V8 User: 03926Office: On Site
AU314.361 - N:\IF\Drawings\Phase 3\CV-TRT-DT- ROAD.SHT
Plot Date: Aug. 25, 2026 - 04:46:12 PM
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Project: Freese and Nichols, Inc.

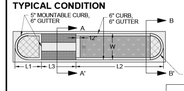
Office: On Site AU314.361 Date: Aug. 25, 2026 - 04:46:12 PM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-DT- ROAD.SHT

NOTES:
1. THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE, A MINIMUM OF 12" (300 mm) WIDER THAN UNDISTURBED SIDES OF THE TRENCH AND SYMMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION.
2. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX AC OR TEMPORARY HMAC. TEMPORARY MIX SHALL BE PLACED OVER FLEXIBLE BASE.
3. ROAD BASE SHALL BE REPLACED IN KIND WITH BASE THICKNESS EQUAL TO EXISTING BASE THICKNESS PLUS 3" (75 mm), BUT IN NO CASE LESS THAN 12" (300 mm).
4. DAMAGED PAVEMENT OUTSIDE THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH A BASE THICKNESS OF 10" (250 mm) OR A THICKNESS MATCHING EXISTING, WHICHEVER IS GREATER.
5. REPLACEMENT AC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION.
   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
   b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS.
   SEE ITEM 340S, SECTION 340S.4.
6. CLASS "J" PC CONCRETE (ITEM 403S) OR CONTROLLED LOW STRENGTH MATERIAL (CLSM) MAY BE SUBSTITUTED IN THESE REPAIRS FOR THE FLEXIBLE BASE AND COMPACTED BACKFILL. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
7. TACK COAT ALL EXPOSED EDGES AND SURFACES (SPEC ITEM 307S).
8. AS PER CITY OF AUSTIN STANDARD SPECIFICATION 510, SECTION 510.2(8)(K)5, FOR ALL NON-METALLIC PIPE, DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND A MINIMUM OF 12" (300 mm) BELOW THE SUBGRADE, OR A MINIMUM OF 18" (450 mm) BELOW FINISHED GRADE ON AREAS OUTSIDE THE LIMITS OF PAVEMENT, SHALL BE PLACED INDUCTIVE TRACER TAPE IN ACCORDANCE WITH THE MANUFACTURER'S RE-QUIREMENTS. THE TAPE SHALL BE ENCASED IN A PROTECTIVE, INERT, PLASTIC JACKET AND COLOR CODED IN ACCORDANCE WITH APWA UNIFORM COLOR CODE.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	FLEXIBLE BASE WITH ASPHALT SURFACE TRENCH REPAIR-EXISTING PAVEMENT	
Kim Rueschhoff-Graves 1/4/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-2 2 OF 2

INTERSECTION ISLAND GEOMETRY

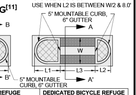
TYPICAL CONDITION



CROSSWALK & DEDICATED BIKE CROSSING[11]

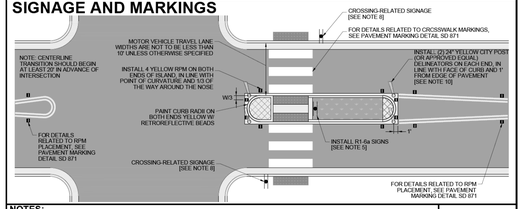


CONSTRAINED CONDITION
USE WHEN L2 IS BETWEEN W2 & 8.0'



	PEDESTRIAN REFUGE			SHARED-USE PATH REFUGE		DEDICATED BICYCLE REFUGE	
	NOSE LENGTH (L1)	TAIL LENGTH (L2)	REFUGE WIDTH (W)	REFUGE LENGTH (L3)	REFUGE WIDTH (W)	REFUGE LENGTH (L3)	REFUGE WIDTH (W)	REFUGE LENGTH (L4)
CONSTRAINED MINIMUM	W2	W2	4.0'	8.0'	6.0'	8.0'	6.0'	SEE NOTE 12
TYPICAL	6.0'	20.0'	6.0'	8.0'	8.0'	WIDER OF CROSSING WIDTH OR S.U.P. WIDTH	8.0'	MATCH BIKEWAY WIDTH
PREFERRED	8.0'	20.0'	8.0'+	8.0' LEVEL 1 STREETS 10.0' LEVEL 2, 3 AND 4 STREETS	10.0'+		10.0'+	

SIGNAGE AND MARKINGS



NOTES:
[1] POSITION ISLAND AND SET DIMENSIONS IN ACCORDANCE WITH TCM GUIDANCE, AND TO MAINTAIN DRIVEWAY ACCESS AS NEEDED.
[2] DO NOT REMOVE TEMPORARY TRAFFIC CONTROL UNTIL NOSES ARE PAINTED AND DELINEATORS ARE INSTALLED.
[3] CENTERLINE TRANSITIONS SHOULD BEGIN AT LEAST 20' IN ADVANCE OF INTERSECTIONS AND IDEALLY BE ACCOMMODATED OUTSIDE INTERSECTIONS. THEIR LENGTH WILL VARY DEPENDING ON FACTORS SUCH AS DESIGN SPEEDS, LANE ASSIGNMENT AND ALIGNMENTS. DESIGN SPEED SHALL BE POSTED SPEED LIMIT UNLESS DIRECTED OTHERWISE BY CITY TRAFFIC ENGINEER. SEE SHEET 4 FOR OPTIONS TO ACCOMMODATE TRANSITIONS THROUGH THE INTERSECTION FOR CONSTRAINED CONDITIONS.
[4] PLANTED AREA IS PREFERRED FOR AREAS LARGER THAN 80 SF. AREAS LESS THAN 80 SF SHALL BE STAMPED CONCRETE. ENGINEER MAY SUBSTITUTE STAMPED CONCRETE FOR PLANTED AREA IN L2 BASED ON SITE CONDITIONS, SUCH AS LARGE VEHICLE TRACKING IN INDUSTRIAL OR ARTERIAL CONTEXTS. USE MOUNTABLE CURB WHERE VEHICLE TRACKING IS EXPECTED.
[5] INSTALL POST-MOUNTED R1-6a SIGNS (DOUBLE-SIDED). OMIT AT SIGNALIZED INTERSECTIONS AND CROSSINGS WITH PEDESTRIAN HYBRID BEACONS. INSTALL POST BEHIND CURB WITH BOTTOM OF SIGN INSTALLED 1' ABOVE TOP OF CURB. RELOCATE ANY R1-6a SIGNS THAT OVERLAP WITH DESIGN OR CONTROL VEHICLE SWEPT PATHS, INCLUDING THE FRONT OVERHANG AND / OR DEPLOYED FRONT BIKE RACK ON A CAPMETRO BUS. OMIT SUCH SIGNAGE IF RELOCATION OUT OF THE SWEPT PATH IS NOT FEASIBLE.
[6] SEE CONCRETE CURB AND GUTTER DETAIL SD 430-1 FOR INFORMATION ON CURB TYPES.
[7] STAMPED CONCRETE TO USE "CUT STONE COBBLE" STAMP PATTERN AT 0.5" - 1" IMPRESSION DEPTH (PAVERS OPTIONAL).
[8] FOR UNCONTROLLED CROSSINGS, INSTALL THE FOLLOWING SIGNS UPSTREAM OF THE CROSSING IN A LANDSCAPED BUFFER BEHIND CURB IF PRESENT, OTHERWISE PLACE BEHIND BACK OF SIDEWALK:
- W11-2/S1-1 AND W16-7P (DOUBLE-SIDED) FOR CROSSWALKS.
- W11-15 (DOUBLE-SIDED) FOR SHARED-USE PATH CROSSINGS.
- W11-1 (DOUBLE-SIDED) FOR BICYCLE-ONLY CROSSINGS.
- OMIT THE ABOVE SIGNAGE AT SIGNALIZED INTERSECTIONS AND PEDESTRIAN HYBRID BEACONS.
[9] RELOCATE ANY CITY POSTS THAT OVERLAP WITH DESIGN VEHICLE SWEPT PATHS, INCLUDING THE FRONT OVERHANG AND / OR DEPLOYED FRONT BIKE RACK ON A CAPMETRO BUS. OMIT SUCH POSTS AND / OR SIGNAGE IF RELOCATION OUT OF THE SWEPT PATH IS NOT FEASIBLE.
[10] CROSSING ISLANDS SHALL NOT BE USED ON ROADS WITH A POSTED SPEED LIMIT GREATER THAN 35-MPH OR ROADS WITH MORE THAN THREE LANES WITHOUT ADDITIONAL TRAFFIC CONTROL MEASURES (SUCH AS A PEDESTRIAN HYBRID BEACON) AND APPROVAL OF CITY TRAFFIC ENGINEER.
[11] FOR CROSSINGS THAT INCLUDE BIKES AND PEDESTRIANS, USE CROSSWALK & DEDICATED BIKE CROSSING DETAIL. IF SITE CONSTRAINTS DO NOT ALLOW FOR MINIMUM CONSTRAINED DIMENSIONS FOR L3 & L4, CONSTRUCT "TYPICAL *OR* CONSTRAINED CONDITION" ISLAND WITH 10' MIN. REFUGE LENGTH.
[12] 6.0' MIN. FOR ONE WAY BIKEWAY CROSSINGS, AND 8.0' MIN. FOR TWO WAY BIKEWAY CROSSINGS.

LEGEND:
- STAMPED CONCRETE [SEE NOTE 7]
- LOW-MAINTENANCE PLANTED AREA [SEE NOTE 4]
- RAISED PAVEMENT MARKER (RPM)
- CITY POST
- DETECTABLE WARNING SURFACE

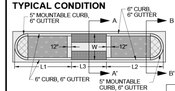
NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION & PUBLIC WORKS	CONCRETE CROSSING ISLAND INTERSECTION	
	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. SD 434-1 1 OF 4

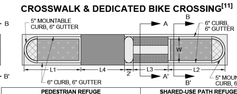
2026-05-27

MID-BLOCK ISLAND GEOMETRY

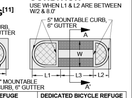
TYPICAL CONDITION



CROSSWALK & DEDICATED BIKE CROSSING[11]

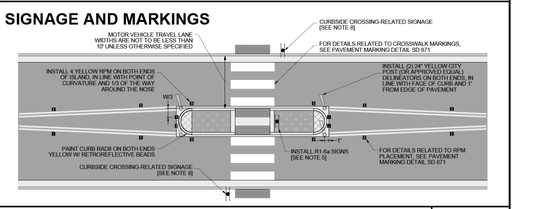


CONSTRAINED CONDITION
USE WHEN L1 & L2 ARE BETWEEN W2 & 8.0'



	PEDESTRIAN REFUGE			SHARED-USE PATH REFUGE		DEDICATED BICYCLE REFUGE	
	LENGTH (L1)	LENGTH (L2)	REFUGE WIDTH (W)	REFUGE LENGTH (L3)	REFUGE WIDTH (W)	REFUGE LENGTH (L3)	REFUGE WIDTH (W)	REFUGE LENGTH (L4)
CONSTRAINED MINIMUM	W2	W2	4.0'	8.0'	6.0'	8.0'	6.0'	SEE NOTE 12
TYPICAL	20.0'	20.0'	6.0'	8.0'	8.0'	WIDER OF CROSSING WIDTH OR S.U.P. WIDTH	8.0'	MATCH BIKEWAY WIDTH
PREFERRED	20.0'	20.0'	8.0'+	8.0' LEVEL 1 STREETS 10.0' LEVEL 2, 3 AND 4 STREETS	10.0'+		10.0'+	

SIGNAGE AND MARKINGS



NOTES:
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[2] DO NOT REMOVE TEMPORARY TRAFFIC CONTROL UNTIL NOSES ARE PAINTED AND DELINEATORS ARE INSTALLED.
[3] CENTERLINE TRANSITIONS SHOULD BEGIN AT LEAST 20' IN ADVANCE OF INTERSECTIONS AND IDEALLY BE ACCOMMODATED OUTSIDE INTERSECTIONS. THEIR LENGTH WILL VARY DEPENDING ON FACTORS SUCH AS DESIGN SPEEDS, LANE ASSIGNMENT AND ALIGNMENTS. DESIGN SPEED SHALL BE POSTED SPEED LIMIT UNLESS DIRECTED OTHERWISE BY CITY TRAFFIC ENGINEER. SEE SHEET 4 FOR OPTIONS TO ACCOMMODATE TRANSITIONS THROUGH THE INTERSECTION FOR CONSTRAINED CONDITIONS.
[4] PLANTED AREA IS PREFERRED FOR AREAS LARGER THAN 80 SF. AREAS LESS THAN 80 SF SHALL BE STAMPED CONCRETE. ENGINEER MAY SUBSTITUTE STAMPED CONCRETE FOR PLANTED AREA IN L2 BASED ON SITE CONDITIONS, SUCH AS LARGE VEHICLE TRACKING IN INDUSTRIAL OR ARTERIAL CONTEXTS. USE MOUNTABLE CURB WHERE VEHICLE TRACKING IS EXPECTED.
[5] INSTALL POST-MOUNTED R1-6a SIGNS (DOUBLE-SIDED). OMIT AT SIGNALIZED CROSSINGS AND CROSSINGS WITH PEDESTRIAN HYBRID BEACONS. INSTALL POST BEHIND CURB WITH BOTTOM OF SIGN INSTALLED 1' ABOVE TOP OF CURB. RELOCATE ANY R1-6a SIGNS THAT OVERLAP WITH DESIGN OR CONTROL VEHICLE SWEPT PATHS, INCLUDING THE FRONT OVERHANG AND / OR DEPLOYED FRONT BIKE RACK ON A CAPMETRO BUS. OMIT SUCH SIGNAGE IF RELOCATION OUT OF THE SWEPT PATH IS NOT FEASIBLE.
[6] SEE CONCRETE CURB AND GUTTER DETAIL SD 430-1 FOR INFORMATION ON CURB TYPES.
[7] STAMPED CONCRETE TO USE "CUT STONE COBBLE" STAMP PATTERN AT 0.5" - 1" IMPRESSION DEPTH (PAVERS OPTIONAL).
[8] FOR UNCONTROLLED CROSSINGS, INSTALL THE FOLLOWING SIGNS UPSTREAM OF THE CROSSING IN A LANDSCAPED BUFFER BEHIND CURB IF PRESENT, OTHERWISE PLACE BEHIND BACK OF SIDEWALK:
- W11-2/S1-1 AND W16-7P (DOUBLE-SIDED) FOR CROSSWALKS.
- W11-15 (DOUBLE-SIDED) FOR SHARED-USE PATH CROSSINGS.
- W11-1 (DOUBLE-SIDED) FOR BICYCLE-ONLY CROSSINGS.
- OMIT THE ABOVE SIGNAGE AT SIGNALIZED INTERSECTIONS AND PEDESTRIAN HYBRID BEACONS.
[9] RELOCATE ANY CITY POSTS THAT OVERLAP WITH DESIGN VEHICLE SWEPT PATHS, INCLUDING THE FRONT OVERHANG AND / OR DEPLOYED FRONT BIKE RACK ON A CAPMETRO BUS, OMIT SUCH POSTS AND / OR SIGNAGE IF RELOCATION OUT OF THE SWEPT PATH IS NOT FEASIBLE.
[10] CROSSING ISLANDS SHALL NOT BE USED ON ROADS WITH A POSTED SPEED LIMIT GREATER THAN 35-MPH OR ROADS WITH MORE THAN THREE LANES WITHOUT ADDITIONAL TRAFFIC CONTROL MEASURES (SUCH AS A PEDESTRIAN HYBRID BEACON) AND APPROVAL OF CITY TRAFFIC ENGINEER.
[11] FOR CROSSINGS THAT INCLUDE BIKES AND PEDESTRIANS, USE CROSSWALK & DEDICATED BIKE CROSSING DETAIL. IF SITE CONSTRAINTS DO NOT ALLOW FOR MIN. CONSTRAINED DIMENSIONS FOR L3 & L4, CONSTRUCT "TYPICAL *OR* CONSTRAINED CONDITION" ISLAND WITH 10' MIN. REFUGE LENGTH.
[12] 6.0' MIN. FOR ONE WAY BIKEWAY CROSSINGS, AND 8.0' MIN. FOR TWO WAY BIKEWAY CROSSINGS.

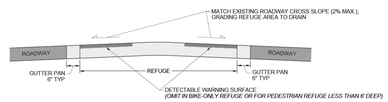
LEGEND:
- STAMPED CONCRETE [SEE NOTE 7]
- LOW-MAINTENANCE PLANTED AREA [SEE NOTE 4]
- RAISED PAVEMENT MARKER (RPM)
- CITY POST
- DETECTABLE WARNING SURFACE

NOT TO SCALE

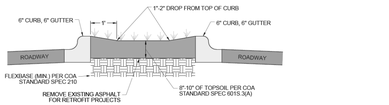
CITY OF AUSTIN AUSTIN TRANSPORTATION & PUBLIC WORKS	CONCRETE CROSSING ISLAND MID-BLOCK	
	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. SD 434-1 2 OF 4

2026-05-27

CROSS SECTION A-A'



CROSS SECTION B-B'



NOTES:
[1] SEE CONCRETE CURB AND GUTTER DETAIL SD 430-1 FOR INFORMATION ON CURB TYPES.
[2] PLANTED AREA IS PREFERRED FOR AREAS LARGER THAN 80 SF. AREAS LESS THAN 80 SF SHALL BE STAMPED CONCRETE. ENGINEER MAY SUBSTITUTE STAMPED CONCRETE FOR PLANTED AREA IN L2 BASED ON SITE CONDITIONS, SUCH AS LARGE VEHICLE TRACKING IN INDUSTRIAL OR ARTERIAL CONTEXTS.

LEGEND:
- LOW MAINTENANCE PLANTED AREA [SEE NOTE 2]

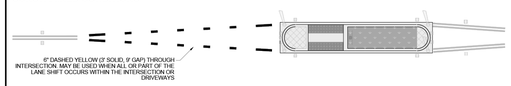
NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION & PUBLIC WORKS	CONCRETE CROSSING ISLAND CROSS SECTIONS	
	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. SD 434-1 3 OF 4

2026-05-27

DASHED TRANSITION (OPTIONAL)

CONSTRAINED CONDITIONS



NOTES:
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[6] STAMPED CONCRETE TO USE "CUT STONE COBBLE" STAMP PATTERN AT 0.5" - 1" IMPRESSION DEPTH (PAVERS OPTIONAL).

LEGEND:
- STAMPED CONCRETE [SEE NOTE 6]
- LOW-MAINTENANCE PLANTED AREA [SEE NOTE 5]
- RAISED PAVEMENT MARKER (RPM)
- CITY POST
- DETECTABLE WARNING SURFACE

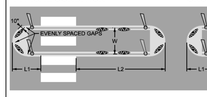
NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION & PUBLIC WORKS	CONCRETE CROSSING ISLAND OPTIONAL TREATMENTS	
	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. SD 434-1 4 OF 4

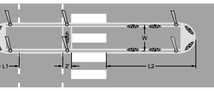
2026-05-27

ISLAND CONFIGURATION OPTIONS

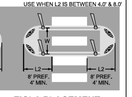
TYPICAL CONDITION



CROSSWALK & DEDICATED BIKE CROSSING

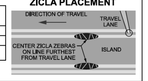


CONSTRAINED CONDITION
USE WHEN L2 IS BETWEEN 4.0' & 8.0'

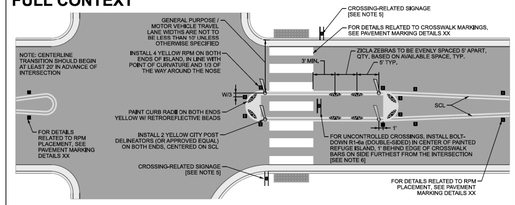


	NOSE LENGTH (L1)	TAIL LENGTH (L2)	PEDESTRIAN REFUGE WIDTH (W)	SHARED-USE PATH REFUGE WIDTH (W)	DEDICATED BICYCLE REFUGE WIDTH (W)
CONSTRAINED MINIMUM	4.0'	4.0'	4.0'	6.0'	6.0'
TYPICAL	6.0'	20.0'	6.0'	8.0'	8.0'
PREFERRED	8.0'	20.0'	8.0'+	10.0'+	10.0'+

ZICLA PLACEMENT



FULL CONTEXT



NOTES:
[1] POSITION ISLAND AND SET DIMENSIONS IN ACCORDANCE WITH TCM GUIDANCE, AND TO MAINTAIN DRIVEWAY ACCESS AS NEEDED.
[2] INSTALL CITY POSTS BEFORE REMOVING TRAFFIC CONTROL, AND BEFORE CREWS LEAVE THE SITE.
[3] CENTERLINE TRANSITIONS SHOULD BEGIN AT LEAST 20' IN ADVANCE OF INTERSECTIONS AND IDEALLY BE ACCOMMODATED OUTSIDE INTERSECTIONS. THEIR LENGTH WILL VARY DEPENDING ON FACTORS SUCH AS DESIGN SPEEDS, LANE ASSIGNMENT AND ALIGNMENTS. SEE SHEET 3 FOR OPTIONS TO ACCOMMODATE TRANSITIONS THROUGH THE INTERSECTION FOR CONSTRAINED CONDITIONS.
[4] OMIT R1-6a, W11-2, S1-1, AND W16-7P SIGNS AT SIGNALIZED INTERSECTIONS.
[5] FOR UNCONTROLLED CROSSINGS, INSTALL THE FOLLOWING UPSTREAM OF THE CROSSING IN A LANDSCAPED BUFFER BEHIND CURB IF PRESENT. OTHERWISE PLACE BEHIND BACK OF SIDEWALK:
- W11-2/S1-1 AND W16-7P (DOUBLE-SIDED) FOR CROSSWALKS.
- W11-15 (DOUBLE-SIDED) FOR SHARED-USE PATH CROSSINGS.
- W11-1 (DOUBLE-SIDED) FOR BICYCLE-ONLY CROSSINGS.
[6] RELOCATE ANY R1-6a SIGNS THAT OVERLAP WITH DESIGN OR CONTROL VEHICLE SWEPT PATHS, INCLUDING THE FRONT OVERHANG AND / OR DEPLOYED FRONT BIKE RACK ON A CAPMETRO BUS, OMIT SUCH SIGNAGE IF RELOCATION OUT OF THE SWEPT PATH IS NOT FEASIBLE.
[7] RELOCATE ANY CITY POSTS THAT OVERLAP WITH DESIGN VEHICLE SWEPT PATHS, INCLUDING THE FRONT OVERHANG AND / OR DEPLOYED FRONT BIKE RACK ON A CAPMETRO BUS, OMIT SUCH POSTS AND / OR SIGNAGE IF RELOCATION OUT OF THE SWEPT PATH IS NOT FEASIBLE.

LEGEND:
- RAISED PAVEMENT MARKER (RPM)
- CITY POST
- ZICLA ZEBRA 13 (BLACK AND YELLOW)
- DETECTABLE WARNING SURFACE (DWS)

NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	QUICK-BUILD CROSSING ISLAND INTERSECTION	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 875S *(DRAFT)* 1 OF 5

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144
STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
Heather McNeal
08/26/2026
FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
STANDARD DETAIL 6 OF 9

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-DT- ROAD.SHT

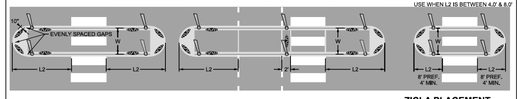
VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 81
SEQ. 81 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-DT- ROAD.SHT
Plot Scale: 1.0000 ' / in. Model: Default
Date: Aug. 25, 2026 - 04:46:16 PM Project: Freese and Nichols, Inc.

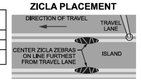
ISLAND CONFIGURATION OPTIONS

TYPICAL CONDITION | **CROSSWALK & DEDICATED BIKE CROSSING** | **CONSTRAINED CONDITION** (USE W/ERN L2 IS BETWEEN 4.0' & 8.0')

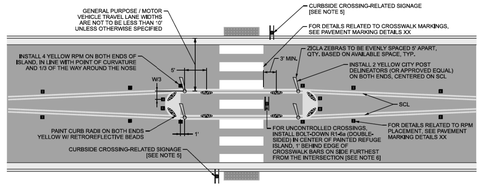


	NOSE LENGTH (L1)	TAIL LENGTH (L2)	PEDESTRIAN REFUGE WIDTH (W)	SHARED-USE PATH REFUGE WIDTH (W)	DEDICATED BICYCLE REFUGE WIDTH (W)
CONSTRAINED MINIMUM	N/A	4.0'	4.0'	6.0'	6.0'
TYPICAL	N/A	20.0'	6.0'	8.0'	8.0'
PREFERRED	N/A	20.0'	8.0'+	10.0'+	10.0'+

ZICLA PLACEMENT



FULL CONTEXT



NOTES:

[1] POSITION ISLAND AND SET DIMENSIONS IN ACCORDANCE WITH TCM GUIDANCE, AND TO MAINTAIN DRIVEWAY ACCESS AS NEEDED.
[2] INSTALL CITY POSTS BEFORE REMOVING TRAFFIC CONTROL AND BEFORE CREWS LEAVE THE SITE.
[3] CENTERLINE TRANSITIONS SHOULD BEGIN AT LEAST 20' IN ADVANCE OF INTERSECTIONS AND IDEALLY BE ACCOMMODATED OUTSIDE INTERSECTIONS. THEIR LENGTH WILL VARY DEPENDING ON FACTORS SUCH AS DESIGN SPEEDS, LANE ASSIGNMENT AND ALIGNMENTS. SEE SHEET 3 FOR OPTIONS TO ACCOMMODATE TRANSITIONS THROUGH THE INTERSECTION FOR CONSTRAINED CONDITIONS.
[4] OMIT R14a, W11-2, S1-1, AND W16-7P SIGNS AT SIGNALIZED INTERSECTIONS.
[5] FOR UNCONTROLLED CROSSINGS, INSTALL THE FOLLOWING UPSTREAM OF THE CROSSING IN A LANDSCAPED BUFFER BEHIND CURB IF PRESENT, OTHERWISE PLACE BEHIND BACK OF SIDEWALK:
- W11-2/S1-1 AND W16-7P (DOUBLE-SIDED) FOR CROSSWALKS,
- W11-15 (DOUBLE-SIDED) FOR SHARED-USE PATH CROSSINGS,
- W11-1 (DOUBLE-SIDED) FOR BICYCLE-ONLY CROSSINGS.

[6] RELOCATE ANY R14a SIGNS THAT OVERLAP WITH DESIGN OR CONTROL VEHICLE SWEPT PATHS, INCLUDING THE FRONT OVERHANG AND / OR DEPLOYED FRONT BIKE RACK ON A CAPMETRO BUS, OMIT SUCH SIGNAGE IF RELOCATION OUT OF THE SWEPT PATH IS NOT FEASIBLE.
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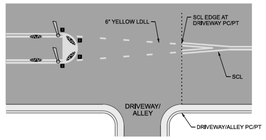
LEGEND:

- RAISED PAVEMENT MARKER (RPM)
- CITY POST
- ZICLA ZEBRA 13 (BLACK AND YELLOW)
- DETECTABLE WARNING SURFACE (DWS)

NOT TO SCALE

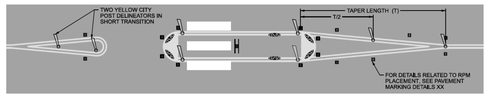
CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	QUICK-BUILD CROSSING ISLAND MID-BLOCK	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 875S *(DRAFT)* 2 OF 5

THROUGH DRIVEWAYS AND ALLEYS



DELINEATORS IN ADVANCE OF ISLAND (OPTIONAL)

INTERSECTION



MID-BLOCK



DASHED TRANSITION (OPTIONAL)

CONSTRAINED CONDITIONS



NOTES:

[1] POSITION ISLAND AND SET DIMENSIONS IN ACCORDANCE WITH TCM GUIDANCE, AND TO MAINTAIN DRIVEWAY ACCESS AS NEEDED.
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LEGEND:

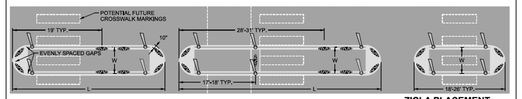
- RAISED PAVEMENT MARKER (RPM)
- CITY POST
- ZICLA ZEBRA 13 (BLACK AND YELLOW)

NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	QUICK-BUILD ISLAND TRANSITIONS	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 875S *(DRAFT)* 3 OF 5

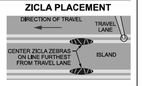
ISLAND CONFIGURATION OPTIONS

TYPICAL CONDITION | **CROSSWALK & DEDICATED BIKE CROSSING** | **CONSTRAINED CONDITION**

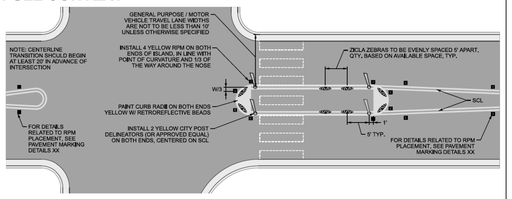


	ISLAND LENGTH (L)	PEDESTRIAN REFUGE WIDTH (W)	SHARED-USE PATH REFUGE WIDTH (W)	DEDICATED BICYCLE REFUGE WIDTH (W)
CONSTRAINED MINIMUM	20.0'	4.0'	6.0'	6.0'
TYPICAL	45.0'	6.0'	8.0'	8.0'
PREFERRED	35.0'	8.0'+	10.0'+	10.0'+

ZICLA PLACEMENT



FULL CONTEXT



NOTES:

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LEGEND:

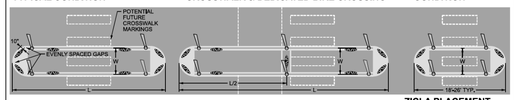
- RAISED PAVEMENT MARKER (RPM)
- CITY POST
- ZICLA ZEBRA 13 (BLACK AND YELLOW)

NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	QUICK-BUILD ISLAND WITHOUT CROSSING INTERSECTION	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 875S *(DRAFT)* 4 OF 5

ISLAND CONFIGURATION OPTIONS

TYPICAL CONDITION | **CROSSWALK & DEDICATED BIKE CROSSING** | **CONSTRAINED CONDITION**



	ISLAND LENGTH (L)	PEDESTRIAN REFUGE WIDTH (W)	SHARED-USE PATH REFUGE WIDTH (W)	DEDICATED BICYCLE REFUGE WIDTH (W)
CONSTRAINED MINIMUM	20.0'	4.0'	6.0'	6.0'
TYPICAL	35.0'	6.0'	8.0'	8.0'
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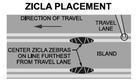
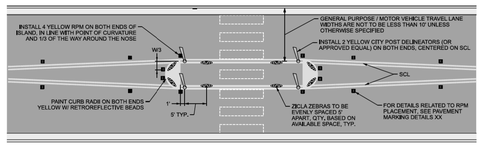
ZICLA PLACEMENT



FULL CONTEXT



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LEGEND:

- RAISED PAVEMENT MARKER (RPM)
- CITY POST
- ZICLA ZEBRA 13 (BLACK AND YELLOW)

NOT TO SCALE

CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT	QUICK-BUILD ISLAND WITHOUT CROSSING MID-BLOCK	
DRAFT FOR USE ON PROJECTS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 875S *(DRAFT)* 5 OF 5

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/26/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL

STANDARD DETAIL 7 OF 9

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
CHECKED MB
REVISED

NO.	ISSUES	BY	DATE

FILE NAME CV-TRT-DT- ROAD.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 82
SEQ. 82 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-DT- ROAD.SHT
Plot Scale: 1.0000 ' / in. Plot Date: 25 Aug 2026 - 04:46:19 PM Model: Default
Project Freese and Nichols Inc.

DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

OBJECT MARKER - BID ITEM DESCRIPTIONS

XXXXX OM ASSM(OM-XX)(XXXX)XXXXX(XX)

PAYMENT
- INSTL = Installation
- REPLC = Replacement

TYPE OF OBJECT MARKER
- 1, 2, 3, or 4

NUMBER OF REFLECTORS OR DIRECTION
- X = 3-Size 2 reflector units (Type 2 only)
- Y = 1-Size 3 reflector unit (Type 2 only)
- Z = 3-Size 1 or 1-Size 4 reflector unit(s)(Type 2 only)
- L = Left Side (Type 3 Object Marker only)
- R = Right Side (Type 3 Object Marker only)
- C = Center (Type 3 Object Marker only)

TYPE OF POST
- WC = Wing Channel Post
- WFLX = White Flexible Post
- YFLX = Yellow Flexible Post
- TWT = Thin Walled Tubing

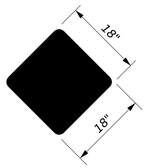
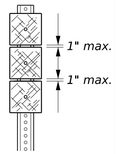
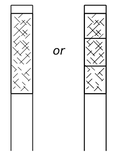
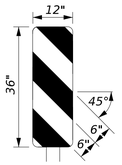
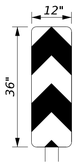
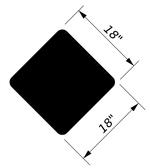
TYPE OF MOUNT
- GND = Ground Embedded (drivable or set in concrete)
- SRF = Surface Mount
- WAS = Wedge Anchor Steel
- WAP = Wedge Anchor Plastic

IDENTIFICATION
- LL = Low Speed, Low Impact
- HH = High Speed, High Impact

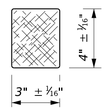
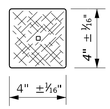
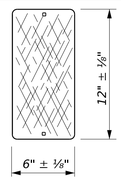
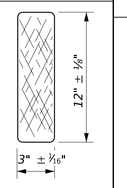
DIRECTION [if required]
- BI = Bi-Directional

OBJECT MARKER DEFINITION

Devices used to mark obstructions within or adjacent to the roadway. (See TMUTCD - Chapter 2C, WARNING SIGNS AND OBJECT MARKERS.)

	Type 1 (OM-1)	Type 2 (OM-2)			Type 3 (OM-3)			Type 4 (OM-4)
	OM-1	OM-2X	OM-2Y	OM-2Z	OM-3L	OM-3R	OM-3C	OM-4
DEVICE		 3-Size 2 reflector units	 1-Size 3 reflector unit	 1-Size 4 reflector unit or 3-Size 1 reflector units				
SHEETING	Yellow - Type B_{FL} or C_{FL} sheeting	White and Yellow - Type B or C sheeting			Alternating Acrylic Black and Retroflective Yellow - Type B_{FL} or C_{FL} sheeting			Red - Type B_{FL} or C_{FL} sheeting
POST TYPE	TWT	WC	WC	WFLX, YFLX	TWT, WFLX			TWT
MOUNT TYPE	WAS, WAP	GNDLL	GNDLL	GNDLL, GNDHH, SRFLL, SRFHH	WAS, WAP, GNDLL, GNDHH, SRFLL, SRFHH			WAS, WAP

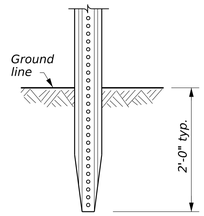
REFLECTOR UNIT DIMENSIONS FOR OBJECT MARKERS

	SIZE 1	SIZE 2	SIZE 3	SIZE 4
DEVICE				
NOTE	1. Size 1 and 4 - Direct applied reflective sheeting for use on flexible post (flx). 2. Size 2 and 3 - For use on wing channel (wc) post only. Use approved metal, plastic, or fiberglass backplate with 17/64" mounting holes.			

POST TYPE AND SUPPORT FOUNDATION DETAILS

WING CHANNEL (WC)

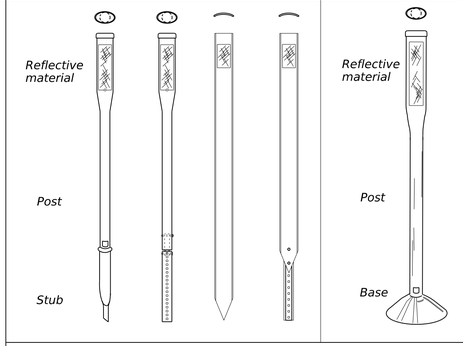
GND



NOTES
1. Embedded Wing Channel (WC) post option may be used for Type 2 object markers and delineators only.
2. 1.12 lbs/ft steel per ASTM A 1011 SS Gr. 50, or ASTM A499.

FLEXIBLE POSTS (YFLX, WFLX)

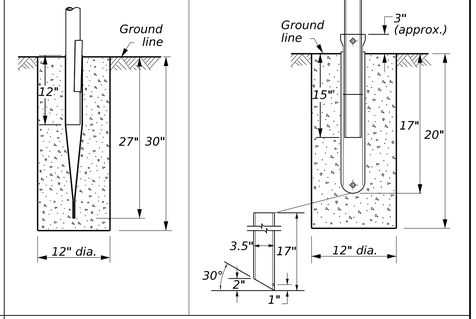
GND | SRF



NOTES
1. See "Flexible Delineator and Object Marker Posts" Material Producer List for approved devices.
2. Install per manufacturer's recommendations.
3. Post length may vary to meet field conditions.

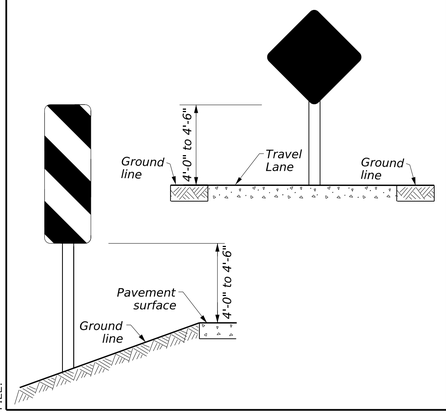
WEDGE ANCHOR SYSTEMS

WAS | WAP

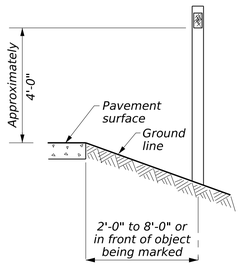


NOTE
1. Install per manufacturer's recommendations.

TYPES 1, 3, AND 4 OBJECT MARKERS TYPICAL INSTALLATION



TYPE 2 OBJECT MARKERS TYPICAL INSTALLATION



See General Notes 1, 2, and 3

GENERAL NOTES
1. Where a restriction prevents consistent placement from the pavement edge, place the affected object markers in line with the innermost edge of the obstruction.
2. When Type 2 object markers are more than 8'-0" from the edge of the pavement, it may not be possible to maintain a height of approximately 4'-0". If this is the case, place the object marker as close to the recommended height as possible.
3. Install all object markers in accordance with the manufacturer's recommendation.
4. Diagonal stripes on Type 3 object markers shall slope down toward the intended travel lane.
5. Object marker substrates shall be 0.080" aluminum sign blank and conform to ASTM B-209 Alloy 6061-T6 or an approved alternative.

DEPARTMENTAL MATERIAL SPECIFICATIONS	
FLEXIBLE DELINEATOR & OBJECT MARKER POSTS (EMBEDDED & SURFACE MOUNT TYPES)	DMS-4400
SIGN FACE MATERIALS	DMS-8300
DELINEATORS, OBJECT MARKERS AND BARRIER REFLECTORS	DMS-8600

Texas Department of Transportation

Traffic Safety Division Standard

OBJECT MARKER MATERIAL DESCRIPTION & INSTALLATION

D & OM(2)-25

FILE: dom2-25.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT May 2025	CONT	SECT	JOB	HIGHWAY
REVISIONS 8-04 5-25 3-15 7-20	DIST	COUNTY		SHEET NO.

20B

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144
STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/26/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
STANDARD DETAIL 8 OF 9

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-DT- ROAD.SHT

NO. ISSUES | BY | DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 83
SEQ. 83 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 File:\\F\Drawings\Phase 3\CV-TRT-DT- ROAD.SHT
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Date: Aug 25, 2026 - 04:46:20 PM Project: Freese and Nichols, Inc.

Office: On Site AU314361 Date: Aug. 25, 2026 - 04:46:20 PM User: 03926File: N:\F\Drawings\Phase 3\CV-TRT-DT- ROAD.SHT

DISCLAIMER:
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DELINEATOR - BID ITEM DESCRIPTIONS

XXXXX DEL ASSM(D-XX)SZ X (XXXX)XXXXX(XX)

PAYMENT
INSTL = Installation
REPLC = Replacement

NUMBER OF REFLECTORS
S = Single
D = Double

COLOR OF REFLECTORS
W = White
Y = Yellow
R = Red

REFLECTOR UNIT SIZE
SZ 1 or SZ 2 or SZ 5 or SZ 6

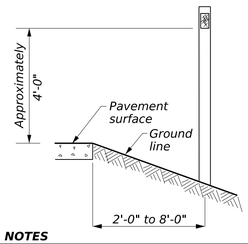
TYPE OF POST OR DELINEATOR
WC = Wing Channel Post
YFLX = Yellow Flexible Post
WFLX = White Flexible Post
BRF = Barrier Reflector

TYPE OF MOUNT
GND = Ground Embedded (drivable or set in concrete)
CAB1 or CAB2 or CAB3 = Cable Barrier
CTB = Concrete Traffic Barrier
GF1 or GF2 = Guard Fence
SRF = Surface Mount

IDENTIFICATION
LL= Low Speed, Low Impact
HH = High Speed, High Impact

DIRECTION [if required]
BI = Bi-Directional
BR = Bi-Directional with red on back

DELINEATOR - TYPICAL INSTALLATION



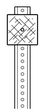
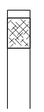
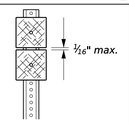
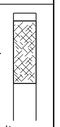
GENERAL NOTES

1. *Place delineators on a section of roadway at a consistent distance from the edge of pavement.*
2. *When delineators are more than 8'-0" from the edge of the pavement, it may not be possible to maintain a height of approximately 4'-0". If this is the case, place the delineator as close to the desired height as possible.*
3. *Install all delineators and barrier reflectors in accordance with the manufacturer's recommendation.*
4. *GF1, GF2, and CTB barrier reflectors should be installed a minimum of 18 inches above the edge of the pavement surface.*
5. *When using yellow delineators with flexible posts to separate opposing direction of travel, such as centerline or median use, the flexible posts shall be yellow.*
6. *Delineator substrates and sign substrates shall be 0.080" aluminum sign blank and confrom to ASTM B-209 Alloy 6061-T6 or an approved alternative.*

DELINEATOR DEFINITION

Retroreflective devices mounted on the roadway surface or at the side of the roadway in a series to indicate the alignment of the roadway, especially at night or in adverse weather. (See TMUTCD - Part 3, DELINEATORS.)

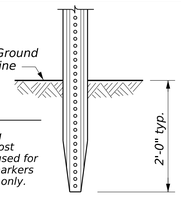
SINGLE AND DOUBLE MOUNTED DELINEATORS

	SINGLE		DOUBLE	
DEVICE	 1-Size 2 reflector unit	 1-Size 1 reflector unit	 2-Size 2 reflector units	 or 2-Size 1 reflector units or 1-Size 5 reflector unit
POST TYPE	WC	YFLX, WFLX	WC	YFLX, WFLX
MOUNT TYPE	GNDLL	GNDLL, GNDHH, SRFLL, SRFHH	GNDLL	GNDLL, GNDHH, SRFLL, SRFHH

POST TYPE AND SUPPORT FOUNDATION DETAILS

WING CHANNEL (WC)

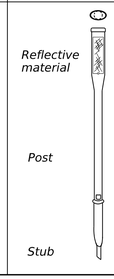
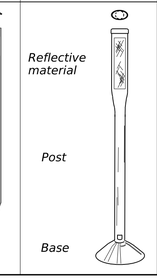
GND



NOTES

1. *Embedded Wing Channel (WC) post option may be used for Type 2 object markers and delineators only.*
2. *1.12 lbs/ft steel per ASTM A 1011 SS Gr.50, or ASTM A499.*

FLEXIBLE POSTS (YFLX, WFLX)

GND	SRF
	

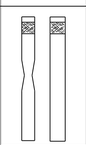
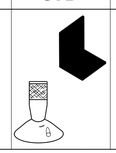
NOTES

1. *See "Flexible Delineator and Object Marker Posts" Material Producer List for approved devices.*
2. *Install per manufacturer's recommendations.*
3. *Post length may vary to meet field conditions.*

DEPARTMENTAL MATERIAL SPECIFICATIONS

FLEXIBLE DELINEATOR & OBJECT MARKER POSTS (EMBEDDED & SURFACE MOUNT TYPES)	*DMS-4400*
SIGN FACE MATERIALS	*DMS-8300*
DELINEATORS, OBJECT MARKERS AND BARRIER REFLECTORS	*DMS-8600*

BARRIER REFLECTORS (BRF)

	GF1	GF2	CTB	CAB1	CAB2	CAB3
DEVICE						

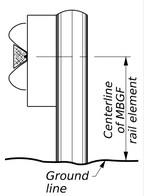
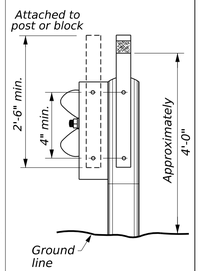
1. *Barrier reflectors shall meet the requirements of DMS-8600.*
2. *Approved barrier reflectors are listed on the "Barrier Reflectors" Material Producer List at: www.txdot.gov.*
3. *GF2 and CAB3 are coded as "YFLX" or "WFLX" instead of "BRF".*
4. *CAB1, CAB2, and CAB3 are only to be used as replacements. Per Item 543, original installation is to be considered subsidiary to the Cable Barrier System.*

SHEETING	Yellow, White, Red
NOTE	1. Reflective sheeting shall have a minimum dimension of 3 inches by 3 inches and minimum surface area of 9 square inches.

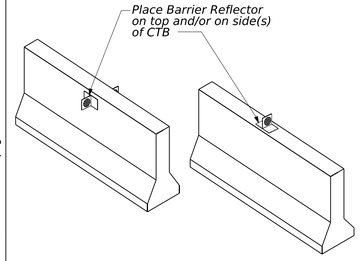
DATE:
FILE:

BARRIER MOUNT TYPES

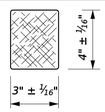
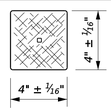
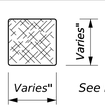
GUARD FENCE

GF1	GF2
	

CONCRETE TRAFFIC BARRIER (CTB)



REFLECTOR UNIT DIMENSIONS FOR DELINEATORS

	SIZE 1	SIZE 2	SIZE 5	SIZE 6
DEVICE				 See Note 3
SHEETING	Yellow, White, or Red Type B or C reflective sheeting			
NOTES	1. Size 1 and 5 - Direct applied reflective sheeting for use on flexible post (flx). 2. Size 2 - For use on wing channel (wc) post only. Use approved metal, plastic, or fiberglass backplate with 17/64" mounting holes. 3. Size 6 - For use on cable barrier systems only. Direct applied reflective sheeting. Various dimensions as specified elsewhere in the plans or as defined by the manufacturer.			

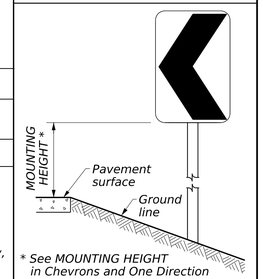
CHEVRONS

DEVICE				
	W1-8			
SIZE (W x L)	18"x 24" (Conventional)	24"x 30" (Conventional oversize)	30"x 36" (Expressway)	36" x 48" (Freeway)
MOUNTING HEIGHT	4'-0" to 4'-6" or 7'-0" to 7'-6"		7'-0" to 7'-6"	

ONE DIRECTION LARGE ARROW

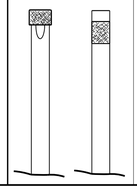
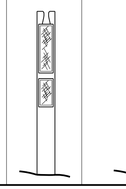
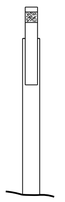
DEVICE		
	W1-6	
SIZE (W x L)	48"x 24" (Conventional)	60" x 30" (Expressway & Freeway)
MOUNTING HEIGHT	7'-0" to 7'-6"	
NOTES	1. Chevron Alignment (W1-8) signs and One-Direction Large Arrow (W1-6) signs shall be installed per Sign Mounting Details (SMD) Standard Sheets and paid under Item 644 (Small Roadside Sign Assemblies). 2. When there is a need to increase conspicuity, a larger One-Direction Large Arrow (W1-9T) sign may be used in lieu of the typical W1-6 sign.	

CHEVRONS AND ONE DIRECTION LARGE ARROW SIGNS TYPICAL INSTALLATION



* See MOUNTING HEIGHT in Chevrons and One Direction Large Arrow tables.

CABLE BARRIER

CAB1	CAB2	CAB3
		

Texas Department of Transportation — Traffic Safety Division Standard

DELINEATOR MATERIAL DESCRIPTION & INSTALLATION

D & OM(1)-25

FILE: dom1-25.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT May 2025	CONT	SECT	JOB	HIGHWAY
REVISIONS				
8-04 3-15	DIST	COUNTY		SHEET NO.
10-09 7-20				
4-10 5-25				

20A

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144
STATE OF TEXAS — HEATHER McNEAL — 114428 — LICENSED PROFESSIONAL ENGINEER
08/26/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
STANDARD DETAIL 9 OF 9

F&N JOB NO.	AU314361
DATE	08/17/2026
DESIGNED	BP
DRAWN	MIC
REVISED	
CHECKED	MB
FILE NAME	CV-TRT-DT- ROAD.SHT

BY | DATE | NO. | ISSUES

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 84
SEQ. 84 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\F\Drawings\Phase 3\CV-TRT-DT- ROAD.SHT
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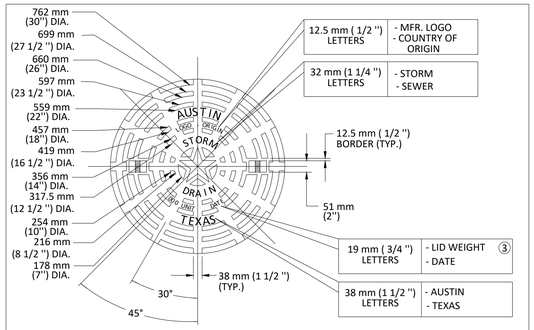
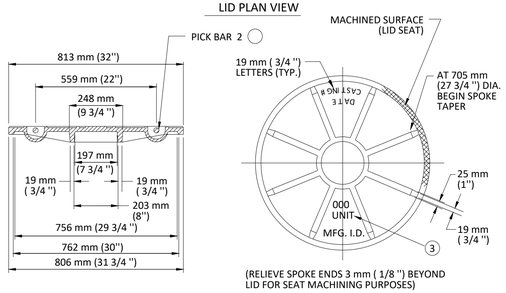
Plot Scale: 1.0000 '/ in. Project: Freese and Nichols, Inc.
Date: Aug. 25, 2026 - 04:46:20 PM



LID PLAN VIEW

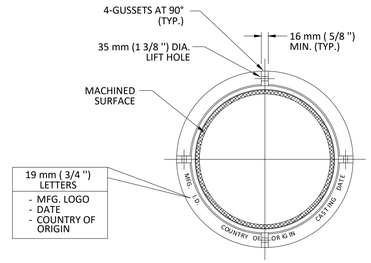


LID SECTION VIEW

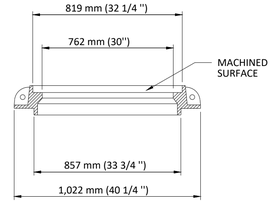
(RELIEVE SPOKE ENDS 3 mm (1/8 '') BEYOND LID FOR SEAT MACHINING PURPOSES)

LID SECTION VIEW

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		STORM DRAIN MANHOLE RING AND 813 mm (32'') COVER	
RECORD COPY SIGNED BY GEORGE E. OSWALD	2/14/02 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-4S 1 OF 3

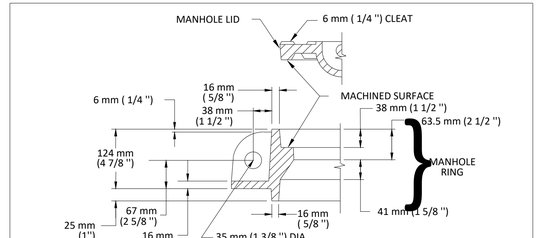


MANHOLE RING

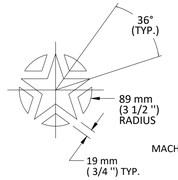


RING SECTION

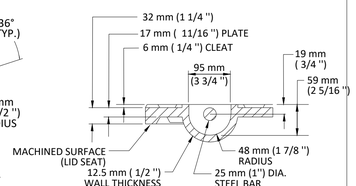
CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		STORM DRAIN MANHOLE RING AND 813 mm (32'') COVER	
RECORD COPY SIGNED BY GEORGE E. OSWALD	2/14/02 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-4S 2 OF 3



LIFT HOLE DETAIL



STAR LAYOUT

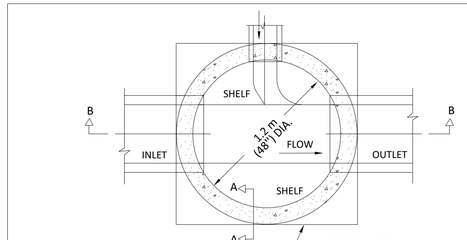


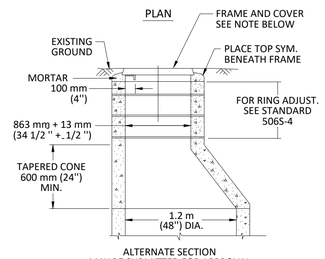
PICK BAR DETAIL

NOTES:

1. ALL CORNERS AND EDGES SHALL HAVE A 1.5 mm (1/16 '') MINIMUM RADIUS.
2. LIDS SHALL BE CAST WITH TWO 25 mm (1'') DIA. STEEL PICK BARS.
3. LID WEIGHTS SHALL BE 935 N (210 LBS.) FOR CAST IRON OR 779 N (175 LBS.) FOR DUCTILE IRON. WEIGHT SHALL BE CAST ON BOTH TOP AND BOTTOM OF LID.
4. MANUFACTURER SHALL PROVIDE INDEPENDENT TESTING LABORATORY REPORT ON 25,000 POUND PROOF LOAD TEST CONDUCTED ACCORDING TO AASHTO M-306.
5. FILLETS SHALL BE 6 mm (1/4 '') RADIUS UNLESS OTHERWISE SPECIFIED.
6. MANUFACTURER SHALL REMOVE EXCESS IRON AND MACHINE FINISH SEATING SURFACES TO NOTED DIMENSIONS.

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		STORM DRAIN MANHOLE RING AND 813 mm (32'') COVER	
RECORD COPY SIGNED BY GEORGE E. OSWALD	2/14/02 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-4S 3 OF 3





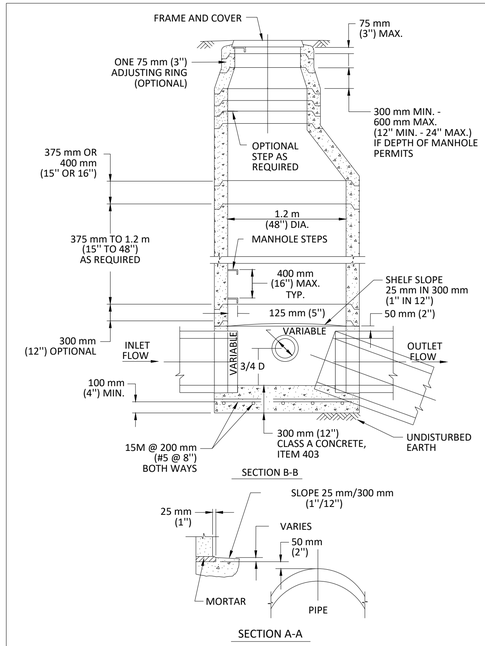
ALTERNATE SECTION
MAY BE SUBMITTED FOR APPROVAL

NOTE:
USE 800 mm (32'') FRAME AND COVER.

MINIMUM MANHOLE DIA.	MINIMUM PIPE SIZE
1.2 m (4')	450 TO 600 mm (18 TO 24'')
1.5 m (5')	750 mm TO 1.1 m (30 TO 42'')
1.8 m (6')	1.2 TO 1.4 m (48 TO 54'')
2.1 m (7')	1.5 TO 1.7 m (60 TO 66'')

SIZE TO BE USED IS DEPENDENT ON DRAIN ANGLES.

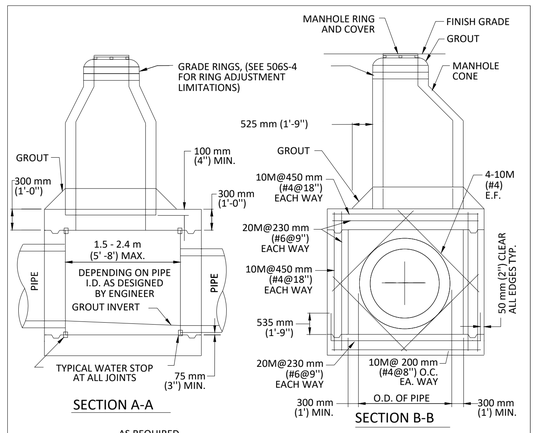
CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		PRE-CAST CONCRETE STORM DRAIN MANHOLE	
RECORD COPY SIGNED BY GEORGE E. OSWALD	2/14/02 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-3 1 OF 2



SECTION B-B

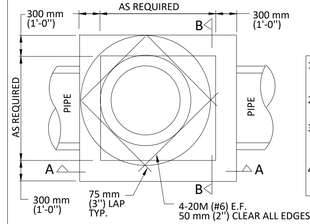
SECTION A-A

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		PRE-CAST CONCRETE STORM DRAIN MANHOLE	
RECORD COPY SIGNED BY GEORGE E. OSWALD	2/14/02 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-3 2 OF 2



SECTION A-A

SECTION B-B



1. BOX WALLS MUST BE FORMED INSIDE AND OUTSIDE WITH APPROVED MATERIALS.
2. USE CLASS "A" CONCRETE. SEE ITEM 403.
3. TYPICAL CAST IN PLACE BOX FOR 760 mm (30'') OR LARGER PIPE.
4. REINFORCING STEEL SHALL MEET ITEM 406, REINFORCING STEEL.

CITY OF AUSTIN WATER AND WASTEWATER UTILITY		TYPICAL BOX MANHOLE 760 mm (30'') & LARGER PIPE	
RECORD COPY SIGNED BY KATHI L. FLOWERS	2/17/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-5

Freese and Nichols, Inc.
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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

STANDARD DETAILS (STORMWATER 1 OF 3)

NO.	ISSUE	BY	DATE

F&N JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
FILE NAME	CV-AU-DT-MISC.dwg

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SHEET 85
SEQ. 85 OF 143

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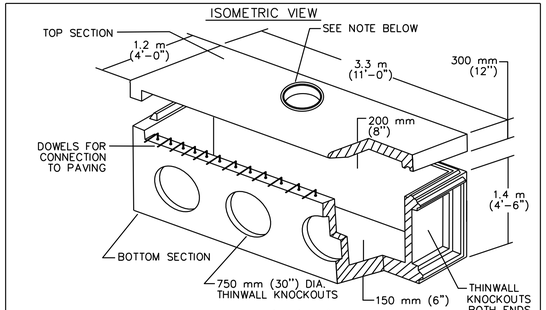
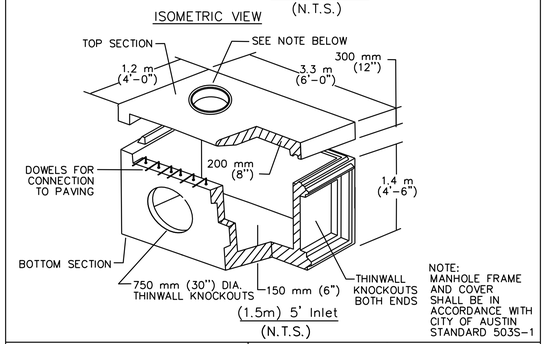


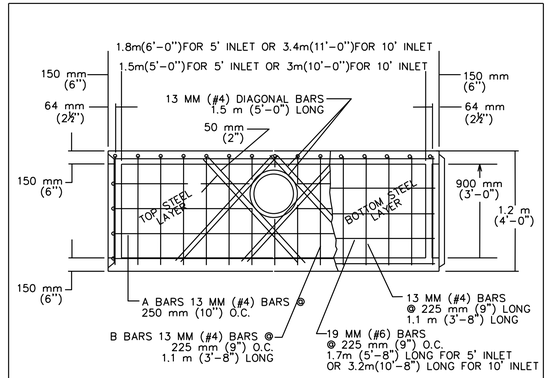
(3m) 10' Inlet
(N.T.S.)

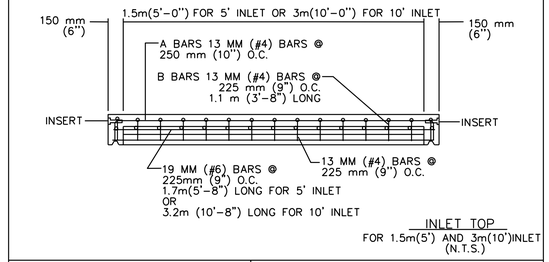


(1.5m) 5' Inlet
(N.T.S.)

NOTE:
MANHOLE FRAME AND COVER SHALL BE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD 503S-1

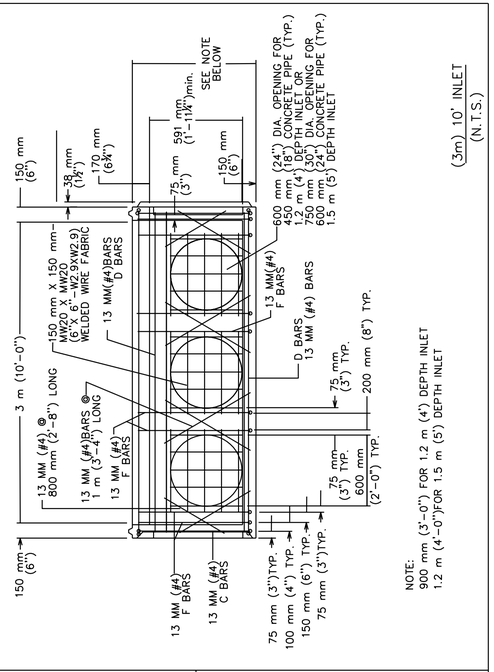
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	CURB INLET 1.5m(5')AND3m(10')PRECAST TYPE 1 OR TYPE 1-R	
ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 1 OF 7





INLET TOP
FOR 1.5m(5') AND 3m(10')INLET
(N.T.S.)

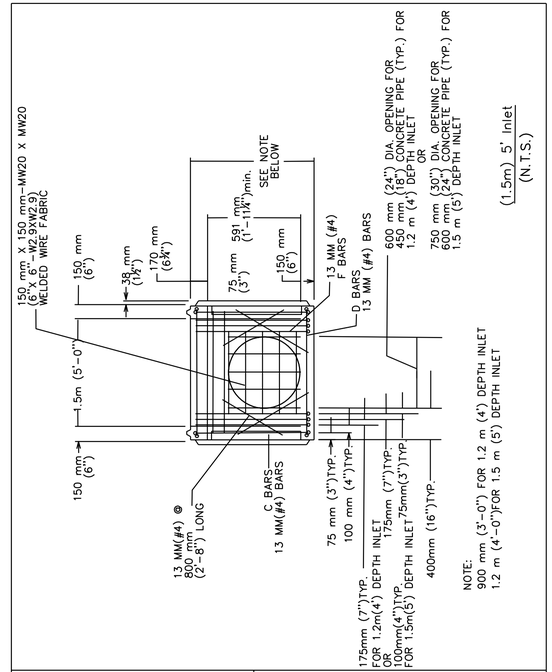
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	CURB INLET 1.5m(5')AND3m(10')PRECAST TYPE 1 OR TYPE 1-R	
ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 2 OF 7



(3m) 10' INLET
(N.T.S.)

NOTE:
900 mm (3'-0") FOR 1.2 m (4') DEPTH INLET
1.2 m (4'-0")FOR 1.5 m (5') DEPTH INLET

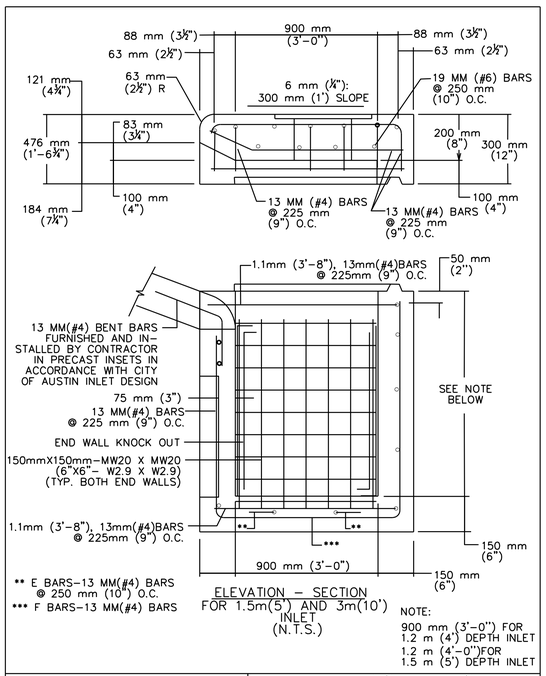
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	CURB INLET 1.5m(5')AND3m(10')PRECAST TYPE 1 OR TYPE 1-R	
ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 3 OF 7



(1.5m) 5' Inlet
(N.T.S.)

NOTE:
900 mm (3'-0") FOR 1.2 m (4') DEPTH INLET
1.2 m (4'-0")FOR 1.5 m (5') DEPTH INLET

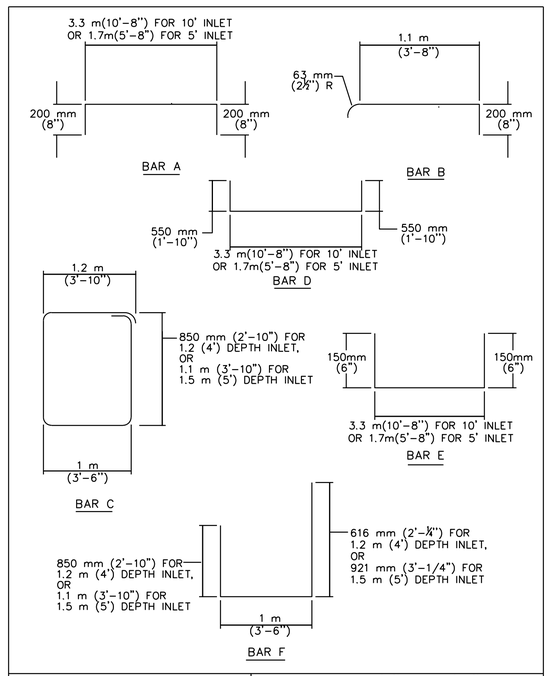
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	CURB INLET 1.5m(5')AND3m(10')PRECAST TYPE 1 OR TYPE 1-R	
ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 4 OF 7



ELEVATION – SECTION
FOR 1.5m(5') AND 3m(10') INLET
(N.T.S.)

NOTE:
900 mm (3'-0") FOR 1.2 m (4') DEPTH INLET
1.2 m (4'-0")FOR 1.5 m (5') DEPTH INLET

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	CURB INLET 1.5m(5')AND3m(10')PRECAST TYPE 1 OR TYPE 1-R	
ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 5 OF 7



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	CURB INLET 1.5m(5')AND3m(10')PRECAST TYPE 1 OR TYPE 1-R	
ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 6 OF 7

NOTES:
1. ALL CONCRETE SHALL BE CLASS "A" AS PER ITEM 403S.
2. ALL REINFORCING STEEL SHALL BE GRADE 60
3. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.
4. IN AREAS OF CONFLICT BETWEEN REINFORCING STEEL, PIPES AND MANHOLE FRAME, THE REINFORCEMENT SHALL BE BENT OR ADJUSTED TO CLEAR AS DIRECTED BY THE ENGINEER.
5. PAYMENT FOR INLET AT THE CONTRACT PRICE SHALL INCLUDE THE TRANSITION CURB, IN ACCORDANCE WITH CITY OF AUSTIN STANDARD INLET DESIGN.
6. INVERT OF INLET SHALL BE SLOPED 1:20 WITH FILL CONCRETE BY CONTRACTOR, SHAPED AS "V" SECTION
7. THIS STANDARD COMPLIES WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM NO. 508S.
8. WHEN PLACING PRECAST INLETS IN SERIES TO CREATE A 15'-0" OR 20'-0" CURB INLET, THE CONNECTION BETWEEN INLET BOXES SHALL BE SOIL TIGHT AND FULLY CONVEY THE PEAK DESIGN FLOW FROM THE UPSTREAM INLET(S). THE 1:20 INVERT SLOPE DESCRIBED IN NOTE 6 OF THIS DETAIL SHALL EXTEND FROM THE MOST DOWNSTREAM POINT TO THE MOST UPSTREAM OF THE CONNECTED INLET BOXES. AT NO TIME CAN MORE THAN 20-LF OF CURB OPENING BE CONNECTED TO A MAIN STORM DRAIN LINE WITH ONE LATERAL STORM DRAIN CONNECTION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	CURB INLET 1.5m(5')AND3m(10')PRECAST TYPE 1 OR TYPE 1-R	
ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 7 OF 7

Freese and Nichols, Inc.
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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

STANDARD DETAILS (STORMWATER 2 OF 3)

NO.	ISSUE	BY	DATE

JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
FILE NAME	CV-AU-DT-MISC.dwg

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SEQ. 86 OF 143

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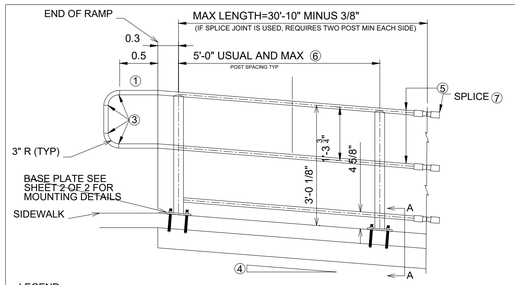


LEGEND
1. PARALLEL TO THE GROUND.

2. SHOP SPLICE IS PERMITTED WITH MINIMUM 85 PERCENT PENETRATION. THE WELD MAY BE SQUARE GROOVE OR SINGLE VEE GROOVE. GRIND SMOOTH.

3. SEE RAMP DETAIL LOCATED ELSEWHERE IN DRAWINGS FOR RAMP SLOPE AND DIMENSIONS. MAXIMUM RAMP SLOPE WILL NOT EXCEED 8.3 PERCENT. LEVEL LANDING REQUIRED FOR EACH 30" RISE IF GRADE EXCEEDS 5 PERCENT.

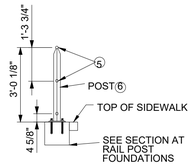
4. 1" DIA EXTRA HEAVY PIPE (1.315" O.D., 0.179" WALL THICKNESS). PARALLEL TO RAMP/ SIDEWALK. PROVIDE HOLES AS NEEDED IN 1" DIA PIPE FOR GALVANIZING DRAINAGE AND VENTING.

5. 2 ½ DIA STANDARD PIPE (2.875" O.D., 0.202" WALL THICKNESS). PLUMB ALL POSTS. SEE POST MOUNT DETAIL FOR CRIMPING AND TRIMMING POST TO FIT DIA OF TOP RAIL. PROVIDE HOLES AS NEEDED IN POST FOR GALVANIZING DRAINAGE AND VENTING.

6. SEE HANDRAIL FABRICATION DETAILS FOR SPLICE JOINTS.

7. CENTER LINE ⅝ DIA ROUND BAR EQ SPACES AT 4 ½ " MAX. PLUMB ALL PICKETS.

NOTE:
IF SPLICE JOINT IS USED, REQUIRES TWO POST MINIMUM EACH SIDE

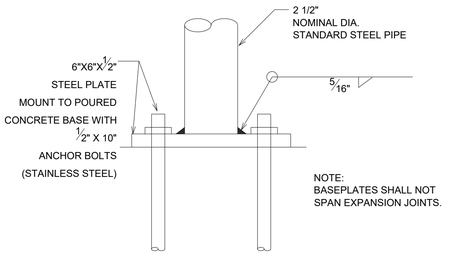


SECTION A-A

NOTES
* WHEN NEEDED FOR ACCESSIBILITY (GRADE >5 PERCENT) OR AS NEEDED FOR PEDESTRIAN SAFETY.

* NOT TO BE USED ON BRIDGES

* ONE SHOP SPLICE PER PANEL IS PERMITTED WITH MINIMUM 85 PERCENT PENETRATION. THE WELD MAY BE SQUARE GROOVE OR SINGLE VEE GROOVE. GRIND SMOOTH.



BASE PLATE DETAIL

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		PEDESTRIAN ADA HANDRAIL ON SIDEWALK OPTION 3	
RECORD COPY SIGNED BY KERI JUAREZ	01/04/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 707-4 1 OF 2

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		PEDESTRIAN ADA HANDRAIL ON SIDEWALK- OPTION 3	
RECORD COPY SIGNED BY KERI JUAREZ	01/04/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 707-4 2 OF 2

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
KIMBERLY K. PATAK
97367
LICENSED
PROFESSIONAL ENGINEER
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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

STANDARD DETAILS (STORMWATER 3 OF 3)

NO.	ISSUE	BY	DATE

FAN JOB NO. AU314361
DATE 12/12/2025
DESIGNED PSK
DRAWN NO
REVISED TRH
CHECKED KKP
FILE NAME CV-AU-DT-MISC.dwg

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SEQ. 87 OF 143

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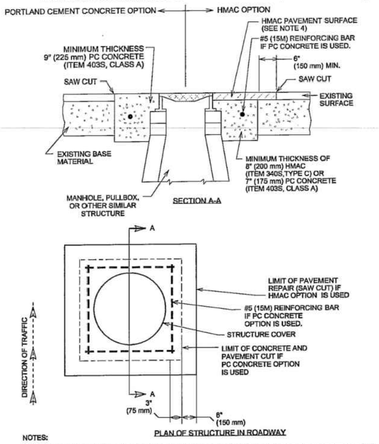
MISCELLANEOUS REPAIRS AROUND UTILITY CASTINGS (UCM SECTION 5.8.3)



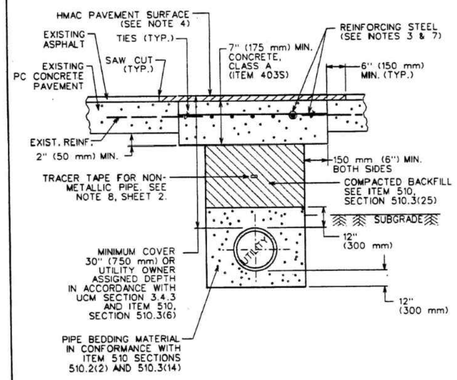
PLAN OF STRUCTURE IN ROADWAY

NOTES:

1. IF PC CONCRETE IS USED AROUND THE MANHOLE, THE CONCRETE SHALL BE REINFORCED WITH #5 (15M) BARS AS SHOWN. THE CONCRETE SHALL EXTEND TO EDGE OF SAW CUT PAVEMENT EDGE.
2. REQUIREMENTS FOR NEW MANHOLE CONSTRUCTION AND MINOR MANHOLE ADJUSTMENTS IN NEW, RECONSTRUCTION AND REPAVING PROJECTS ARE INCLUDED IN STANDARD NO. 506S-4 AND 509S-4A.
3. REQUIREMENTS FOR WATER VALVE ADJUSTMENTS ARE INCLUDED IN STANDARD DETAILS 511S-13A AND 511S-13B.
4. REPLACEMENT HMAC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION.
   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
   b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS. SEE ITEM 340S, SECTION 340S.4.
5. REFER TO UCM SECTION 5.8.3 FOR ADDITIONAL BACKFILL REQUIREMENTS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	CASTING ADJUSTMENT	
11/4/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-1

TRENCH REPAIR IN EXISTING PAVEMENTS
(UCM SECTION 5.5.10, 5.5.11, & 5.5.12)



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	ASPHALT OVERLAY OF REINFORCED AND NON-REINFORCED PC PVT.-TRENCH REPAIR	
9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-3 1 OF 2

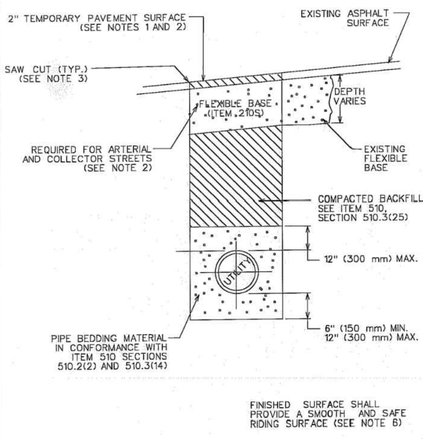
NOTES:

1. EXISTING REINFORCED CONCRETE SHALL BE SAW CUT TO A MINIMUM DEPTH OF 1½" (40 mm) AT A MINIMUM DISTANCE OF 6" (150 mm) BACK OF THE VERTICAL WALL OF THE UTILITY TRENCH.
2. REPLACEMENT REINFORCED CONCRETE SHALL BE CLASS A AND SHALL MATCH EXISTING FINISH AND THICKNESS, BUT THE THICKNESS SHALL NOT BE LESS THAN 7" (175 mm).
3. REINFORCING STEEL IN THE REPLACEMENT SLAB SHALL BE AT LEAST #5 (15M) BARS. REINFORCING STEEL SHALL BE LAP SPLICED ACCORDING TO ITEM NO. 406S. IF LENGTH OF LAP CAN NOT BE ACHIEVED, BARS SHALL BE OVERLAPPED AND WELDED A MINIMUM LENGTH OF 6" (150 mm).
4. IF EXISTING PAVEMENT SECTION HAS AN ASPHALT SURFACE THE FOLLOWING APPLIES: REPLACEMENT AC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION.
   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
   b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS.

   SEE ITEM 340S, SECTION 340S.4.
5. CLASS "J" PC CONCRETE (ITEM 403S) OR CONTROLLED LOW STRENGTH MATERIAL (CLSM) MAY BE SUBSTITUTED IN THESE REPAIRS FOR THE FLEXIBLE BASE AND COMPACTED BACKFILL. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
6. TACK COAT (ITEM 307S) ALL EXPOSED EDGES AND SURFACES.
7. ON EXISTING PC CONCRETE PAVEMENT WITHOUT REINFORCING STEEL, USE 4" TO 6" (100 mm TO 150 mm), #5 (15M) DOWELS AT 12" (300 mm) ON CENTER FOR PAVEMENT THICKNESS 6" (150 mm) OR GREATER.
8. AS PER CITY OF AUSTIN STANDARD SPECIFICATION 510, SECTION 510.2(8)(K)(5, FOR ALL NON-METALLIC PIPE, DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND A MINIMUM OF 12" (300 mm) BELOW THE SUBGRADE, OR A MINIMUM OF 18" (450 mm) BELOW FINISHED GRADE ON AREAS OUTSIDE THE LIMITS OF PAVEMENT, SHALL BE PLACED INDUCTIVE TRACER TAPE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. THE TAPE SHALL BE ENCASED IN A PROTECTIVE, INERT, PLASTIC JACKET AND COLOR CODED IN ACCORDANCE WITH APWA UNIFORM COLOR CODE.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	ASPHALT OVERLAY OF REINFORCED AND NON-REINFORCED PC PVT.-TRENCH REPAIR	
9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-3 2 OF 2

TEMPORARY TRENCH REPAIR IN ASPHALTIC SURFACE
ITEM 510 SECTION 510.3 (25)(h)

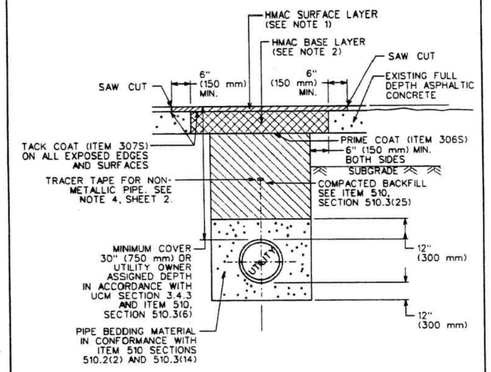


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TEMPORARY TRENCH REPAIR-ASPHALT SURFACE	
12/9/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-4 1 OF 2

1. TEMPORARY PAVEMENT REPAIRS SHALL BE ALLOWED NO LONGER THAN 90 DAYS AFTER PASSING THE WATER PRESSURE AND/OR WASTEWATER MANDREL TESTS. IF TEMPORARY PAVEMENT REPAIRS ARE TO REMAIN IN PLACE FOR A PERIOD EXCEEDING 90 DAYS, ON ANY SINGLE TRENCH LINE OR INDIVIDUAL STREET, SUCH TEMPORARY PAVEMENT SHALL BE HMAC, PLACED AND COMPACTED SUFFICIENTLY TO WITHSTAND THE ANTICIPATED TRAFFIC LOADS OVER THE DURATION OF THE TEMPORARY REPAIR.
2. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE USING COLD MIX AC IN ACCORDANCE WITH TxDOT "DMS-9203, RAPID CURING ASPHALT CONCRETE PATCHING MATERIAL" OR TEMPORARY HMAC PER COA ITEM "340S HOT MIX ASPHALTIC CONCRETE PAVEMENT". A MINIMUM OF TWO INCHES (2") OF TEMPORARY COLD MIX OR HMAC SHALL BE PLACED OVER COMPACTED BACKFILL. FLEXIBLE BASE SHALL ALSO BE REQUIRED, FOR ALL COLLECTOR OR ARTERIAL STREETS.
3. THE EXISTING CONCRETE OR ASPHALT PAVING SURFACE SHALL BE SAW CUT. SAW CUTS SHALL BE IN A STRAIGHT LINE, ALONG THE SIDES OF THE TRENCH (OR MANHOLE EXCAVATION) AND SYMMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION. ANY DAMAGED EDGES SHALL BE RE-SAW CUT IF REQUIRED BY THE OWNER.
4. HMAC OR COLD MIX SHALL BE FREE OF CONTAMINATION, AS DETERMINED BY A VISUAL INSPECTION BY THE OWNER'S REPRESENTATIVE, REFERENCE ITEM 340S SECTION 340S.10 A.
5. TEMPORARY PAVING MATERIAL MUST BE COMPACTED WITH A SMOOTH DRUM VIBRATORY ROLLER.
6. THE FINISHED SURFACE SHALL BE MAINTAINED DUST FREE AND PROVIDE A SMOOTH AND SAFE RIDING SURFACE FOR ALL VEHICLES ALONG THE ROUTE, INCLUDING, BUT NOT LIMITED TO SMALL CARS, MOTORCYCLES, MOPEDS AND BICYCLES. THE TEMPORARY SURFACE SHALL BE MAINTAINED BY THE CONTRACTOR THE ENTIRE TIME THE TEMPORARY SURFACE IS IN PLACE. DAILY MAINTENANCE SHALL BE PERFORMED BASED ON FIELD CONDITIONS AND AT THE DIRECTION OF THE OWNER'S REPRESENTATIVE, UNTIL THE FINAL PAVEMENT SURFACE IS PLACED.
7. THE TEMPORARY PAVEMENT SURFACE SHALL HAVE A MAXIMUM ALLOWABLE DEVIATION OF ¼" ABOVE OR BELOW THE EXISTING PAVEMENT SURFACE DIRECTLY ADJACENT TO THE PATCH.
8. ANY PORTIONS OF THE TEMPORARY PAVEMENT SURFACE THAT HAVE SETTLED, BECOME DAMAGED, OR DETERIORATED MUST BE REPAIRED BY REMOVING THE EXISTING TEMPORARY SURFACE MATERIAL TO A MINIMUM DEPTH OF 2" BELOW THE SURFACE ELEVATION PRIOR TO REPLACING AND RECOMPACTING NEW COLD MIX/HOT MIX IN THE EXCAVATION AREA.
9. IF IT IS DETERMINED DURING CORRECTIVE ACTION THAT SOFT, SATURATED AND/OR UNSTABLE SUBSURFACE SOILS ARE CONTRIBUTING TO THE FAILURE OF THE TEMPORARY PAVEMENT SECTION, THE UNSUITABLE MATERIALS MUST BE REMOVED AND REPLACED WITH BACKFILL SOILS FREE OF ORGANICS, STONES OR ROCKS OVER 8 INCHES, AND HAVING A PLASTICITY INDEX OF 20 OR LESS, AND SHALL HAVE A MC WITHIN 2% OF OPTIMUM, PRIOR TO REPLACING THE TEMPORARY PAVEMENT SURFACE.
10. CLASS "J" PC CONCRETE (ITEM 403S) OR CONTROLLED LOW STRENGTH MATERIAL (CLSM) MAY BE SUBSTITUTED IN THESE REPAIRS FOR THE FLEXIBLE BASE AND COMPACTED BACKFILL. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
11. ALL EXISTING ROADWAY STRIPING AND PAVEMENT MARKINGS REMOVED OR DAMAGED BY THE CONTRACTOR'S WORK SHALL BE RESTORED PRIOR TO OPENING THE STREET TO TRAFFIC.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TEMPORARY TRENCH REPAIR-ASPHALT SURFACE	
12/9/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-4 2 OF 2

REPAIR OF FULL DEPTH ASPHALTIC CONCRETE (UCM SECTION 5.5.13)



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	FULL DEPTH ASPHALTIC CONCRETE PAVEMENT TRENCH REPAIR	
9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-5 1 OF 2

NOTES:

1. REPLACEMENT AC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION.
   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
   b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS.

   SEE ITEM 340S, SECTION 340S.4.
2. THE COMBINED THICKNESS OF THE REPLACEMENT AC SURFACE AND BASE LAYERS SHALL MATCH THE THICKNESS OF EXISTING FULL DEPTH AC LAYER. HOWEVER, THE REPLACEMENT AC BASE LAYER SHALL BE A MINIMUM THICKNESS OF 6" (150 mm) OF TYPE A OR B HMA. A BASE LAYER TYPE THAT MATCHES THE NEW HMA SURFACE LAYER (SEE NOTE 1) MAY BE USED, IF THE TOTAL REPAIR AREA IS LESS THAN 300 SQUARE YARDS (250 SQUARE METERS).
3. CLASS "J" PC CONCRETE (ITEM 403S) OR CONTROLLED LOW STRENGTH MATERIAL (CLSM) MAY BE SUBSTITUTED IN THESE REPAIRS FOR THE FLEXIBLE BASE AND COMPACTED BACKFILL. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
4. AS PER CITY OF AUSTIN STANDARD SPECIFICATION 510, SECTION 510.2(8)(K)5, FOR ALL NON-METALLIC PIPE, DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND A MINIMUM OF 12" (300 mm) BELOW THE SUBGRADE, OR A MINIMUM OF 18" (450 mm) BELOW FINISHED GRADE ON AREAS OUTSIDE THE LIMITS OF PAVEMENT, SHALL BE PLACED INDUCTIVE TRACER TAPE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. THE TAPE SHALL BE ENCASED IN A PROTECTIVE, INERT, PLASTIC JACKET AND COLOR CODED IN ACCORDANCE WITH APWA UNIFORM COLOR CODE.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	FULL DEPTH ASPHALTIC CONCRETE PAVEMENT TRENCH REPAIR	
9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-5 2 OF 2

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CITY OF AUSTIN AUSTIN WATER PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

STANDARD DETAILS (WATER & WASTEWATER 1 OF 4)

NO.	ISSUE	BY	DATE

FAH JOB NO. AU31436

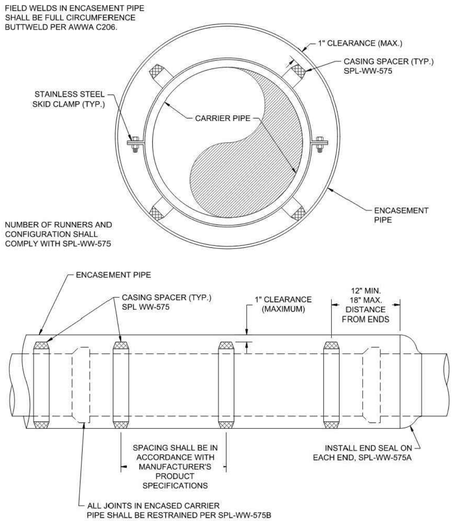
	DATE	
DESIGNED		JCS
DRAWN		JCS
REVISED		JCS
CHECKED		TDB

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

0 1"

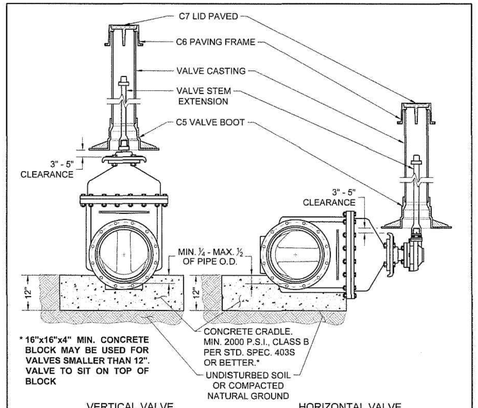
SHEET 88

SEQ. 88 of 143



APPLICABLE REFERENCES:
STANDARD SPECIFICATION: ITEM 505.4 & 510.3 (19)

CITY OF AUSTIN AUSTIN WATER	ENCASEMENT PIPE DETAIL WITH CASING SPACERS	
JEFF A. KYLE 02/22/2021 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 501-AW-01 1 OF 1



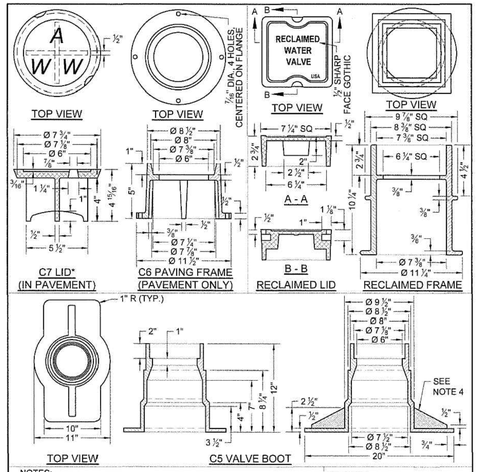
VERTICAL VALVE

HORIZONTAL VALVE
ONLY TO BE USED WHEN CALLED OUT ON THE DRAWINGS.

NOTES:
1. WELD SOCKET 2½" x 2" DEEP TO 1" SCH. 40 CARBON STEEL ROUND STEM EXTENSION, FITTED ON OPERATING NUT. [SCH. 80 FOR LENGTHS OVER 10'.]
2. VALVE CASTING SHALL BE 6" DI PIPE WITH BELL OR COLLAR CENTERED OVER VALVE BOOT.
3. NUT AT TOP OF VALVE EXTENSION ROD SHALL BE SQUARE 2" LONG WELDED TO TOP OF ROD.
4. VALVE STEM EXTENSIONS ARE REQUIRED ON ALL VALVES THAT EXCEED 3' DEEP FROM FINISHED GRADE. VALVE EXTENSIONS SHALL BE PLACED SUCH THAT THE EXTENSION NUT IS BETWEEN 12" AND 18" FROM FINISHED GRADE.

RECLAIMED WATER: ALL RECLAIMED PVC PIPE SHALL BE MANUFACTURED PURPLE PIPE. HDPE PIPE SHALL BE MANUFACTURED WITH PURPLE STRIPES. ALL OTHER PIPE AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL PIPE AND FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL BURIED DI AND CI PIPE AND FITTINGS SHALL ALSO BE WRAPPED IN PURPLE POLYETHYLENE PER SPL WW-27D. ALL COVERS SHALL HAVE "RECLAIMED WATER" CAST INTO THEM.

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
Kathi A. Flowers 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 1 OF 4

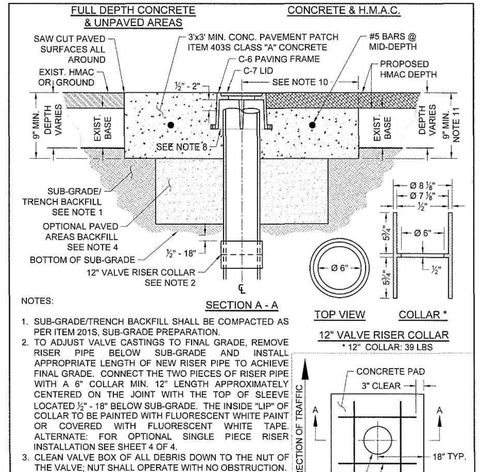


NOTES:
1. MATERIAL SHALL BE GRAY CAST IRON, ASTM A48, GRADE 30B.
2. THE MANUFACTURER'S IDENTIFICATION AND CASTING NUMBER, AND THE COUNTRY WHERE CAST, SHALL BE DISTINCTLY CAST ONTO EACH LID, FRAME, COLLAR AND BASE.
3. DRAFT AND SHRINKAGE ALLOWANCE SHALL BE IN ACCORDANCE WITH NORMAL FOUNDRY PRACTICE.
4. CASTING FINISH BY MANUFACTURER SHALL INCLUDE REMOVAL OF FINS AND FLASHING, AND PAINT WITH BLACK ASPHALT COATING.

WEIGHTS:
C7 LID: 13 LBS
RECLAIMED LID: 15 LBS
C6 FRAME: 23 LBS
RECLAIMED FRAME: 33 LBS
C5 BASE: 78 LBS

* LETTERING SHALL BE 1½" 2 PICK BAR SLOTS REQUIRED

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
Kathi A. Flowers 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 2 OF 4

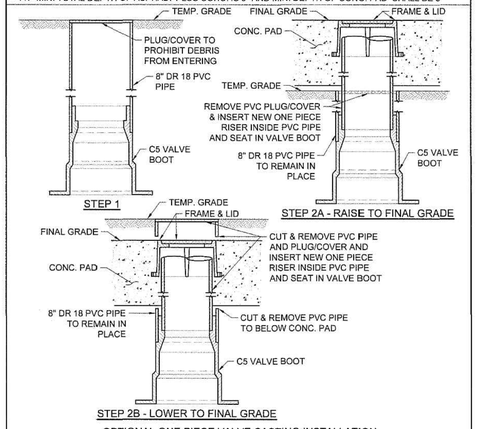


NOTES:
1. SUB-GRADE/TRENCH BACKFILL SHALL BE COMPACTED AS PER ITEM 201S, SUB-GRADE PREPARATION.
2. TO ADJUST VALVE CASTINGS TO FINAL GRADE, REMOVE RISER PIPE BELOW SUB-GRADE AND INSTALL APPROPRIATE LENGTH OF NEW RISER PIPE TO ACHIEVE FINAL GRADE. CONNECT THE TWO PIECES OF RISER PIPE WITH A 6" COLLAR MIN. 12" LENGTH APPROXIMATELY CENTERED ON THE JOINT WITH THE TOP OF SLEEVE LOCATED ½" - 18" BELOW SUB-GRADE. THE INSIDE "LIP" OF COLLAR TO BE PAINTED WITH FLUORESCENT WHITE PAINT OR COVERED WITH FLUORESCENT WHITE TAPE. ALTERNATE: FOR OPTIONAL SINGLE PIECE RISER INSTALLATION SEE SHEET 4 OF 4.
3. CLEAN VALVE BOX OF ALL DEBRIS DOWN TO THE NUT OF THE VALVE; NUT SHALL OPERATE WITH NO OBSTRUCTION.
4. WHERE CASTINGS TO BE REMOVED REQUIRE EXCAVATION GREATER THAN 20" DEEP, CONTRACTOR MAY ELECT TO FILL EXCAVATION WITH CONTROLLED LOW STRENGTH MATERIAL (SPEC. ITEM 402S) TO THE UNDERSIDE OF THE CONCRETE. PAVEMENT PATCH IN LIEU OF COMPACTED BACKFILL.
5. REINFORCING STEEL SHALL MEET SPEC. ITEM 406S.7.
6. NO MORE THAN 2 SECTIONS OF PIPE SHALL BE USED FROM VALVE TO FINAL GRADE.
7. BELL AND SPIGOT IS ACCEPTABLE FOR DEPTH OVER 18'.

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
Kathi A. Flowers 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 3 OF 4

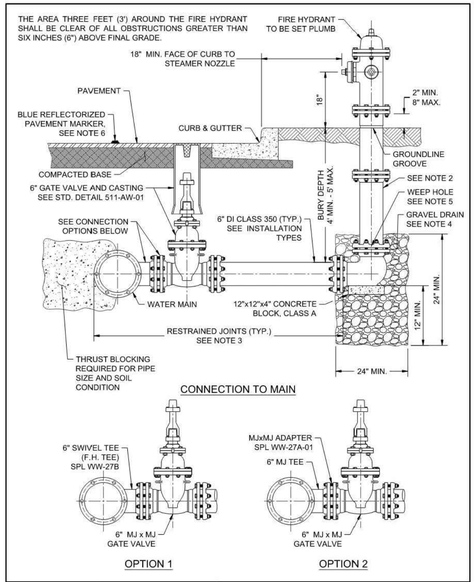
NOTES (CON'T):

8. PAVING FRAME SHALL BE FLUSH WITH THE CONC. PAD AND PLACED ½" - 2" ABOVE RISER PIPE (FRAME SHALL NOT REST ON RISER.)
9. IN UNPAVED AREAS, INSTALL ONE DELINEATOR STAKE IMMEDIATELY ADJACENT TO THE EDGE OF THE CONCRETE PAD. DELINEATOR SHALL BE BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER AND SHALL EXTEND AT LEAST 60" ABOVE GROUND. DELINEATORS SHALL HAVE 2" WIDE, WHITE IN COLOR, TYPE I REFLECTIVE TAPE MOUNTED DIAGONALLY AT 12" SPACING ON BOTH SIDES.
10. VALVE SHALL TYPICALLY BE CENTERED IN CONCRETE DIAMOND BUT MAY BE OFFSET WITH A MIN. OF 12" FROM CENTER OF VALVE LID TO EDGE OF CONCRETE IN ALL DIRECTIONS.
11. MIN. TOTAL DEPTH OF ASPHALT PLUS CONC. IS 9" AND MIN. DEPTH OF CONC. PAD SHALL BE 5"

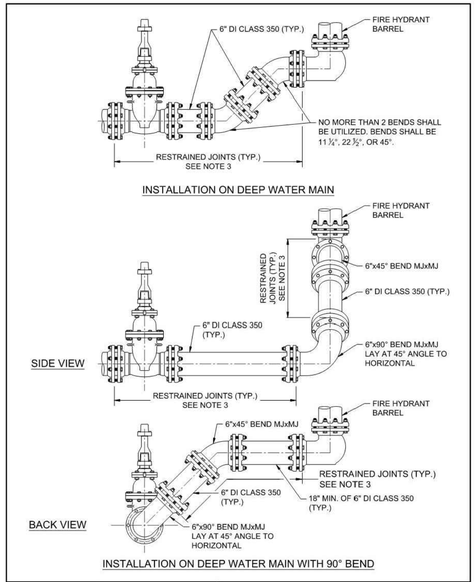


OPTIONAL ONE PIECE VALVE CASTING INSTALLATION

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
Kathi A. Flowers 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 4 OF 4



CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT ASSEMBLY	
JEFF A. KYLE 11/06/2023 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 511-AW-02 1 OF 3



CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT ASSEMBLY	
JEFF A. KYLE 11/06/2023 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 511-AW-02 2 OF 3

NOTES: APPLICABLE TO ALL INSTALLATION TYPES.

1. NO PART OF A HYDRANT OR ITS NOZZLE CAPS SHALL BE WITHIN 6" OF ANY SIDEWALK OR PEDESTRIAN RAMP. ANY FIRE HYDRANT PLACED NEAR A STREET CORNER SHALL BE LOCATED OUTSIDE THE CURVE RADIUS AND A MINIMUM OF 4' FROM RAMPS.
2. ONE BARREL EXTENSION NOT EXCEEDING 2' LENGTH MAY BE INSTALLED DIRECTLY BELOW THE FIRE HYDRANT IN ORDER TO MEET THE REQUIRED BURY DEPTH OF 4' - 5'. BREAK AWAY BOLTS (SHOE TYPES) SHALL BE PROPERLY SPACED AND PLACED.
3. FIRE LINE SHALL HAVE ALL JOINTS RESTRAINED FROM MAIN TO FIRE HYDRANT INCLUDING MJ RESTRAINT OF TEE AT THE MAIN. JOINTS SHOWN MAY VARY. SEE SPL WW-27A, WW-27A-01, AND WW-27B FOR RESTRAINT OPTIONS.
4. BELOW EACH HYDRANT, A DRAINAGE PIT 24" IN DIAMETER AND 12" DEEP SHALL BE EXCAVATED AND FILLED WITH COMPACTED COARSE GRAVEL OR BROKEN STONE MIXED WITH COARSE SAND UNDER AND AROUND THE BOWL OF THE HYDRANT, AND TO A LEVEL 12" ABOVE THE HYDRANT DRAIN OPENING (SEE STD. SPEC. 510). THE HYDRANT DRAINAGE PIT SHALL NOT BE CONNECTED TO A SANITARY SEWER. THE DRAIN GRAVEL SHALL BE COVERED WITH FILTER FABRIC PER STD. SPEC. 620.
5. WRAP 8 MIL. POLY-FILM WRAP ON ALL BURIED PIPE AND FITTINGS. CUT SLITS IN POLY-FILM WRAP AT BOOT TO ALLOW WATER TO ESCAPE FROM WEEP HOLES AND POLY-WRAP.
6. A BLUE TYPE II-B-B REFLECTORIZED PAVEMENT MARKER, CONFORMING TO STANDARD SPECIFICATION ITEM NO. 863S, SHALL BE PLACED 2 TO 3 FEET OFFSET FROM THE CENTERLINE OF PAVED STREETS, ON THE SIDE OF AND IN LINE WITH ALL NEWLY INSTALLED FIRE HYDRANTS.

CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT ASSEMBLY	
JEFF A. KYLE 11/06/2023 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 511-AW-02 3 OF 3

REVIEWED
August 20, 2026
Brooks Austin Water
Expires: August 20, 2029

STATE OF TEXAS
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS–PHASE 3
STANDARD DETAILS (WATER & WASTEWATER 2 OF 4)

NO.	ISSUE	BY	DATE

F&M JOB NO. AU31436

	DATE	
DESIGNED		JCS
DRAWN		JCS
REVISED		JCS
CHECKED		TDB

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SEQ. 89 OF 143

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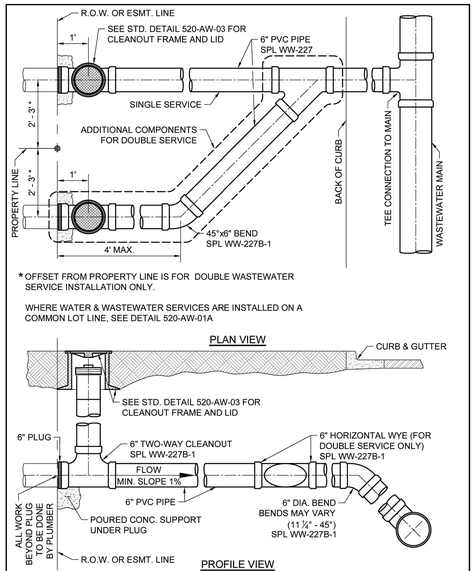
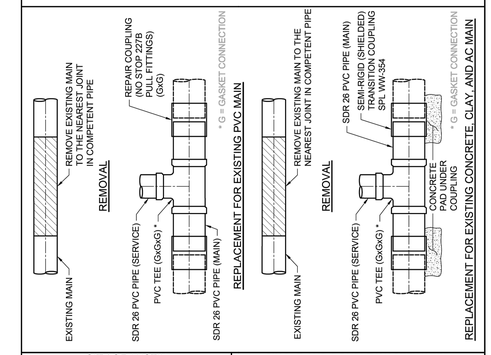


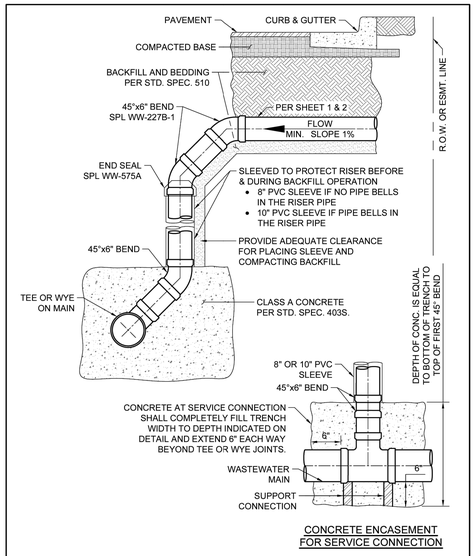
CITY OF AUSTIN AUSTIN WATER	SINGLE AND DOUBLE WASTEWATER SERVICE CONNECTION	
RECORD COPY SIGNED *JEFF A. KYLE* 11/07/2018 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 520-AW-01C 1 OF 4

NOTES:

1. DURING SUBDIVISION CONSTRUCTION, UTILITY CONTRACTOR INSTALLS WASTEWATER TEE CONNECTION TO MAIN, 6" STUB, HORIZONTAL WYE FOR DOUBLE SERVICES, 6" SERVICE BRANCH WITH TWO-WAY CLEANOUT(S) AND RISER, FRAME, AND COVER. CLEANOUT(S) TO BE PLUGGED AT PROPERTY LINE OR EASEMENT LINE END. ALL WASTEWATER PIPING SHALL HAVE ELASTOMERIC GASKET TYPE JOINTS AND SLOPE DOWNWARD TO MAIN 1% MIN. TO 45° MAX. DEPTH OF SERVICE AT PROPERTY LINE WILL BE SHOWN ON PLANS BY ENGINEER IF GREATER THAN 4', OTHERWISE THE INSTALLED DEPTH WILL BE 4' MIN. AND 6' MAX. AT PROPERTY LINE. IF WASTEWATER SERVICE LINE TO MAIN REQUIRES DEFLECTION EXCEEDING 45°, SEE SHEET 3 OF 4.
2. PIPING IN STREET RIGHT-OF-WAY AND IN EASEMENT AREA SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY CITY OF AUSTIN STANDARD SPECIFICATION 510.3 (14); MATERIALS SHALL BE AS SPECIFIED IN 510.2 (2)(A) AND (3)(B); BACKFILL ABOVE THE GRANULAR BEDDING SHALL BE AS REQUIRED BY SECTION 510.3 (25). SERVICE LINES IN THESE AREAS SHALL HAVE A MIN. COVER BELOW FINAL STREET GRADE OF 42".
3. PLUMBER SHALL REMOVE PLUG AND CONNECT TO TWO-WAY CLEANOUT. NO CONNECTION TO CLEANOUT STACK IS ALLOWED.

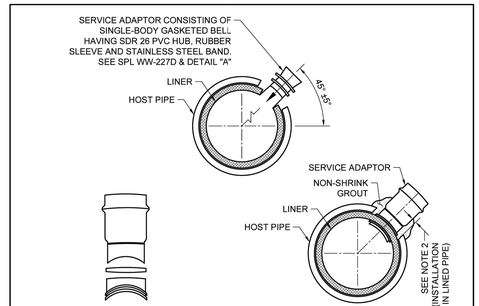


CITY OF AUSTIN AUSTIN WATER	SINGLE AND DOUBLE WASTEWATER SERVICE CONNECTION	
RECORD COPY SIGNED *JEFF A. KYLE* 11/07/2018 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 520-AW-01C 2 OF 4



DEEP SERVICE CONNECTION

CITY OF AUSTIN AUSTIN WATER	SINGLE AND DOUBLE WASTEWATER SERVICE CONNECTION	
RECORD COPY SIGNED *JEFF A. KYLE* 11/07/2018 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 520-AW-01C 3 OF 4



INSTALLATION IN LINED PIPE:

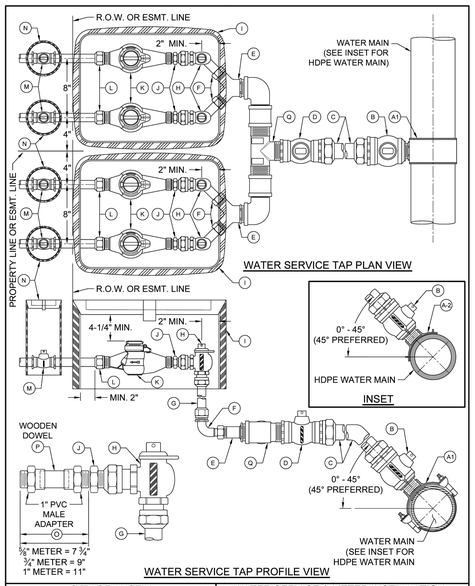
1. MARK LOCATION OF TAP.
2. BREAK & REMOVE HOST PIPE SO THAT OPENING IS AT LEAST 2" BUT NO MORE THAN 3" WIDER THAN DIAMETER OF THE SERVICE ADAPTOR.
3. DO NOT DAMAGE LINER.
4. CORE HOLE THROUGH LINER USING ADAPTOR MANUFACTURER RECOMMENDED BIT.
5. INSTALL SERVICE ADAPTOR.
6. HOLES CUT IN HOST PIPE SHALL BE PACKED WITH NON-SHRINK GROUT (ASTM C1107 GRADE). SEE DETAIL "B"

NOTES:

1. USE ONLY TO TAP EXISTING LINED PIPE.
2. SEE APPROPRIATE STD. FOR SERVICE LINE INFORMATION.
3. THE EDGE OF THE CORE HOLE MUST BE AT LEAST 3" FROM THE ENDS OF THE PIPE, ANY OTHER CORE SERVICE CONNECTIONS, AND ANY FITTINGS.
4. FOR DEEP SERVICE APPLICATIONS SEE SHEET 3 OF 4, EXCEPT SUBSTITUTE A CORED HOLE, AND SERVICE ADAPTOR FOR THE TEE OR WYE.
5. SERVICE CONNECTIONS TO MANHOLES MUST BE MADE USING A PIPE-TO-MANHOLE CONNECTOR WHICH LIMITS THE PIPE SLOPE INTO THE MANHOLE TO 12% MAX.

6" WASTEWATER CONNECTION TO EXISTING LINED MAIN

CITY OF AUSTIN AUSTIN WATER	SINGLE AND DOUBLE WASTEWATER SERVICE CONNECTION	
RECORD COPY SIGNED *JEFF A. KYLE* 11/07/2018 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 520-AW-01C 4 OF 4



CITY OF AUSTIN AUSTIN WATER	WATER SERVICE & METER INSTALLATION - 1" & SMALLER METERS (3 OR 4 METERS)	
JEFF A. KYLE 09/12/2025 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 520-AW-01D 1 OF 2

MATERIALS LIST:

A-1. FOR PVC OR DI MAIN: 2" SERVICE SADDLE, SPL WW-264
A-2. FOR HDPE MAIN: 2" SERVICE SADDLE (APPROVED FOR USE ON HDPE PIPE), SPL WW-264, OR 2" ELECTROFUSION THREADED SERVICE SADDLE, SPL WW-706C
B. 2" CORPORATION STOP, SPL WW-68
C. 2" HDPE WATER SERVICE TUBING, SPL WW-65
D. 2" BALL VALVE, SPL WW-68
E. SINGLE SERVICE: 2" MIP X 1" COPPER FLARE FITTING, SPL WW-68 OR DOUBLE SERVICE: 2" MIP X 1" COPPER FLARE WYE, SPL WW-68
F. 1" SWIVEL NUT x 1" COMPRESSION 90° BEND, SPL WW-68
G. 1" HDPE WATER SERVICE TUBING, SPL WW-65
H. 1" ANGLE METER STOP, SPL WW-68
I. METER BOX AND LID, SPL WW-145A;
FOR DUAL 1" METERS: USE TWO SINGLE METER BOXES
Q. 2" U-BRANCH ASSEMBLY: 2" MNPT INLET WITH TWO 2" FNPT OUTLETS, FORD METER BOX (PART No. U18-77-C16975-001-NL), OR A.Y. McDONALD (PART No. E-4-13097)

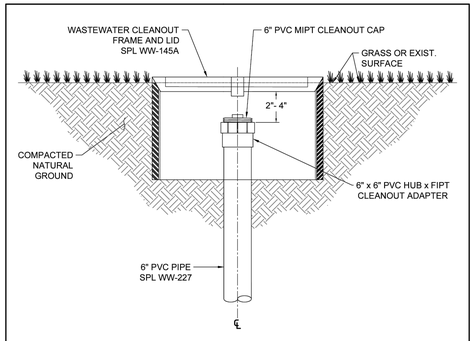
MATERIALS TO BE INSTALLED BY PLUMBER:

J. BRASS METER BUSHING - SIZE AS NEEDED TO CONNECT ANGLE METER STOP TO METER
K. WATER METER PURCHASED FROM AUSTIN WATER
L. BRASS WATER METER COUPLING MALE IPT x SWIVEL COUPLING NUT:
⅝" AND ¾" METERS. 6 ½" LONG x ¾" DIA. (NO BUSHING ALLOWED BETWEEN K & L)
1" METERS: 8 ½" LONG x 1" DIA.
M. PROPERTY OWNER'S CUT OFF VALVE, SPL WW-276
N. PROPERTY OWNER'S CUT OFF VALVE BOX AND LID
O. TEMPORARY METER SPACER (REQUIRED TO ASSURE METER WILL FIT APPROPRIATELY)
P. 1" WOODEN DOWEL (SHOW ADDRESS ON DOWEL USING WATERPROOF MARKER)

NOTES:

1. SERVICE SADDLE SHALL BE WRAPPED COMPLETELY WITH 8 MIL. POLYETHYLENE FILM, SPL WW-27D.
2. BRANCH CONNECTIONS AND ALL ANGLE METER STOPS MUST BE INSTALLED PRIOR TO ANY METER INSTALLATION.
3. TOP OF METER BOXES SHOULD BE 4" ABOVE GROUND.
4. PIPING AND TUBING IN STREET RIGHT-OF-WAY SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY SECTION 510.3 (14) OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS; BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED BY SECTION 510.3 (25).
5. METER BOX MUST BE BEHIND CURB NEXT TO PROPERTY LINE OR EASEMENT AND OUT OF VEHICULAR TRAFFIC AREA AND SIDEWALK.
6. BALL VALVE "D" SHALL NOT BE LOCATED UNDER SIDEWALK, CURB, OR PAVEMENT, AND NOT BE LOCATED MORE THAN 36" BELOW FINAL GRADE.
7. METER SIZES TO BE SHOWN ON PLANS.
8. METER BOX CUT OUTS SHALL NOT EXCEED TWO TIMES THE PIPE DIAMETER. CUTTING A METER BOX WITHOUT AW APPROVAL IS PROHIBITED.
9. INSTALL METALLIC TRACER TAPE, SPL WW-597, MINIMUM 1' ABOVE TUBING FROM SERVICE CLAMP "A" TO BALL VALVE "D".
10. TUBING SHALL BE PLACED IN A STRAIGHT ALIGNMENT AND ALLOWED TO RELAX AND "SNAKE" LOOSELY IN THE TRENCH. TUBING BEHIND CURB AND GUTTER SHALL BE INSTALLED WITH A MINIMUM 2' DEPTH OF COVER.
11. 1" TUBING, WHEN BENT, SHALL HAVE A RADIUS NO SMALLER THAN 3'. 2" TUBING, WHEN BENT, SHALL HAVE A RADIUS NO SMALLER THAN 5'. BRASS FITTINGS SHALL NOT BE CONNECTED TO A BENT SECTION OF TUBING.
12. SOLID, TUBULAR STAINLESS STEEL INSERT STIFFENERS FOR HDPE TUBING SHALL BE USED AT ALL COMPRESSION FITTINGS. INSERT STIFFENERS SHALL BE FROM THE SAME MANUFACTURER AS THE COMPRESSION FITTING USED.
13. FOR RECLAIMED WATER SERVICES AND METERS, ALL RECLAIMED TUBING SHALL BE MANUFACTURED SOLID PURPLE, SPL WW-65A. ALL APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL METER BOX LIDS SHALL BE PURPLE AND HAVE "RECLAIMED WATER" CAST INTO THEM, SPL WW-145A.

CITY OF AUSTIN AUSTIN WATER	WATER SERVICE & METER INSTALLATION - 1" & SMALLER METERS (3 OR 4 METERS)	
JEFF A. KYLE 09/12/2025 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 520-AW-01D 2 OF 2



NOTE:

1. WASTEWATER CLEANOUT FRAME AND LID SHALL NOT BE PLACED IN PAVED AREAS, INCLUDING SIDEWALKS, DRIVEWAYS, OR PARKING LOTS, AND MUST BE LOCATED A MINIMUM OF 6" FROM ALL PAVED AREAS.

CITY OF AUSTIN AUSTIN WATER	WASTEWATER CLEANOUT FRAME AND LID	
JEFF A. KYLE 08/16/2019 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 520-AW-03 1 OF 1

REVIEWED
August 20, 2026
Brooks K
Austin
Water
Expires: August 20, 2029

STATE OF TEXAS
ANTHONY D. BUCKODONO
103439
LICENSED
PROFESSIONAL ENGINEER
08/21/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS–PHASE 3
STANDARD DETAILS (WATER & WASTEWATER 3 OF 4)

F&N JOB NO. AU31436

BY	DATE	NO.	ISSUE

	DATE	
DESIGNED		JCS
DRAWN		JCS
REVISED		JCS
CHECKED		TDB

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0" 1"

SHEET 90
SEQ. 90 OF 143

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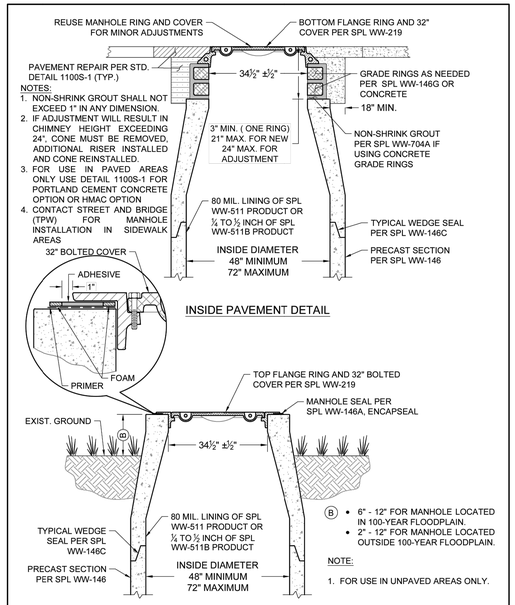
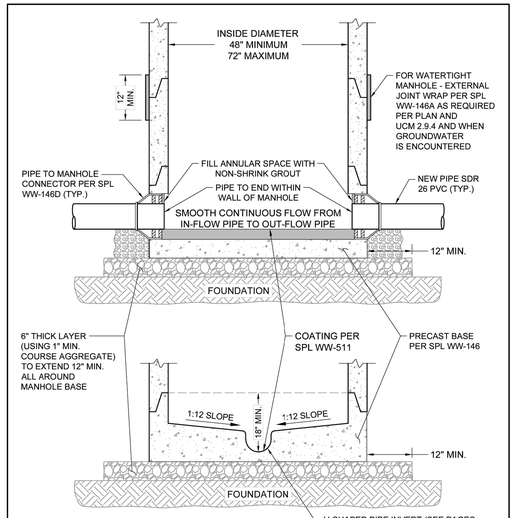
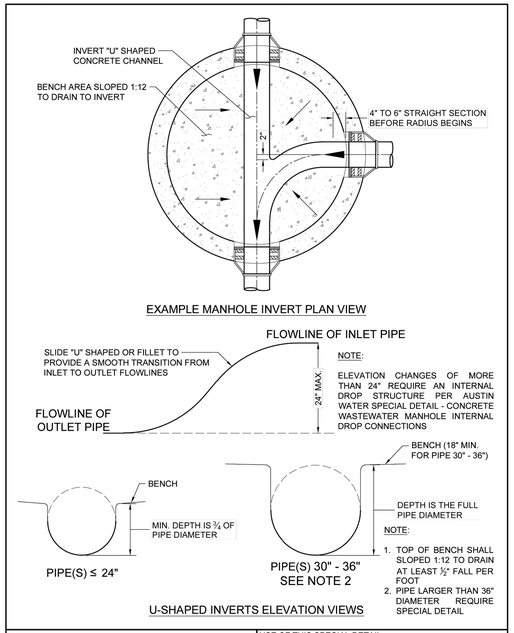


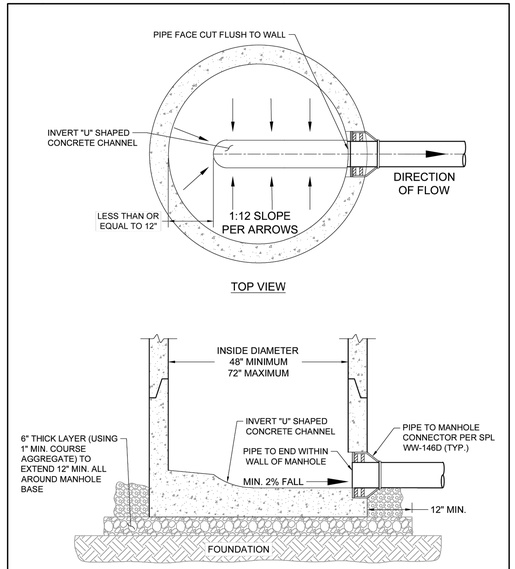
AUSTIN WATER SPECIAL DETAIL (03/07/25) PRECAST CONCRETE WASTEWATER MANHOLE	USE OF THIS SPECIAL DETAIL
1 OF 5	1. THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS SPECIAL DETAIL. MODIFICATIONS TO THIS SPECIAL DETAIL ARE PROHIBITED. 2. THIS SPECIAL DETAIL IS TEMPORARY AND IS TO BE USED UNTIL A NEW STANDARD DETAIL IS ADOPTED TO REPLACE IT.



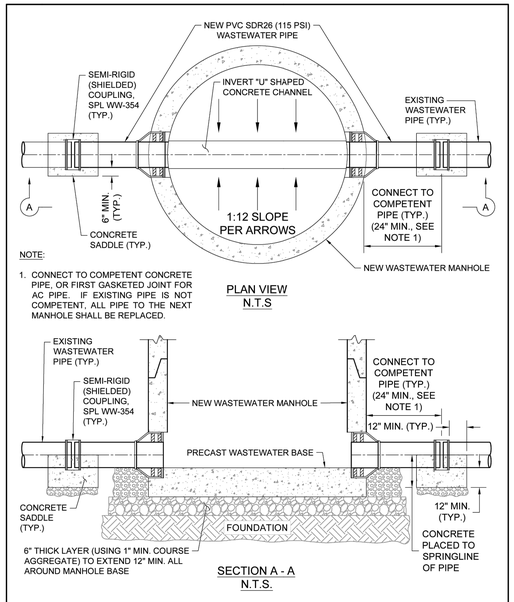
AUSTIN WATER SPECIAL DETAIL (03/07/25) PRECAST CONCRETE WASTEWATER MANHOLE	USE OF THIS SPECIAL DETAIL
2 OF 5	1. THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS SPECIAL DETAIL. MODIFICATIONS TO THIS SPECIAL DETAIL ARE PROHIBITED. 2. THIS SPECIAL DETAIL IS TEMPORARY AND IS TO BE USED UNTIL A NEW STANDARD DETAIL IS ADOPTED TO REPLACE IT.



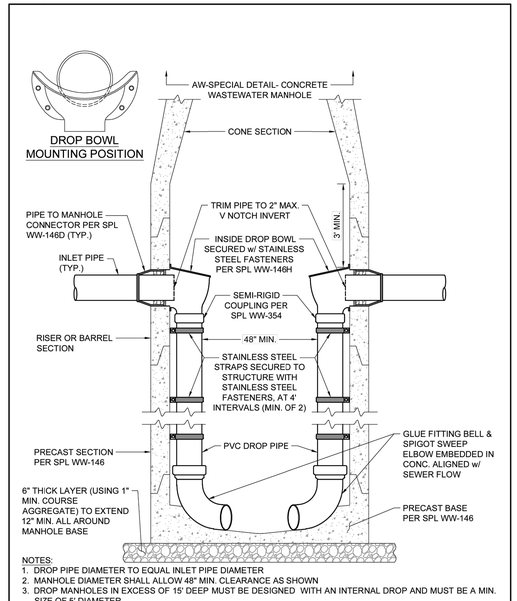
AUSTIN WATER SPECIAL DETAIL (03/07/25) PRECAST CONCRETE WASTEWATER MANHOLE	USE OF THIS SPECIAL DETAIL
3 OF 5	1. THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS SPECIAL DETAIL. MODIFICATIONS TO THIS SPECIAL DETAIL ARE PROHIBITED. 2. THIS SPECIAL DETAIL IS TEMPORARY AND IS TO BE USED UNTIL A NEW STANDARD DETAIL IS ADOPTED TO REPLACE IT.



AUSTIN WATER SPECIAL DETAIL (03/07/25) PRECAST CONCRETE WASTEWATER MANHOLE	USE OF THIS SPECIAL DETAIL
4 OF 5	1. THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS SPECIAL DETAIL. MODIFICATIONS TO THIS SPECIAL DETAIL ARE PROHIBITED. 2. THIS SPECIAL DETAIL IS TEMPORARY AND IS TO BE USED UNTIL A NEW STANDARD DETAIL IS ADOPTED TO REPLACE IT.



AUSTIN WATER SPECIAL DETAIL (03/07/25) PRECAST CONCRETE WASTEWATER MANHOLE	USE OF THIS SPECIAL DETAIL
5 OF 5	1. THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS SPECIAL DETAIL. MODIFICATIONS TO THIS SPECIAL DETAIL ARE PROHIBITED. 2. THIS SPECIAL DETAIL IS TEMPORARY AND IS TO BE USED UNTIL A NEW STANDARD DETAIL IS ADOPTED TO REPLACE IT.



AUSTIN WATER SPECIAL DETAIL (10/11/24) CONCRETE WASTEWATER MANHOLE INTERNAL DROP CONNECTIONS	USE OF THIS SPECIAL DETAIL
1 OF 1	1. THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS SPECIAL DETAIL. MODIFICATIONS TO THIS SPECIAL DETAIL ARE PROHIBITED. 2. THIS SPECIAL DETAIL IS TEMPORARY AND IS TO BE USED UNTIL A NEW STANDARD DETAIL IS ADOPTED TO REPLACE IT.

REVIEWED
August 20,2026
Brooks Austin Water
Expires: August 20, 2029

STATE OF TEXAS
ANTHONY D. BUCKODONO
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08/21/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS–PHASE 3
STANDARD DETAILS (WATER & WASTEWATER 4 OF 4)

F&M JOB NO. AU31436

NO.	ISSUE	BY	DATE

	DATE	
DESIGNED		JCS
DRAWN		JCS
REVISED		JCS
CHECKED		TDB

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 91
SEQ. 91 OF 143

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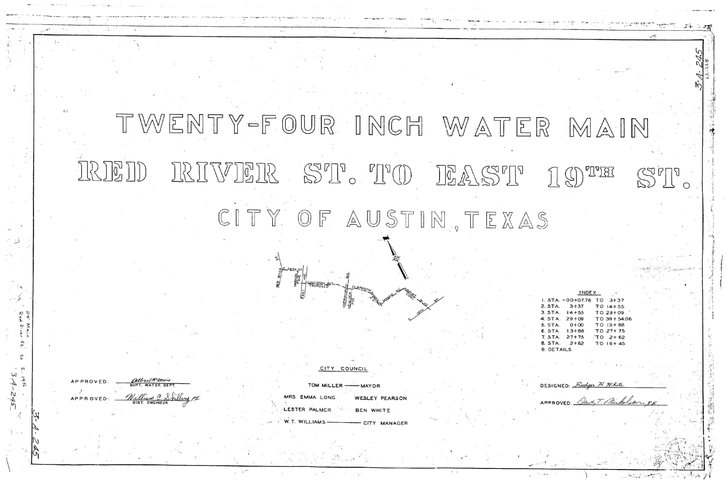
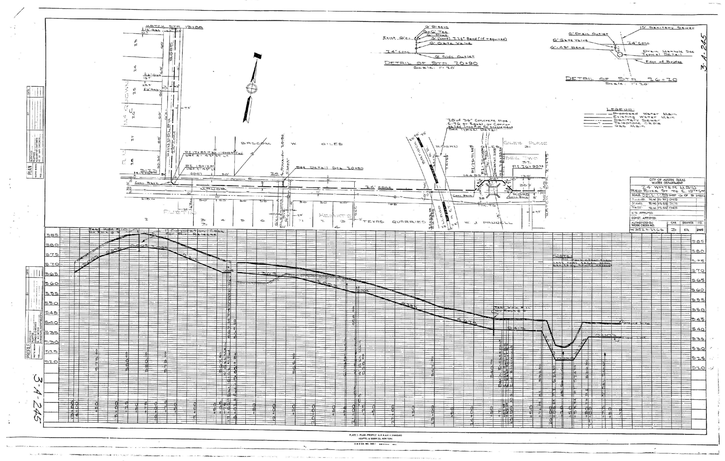
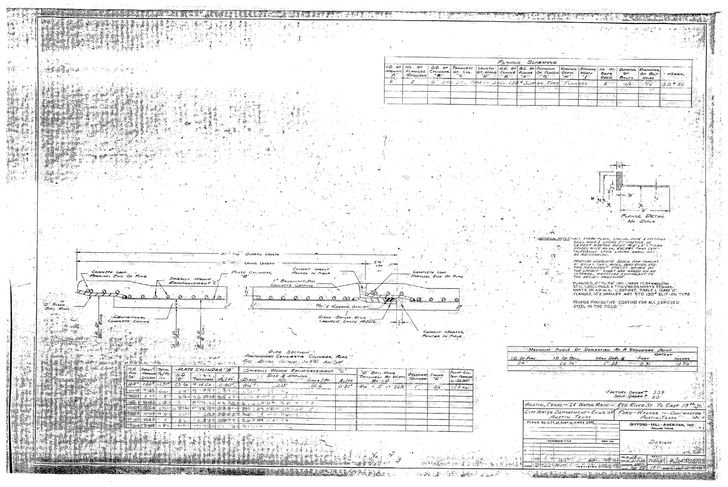
FOR REFERENCE






PLUGGING DETAIL
NO SCALE
CONCRETE END RESTRAINT
CONCRETE END RESTRAINT
PLUGGING END OF PIPE
STEEL SHEET PILE
CONCRETE FILL
CONCRETE FILL
PLUGGING END OF PIPE
STEEL SHEET PILE
CONCRETE FILL
PLUGGING END OF PIPE
CONCRETE FILL
PLUGGING END OF PIPE
STEEL SHEET PIL

	Size	MAX DEPTH = 15 ft. to top of BASE SLAB										MAX DEPTH = 25 ft. to top of BASE SLAB										Min Height (See Gen Note 3)	Max HOLE DIA (See Fab Note 2)	Max KO DIA (See Fab Note 2)
		Base Slab			Base Unit or Riser Walls			Below Grade Slab (w/PJB) Reducing Slab (w/PB)				Base Slab			Base Unit or Riser Walls			Below Grade Slab (w/PJB) Reducing Slab (w/PB)						
		Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness	Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness	Reduced Riser Size	Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness	Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness	Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness	Reduced Riser Size	Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness			
	X x Y	Ashort	Along	BS	Bshort	Blong	W	RWSxRWL or ID	Dshort	Dlong	TS	Ashort	Along	BS	Bshort	Blong	W	RWSxRWL or ID	Dshort	Dlong	TS	BH MIN	HOLE DIA	KO DIA
	ft.	in^2/ft	in^2/ft	in.	in^2/ft	in^2/ft	in.	ft. **	in^2/ft	in^2/ft	in.	in^2/ft	in^2/ft	in.	in^2/ft	in^2/ft	in.	ft. **	in^2/ft	in^2/ft	in.	ft.	in.	in.
Precast Junction Box (PJB)	3x3	0.23	0.23	6	0.19	0.19	6	N/A	0.37	0.37	9	0.29	0.29	6	0.24	0.24	6	N/A	0.37	0.37	9	3.5	36	36
	4x4	0.29	0.29	6	0.24	0.24	6	N/A	0.41	0.41	9	0.47	0.47	6	0.38	0.38	6	N/A	0.41	0.41	9	4.5	48	48
	3x5	0.29	0.18	6	0.19	0.35	6	N/A	0.48	0.48	9	0.39	0.18	6	0.23	0.59	6	N/A	0.48	0.48	9	3.5	36/60	36/60
	4x5	0.36	0.18	6	0.22	0.34	6	N/A	0.42	0.42	9	0.53	0.26	6	0.39	0.59	6	N/A	0.42	0.42	9	4.5	48/60	48/60
	5x5	0.36	0.36	6	0.34	0.34	6	N/A	0.43	0.43	9	0.62	0.62	6	0.59	0.59	6	N/A	0.43	0.43	9	5.5	60	60
	5x6	0.27	0.27	9	0.34	0.45	6	N/A	0.48	0.48	9	0.47	0.45	9	0.38	0.54	8	N/A	0.48	0.48	9	5.5	60/72	60/72
	6x6	0.27	0.27	9	0.45	0.45	6	N/A	0.56	0.56	9	0.52	0.52	9	0.54	0.54	8	N/A	0.56	0.56	9	6.5	72	72
	8x8	0.46	0.46	9	0.51	0.51	8	N/A	0.45	0.45	12	0.87	0.87	9	0.59	0.59	10	N/A	0.45	0.45	12	8.5	96	72
Precast Base (PB)	3x3	0.23	0.23	6	0.19	0.19	6	N/A	N/A	N/A	N/A	0.29	0.29	6	0.24	0.24	6	N/A	N/A	N/A	N/A	3.5	36	36
	4x4	0.29	0.29	6	0.24	0.24	6	N/A	N/A	N/A	N/A	0.47	0.47	6	0.38	0.38	6	N/A	N/A	N/A	N/A	4.5	48	48
	3x5	0.29	0.18	6	0.19	0.35	6	3x3	0.30	0.34	9	0.39	0.18	6	0.23	0.59	6	3x3	0.40	0.40	9	3.5	36/60	36/60
	4x5	0.36	0.18	6	0.22	0.34	6	3x3	0.30	0.30	9	0.53	0.26	6	0.39	0.59	6	3x3	0.46	0.37	9	4.5	48/60	48/60
	4x5	0.36	0.18	6	0.22	0.34	6	4x4	0.30	0.30	9	0.53	0.26	6	0.39	0.59	6	4x4	0.39	0.39	9	4.5	48/60	48/60
	4x5	0.36	0.18	6	0.22	0.34	6	48"	0.39	0.39	9	0.53	0.26	6	0.39	0.59	6	48"	0.47	0.47	9	4.5	48/60	48/60
	4x5	0.36	0.18	6	0.22	0.34	6	3x5	0.33	0.40	9	0.53	0.26	6	0.39	0.59	6	3x5	0.48	0.48	9	4.5	48/60	48/60
	5x5	0.36	0.36	6	0.34	0.34	6	3x3	0.34	0.34	9	0.62	0.62	6	0.59	0.59	6	3x3	0.53	0.53	9	5.5	60	60
	5x5	0.36	0.36	6	0.34	0.34	6	4x4	0.36	0.36	9	0.62	0.62	6	0.59	0.59	6	4x4	0.64	0.64	9	5.5	60	60
	5x5	0.38	0.38	6	0.34	0.34	6	48"	0.36	0.36	9	0.62	0.62	6	0.59	0.59	6	48"	0.64	0.64	9	5.5	60	60
	5x5	0.36	0.36	6	0.34	0.34	6	3x5	0.34	0.40	9	0.62	0.62	6	0.59	0.59	6	3x5	0.53	0.53	9	5.5	60	60
	5x6	0.31	0.31	9	0.34	0.45	6	3x3	0.34	0.34	9	0.47	0.45	9	0.38	0.54	8	3x3	0.61	0.50	9	5.5	60/72	60/72
	5x6	0.27	0.27	9	0.34	0.45	6	4x4	0.36	0.45	9	0.47	0.45	9	0.38	0.54	8	4x4	0.74	0.57	9	5.5	60/72	60/72
	5x6	0.29	0.29	9	0.34	0.45	6	48"	0.36	0.45	9	0.47	0.45	9	0.38	0.54	8	48"	0.74	0.57	9	5.5	60/72	60/72
	5x6	0.29	0.29	9	0.34	0.45	6	3x5	0.45	0.45	9	0.47	0.45	9	0.38	0.54	8	3x5	0.61	0.61	9	5.5	60/72	60/72
	6x6	0.29	0.29	9	0.45	0.45	6	3x3	0.41	0.41	9	0.52	0.52	9	0.54	0.54	8	3x3	0.74	0.74	9	6.5	72	72
	6x6	0.27	0.27	9	0.45	0.45	6	4x4	0.45	0.45	9	0.52	0.52	9	0.54	0.54	8	4x4	0.87	0.87	9	6.5	72	72
	6x6	0.29	0.29	9	0.45	0.45	6	48"	0.45	0.45	9	0.52	0.52	9	0.54	0.54	8	48"	0.87	0.87	9	6.5	72	72
	6x6	0.29	0.29	9	0.45	0.45	6	3x5	0.45	0.45	9	0.52	0.52	9	0.54	0.54	8	3x5	0.87	0.87	9	6.5	72	72
	8x8	0.52	0.52	9	0.51	0.51	8	3x3	0.61	0.61	12	0.91	0.91	9	0.70	0.70	10	3x3	0.85	0.85	12	8.5	96	72
	8x8	0.52	0.52	9	0.51	0.51	8	4x4	0.70	0.70	12	0.87	0.87	9	0.70	0.70	10	4x4	1.01	1.01	12	8.5	96	72
	8x8	0.52	0.52	9	0.51	0.51	8	48"	0.70	0.70	12	0.87	0.87	9	0.70	0.70	10	48"	1.01	1.01	12	8.5	96	72
	8x8	0.52	0.52	9	0.51	0.51	8	3x5	0.70	0.85	12	0.87	0.87	9	0.70	0.70	10	3x5	1.01	1.01	12	8.5	96	72

** Unless otherwise indicated.

DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE:
FILE:

FABRICATION NOTES:
1. Maximum spacing of reinforcement is 8".
2. At manufacturer's option, provide cast or cored holes or thin wall panels (KO) to the maximum diameter shown for each. When no penetration is required, it is acceptable to provide a wall with no sectional reduction.

GENERAL NOTES:
1. Precast Junction Box consists of base slab, base unit, risers (as required), and below grade slab. See sheet PJB for details.
2. Precast Base consists of base slab, base unit, risers (as required), reducing slab (as required), and reduced risers (as required). See sheet PB for details.
3. Min Height shown is for stock base units. Use stock base units whenever practical. Smaller height base units can be used in special installation circumstances, when noted elsewhere in the plans. Absolute minimum height of base units is 2'-6".

HL93 LOADING

Texas Department of Transportation | Bridge Division Standard

DESIGN DATA FOR PRECAST BASE AND JUNCTION BOX

PDD

FILE: prestd10.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT January 2015	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY		SHEET NO.

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144
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97367
LICENSED PROFESSIONAL ENGINEER
8/21/2026
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Phone - (512) 617-3100
Fax - (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

TxDOT PRECAST BASE AND JUNCTION BOX—PDD

FAN JOB NO.	AU314361
DATE	12/12/2025
DESIGNED	PSK
DRAWN	NO
REVISED	TRH
CHECKED	KKP
FILE NAME	CV-AU-DT-MISC02.dwg

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SHEET 93
SEQ. 93 OF 143

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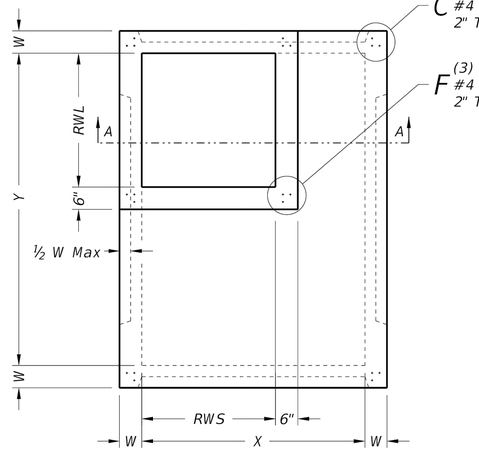
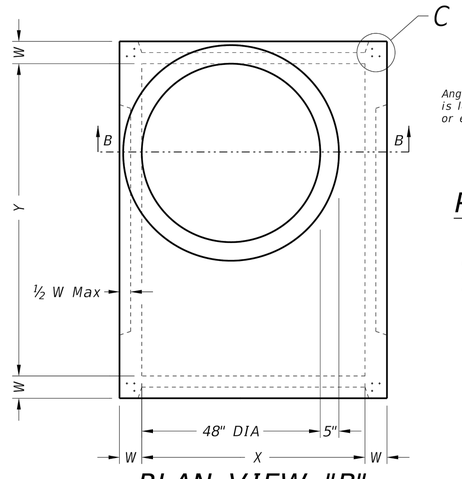


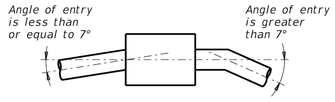
PLAN VIEW "A"

SQUARE REDUCED RISER OPTION



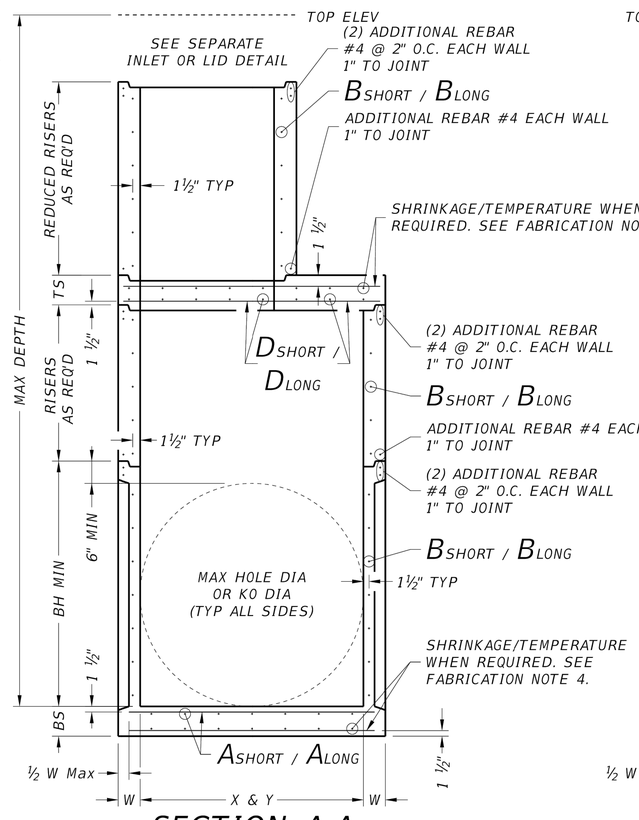
PLAN VIEW "B"

ROUND REDUCED RISER OPTION



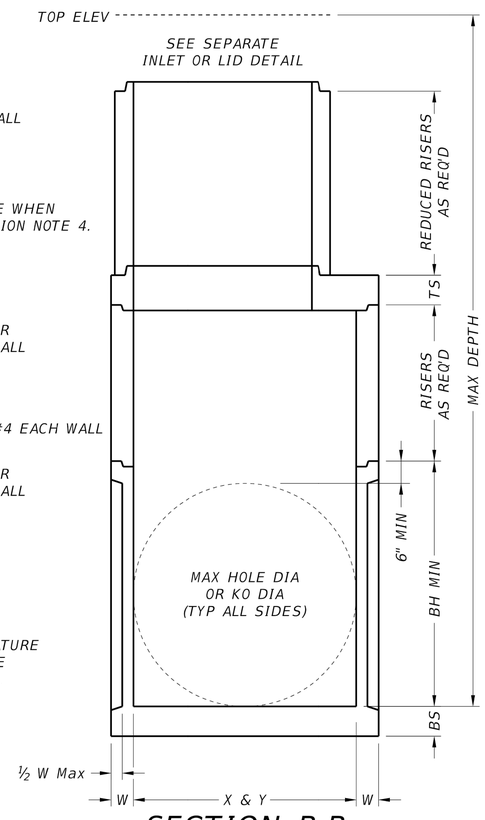
PIPE CONNECTION DETAIL

Connect pipes within 7° of normal to PB wall.
If necessary, use pipe elbow or curved approach alignment to stay within this limit.



SECTION A-A

SQUARE REDUCED RISER OPTION



SECTION B-B

ROUND REDUCED RISER OPTION

FABRICATION NOTES:

1. Provide Class "H" concrete in accordance with Item 421 and having a minimum compressive strength of 5,000 psi.
2. Provide Grade 60 reinforcing steel or equivalent area of WWR.
3. Provide typical clear cover of 1 ½" to reinforcing steel at interior or exterior walls.
4. Walls or slabs with a thickness of 8" or greater require shrinkage and temperature reinforcing steel. Provide steel area = 0.11 in²/ft each way.
5. No substitution is allowed for vertical and horizontal #4 bars in corners.
6. Manufacture base and risers to nearest 3" increment.
7. Design tongue and groove joints for full closure on both shoulders. Minimum spigot depth is ¾".
8. Provide lifting devices in conformance with Manufacturer's recommendations.
9. See sheet PDD for sizes, dimensions, and reinforcing steel not shown.

INSTALLATION NOTES:

1. Inverts (benching) to be provided by Contractor. Concrete or mortar used for invert is subsidiary to specified inlet or manhole.
2. Seal tongue and groove joints with preformed or bulk mastic in conformance with Manufacturer's recommendations. Tongue and groove joints may be grouted no more than 1" between each section, or ½ the joint depth, whichever is greater.
3. Do not grout rubber gasket joints without Manufacturer's recommendation.
4. For rigid pipe, cut hole in thin wall panel (KO) 4" Max, 2" Min larger than pipe OD.
5. For flexible pipe, consult boot/seal Manufacturer's specification for placement tolerance and hole size. Center pipe in hole and install boot/seal per Manufacturer's specification.

GENERAL NOTES:

1. Precast Base consists of base slab, base unit, risers (as required), reducing slab (as required), and reduced risers (as required). See sheet PDD for sizes.
2. Designed according to ASTM C913.
3. Payment for precast base is subsidiary to the specified inlet, per Item 465, "Junction Boxes, Manholes, and Inlets."

Cover dimensions are clear dimensions, unless noted otherwise.

HL93 LOADING

Texas Department of Transportation — Bridge Division Standard

PRECAST BASE

PB

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LICENSED PROFESSIONAL ENGINEER
8/21/2026

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CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

TxDOT PRECAST BASE–PB

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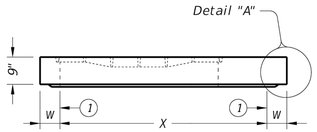
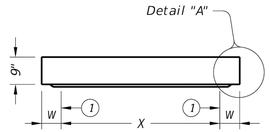
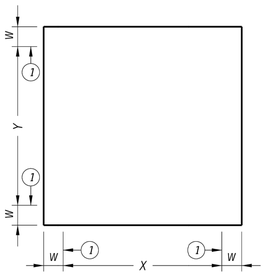


STYLE 'FG'

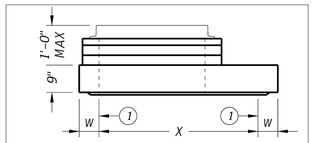


ELEVATION VIEW

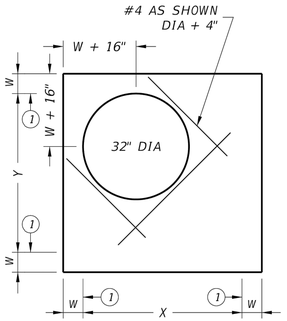


PLAN VIEW
NO OPENINGS

STYLE 'SL'

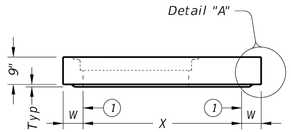


ELEVATION VIEW



PLAN VIEW
SHIP LOOSE RING & COVER

STYLE 'RH'



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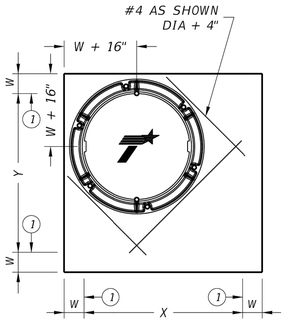
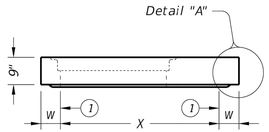
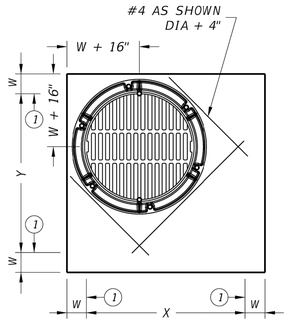


PLAN VIEW
32" DIA CAST-IN RING & COVER

STYLE 'RC'

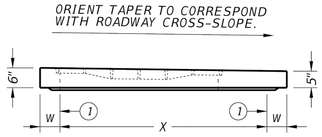


ELEVATION VIEW

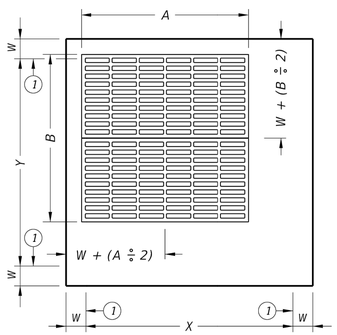


PLAN VIEW
32" DIA CAST-IN RING & GRATE

STYLE 'RG'

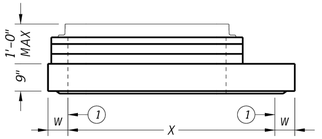


STYLE 'SFG'
ELEVATION VIEW

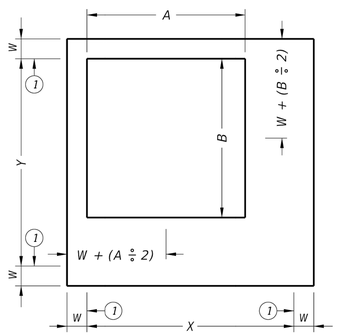


PLAN VIEW
CAST-IN FRAME & GRATE

STYLES 'FG' & 'SFG'

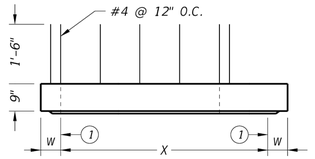


ELEVATION VIEW

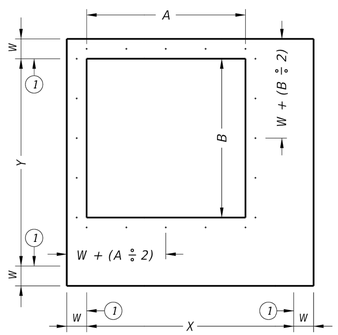


PLAN VIEW
SHIP LOOSE FRAME & GRATE

STYLE 'SH'



ELEVATION VIEW



PLAN VIEW
EXPOSED REBAR

STYLE 'S1'

(1) Matches inside face of wall of precast base or riser below inlet.

HL93 LOADING

SHEET 1 OF 2

Texas Department of Transportation

Bridge Division Standard

PRECAST SLAB LID

PSL

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TXDOT PRECAST SLAB LID (1 OF 2)

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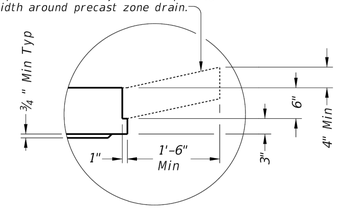
Style	Size (X x Y)	W (2)	A x B (nominal)	Short Span Reinf Steel Area	Long Span Reinf Steel Area
SL	3'x3'	6"	n/a	0.37 in²/ft	0.37 in²/ft
RH,RC,RG,SH,S1,FG	3'x3'	6"	3'x3' or 32" Dia	0.37 in²/ft	0.37 in²/ft
SFG	3'x3'	6"	3'x3'	0.32 in²/ft	0.32 in²/ft
SL	4'x4'	6"	n/a	0.34 in²/ft	0.34 in²/ft
RH,RC,RG,SH,S1,FG	4'x4'	6"	3'x3' or 32" Dia	0.41 in²/ft	0.41 in²/ft
SH,S1,FG	4'x4'	6"	4'x4'	0.41 in²/ft	0.41 in²/ft
SFG	4'x4'	6"	4'x4'	0.32 in²/ft	0.32 in²/ft
SL	3'x5'	6"	n/a	0.39 in²/ft	0.39 in²/ft
RH,RC,RG,SH,S1,FG	3'x5'	6"	3'x3' or 32" Dia	0.48 in²/ft	0.48 in²/ft
SH,S1,FG	3'x5'	6"	3'x5'	0.48 in²/ft	0.48 in²/ft
SFG	3'x5'	6"	3'x5'	0.32 in²/ft	0.32 in²/ft
SL	4'x5'	6"	n/a	0.42 in²/ft	0.42 in²/ft
RH,RC,RG,SH,S1,FG	4'x5'	6"	3'x3' or 32" Dia	0.42 in²/ft	0.42 in²/ft
SH,S1,FG	4'x5'	6"	4'x4'	0.63 in²/ft	0.63 in²/ft
SH,S1,FG	4'x5'	6"	3'x5'	0.66 in²/ft	0.66 in²/ft
SL	5'x5'	6"	n/a	0.36 in²/ft	0.36 in²/ft
RH,RC,RG,SH,S1,FG	5'x5'	6"	3'x3' or 32" Dia	0.43 in²/ft	0.43 in²/ft
SH,S1,FG	5'x5'	6"	4'x4'	0.63 in²/ft	0.63 in²/ft
SH,S1,FG	5'x5'	6"	3'x5'	0.63 in²/ft	0.63 in²/ft
SL	5'x6'	6"/8"	n/a	0.48 in²/ft	0.48 in²/ft
RH,RC,RG,SH,S1,FG	5'x6'	6"/8"	3'x3' or 32" Dia	0.48 in²/ft	0.48 in²/ft
SH,S1,FG	5'x6'	6"/8"	4'x4'	0.60 in²/ft	0.60 in²/ft
SH,S1,FG	5'x6'	6"/8"	3'x5'	0.60 in²/ft	0.60 in²/ft
SL	6'x6'	6"/8"	n/a	0.43 in²/ft	0.43 in²/ft
RH,RC,RG,SH,S1,FG	6'x6'	6"/8"	3'x3' or 32" Dia	0.56 in²/ft	0.56 in²/ft
SH,S1,FG	6'x6'	6"/8"	4'x4'	0.56 in²/ft	0.56 in²/ft
SH,S1,FG	6'x6'	6"/8"	3'x5'	0.59 in²/ft	0.59 in²/ft
SL	8'x8'	8"/10"	n/a	0.45 in²/ft	0.45 in²/ft
RH,RC,RG,SH,S1,FG	8'x8'	8"/10"	3'x3' or 32" Dia	0.45 in²/ft	0.45 in²/ft
SH,S1,FG	8'x8'	8"/10"	4'x4'	0.45 in²/ft	0.45 in²/ft
SH,S1,FG	8'x8'	8"/10"	3'x5'	0.45 in²/ft	0.45 in²/ft

(2) See sheet PDD for corresponding wall thickness (W) of base unit or riser.

Construct cast-in-place reinforced concrete apron, when shown elsewhere in plans. Use Class "A" concrete. Apron is subsidiary to PSL. Apron is 1'-6" Min width around precast zone drain.



DETAIL "A"

(Reinforcing not shown for clarity)

When an apron is to be cast around PSL, use detail above to create an apron ledge on all 4 sides.

FABRICATION NOTES:

1. Locate penetration (Style 'RH'), ring and cover (Style 'RC'), ring and grate (Style 'RG'), and frame and grate (Style 'FG') in a corner. Only one penetration is allowed per slab lid.
2. Provide Class "H" concrete in accordance with Item 421 and having a minimum compressive strength of 5,000 psi.
3. Provide Grade 60 reinforcing steel or equivalent area of WWR.
4. Provide clear cover of 3/4" to reinforcing from lower outside shoulder of slab for structural reinforcement, and 2" from top of slab for shrinkage and temperature reinforcement. Place short span reinforcing closest to surface.
5. Slabs with a thickness of 8" or greater require shrinkage and temperature reinforcing. Provide steel area = 0.11 in²/ft each way.
6. No substitution is allowed for diagonal #4 bars around openings.
7. Design tongue and groove joints for full closure on both shoulders. Minimum spigot depth is 3/4".
8. Provide lifting devices in conformance with Manufacturer's recommendations.

INSTALLATION NOTES:

1. Precast slab lids are intended for direct traffic and may be placed in roadway.
2. Seal tongue and groove joints with preformed or bulk mastic in conformance with Manufacturer's recommendations. Tongue and groove joints may be grouted no more than 1" between each section, or 1/2 the joint depth, whichever is greater.
3. Do not grout rubber gasket joints without Manufacturer's recommendation.
4. Initial installation of grade adjustment rings for Styles 'RH' and 'SH' is limited to 1'-0" Max as shown.
5. Grade adjustment rings for Styles 'RH' and 'SH' may be increased to 2'-0" Max when future construction affects final grade of structure. Make adjustments greater than 2'-0" with additional risers. Adjustments can be made up to Max depth shown on sheet PDD. Structure must be evaluated if Max depth will be exceeded.
6. Orient long dimension of grate slots perpendicular to traffic, unless noted otherwise on plans

GENERAL NOTES:

1. Designed according to ASTM C913.
2. Payment for lid is per Item 465, "Junction Boxes, Manholes, and Inlets" by type, style, size, and opening size (when applicable).

Cover dimensions are clear dimensions, unless noted otherwise.

HL93 LOADING SHEET 2 OF 2

Texas Department of Transportation | Bridge Division Standard

PRECAST SLAB LID

PSL

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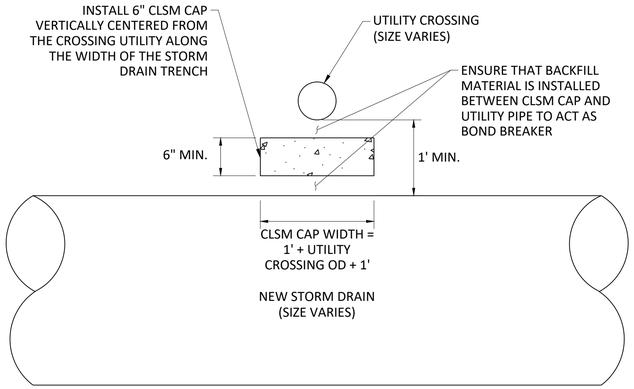
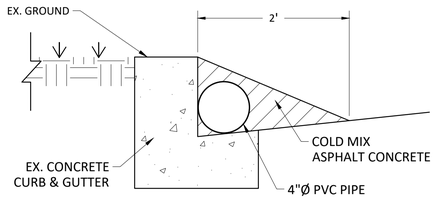


1 - UTILITY CROSSING OVER STORMDRAIN

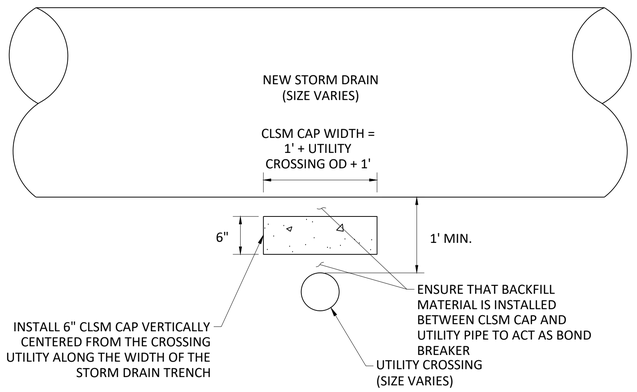
NOT TO SCALE



3 - TEMPORARY CURB RAMP

NOT TO SCALE

NOTE
INSTALL AT STAGING AREA CONSTRUCTION ENTRANCE.



2 - UTILITY CROSSING UNDER STORMDRAIN

NOT TO SCALE

UTILITY CROSSING DETAIL NOTE:

1. CLSM CAP/BACKFILL SHALL BE INSTALLED PER THE UTILITY CROSSING DETAILS AT ALL UTILITY CROSSINGS WITH LESS THAN 2' OF VERTICAL SEPARATION WITH THE NEW STORM DRAIN.
2. ON 01/15/2026 THIS PROJECT RECEIVED APPROVAL FROM THE AUSTIN WATERSHED PROTECTION DEPARTMENT OF A WAIVER TO SECTION 5.7.1 STORM DRAIN CLEARANCE. UTILITY CROSSINGS WITH LESS THAN 2 FT OF CLEARANCE FROM THE STORM DRAIN WITH THE ADDITION OF A CLSM CAP HAVE BEEN APPROVED DUE TO UTILITY DESIGN CONSTRAINTS. THE LOCATION OF THE WAIVER IS AT DETAIL 1 AND DETAIL 2.

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
KIMBERLY K. PATAK
97367
LICENSED
PROFESSIONAL ENGINEER
8/21/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone - (512) 617-3100
Fax - (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN
AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS-PHASE 3

MISCELLANEOUS DETAILS

NO.	ISSUE	BY	DATE

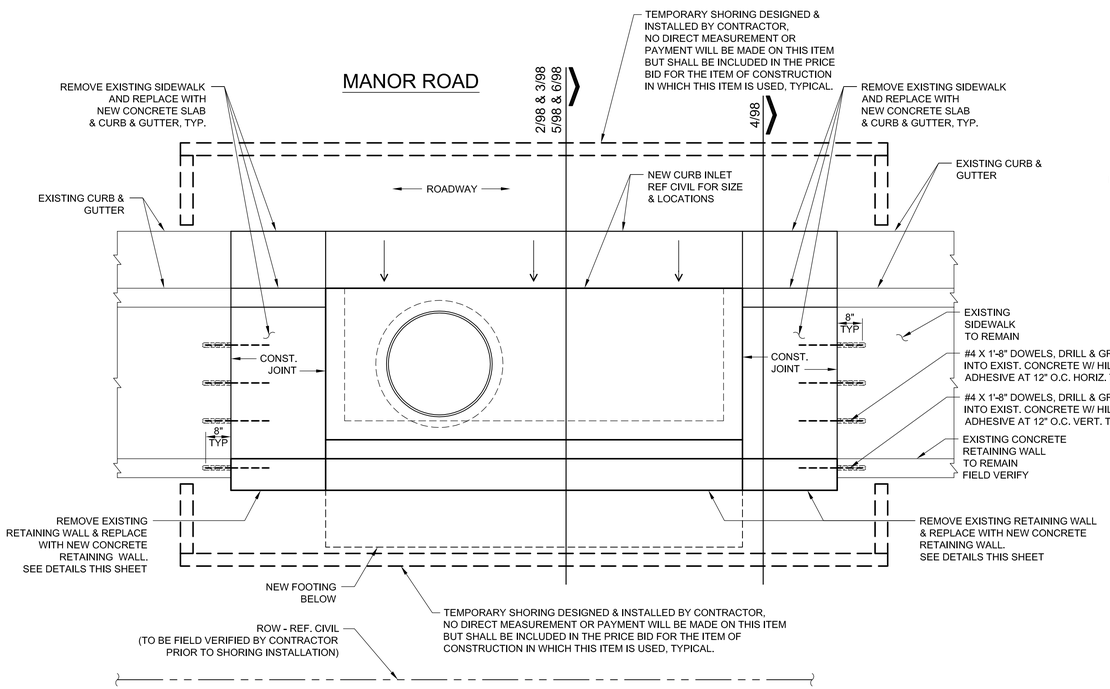
FAH JOB NO. AU314361
DATE 12/12/2025
DESIGNED PSK
DRAWN NO
REVISED TRH
CHECKED KKP
FILE NAME CV-AU-DT-MISC.dwg

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 97
SEQ. 97 OF 143

ACAD Rel: 25.1s (LMS Tech)
Filename: N:\SW\Larry Lane\Drawings\CV-AU-DT-MISC.dwg
Last Saved: 7/28/2026 2:28 PM Saved By: 02915

Plot Date: 8/21/2026 8:38 AM Plot By: no Filename: N:\SW\Larry Lane\Drawings\CV-AU-DT-MISC.dwg



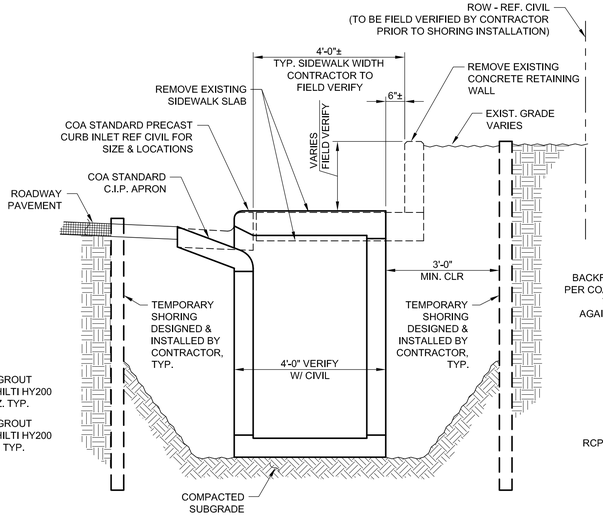
PLAN NORTH

1 TYPICAL INLET PLAN
COA STD CURB INLET

SCALE: 1/2" = 1'-0"

NOTE:

1. THIS TYPICAL DETAIL APPLIES TO CURB INLETS CI-69, CI-70, & CI-72 VERIFY SIZE & LOCATION WITH CIVIL DRAWINGS.

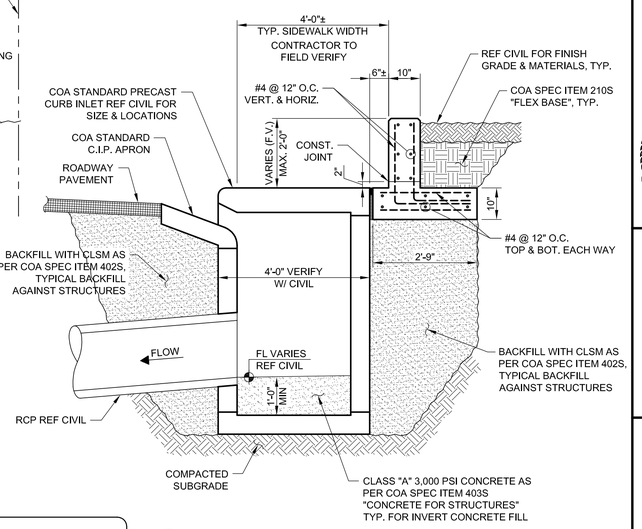


2 TYPICAL INLET SECTION
EXCAVATION PHASE

SCALE: 1/2" = 1'-0"

NOTE:

1. TYPICAL DETAILS 2 & 3 APPLIES TO CURB INLETS CI-70, & CI-72 VERIFY SIZE & LOCATION WITH CIVIL DRAWINGS.

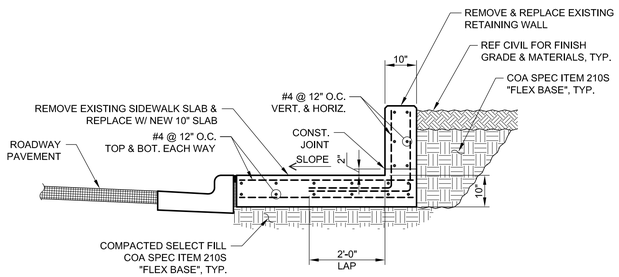


3 TYPICAL INLET SECTION
W/ NEW RETAINING WALL

SCALE: 1/2" = 1'-0"

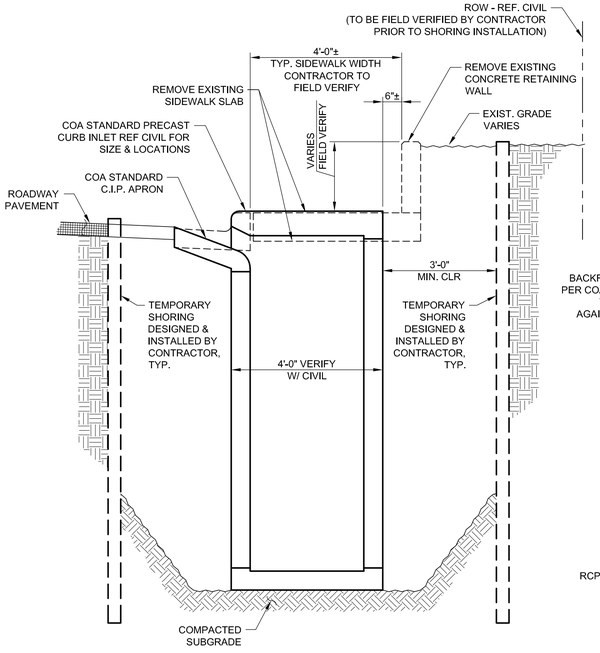
NOTE:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS, ELEVATIONS, PIPE SIZES & FLOW LINES WITH CIVIL DRAWINGS.



4 SIDEWALK REPAIR W/ NEW SLAB & RETAINING WALL

SCALE: 1/2" = 1'-0"

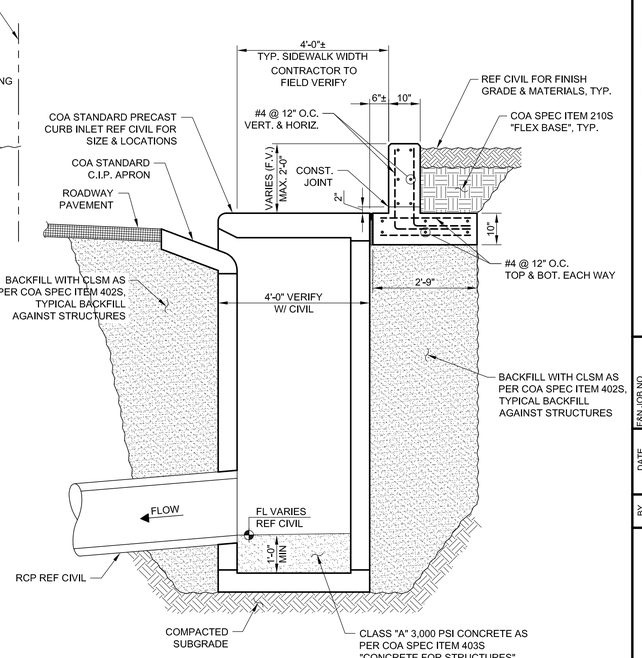


5 DEEP INLET SECTION
EXCAVATION PHASE

SCALE: 1/2" = 1'-0"

NOTE:

1. DETAILS 5 & 6 APPLIES TO CURB INLET CI-69 ONLY VERIFY SIZE & LOCATION WITH CIVIL DRAWINGS.



6 DEEP INLET SECTION
W/ NEW RETAINING WALL

SCALE: 1/2" = 1'-0"

NOTE:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS, ELEVATIONS, PIPE SIZES & FLOW LINES WITH CIVIL DRAWINGS.

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Registration No. F-2545
Expiration Date 12-31-2026

FRANK SUNG LAM
51594
LICENSED PROFESSIONAL ENGINEER
08-24-26

FLA PROJECT NUMBER: 2301

CITY OF AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

WALL MODIFICATIONS AT CURB INLETS

NO.	ISSUE	BY	DATE

FAN JOB NO. AU314361
DATE 08/24/26
DESIGNED FL
DRAWN BG
REVISED
CHECKED FL
FILE NAME

VERIFY SCALE
Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 98
SEQ. 98 OF 143

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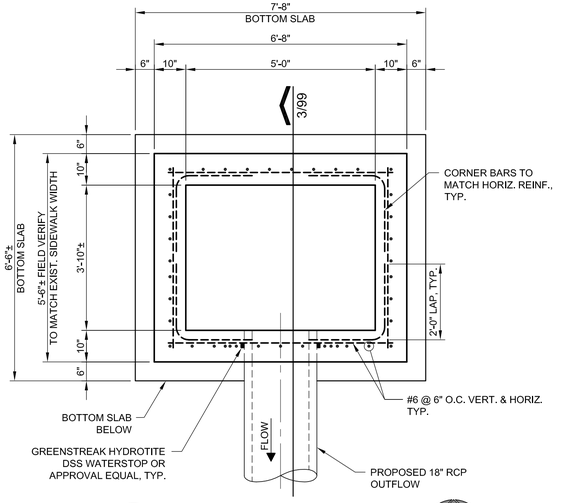
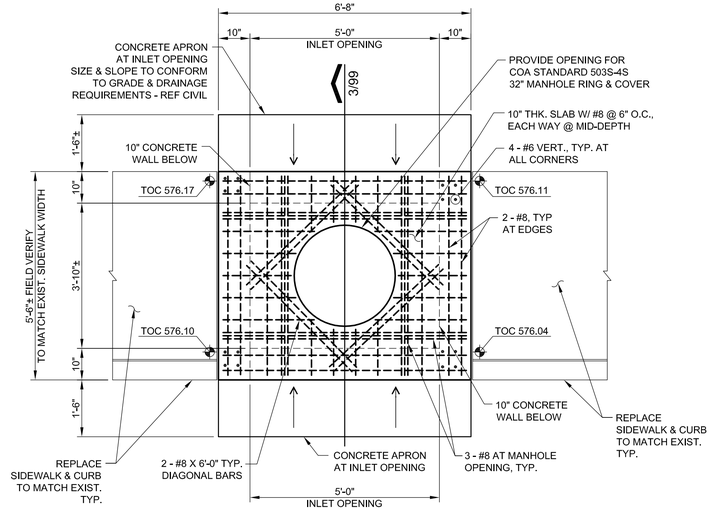


1 PLAN SECTION
TWO SIDED INLET SI-02

SCALE: 1/2" = 1'-0"



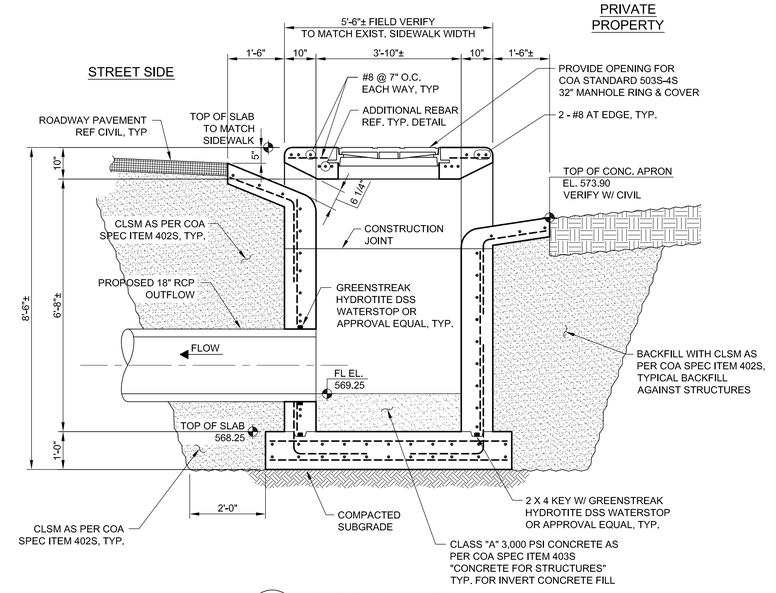
2 TOP SLAB PLAN
TWO SIDED INLET SI-02

SCALE: 1/2" = 1'-0"



NOTE:

1. ALL CONCRETE FOR INLET STRUCTURE SHALL BE CLASS "H" 5,500 PSI CONCRETE.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS, ELEVATIONS, PIPESIZES & FLOW LINES WITH CIVIL DRAWINGS.
   THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

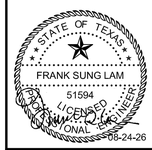


3 SECTION THRU
TWO SIDED INLET SI-02

SCALE: 1/2" = 1'-0"

NOTE:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS, ELEVATIONS, PIPE SIZES & FLOW LINES WITH CIVIL DRAWINGS.
   THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.



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CITY OF AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE
IMPROVEMENTS - PHASE 3

TWO SIDED CURB INLET DETAILS

NO.	ISSUE	BY	DATE

F&N JOB NO. AU314361
DATE 08/24/26
DESIGNED FL
DRAWN BG
REVISED
CHECKED FL
FILE NAME

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
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SHEET 99
SEQ. 99 OF 143

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STRUCTURAL NOTES

THESE STRUCTURAL NOTES SHALL APPLY UNLESS OTHERWISE SPECIFICALLY NOTED ON PLANS AND DETAILS. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, NEW AND/OR EXISTING, AND SHALL COORDINATE ALL STRUCTURAL PLANS AND DETAILS WITH CIVIL DRAWINGS BEFORE STARTING WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. DESIGN, CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE, CITY OF AUSTIN STANDARD DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL CHECK AND VERIFY ALL SHOP DRAWINGS BEFORE SUBMITTING TO THE CONSULTANTS. ALL CONSTRUCTIBILITY ISSUES AND SITE RESTRICTIONS SHALL BE CAREFULLY EXAMINED BY CONTRACTOR AND RESOLVED PRIOR TO BIDDING.

DESIGN CRITERIA

IBC 2021

1. LIVE LOADS:

   JUNCTION BOXES,
   MANHOLES, & INLETS.....AASHTO HS20 TRUCK LOAD
   250 PSF UNIFORM DISTRIBUTED LOAD

2. FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL INVESTIGATION PREPARED BY: HVJ ASSOCIATES, INC., DATED: NOVEMBER 21, 2014. REPORT NO. AG 13 16240

   BEARING CAPACITY:

   1,250 PSF INTO STIFF TO VERY STIFF FAT CLAY OR SANDY LEAN CLAY OR MEDIUM DENSE TO DENSE CLAYEY SAND.

   EQUIVALENT FLUID DENSITY:

	ABOVE WATER TABLE	BELOW WATER TABLE
AT REST	55 PCF	90PCF
ACTIVE	35 PCF	80 PCF

CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE CITY OF AUSTIN STANDARD SPECIFICATIONS.
2. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, MUST FOLLOW THE A.C.I. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", A.C.I. #315, LATEST EDITION.
3. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AS FOLLOWS:

   JUNCTION BOXES, INLETS, RETAINING WALLS & OTHER STRUCTURES:

   4,000 PSI MINIMUM STRENGTH AT 28 DAYS.
   CITY OF AUSTIN CLASS "S" CONCRETE AS PER STANDARD SPEC.
   ITEM 403S "CONCRETE FOR STRUCTURES"

   JUNCTION BOX INVERT CONCRETE FILL:

   3,000 PSI MINIMUM STRENGTH AT 28 DAYS.
   CITY OF AUSTIN CLASS "A" CONCRETE AS PER STANDARD SPEC.
   ITEM 403S "CONCRETE FOR STRUCTURES"

4. REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60.
5. STANDARD PROTECTIVE COVER OF REINFORCING BARS UNLESS OTHERWISE NOTED SHALL BE:

   WHERE CAST AGAINST DIRT OR FILL 3 IN.
   EXPOSED TO EARTH OR WEATHER 2 IN.
   OTHER 1-1/2 IN.

6. UNLESS NOTED OTHERWISE AT CORNERS AND "T" INTERSECTIONS OF ALL BEAMS, EXTEND 4 CORNER BARS EQUAL TO THE SCHEDULED STEEL IN THE ADJACENT BEAMS 2'-0" EACH WAY, 2 BARS TOP AND 2 BARS BOTTOM. MAKE ALL HORIZONTAL WALL STEEL CONTINUOUS AROUND CORNERS.
7. ALL ACCESSORIES SHALL BE IN ACCORDANCE WITH THE A.C.I. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", A.C.I. #315, LATEST EDITION.
8. BARS SCHEDULED AND DETAILED "CONT" SHALL BE LAPPED AS PER STANDARD TENSION LAP TABLE.
9. SHOP DRAWINGS SHALL BE PREPARED FOR ALL REINFORCING STEEL AND SUBMITTED FOR REVIEW BY ENGINEER. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.
10. WELDING OF REINFORCING BARS SHALL NOT BE PERMITTED, UNLESS APPROVED BY ENGINEER.
11. DURING PLACEMENT OF CONCRETE, USE TREMIE OR OTHER MEANS TO LIMIT FREE-FALL OF CONCRETE TO 5'-0".

FOUNDATION NOTES UNDER JUNCTION BOXES AND INLET STRUCTURES

1. REMOVE ALL PAVEMENT, CLAY, AND SAND TO DESIRED GRADE AS PER STRUCTURAL DRAWINGS.
2. REWORK AND COMPACT THE TOP 6" OF THE EXPOSED SUBGRADE TO 95% OF MAXIMUM DRY DENSITY (+/- 2%) AT 2% TO 3% ABOVE OPTIMUM MOISTURE CONTENT, IN ACCORDANCE WITH TxDOT METHOD TEX-113-E.
3. FILL BACK TO REQUIRED GRADE WITH MATERIAL SELECTED AND COMPACTED IN ACCORDANCE WITH THE REQUIREMENTS BELOW.
4. SELECT FILL SHALL BE CRUSHED LIMESTONE BASE MATERIAL MEETING CITY OF AUSTIN SPECIFICATION ITEM 210S "FLEXIBLE BASE".
5. SAMPLES OF PROPOSED SELECT FILL SHALL BE FURNISHED TO THE TESTING LABORATORY 7 DAYS PRIOR TO INSTALLATION TO PERMIT TIME FOR SPECIFICATION COMPLIANCE INSPECTION AND APPROVAL.
6. SELECT FILL SHALL BE COMPACTED IN THE FIELD IN LIFTS NOT TO EXCEED 6" TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AT A MOISTURE CONTENT RANGING BETWEEN -3 AND +3 PERCENT OF OPTIMUM MOISTURE CONTENT, IN ACCORDANCE WITH TxDOT METHOD TEX-113-E.
7. IF NEEDED, PROVIDE 6" OF CLEAN WASHED GRAVEL OR CRUSHED STONE POROUS FILL (GRADED 1/4" TO 1/2" MAX.) UNDER SLAB BETWEEN TOP OF SELECT FILL AND BOTTOM OF CONCRETE BUILDING SLAB (AGGREGATE CONFORMING TO ASTM C33, GRADE 67 IS ACCEPTABLE).

STRUCTURAL STEEL

1. ALL HOT ROLLED STRUCTURAL STEEL W-SHAPES SHALL CONFORM TO ASTM SPECIFICATION A992, GRADE 50.
2. ALL STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM SPECIFICATION A-500, GRADE B.
3. ALL STRUCTURAL STEEL M-SHAPES, S-SHAPES, CHANNELS, ANGLES, PLATES AND BARS SHALL CONFORM TO ASTM SPECIFICATION A36 UNLESS OTHERWISE SHOWN OR NOTED OTHERWISE.
4. ALL ROUND, SQUARE AND RECTANGULAR HOLLOW STRUCTURAL SHAPES (HSS) SHALL CONFORM TO ASTM A500, GRADE B.
5. ALL STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM SPECIFICATION A53, GRADE B.
6. ALL ANCHOR RODS SHALL CONFORM TO ASTM SPECIFICATION F1554, GRADE 55.
7. ALL STRUCTURAL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
8. ALL STRUCTURAL STEEL BOLTS SHALL CONFORM TO ASTM A325, TYPE I, HEAVY HEX UNLESS OTHERWISE SHOWN OR NOTED. FURNISH HEAVY HEX CARBON-STEEL NUTS PER ASTM A563 AND HARDENED CARBON-STEEL WASHERS PER ASTM F436 AT ALL BOLTED CONNECTIONS, INCLUDING ANCHOR RODS.
9. ALL BEAMS AND COLUMNS SHALL BE FULL LENGTH WITHOUT SPLICES UNLESS OTHERWISE INDICATED ON PLANS.
10. ALL SHOP AND FIELD WELDS SHALL BE MADE BY WELDERS WHO HAVE BEEN QUALIFIED AND CERTIFIED TO MAKE THE REQUIRED WELDS WITHIN THE PREVIOUS SIX MONTHS IN ACCORDANCE WITH THE LATEST AMERICAN WELDING SOCIETY SPECIFICATIONS A.W.S. D1.1. WELD FILLER METAL SHALL BE E70XX ELECTRODES, UNLESS OTHERWISE SPECIFIED. MINIMUM WELD SIZE SHALL BE 1/4 INCH FILLET WELD, UNLESS OTHERWISE NOTED.
11. SHOP DRAWINGS SHALL BE PREPARED FOR ALL STRUCTURAL STEEL AND SUBMITTED FOR REVIEW BY ENGINEER. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.
12. ALL COMPLETE PENETRATION WELDS, BOTH SHOP AND FIELD, SHALL BE MADE UNDER THE OBSERVATION OF A QUALIFIED TESTING LABORATORY INSPECTOR.
13. THE FABRICATOR SHALL SUPPLY BACK UP PLATES AND EXTENSION TABS FOR ALL COMPLETE PENETRATION WELDS.
14. ALL COMPLETE PENETRATION WELDS SHALL BE ULTRASONIC TESTED OR X-RAYED BY A QUALIFIED TESTING LABORATORY. ANY WELDS FOUND DEFECTIVE SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
15. ALL WELDS TO BE X-RAYED SHALL BE GROUND SMOOTH.
16. UNLESS NOTED OTHERWISE, ALL STEEL MEMBERS AND CONNECTIONS SHALL BE HOT DIPPED GALVANIZED AS PER ASTM A123 & ASTM A153.

STANDARD LAP LENGTHS		
BAR SIZE	BAR POSITION	
	CASE 1 (BOTTOM BARS)	CASE 2 (TOP BARS)
#3	19"	24"
#4	25"	32"
#5	31"	40"
#6	37"	49"
#7	59"	71"
#8	62"	81"
#9	70"	91"
#10	79"	102"
#11	87"	114"

CASE 1: (BOTTOM BARS)
HORIZONTAL BARS WITH LESS THAN 12" OF CONC BELOW BARS, AND ALL VERTICAL BARS.

CASE 2: (TOP BARS)
HORIZONTAL BARS W/ 12" OR MORE CONC BELOW BARS.

Fc = 4 KSI MIN.
Fy = 60 KSI

ACI LAP CLASS B (1.3 ld)

1 STANDARD TENSION LAP LENGTHS

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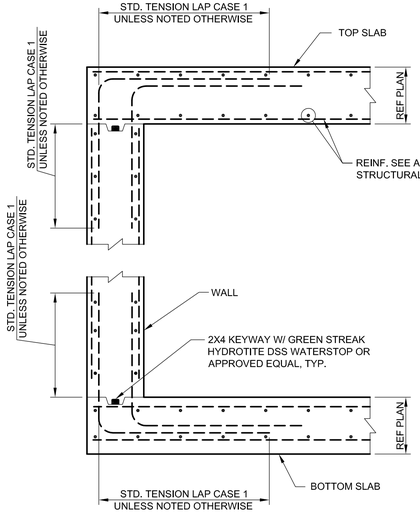
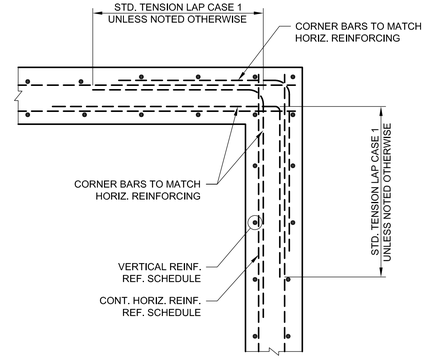


SECTION

2 TYPICAL SLAB TO WALL REINFORCING DETAIL U.N.O.

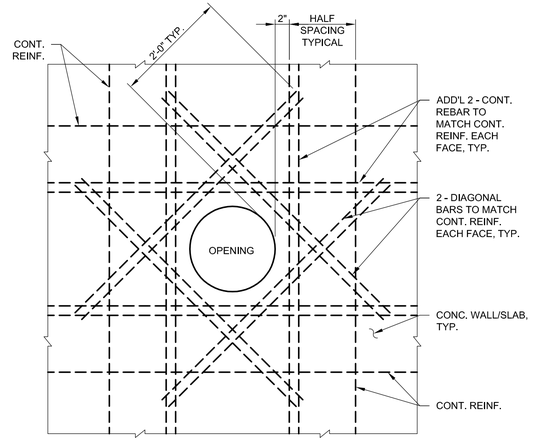
NO SCALE



PLAN VIEW

3 TYP. CONCRETE WALL CORNER DETAIL

NO SCALE

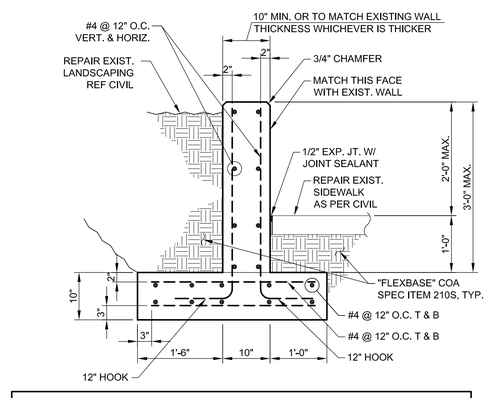


5 TYPICAL REINFORCING AT OPENINGS IN SLABS & WALLS

NO SCALE

NOTE:

1. THIS TYPICAL DETAIL APPLIES TO OPENINGS 12" DIA. OR LARGER.



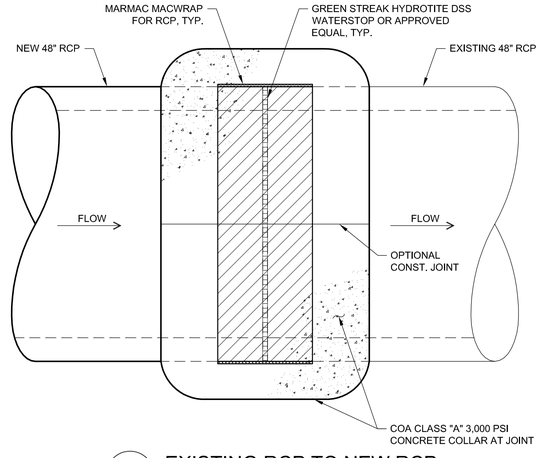
DESIGN SUMMARY FOR DETAIL 4					
BEARING CAPACITY (PSF)	EQUIVALENT FLUID PRESSURE (PCF) (UNDRAINED)	VERTICAL SURCHARGE (PSF)	FACTOR OF SAFETY		
			SLIDING	OVER TURNING	BEARING
1250	80	100	2.06 ≥ 1.5 AASHTO	2.34 > 2.0 AASHTO	6.0

4 TYPICAL RETAINING WALL 2'-0" TALL

SCALE: 3/4" = 1'-0"

NOTE:

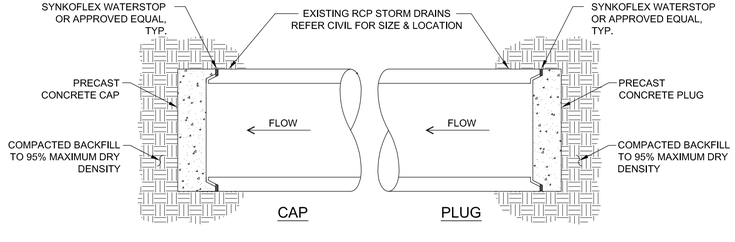
1. REFER TO CIVIL FOR LOCATIONS.
2. RETAINING WALLS ARE DESIGNED TO WITHSTAND LONG-TERM FULL HYDROSTATIC PRESSURES.



6 EXISTING RCP TO NEW RCP CONNECTION DETAIL

SCALE: 3/4" = 1'-0"

NOTE: REFER TO CIVIL DRAWINGS FOR PIPE SIZE & LOCATIONS.



7 END OF PIPE CAP & PLUG DETAIL

NOT TO SCALE

NOTE: REFER TO CIVIL DRAWINGS FOR PIPE SIZE & LOCATIONS.

STATE OF TEXAS
FRANK SUNG LAM
51594
LICENSED PROFESSIONAL ENGINEER
08-24-26

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CITY OF AUSTIN WATERSHED PROTECTION
BOGGY CREEK MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

STRUCTURAL NOTES & TYPICAL CONCRETE DETAILS

NO.	ISSUE	BY	DATE

F&N JOB NO. AU3143361
DATE 08/24/26
DESIGNED FL
DRAWN BG
REVISED
CHECKED FL
FILE NAME

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale. 0 1"

SHEET 100

SEQ. 100 OF 143

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Filename: Z:\PROJECTS\2023\2301 - MLK Phase 3\STRUC\2301 - 100 Structural Notes & Typical Details.dwg
Last Saved: 8/20/2026 5:17 PM Saved By: Bill

RIGHT OF WAY MANAGEMENT STANDARD NOTES FOR TRAFFIC CONTROL PLANS
(REVISED 02/13/25)

1. CONTRACTOR SHALL HAVE AN APPROVED RIGHT-OF-WAY (ROW) PERMIT AND TRAFFIC CONTROL PLAN (TCP) IN ELECTRONIC OR PAPER FORMAT ON SITE AT ALL TIMES WHEN WORKING IN THE ROW.

2. CONTRACTOR SHALL PROVIDE ADVANCED NOTIFICATION PER THE LATEST TRANSPORTATION CRITERIA MANUAL (TCM) SECTION 8.4.0 WORK ZONES:

A. 311 MUST BE NOTIFIED A MINIMUM OF THREE (3) DAYS PRIOR TO ANY PLANNED CLOSURES, INCLUDING ANY SIDEWALK, BIKE LANES, AND ALLEYS

B. ANY PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) MUST BE SETUP AT LEAST TWO (2) WEEKS PRIOR TO THE CLOSURE

C. CONSTRUCTION NOTICES, DOOR-HANGERS AND/OR MAILINGS MUST BE PROVIDED AT LEAST TWO (2) WEEKS PRIOR TO COMMENCEMENT OF WORK

D. CLOSURES OF ANY EXISTING DRIVEWAYS MUST BE AVOIDED. WHEN ACCESS CANNOT BE MAINTAINED, A MINIMUM 7 DAYS OF ADVANCED NOTIFICATION TO THE PROPERTY OWNER IS REQUIRED, AND 14 DAYS ADVANCED NOTIFICATION FOR EMERGENCY SERVICE FACILITIES (SUCH AS FIRE STATIONS, HOSPITALS, AND POLICE STATIONS) ALONG WITH THE APPROVAL FROM THE ROW DIVISION OF TPW.

E. IF EXISTING HOUSE OF WORSHIP IS WITHIN THE TEMPORARY TRAFFIC CONTROL OR DETOUR AREA, THE CONTRACTOR SHALL COORDINATE TO AVOID WORK DURING SERVICE HOURS.

F. IF CLOSURE AND/OR DETOUR EXTENDS TO AN ADJACENT JURISDICTION OR PRIVATELY OWNED ROADWAY, THEN CONTRACTOR SHALL FOLLOW REQUIREMENTS OF THE MAINTENANCE AGENCY. (COA REVIEW STAMP IS VALID FOR COA FULL PURPOSE JURISDICTION ONLY.)

3. UNLESS OTHERWISE APPROVED BY THE ROW DIVISION OF TRANSPORTATION PUBLIC WORKS DEPARTMENT (TPW):

A. ONLY ONE PHASE OF A TCP MAY BE SET AT ANY ONE TIME

B. INITIAL SETUPS AND PHASE CHANGES SHOULD NOT EXTEND INTO HOURS WHERE WORK ACTIVITIES ARE PROHIBITED

C. LONG-TERM SETUPS SHOULD OCCUR DURING LOW-VOLUME TRAFFIC HOURS, SUCH AS WEEKENDS

D. DOUBLE LANE CLOSURES IN THE DAPCZ ARE PROHIBITED MONDAY THROUGH FRIDAY

E. FULL CLOSURES ARE GENERALLY PROHIBITED MONDAY THROUGH FRIDAY

4. ONCE TRAFFIC CONTROL HAS BEEN SET, THE AUTHORIZED AND COMPETENT REPRESENTATIVE FROM THE PROJECT TEAM/BARRICADE COMPANY WILL COMPLETE AND UPLOAD THE "CONTRACTOR'S SELF-INSPECTION CHECKLIST" FORM. SEE FORM AND DETAILED INSTRUCTIONS HERE: HTTPS://WWW.AUSTINTEXAS.GOV/PAGE/RIGHT-WAY-TRAFFIC-CONTROL

5. IF POLICE OFFICERS EMPLOYED BY AGENCIES OTHER THAN THE CITY OF AUSTIN WILL BE USED TO ASSIST IN DIRECTING TRAFFIC, THE APPLICANT MUST NOTIFY APDSPECIALEVENTS@AUSTINTEXAS.GOV AT LEAST THREE (3) DAYS PRIOR TO WORK WITH THE NAME(S) AND AGENCY OF THE POLICE OFFICERS TO BE EMPLOYED, ALONG WITH THE DATE, TIME, AND LOCATION WHERE THE OFFICER(S) WILL BE WORKING.

6. EXCAVATIONS SHALL BE BACKFILLED OR PLATED WHEN REQUIRED TO OPEN TO TRAFFIC. TEMPORARY PAVING SHALL BE DONE ACCORDING TO CITY OF AUSTIN (COA) STANDARD DETAIL 1100S-4 (FOR HMAC OR PCC PAVEMENTS). FOR EXCAVATIONS EXCEEDING A TRANSVERSE WIDTH OF 5 FEET, THE CONTRACTOR SHALL PROVIDE AN ENGINEERED PLATING PLAN FOR REVIEW TO TRANSPORTATION AND PUBLIC WORKS DEPARTMENT OFFICE OF THE CITY ENGINEER AT THEIR EMAIL ADDRESS PWDOCEREVIEWDL@AUSTINTEXAS.GOV.

7. PEDESTRIAN ROUTES IN AND AROUND THE WORK ZONE, INCLUDING CONSTRUCTION ENTRANCES, TEMPORARY WALKING PATHS, BYPASSES, COVERED WALKWAYS, AND DETOURS THROUGHOUT THE PROJECT, MUST REMAIN ACCESSIBLE AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING PEDESTRIAN FACILITY.
SIDEWALKS SHOULD NOT BE CLOSED FOR PERIODS OF MORE THAN 14 DAYS, UNLESS OTHERWISE APPROVED BY THE ROW DIVISION OF TPW.

8. ALL APPLICABLE SAFEGUARDS SHALL BE IN PLACE PER CHAPTER 33 OF THE INTERNATIONAL BUILDING CODE, WHICH INCLUDES PEDESTRIAN PROTECTIONS PER SECTION 3306.

9. "CONSTRUCTION ENTRANCE AHEAD" SIGNS MUST BE PLACED AT ALL APPROACHES TO CONSTRUCTION ENTRANCES, UNLESS OTHERWISE SHOWN ON THE REVIEWED TCP.

10. ALL TRAFFIC CONTROL DEVICES INCLUDING PROTECTIVE BARRIERS MUST BE CRASHWORTHY AND INSTALLED ACCORDING TO THE MANUFACTURER'S GUIDELINES. FOR A PRODUCT LIST OF CRASHWORTHY TRAFFIC CONTROL DEVICES, SEE TXDOT'S "COMPLIANT WORK ZONE TRAFFIC CONTROL DEVICE" LIST. CRASHWORTHINESS SHALL BE DETERMINED PER AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIAL'S (AASHTO) MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) TESTING REQUIREMENTS.

11. OVERNIGHT PROTECTION OF WORK ZONES AND STORAGE OF MATERIAL/EQUIPMENT SHALL BE ACCORDING TO COA STANDARD DETAIL 804S-4.

12. THE NAME OF THE BARRICADE CONTRACTOR SHALL BE SHOWN ON THE NON-REFLECTIVE SURFACE OF ALL TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH COA STANDARD DETAIL 804S-5.

13. THE CITY'S TRAFFIC ENGINEER OR INSPECTOR MAY MAKE OR REQUIRE FIELD ADJUSTMENTS TO ADDRESS ISSUES OF SAFETY AND MOBILITY. ADDITIONALLY, ANY TRAFFIC CONTROL DEFICIENCIES MUST ALSO BE ADDRESSED PER THE TIMELINE PROVIDED BY THE ROW DIVISION OF TPW. VIOLATIONS WILL BE SUBJECT TO PENALTIES AS PROVIDED BY LAW.

14. IF EXISTING CAPITAL METRO BUS STOPS ARE WITHIN THE TEMPORARY TRAFFIC CONTROL OR DETOUR AREA, THE CONTRACTOR SHALL CONTACT CAPITAL METRO AT HTTPS://WKF.MS/3XRNLXF, TWO (2) WEEKS PRIOR TO SETTING UP THE TRAFFIC CONTROL DEVICES IN ORDER TO COORDINATE POTENTIAL BUS-STOP RELOCATION OR ANY OTHER RELATED ISSUES.

15. IF EXISTING SIGNALIZED INTERSECTIONS ARE WITHIN THE TEMPORARY TRAFFIC CONTROL AREA, THE CONTRACTOR SHALL CONTACT TPW MOBILITY MANAGEMENT CENTER (MMC) MMC@AUSTINTEXAS.GOV OR (512) 974-4075, TWO (2) WEEKS PRIOR TO SETTING UP ANY TRAFFIC CONTROL DEVICES. CONTRACTOR SHALL CONTRACT THE MMC ONE (1) DAY PRIOR TO
TRAFFIC CONTROL DEPLOYMENT AND/OR FOR ANY ANY PHASE CHANGES.

16. THE RIGHT OF WAY SHALL BE RETURNED TO FULL USE AT THE END OF THE APPROVED WORK HOURS.

17. CONTRACTORS SHALL ADHERE TO ALL ROW SPECIAL EVENT ACTIVITY RESTRICTIONS, AS PER THE LATEST MOBILITY GUIDELINES (MG-08). PROJECTS THAT ARE ROUTED THROUGH THE DAPCZ PROCESS ARE REQUIRED TO COORDINATE WITH THE OFFICE OF SPECIAL EVENTS (512-974-1000 OR TRANSPORTATIONSPECIALEVENTS@AUSTINTEXAS.GOV), IN CONJUNCTION WITH THE ROW DIVISION OF TPW. VISIT CITY STAGE FOR SCHEDULED EVENTS FOR ALL OF AUSTIN.

18. PURSUANT TO CITY CODE 9-2-3, ROW WORK MUST NOT MAKE NOISE AUDIBLE TO AN ADJACENT BUSINESS OR RESIDENCE BETWEEN 10:30PM AND 7:00AM OR OPERATE A MACHINE THAT SEPARATES, GATHERS, GRADES, LOADS, OR UNLOADS SAND, ROCK, OR GRAVEL WITHIN 600 FEET OF A RESIDENCE, CHURCH, HOSPITAL, HOTEL, OR MOTEL BETWEEN 7:00PM AND 6:00AM, EXCEPT FOR INSTALLATION OF CONCRETE AUTHORIZED BY A SEPARATE NON-PEAK HOUR CONCRETE POUR PERMIT ISSUED UNDER CITY CODE SECTION 9-2-21.

19. ALL LONG-TERM WORK ZONES SHALL HAVE ALL CONFLICTING MARKINGS REMOVED OR OBLITERATED: AND, TEMPORARY MARKINGS INSTALLED PER 804S-3. BLACK PAINT OR SPRAYING WITH ASPHALT OVER PAVEMENT MARKINGS IS NOT CONSIDERED AN ACCEPTABLE METHOD OF REMOVAL OR OBLITERATION. REMOVAL TECHNIQUES THAT MINIMIZE AND AVOID ANY PAVEMENT SCARRING MUST BE CONSIDERED.

20. PRIOR TO THE TRAFFIC CONTROL ESTABLISHEMENT FOR FULL ROAD CLOSURES, CONTRA-FLOW, AND/OR LONG-TERM STATIONARY PROJECTS, CONTRACTOR MUST CONTACT ROWINSPECTIONS@AUSTINTEXAS.GOV TWO (2) WEEKS PRIOR TO SETTING THE TRAFFIC CONTROL DEVICES.

21. BARRICADING AND TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO THE LATEST EDITION OF THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES." THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF SUBMITTAL WHETHER OR NOT THE PLAN HAS BEEN REVIEWED FOR CODE COMPLIANCE BY CITY STAFF.

22. PRIOR TO APPROVAL OF ROW PERMIT CONTRACTOR SHALL COMPLETE THE DURATION COLUMN OF THIS TABLE BASED UPON THE PROJECT SEQUENCING REQUIREMENTS AND THEIR METHODS FOR CONSTRUCTING THE PROJECT.

TCP23-170010
RIGHT OF WAY MANAGEMENT
08/26/2026
☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS
BY John Dubois

BARRICADING SUMMARY TABLES

Streets

* SEE NOTE 20

Street	Classsification	Protection	Street From	Street To	Planned Improvements	Traffic Control Plan Sheet / Detail	Allowed Barricading Hours	Duration*
Alexander Ave.	Collector	Not Protected	Manor Rd.	Alley	Storm Drain, Waterline, WW Line & Pavement Reconstruction	TCP Phase 1 ; 804S-2	24-7 Long-Term	
Manor Rd.	Minor Arterial	LPCB	Randolph Rd.	Alexander Ave.	Storm Drain, Waterline, WW Line & Pavement Reconstruction	TCP Phase 2 Step 1 ; 804S-1	24-7 Long-Term	
Manor Rd.	Minor Arterial	LPCB	Randolph Rd.	Alexander Ave.	Storm Drain, Waterline, WW Line & Pavement Reconstruction	TCP Phase 2 Step 2 ; 804S-1	24-7 Long-Term	
Manor Rd.	Minor Arterial	LPCB	Randolph Rd.	Alexander Ave.	Storm Drain, Waterline, WW Line & Pavement Reconstruction	TCP Phase 2 Step 3 ; 804S-1	24-7 Long-Term	
Manor Rd.	Minor Arterial	LPCB	Randolph Rd.	Alexander Ave.	Storm Drain, Waterline & Pavement Reconstruction	TCP Phase 3 ; 804S-1 & 804S-2	24-7 Long-Term	
Manor Rd.	Minor Arterial	LPCB	Randolph Rd.	Alexander Ave.	Storm Drain, Waterline & Pavement Reconstruction	TCP Phase 4 ; 804S-1 & 804S-2	24-7 Long-Term	
Randolph Rd.	Local	Not Protected	100' N of Manor Rd.	Manor Rd.	Storm Drain, Waterline & Pavement Reconstruction	TCP Phase 4 ; 804S-2	24-7 Long-Term	
Manor Rd.	Minor Arterial	LPCB	Randolph Rd.	Alexander Ave.	Wastewater Line, Manholes, Connections & Pavement Resurfacin	TCP Phase 5 ; 804S-1 & 804S-2	9am-4pm Mon-Fri; 7am-7pm Weekends	
Manor Rd.	Minor Arterial	LPCB	Curtis Ave.	Randolph Rd.	Wastewater Line, Manholes, Connections & Pavement Resurfacin	TCP Phase 6 ; 804S-1 & 804S-2	9am-4pm Mon-Fri; 7am-7pm Weekends	
Manor Rd.	Minor Arterial	LPCB	Larry Ln.	Merrie Lynn Ave.	Wastewater Line, Manholes, Connections & Pavement Resurfacin	TCP Phase 7 ; 804S-1 & 804S-2	9am-4pm Mon-Fri; 7am-7pm Weekends	
Manor Rd.	Minor Arterial	LPCB	Walnut Ave.	Curtis Ave.	Wastewater Line, Manholes, Connections & Pavement Resurfacin	TCP Phase 8 ; 804S-1 & 804S-2	9am-4pm Mon-Fri; 7am-7pm Weekends	
Manor Rd.	Minor Arterial	LPCB	Merrie Lynn Ave.	Randolph Rd.	Storm Drain, Waterline & Pavement Reconstruction	TCP Phase 9 ; 804S-1	24-7 Long-Term	
Manor Rd.	Minor Arterial	LPCB	Walnut Ave.	Merrie Lynn Ave.	Storm Drain, Waterline & Pavement Reconstruction	TCP Phase 10 Step 1 ; 804S-1	24-7 Long-Term	
Manor Rd.	Minor Arterial	LPCB	Walnut Ave.	Larry Ln.	Storm Drain, Waterline & Pavement Reconstruction	TCP Phase 10 Step 2 ; 804S-1 & 804S-	9am-4pm Mon-Fri; 7am-7pm Weekends	
Larry Ln.	Local	Not Protected	250' N of Manor Rd.	Manor Rd.	Storm Drain, Waterline, WW Line & Pavement Reconstruction	TCP Phase 11 ; 804S-2	24-7 Long-Term	
Merrie Lynn Ave.	Local	Not Protected	150' N of Manor Rd.	Manor Rd.	Storm Drain, Waterline, WW Line & Pavement Reconstruction	TCP Phase 12 ; 804S-2	24-7 Long-Term	

Intersections

Street Intersection	Planned Improvements	Traffic Control Plan Sheet / Detail	Allowed Barricading Hours	Duration*
Manor Rd./Alexander Ave.	Storm Drain, Waterline, WW Line & Pavement Reconstruction	TCP Phase 2	24-7 Long-Term	
Manor Rd./Randolph Rd.	Storm Drain, Waterline, WW Line & Pavement Reconstruction	TCP Phases 4, 5 & 6	9am-4pm Mon-Fri; 7am-7pm Weekends/24-7 Long-Term	
Manor Rd./Merrie Lynn Ave.	Storm Drain, Waterline, WW Line & Pavement Reconstruction	TCP Phases 6 & 9	9am-4pm Mon-Fri; 7am-7pm Weekends/24-7 Long-Term	
Manor Rd./Curtis Ave.	Storm Drain, Waterline, WW Line & Pavement Reconstruction	TCP Phases 7 & 10	9am-4pm Mon-Fri; 7am-7pm Weekends/24-7 Long-Term	
Manor Rd./Larry Ln.	Storm Drain, Waterline, WW Line & Pavement Reconstruction	TCP Phases 8 & 10	9am-4pm Mon-Fri; 7am-7pm Weekends/24-7 Long-Term	

PRIOR TO APPROVAL OF ROW PERMIT CONTRACTOR SHALL COMPLETE THE DURATION COLUMN OF THIS TABLE BASED UPON THE PROJECT SEQUENCING REQUIREMENTS AND THEIR MEANS AND METHODS FOR CONSTRUCTING THE PROJECT.

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144
STATE OF TEXAS
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114428
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
ROW MANAGEMENT STANDARD NOTES

F&N JOB NO. AU31436
DATE 08/17/2026
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SHEET 101
SEQ. 101 OF 143

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STREET & BRIDGE STANDARD NOTES

1. STREET REPAIR NOTES(UCM 5.9)

A. TRENCH REPAIR:

USE THE APPROPRIATE 1100S SERIES DETAILS FOR TRENCH REPAIRS: 1100S-2 (FLEXIBLE BASE WITH AN ASPHALT SURFACE), 1100S-3 (CONCRETE OR ASPHALT OVERLAID CONCRETE), AND 1100S-5 (FULL DEPTH ASPHALT STREETS). CLSM MAY BE SUBSTITUTED FOR BACKFILL AND FLEXIBLE BASE REPLACEMENT PER THE DETAIL NOTES.

B. SURFACE RESTORATION:

SURFACE PAVEMENT RESTORATION IS REQUIRED WHEN CUTS 1) OCCUR WITHIN THE DAPCZ, 2) OCCUR WITHIN PROTECTED STREET SEGMENTS, OR 3) ARE OVER 300 LINEAR FEET IN LENGTH. USE DETAIL 1100S-7 FOR DETERMINING AREAS REQUIRING SURFACE REMOVAL AND REPLACEMENT. THE REPLACEMENT ASPHALTIC CONCRETE SURFACE LAYER THICKNESS SHALL BE A MINIMUM 2 INCHES HMAC TYPE D FOR LOCAL OR RESIDENTIAL STREETS AND A MINIMUM 3 INCHES HMAC TYPE C FOR COLLECTOR OR ARTERIAL STREETS (SEE ITEM 340S, SECTION 340S.4).

C. CONCRETE AND COMPOSITE PAVEMENTS:

IN CONCRETE STREETS, ACTUAL RESTORATION LIMITS ARE DETERMINED BY JOINT LOCATIONS. IN COMPOSITE PAVEMENTS CONSTRUCTED OF CONCRETE WITH A HMAC OVERLAY, USE 1100S-3 FOR TRENCH REPAIR (USING CLASS 360S CONCRETE) AND 1100S-7 FOR AREA OF ASPHALT SURFACE RESTORATION.

2. SIDEWALK REPAIR NOTES(UCM 5.10)

A. DAMAGED CONCRETE SIDEWALK SHALL BE REMOVED AND REPLACED IN FULL SECTIONS (JOINT TO JOINT).

B. IN AREAS WITH SIDEWALK PAVERS, CONTRACTOR TO CAREFULLY REMOVE, STORE AND REPLACE PAVERS TO MATCH EXISTING CONDITIONS OR BETTER.

3. HAND HOLES AND PULLBOXES, ETC.

A. AVOID PLACING VAULTS, HAND HOLES, ETC. WITHIN SIDEWALKS. IF UNAVOIDABLE, PLACE THEM OUT OF THE PRIMARY ADA ROUTE. ADD APPLICABLE AE APPROVED DETAILS AND SPECIFY APPROPRIATE LOAD RATINGS AND ADA REQUIREMENTS INCLUDING A SLIP RESISTANT LID AND THE ABILITY TO BE PLACED FLUSH WITH THE SURROUNDING WALKING SURFACE CROSS SLOPE.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

STREET AND BRIDGE STANDARD NOTES

NO.	ISSUES	BY	DATE

F&N JOB NO. AU31436
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME STREET & BRIDGE NOTES.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

SHEET 102
SEQ. 102 OF 143

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TRAFFIC CONTROL PLAN NOTES

1. FOR ALLEY AND RESIDENTIAL STREET CLOSURES, CONTRACTOR TO COORDINATE WITH ADJACENT PROPERTY OWNERS ONE (1) WEEK IN ADVANCE.
2. ALL LONG-TERM TRAFFIC SHIFTS RESTRICTED TO WEEKENDS. CONTRACTOR MUST CALL #311 AND SET MESSAGE BOARD 1 WEEK IN ADVANCE.
3. CONTRACTOR TO CONTACT CAP METRO THREE (3) WEEKS PRIOR TO START OF EACH TCP PHASE.
4. CONFLICTING PAVEMENT MARKINGS TO BE COVERED WITH TAPE.
5. ADD "ROAD WORK AHEAD" SIGNS ON ALL ROADS LEADING INTO WORK ZONE.
6. CONTRACTOR TO COORDINATE WITH CITY OF AUSTIN TRANSPORTATION DEPARTMENT FOR ADJUSTMENTS TO SIGNAL TIMING AS NEEDED.
7. STAGING AREAS WILL BE AS SHOWN ON THE ADVANCE WARNING LAYOUT. CONTRACTOR SHALL MAKE ONLY RIGHT TURNS TO ENTER STAGING AREAS FROM PUBLIC ROADWAYS AND TO EXIT STAGING AREAS ONTO PUBLIC ROADWAYS. CONTRACTOR SHALL NOT BACK ONTO PUBLIC ROADWAYS FROM STAGING AREAS, NOR SHALL CONTRACTOR STOP TRAFFIC AT ANY TIME AT CONSTRUCTION ENTRANCES TO STAGING AREAS.
8. CONTRACTOR SHALL COORDINATE THE START OF CONSTRUCTION WITH CAP METRO AND SHALL NOT COMMENCE CONSTRUCTION UNTIL ALL NECESSARY TEMPORARY BUS STATIONS AND ROUTES ARE IMPLEMENTED.
9. CONTRACTOR SHALL REMOVE THE PEDESTRIAN REFUGE ISLANDS ONLY TO FACILITATE IMPLEMENTATION OF A TRAFFIC CONTROL PHASE. PEDESTRIAN ISLAND REFUGE SHALL BE REMOVED AND REPLACED WITH A SUFFICIENT TEMPORARY RIDING SURFACE THAT SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION AT NO ADDITIONAL COST TO THE CITY. PEDESTRIAN REFUGE ISLANDS SHALL BE RE-INSTALLED AT THE END OF CONSTRUCTION.
10. PRIOR TO IMPLEMENTATION OF TRAFFIC CONTROL PHASE 2 STEP 1, CONTRACTOR SHALL SET UP THE BICYCLE DETOUR WHICH SHALL REMAIN FOR THE DURATION OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE BICYCLE DETOUR AT NO ADDITIONAL COST TO THE CITY.
11. CONTRACTOR SHALL BLACK OUT ALL CONFLICTING PAVEMENT MARKINGS FOR ALL TRAFFIC CONTROL PHASES.
12. CONTRACTOR TO COORDINATE WITH CAPMETRO WHEN BUS STOPS ARE IMPACTED BY CLOSURES AND DETOURS.

    IN THE CASE PARKING BOXES/CORRALS ARE IMPACTED, THE FOLLOWING RESOURCES CAN BE UTILIZED:

    PARKING BOXES/CORRALS SHAREDMOBILITY@AUSTINTEXAS.GOV (ONLY REQUIRE NOTIFICATION, NO NEED FOR APPROVAL)

    SPECIAL PARKING ZONE (ZONE TYPE) PARKINGROWCONFLICTS@AUSTINTEXAS.GOV

CITY OF AUSTIN TRANSPORTATION DEPARTMENT INTERIM TRAFFIC CONTROL REQUIREMENTS:

PEDESTRIAN CROSSING ISLANDS:
DURING PERIODS OF CONSTRUCTION INACTIVITY OR PLANNED PROJECT PAUSES EXCEEDING 48 HOURS, THE CONTRACTOR SHALL INSTALL APPROVED BOLT-DOWN DELINEATORS AT ALL PEDESTRIAN ISLAND LOCATIONS IDENTIFIED IN THE PROJECT DRAWINGS. GRABBER CONES AND OTHER TEMPORARY DEVICES MAY BE UTILIZED FOR DAILY WORK OPERATIONS BUT SHALL BE REPLACED WITH BOLT-DOWN DELINEATORS FOR ANY PAUSE EXCEEDING THIS TIMEFRAME. TEMPORARY 24" SOLID WHITE PAVEMENT MARKINGS TO BE INSTALLED AT PEDESTRIAN ISLAND CROSSINGS.

BICYCLE LANE DELINEATION:
DURING PERIODS OF CONSTRUCTION INACTIVITY OR PLANNED PROJECT PAUSES EXCEEDING 7 DAYS, THE CONTRACTOR SHALL INSPECT, REPAIR, AND/OR RE-INSTALL ALL BIKE LANE DELINEATORS TO MAINTAIN CLEAR SEPARATION FOR CYCLISTS. INACTIVE WORK ZONES MUST BE INSPECTED AT LEAST ONCE EVERY 7 DAYS TO ENSURE ALL CHANNELIZING DEVICES REMAIN UPRIGHT, VISIBLE, AND IN THEIR DESIGNATED POSITION TO PROVIDE A SAFE, PREDICTABLE TRAVEL PATH.

COORDINATION & COMPLIANCE:
ALL INSTALLATIONS MUST BE PERFORMED IN ACCORDANCE WITH CITY OF AUSTIN TRANSPORTATION CRITERIA (TCM) STANDARDS AND TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL (TMUTCD) REQUIREMENTS. ALL DEVICES SHALL BE VERIFIED BY THE SITE INSPECTOR TO ENSURE COMPLIANCE AND AVOID TRAFFIC VIOLATIONS.

TRAFFIC CONTROL NARRATIVE

PHASE 1

ALEXANDER AVE. WILL BE CLOSED IN BOTH DIRECTIONS TO VEHICULAR TRAFFIC. TRAFFIC WILL BE DETOURED ONTO CURTIS AVE AND 22ND ST. CONSTRUCTION WILL OCCUR ON ALEXANDER AVE. BETWEEN MANOR RD. AND 60' SOUTH OF THE ALLEY BETWEEN MANOR RD. AND 22 ST. CONSTRUCTION WILL INCLUDE STORM DRAIN, WATERLINE, WASTEWATER LINE INSTALLATION AND FULL-DEPTH PAVEMENT RECONSTRUCTION.

PHASE 2 STEP 1

MANOR RD WILL BE REDUCED TO ONE WESTBOUND LANE AT THE INTERSECTION OF MANOR RD AND ALEXANDER AVE. NORTHBOUND TRAFFIC ON ALEXANDER AVE WILL BE CLOSED TO THROUGH TRAFFIC AND DETOURED ONTO 22ND STREET. SOUTHBOUND TRAFFIC ON ALEXANDER AVE. WILL BE DETOURED TO CEDAR AVE. CONSTRUCTION WILL INCLUDE STORM DRAIN, WATERLINE, WASTEWATER LINE INSTALLATION, AND FULL-DEPTH PAVEMENT RECONSTRUCTION.

PRIOR TO COMMENCEMENT OF THIS PHASE, BICYCLE DETOUR SHALL BE SET UP AND REMAIN FOR THE DURATION OF CONSTRUCTION.

PHASE 2 STEP 2

MANOR RD WILL BE REDUCED TO ONE WESTBOUND LANE AT THE INTERSECTION OF MANOR RD AND ALEXANDER AVE AND TRAFFIC SHALL BE SHIFTED TO THE SOUTH SIDE OF MANOR RD. NORTHBOUND TRAFFIC ON ALEXANDER AVE WILL BE REDUCED TO LEFT-ONLY. EASTBOUND TRAFFIC ON MANOR SHALL BE DETOURED SOUTH ON CEDAR AVE, EAST ON MLK JR BLVD, AND NORTH ON AIRPORT BLVD. CONSTRUCTION WILL INCLUDE STORM DRAIN, WATERLINE, WASTEWATER LINE INSTALLATION, AND FULL-DEPTH PAVEMENT RECONSTRUCTION.

PHASE 2 STEP 3

MANOR RD WILL BE REDUCED TO ONE LANE IN EACH DIRECTION WITH BOTH LANES SHIFTED TO THE SOUTH SIDE OF MANOR RD AT THE INTERSECTION OF MANOR RD AND ALEXANDER AVE. DRIVEWAY TO THE APARTMENT COMPLEX SHALL BE CLOSED AND DETOURED ONTO RANDOLPH RD. CONSTRUCTION WILL INCLUDE WATER LINE, WASTEWATER LINE INSTALLATION, AND FULL-DEPTH PAVEMENT RECONSTRUCTION.

PHASE 3

MANOR RD WILL BE REDUCED TO ONE EASTBOUND LANE BETWEEN RANDOLPH RD AND ALEXANDER AVE. NORTHBOUND TRAFFIC ON ALEXANDER AVE WILL BE RIGHT-ONLY. WESTBOUND TRAFFIC ON MANOR RD SHALL BE DETOURED SOUTH ON ALEXANDER AVE, WEST ON MLK JR BLVD, AND NORTH ON CEDAR AVE. CONSTRUCTION WILL INCLUDE STORM DRAIN, WATER LINE INSTALLATION AND FULL-DEPTH PAVEMENT RECONSTRUCTION, MEDIAN ISLAND AT MANOR RD AND ALEXANDER AVE.

PHASE 4

MANOR RD WILL BE REDUCED TO ONE EASTBOUND LANE AT RANDOLPH RD. SOUTHBOUND TRAFFIC ON RANDOLPH WILL BE DETOURED DOWN MERRIE LYNN. WESTBOUND TRAFFIC ON MANOR RD SHALL BE DETOURED SOUTH ON ALEXANDER AVE, WEST ON MLK JR BLVD, AND NORTH ON CEDAR AVE. CONSTRUCTION WILL INCLUDE STORM DRAIN, WATER LINE INSTALLATION AND FULL-DEPTH PAVEMENT RECONSTRUCTION.

CLOSE AND DETOUR BOTH DIRECTIONS OF TRAFFIC ON RANDOLPH RD. INSTALL STORM DRAIN AND WATER LINE. CONSTRUCTION WILL INCLUDE FULL-DEPTH PAVEMENT RECONSTRUCTION AND MILL AND OVERLAY OF EXISTING PAVEMENT AT THE SPECIFIED LOCATIONS SHOWN IN THE PLANS.

PHASE 5

DURING WORKING HOURS, MANOR RD WILL BE REDUCED TO ONE WESTBOUND LANE BETWEEN RANDOLPH RD AND ALEXANDER AVE. NORTHBOUND TRAFFIC ON ALEXANDER AVE WILL BE REDUCED TO RIGHT-ONLY. WESTBOUND TRAFFIC ON MANOR SHALL BE DETOURED SOUTH ON CEDAR AVE, EAST ON MLK JR BLVD, AND NORTH ON ALEXANDER AVE. CONTRACTOR SHALL STEEL PLATE ANY OPEN TRENCHES AT THE END OF EACH WORKING DAY AND RETURN TRAFFIC TO NORMAL OPERATING CONDITIONS. CONSTRUCTION WILL INCLUDE WASTEWATER LINE INSTALLATION AND MILL AND OVERLAY OF EXISTING PAVEMENT.

PHASE 6

DURING WORKING HOURS, MANOR RD WILL BE REDUCED TO ONE WESTBOUND LANE BETWEEN CURTIS AVE AND RANDOLPH RD. SOUTHBOUND TRAFFIC ON MERRIE LYNN AND RANDOLPH RD WILL BE REDUCED TO RIGHT-ONLY. EASTBOUND TRAFFIC ON MANOR SHALL BE DETOURED SOUTH ON CEDAR AVE, EAST ON MLK JR BLVD, AND NORTH ON ALEXANDER AVE. CONTRACTOR SHALL STEEL PLATE ANY OPEN TRENCHES AT THE END OF EACH WORKING DAY AND RETURN TRAFFIC TO NORMAL OPERATING CONDITIONS. CONSTRUCTION WILL INCLUDE WASTEWATER LINE INSTALLATION AND MILL AND OVERLAY OF EXISTING PAVEMENT. ONCE THIS PHASE OF CONSTRUCTION IS FINISHED, INSTALL PAINT AND POSTS AT CROSSWALK AT MERRIE LYNN. SEE STANDARD DETAIL XX.

PHASE 7

DURING WORKING HOURS, MANOR RD WILL BE REDUCED TO ONE WESTBOUND LANE AT CURTIS AVE. CURTIS AVE WILL BE CLOSED TO THROUGH TRAFFIC. EASTBOUND TRAFFIC ON MANOR SHALL BE DETOURED SOUTH ON CEDAR AVE, EAST ON MLK JR BLVD, AND NORTH ON ALEXANDER AVE. CONTRACTOR SHALL STEEL PLATE ANY OPEN TRENCHES AT THE END OF EACH WORKING DAY AND RETURN TRAFFIC TO NORMAL OPERATING CONDITIONS. CONSTRUCTION WILL INCLUDE WATER LINE, WASTEWATER LINE, STORM DRAIN INSTALLATION AND MILL AND OVERLAY OF EXISTING PAVEMENT.

PHASE 8

DURING WORKING HOURS, MANOR RD WILL BE REDUCED TO ONE WESTBOUND LANE BETWEEN WALNUT AVE AND CURTIS AVE. SOUTHBOUND TRAFFIC ON LARRY LANE WILL BE RIGHT-ONLY. EASTBOUND TRAFFIC ON MANOR SHALL BE DETOURED SOUTH ON CEDAR AVE, EAST ON MLK JR BLVD, AND NORTH ON ALEXANDER AVE. CONTRACTOR SHALL STEEL PLATE ANY OPEN TRENCHES AT THE END OF EACH WORKING DAY AND RETURN TRAFFIC TO NORMAL OPERATING CONDITIONS. CONSTRUCTION WILL INCLUDE WASTEWATER LINE INSTALLATION AND MILL AND OVERLAY OF EXISTING PAVEMENT.

PHASE 9

MANOR RD WILL BE REDUCED TO ONE LANE IN EACH DIRECTION WITH BOTH LANES SHIFTED TO THE SOUTH SIDE OF MANOR RD BETWEEN CURTIS AVE AND RANDOLPH RD. MERRIE LYNN AVE WILL BE CLOSED TO TRAFFIC AND DETOURED. CONSTRUCTION WILL INCLUDE STORM DRAIN, WATER LINE INSTALLATION AND FULL-DEPTH PAVEMENT RECONSTRUCTION. REMOVE STRIPING AND POSTS AT CROSSWALK AT MERRIE LYNN.

PHASE 10 STEP 1

MANOR RD WILL BE REDUCED TO ONE LANE IN EACH DIRECTION WITH BOTH LANES SHIFTED TO THE SOUTH SIDE OF MANOR RD BETWEEN WALNUT AVE AND MERRIE LYNN AVE. LARRY LN WILL BE CLOSED TO TRAFFIC AND DETOURED. CONSTRUCTION WILL INCLUDE STORM DRAIN, WATER LINE INSTALLATION AND FULL-DEPTH PAVEMENT RECONSTRUCTION.

PHASE 10 STEP 2

DURING WORKING HOURS, MANOR RD WILL BE REDUCED TO EASTBOUND LANE WESTBOUND TRAFFIC ON MANOR RD SHALL BE DETOURED SOUTH ON ALEXANDER AVE, WEST ON MLK JR BLVD, AND NORTH ON CEDAR AVE. CONSTRUCTION WILL INCLUDE STORM DRAIN, WATER LINE INSTALLATION AND FULL-DEPTH PAVEMENT RECONSTRUCTION, MEDIAN ISLAND AT MANOR RD AND MERRIE LYNN AVE.

CONTRACTOR MAY UTILIZE A FLAGGER OPERATION IN ACCORDANCE WITH CITY OF AUSTIN STANDARD 804S-2 IN LIEU OF DETOUR SETUP.

CONTRACTOR SHALL STEEL PLATE ANY OPEN TRENCHES AT THE END OF EACH WORKING DAY AND RETURN TRAFFIC TO NORMAL OPERATING CONDITIONS.

PHASE 11

CLOSE AND DETOUR BOTH DIRECTIONS OF TRAFFIC ON LARRY LN. INSTALL STORM DRAIN, WATERLINE, AND WASTEWATER LINE. CONSTRUCTION WILL INCLUDE FULL-DEPTH PAVEMENT RECONSTRUCTION AND MILL AND OVERLAY OF EXISTING PAVEMENT AT THE SPECIFIED LOCATIONS SHOWN IN THE PLANS.

PHASE 12

CLOSE AND DETOUR BOTH DIRECTIONS OF TRAFFIC ON MERRIE LYNN AVE. INSTALL STORM DRAIN, WATERLINE, AND WASTEWATER LINE. CONSTRUCTION WILL INCLUDE FULL-DEPTH PAVEMENT RECONSTRUCTION AND MILL AND OVERLAY OF EXISTING PAVEMENT AT THE SPECIFIED LOCATIONS SHOWN IN THE PLANS.

TCP23-170010
CITY OF AUSTIN
RIGHT OF WAY MANAGEMENT
08/26/2026
☑ REVIEWED & COMPLETE
☐ RETURNED FOR REVISIONS
BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144
STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
ENGINEER
08/25/2026
FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
TCP PHASING NARRATIVE

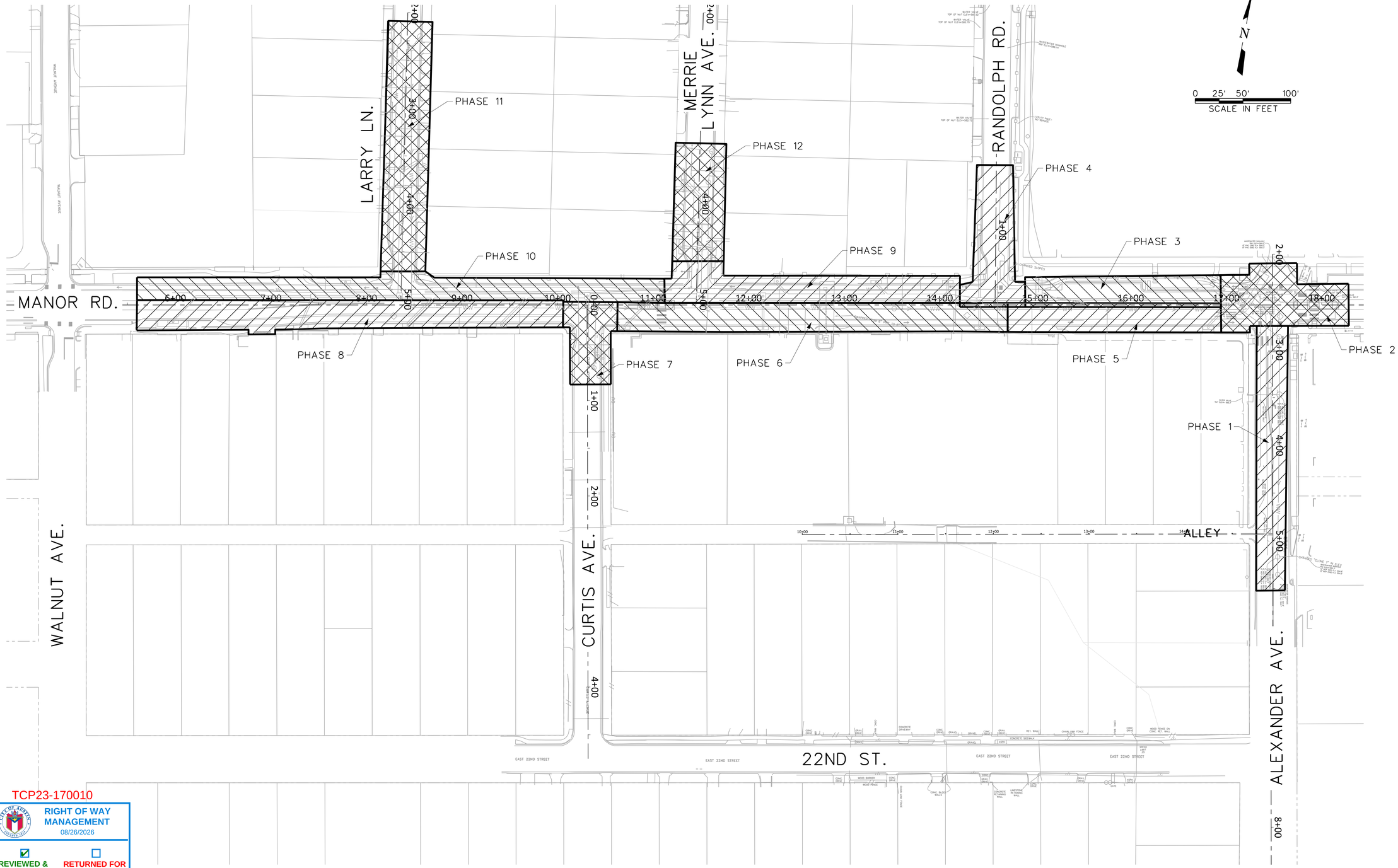
F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-PL-TCP PHASING NARRATIVE.SHT

NO.	ISSUES	BY	DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale accordingly.
0 1"

SHEET 103
SEQ. 103 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASING NARRATIVE.SHT
Plot Driver: HP DesignJet 4500 PostScript Model: Default
Plot Scale: 1.0000 '' = 1.0000 '' Project: Freese and Nichols, Inc.
Date: Aug. 25, 2026 11:00:53 AM



TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
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PROFESSIONAL ENGINEER
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

TRAFFIC CONTROL PHASING

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314.361
DATE 08/17/2026
DESIGNED BP
DRAWN BP
REVISED
CHECKED MB
FILE NAME T-PL-PH3-TCP PHASING.SHT

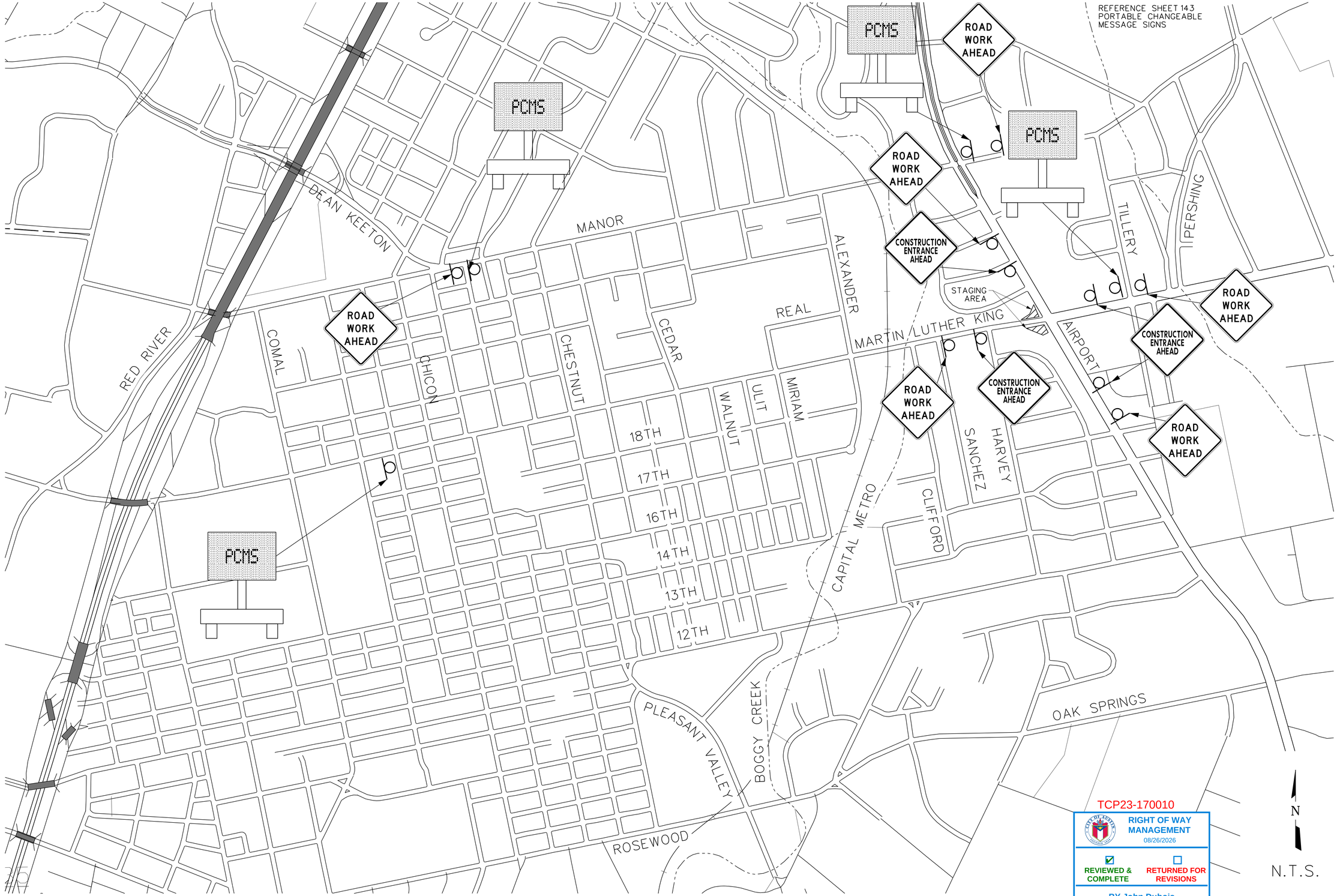
VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale

SHEET 104
SEQ. 104 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\RF\Drawings\Phase 3\CV-TRT-PL-PH3-TCP PHASING.SHT
Active Model: 1 - Plan View - Model Default
Plot Scale: 50.0000 '/ in. Model: Default
Date: Aug. 25, 2026 - 11:00:54 AM Project: Freese and Nichols, Inc.

NOTE:

REFERENCE SHEET 143
PORTABLE CHANGEABLE
MESSAGE SIGNS



TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

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STATE OF TEXAS
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

ADVANCE WARNING PLAN

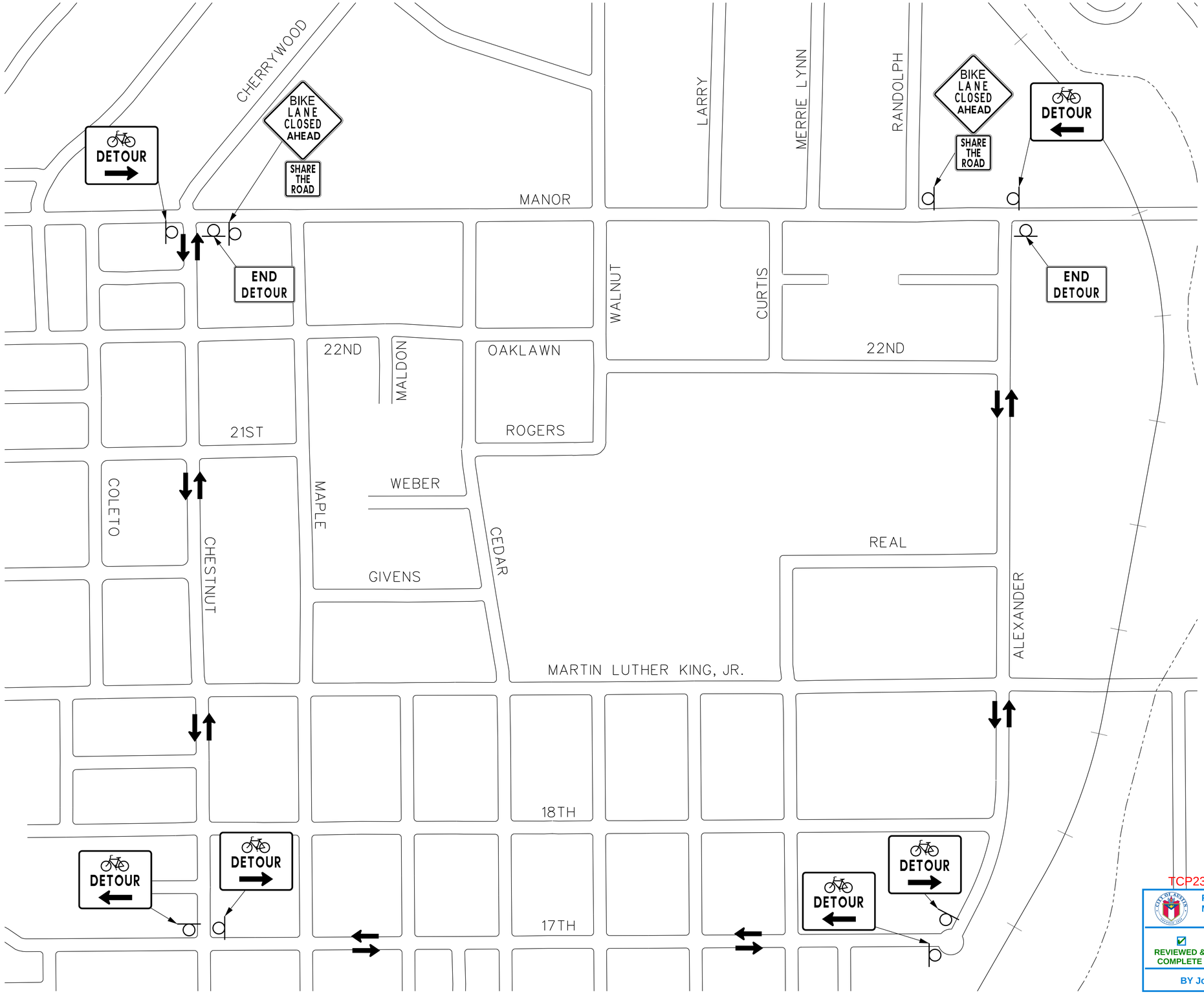
NO.	ISSUES	BY	DATE

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-PL-PH3-ADVANCE WARNING.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale accordingly.
0 1"

SHEET 105
SEQ. 105 OF 143

MicroStation V8 User: 03926Office: On Site
N:\F\Drawings\Phase 3\CV-TRT-PL-PH3-ADVANCE WARNING.SHT
AU314361
Plot Driver: HP DesignJet 4500 PostScript Level 2
Plot Scale: 400.0000 '/ in.
Date: Aug. 25, 2026 - 11:00:56 AM
Model: Default
Project: Freese and Nichols, Inc.



LEGEND

TRAFFIC DIRECTION

NOTES:

CONTRACTOR IMPLEMENT BIKE DETOUR, AS NEEDED, BASED ON THE TRAFFIC CONTROL PLANS THAT DISPLAY BIKE LANE CLOSURES.

N

N.T.S.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
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114428
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08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

DETOUR AND ADVANCE WARNING LAYOUT
BICYCLE DETOUR

NO.	ISSUES	BY	DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale

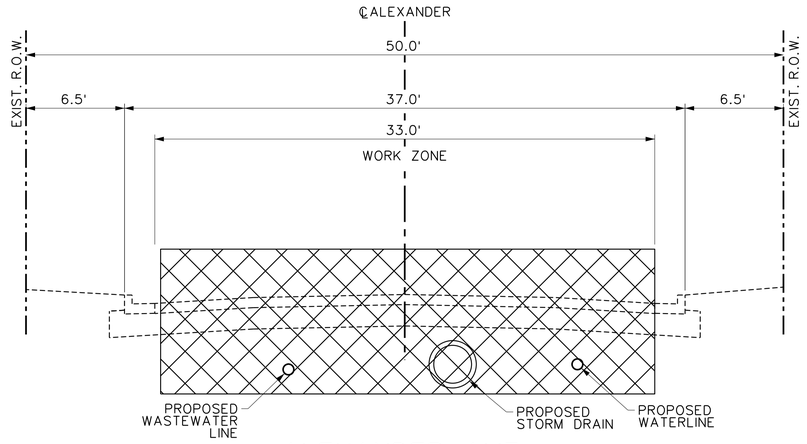
F&N JOB NO. AU314361
DA 08/17/2026
DESIGNED BP
DRAWN BP
REVISED
CHECKED MB
FILE NAME CV-TRT-PL-PH3-DETOUR_BIKE.SHT

SHEET 106
SEQ. 106 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-DETOUR_BIKE.SHT
Plot Scale: 20.0000 '/ in. Plot Date: Aug. 25, 2026 - 11:00:57 AM
Model: Default
Project: Freese and Nichols, Inc.

SEQUENCE OF WORK PHASE 1

CLOSE AND DETOUR BOTH DIRECTIONS OF TRAFFIC ON ALEXANDER AVE. INSTALL STORM DRAIN, WATERLINE, WASTEWATER LINE, AND RECONSTRUCT ROADWAY.



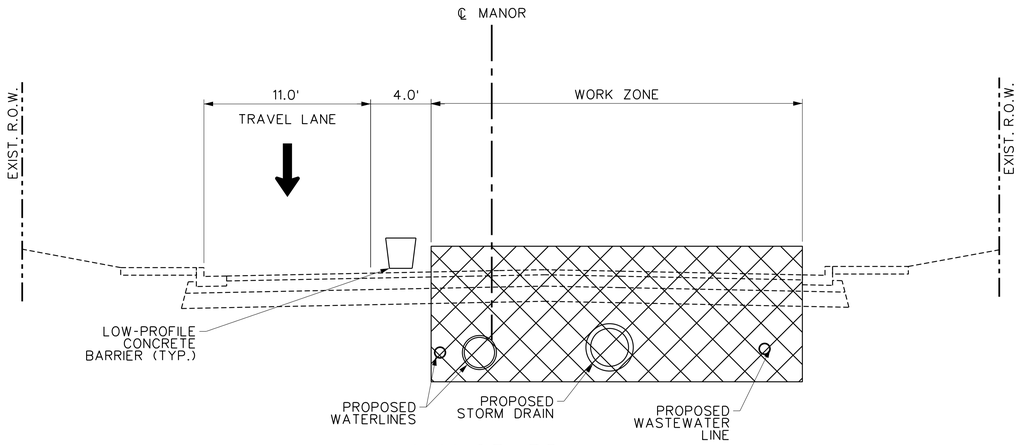
ALEXANDER AVE.

PHASE 1
STA.2+75 TO STA.5+55

NOT TO SCALE

SEQUENCE OF WORK PHASE 2 STEP 1

CLOSE AND DETOUR EASTBOUND TRAFFIC ON MANOR ROAD. INSTALL STORM DRAIN, WATER LINE, WASTEWATER LINE, AND RECONSTRUCT ROADWAY.



MANOR RD.

PHASE 2 STEP 1
STA.16+95 TO STA.17+97

NOT TO SCALE

LEGEND

CONSTRUCTION THIS PHASE

NOTE:

PLEASE REFER TO UTILITY PLAN AND PROFILE SHEETS FOR UTILITY DEPTHS.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

SEQUENCE OF WORK (1 OF 7)
PHASE 1 & PHASE 2 STEP 1

F&N JOB NO. AU31436
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
CHECKED MB
FILE NAME CV-TRT-PL-PH3-SOW01.SHT

NO. ISSUES | BY | DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 107

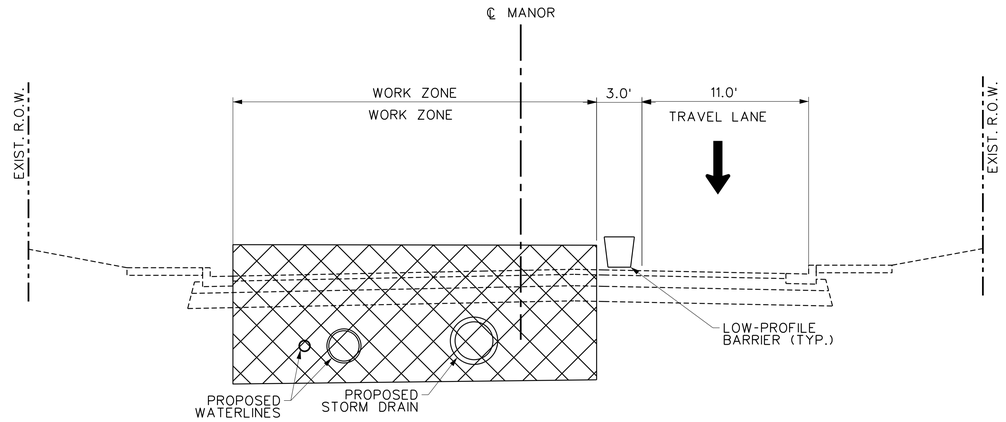
SEQ. 107 OF 143

MicroStation V8 User: 03926Office: On Site
AU31436 | N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-SOW01.SHT
Level: Plotted, All, Model, Ref, Paper, Hidden, Fence
Plot Scale: 5.0000 ' / in.
Date: Aug. 25, 2026 - 11:00:58 AM
Model: Detour
Project: Freese and Nichols, Inc.

Office: On Site AU31436 Date: Aug. 25, 2026 - 11:00:58 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-SOW01.SHT

SEQUENCE OF WORK PHASE 2 STEP 2

CLOSE AND DETOUR EASTBOUND TRAFFIC ON MANOR ROAD. INSTALL STORM DRAIN, WATER LINE, AND RECONSTRUCT ROADWAY.



MANOR RD.

PHASE 2 STEP 2
STA.16+95 TO STA.18+29

NOT TO SCALE

LEGEND

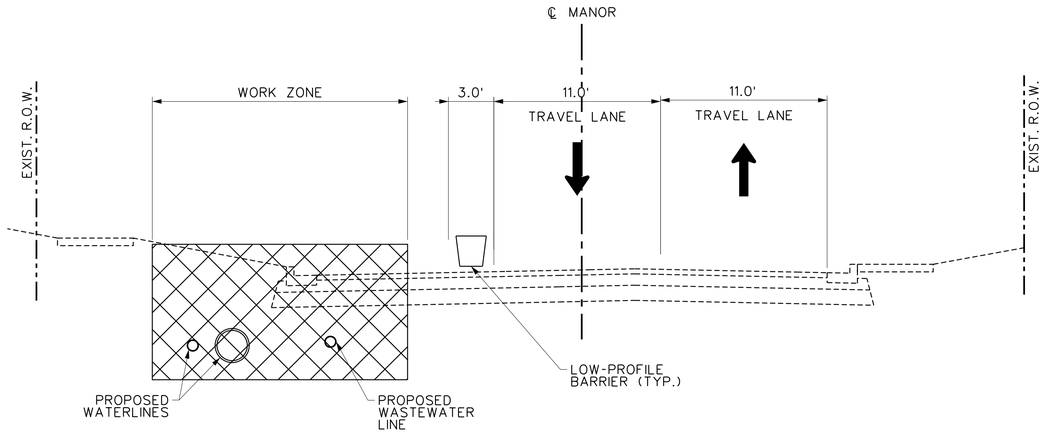
CONSTRUCTION THIS PHASE

NOTE:

PLEASE REFER TO UTILITY PLAN AND PROFILE SHEETS FOR UTILITY DEPTHS.

SEQUENCE OF WORK PHASE 2 STEP 3

SHIFT TRAFFIC ON MANOR ROAD TO THE SOUTH SIDE OF THE ROAD. INSTALL WATER LINE, WASTEWATER LINE, AND RECONSTRUCT ROADWAY.



MANOR RD.

PHASE 2 STEP 3
STA.17+25 TO STA.17+96

NOT TO SCALE

TCP23-170010

CITY OF AUSTIN
RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE
☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

SEQUENCE OF WORK (2 OF 7)
PHASE 2 & PHASE 2 STEP 3

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314.361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-PL-PH3-SOW02.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 108

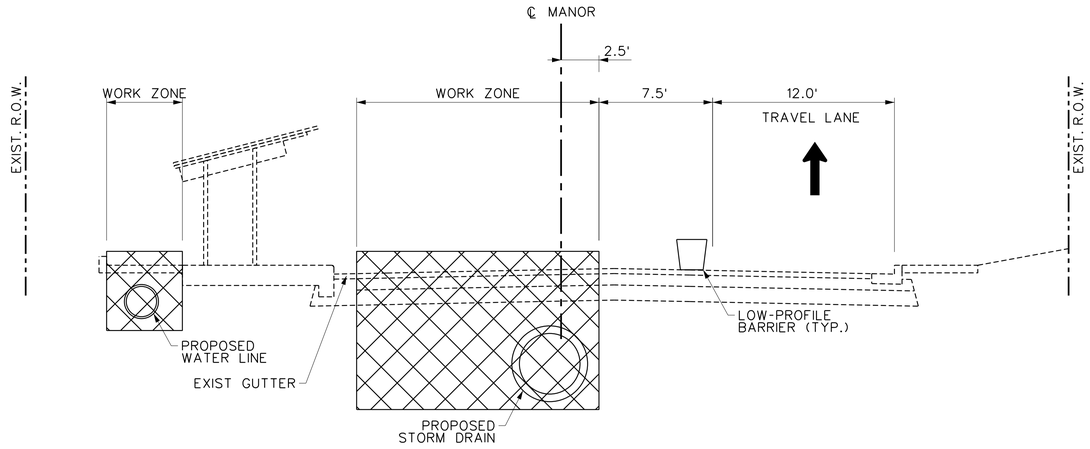
SEQ. 108 OF 143

MicroStation V8 User: 03926Office: On Site
AU314.361 N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-SOW02.SHT
Plotted: Aug. 25, 2026 - 11:00:59 AM Model: Default
Plot Scale: 5.0000 '/ in. Project: Freese and Nichols, Inc.
Date: Aug. 25, 2026 - 11:00:59 AM

SEQUENCE OF WORK PHASE 3

CLOSE AND DETOUR WESTBOUND TRAFFIC ON MANOR ROAD BETWEEN RANDOLPH RD AND ALEXANDER AVE. INSTALL STORM DRAIN, WATER LINE, AND RECONSTRUCT ROADWAY.

DURING CONSTRUCTION OF THE WATER LINE IN THE BIKE LANE BEHIND THE BUS STOP, OPEN MANOR RD TO NORMAL TRAFFIC OPERATIONS.



MANOR RD.

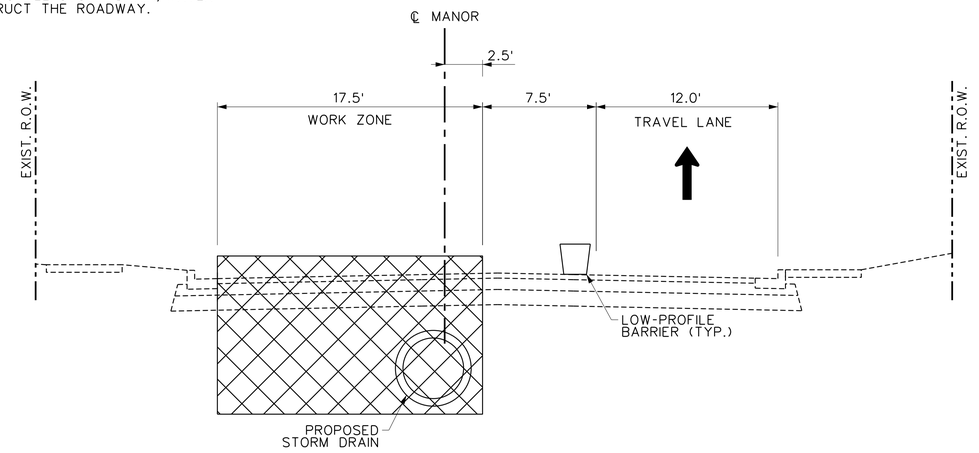
PHASE 3
STA.14+90 TO STA.17+25

NOT TO SCALE

SEQUENCE OF WORK PHASE 4

CLOSE AND DETOUR WESTBOUND TRAFFIC ON MANOR ROAD AT RANDOLPH RD AND CLOSE TRAFFIC ON RANDOLPH ROAD. INSTALL STORM DRAIN, WATER LINE, AND RECONSTRUCT ROADWAY.

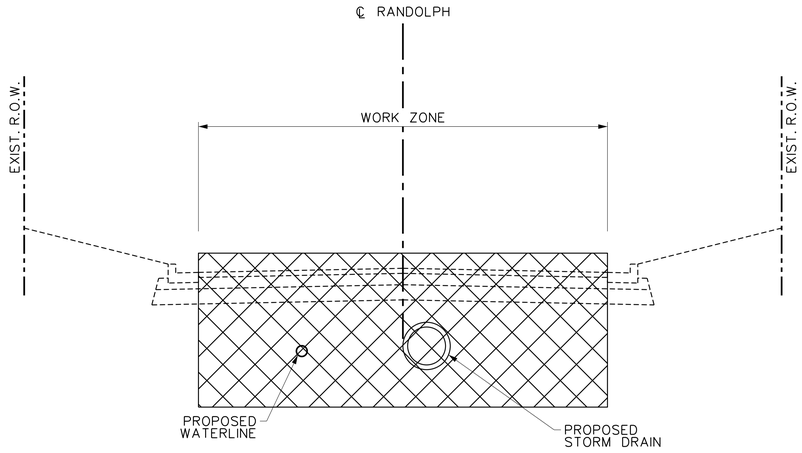
ON RANDOLPH RD, INSTALL STORM DRAIN, WATER LINE, AND RECONSTRUCT THE ROADWAY.



MANOR RD.

PHASE 4
STA.14+21 TO STA.14+90

NOT TO SCALE



RANDOLPH RD.

PHASE 4

NOT TO SCALE

LEGEND

CONSTRUCTION THIS PHASE

NOTE:

PLEASE REFER TO UTILITY PLAN AND PROFILE SHEETS FOR UTILITY DEPTHS.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

SEQUENCE OF WORK (3 OF 7) PHASE 3 & PHASE 4

F&N JOB NO. AU314.361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
CHECKED MB
FILE NAME CV-TRT-PL-PH3-SOW05.SHT

NO.	ISSUES	BY	DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

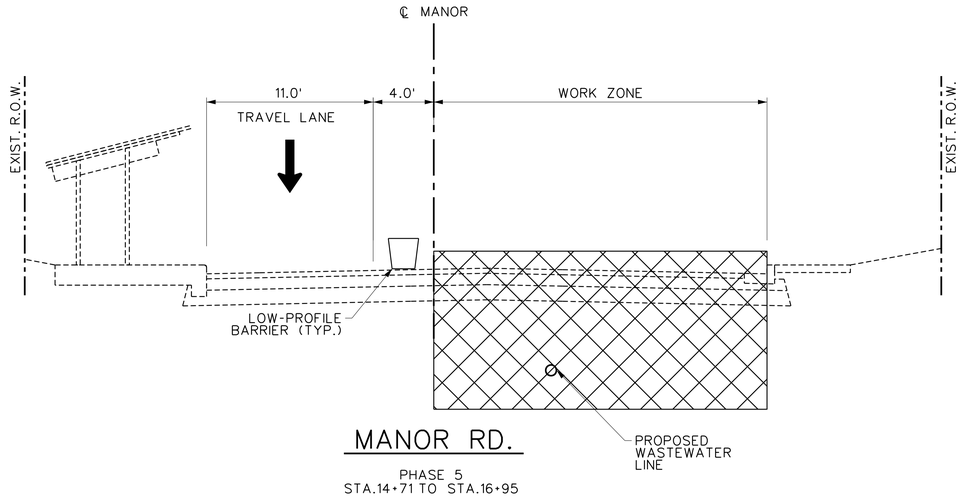
SHEET 109

SEQ. 109 OF 143

MicroStation V8 User: 03926Office: On Site
AU314.361 N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-SOW05.SHT
Plot Date: Aug 25, 2026 - 11:01:00 AM Plot Scale: 5.0000 '/ in. Model: Default
Plot Driver: HPGL2.drv Pen Table: Freese and Nichols.tbl Project: Freese and Nichols, Inc.

SEQUENCE OF WORK PHASE 5

CLOSE AND DETOUR EASTBOUND TRAFFIC ON MANOR ROAD BETWEEN RANDOLPH RD AND ALEXANDER AVE. INSTALL WASTEWATER LINE.



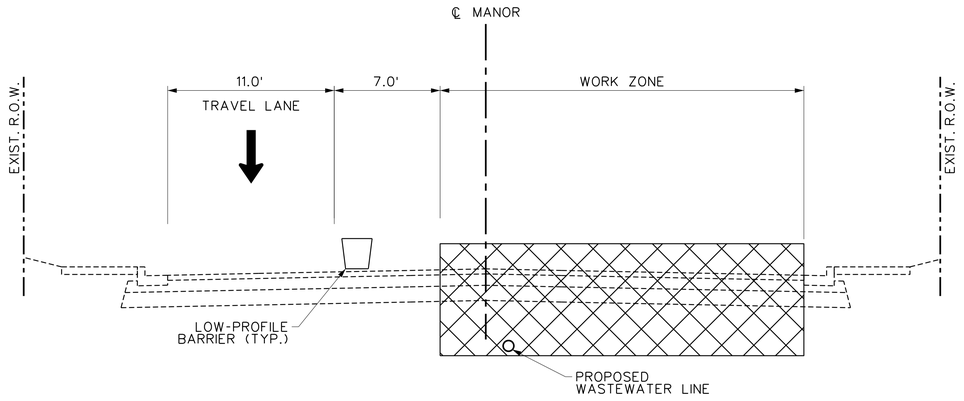
MANOR RD.

PHASE 5
STA.14+71 TO STA.16+95

NOT TO SCALE

SEQUENCE OF WORK PHASE 6

CLOSE AND DETOUR EASTBOUND TRAFFIC ON MANOR ROAD BETWEEN RANDOLPH RD AND ALEXANDER AVE. INSTALL STORM DRAIN, WATER LINE, AND RECONSTRUCT ROADWAY.



MANOR RD.

PHASE 6
STA.10+63 TO STA.14+71

NOT TO SCALE

LEGEND

CONSTRUCTION THIS PHASE

NOTE:

PLEASE REFER TO UTILITY PLAN AND PROFILE SHEETS FOR UTILITY DEPTHS.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/25/2026

FREESE NICHOLS
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

SEQUENCE OF WORK (4 OF 7)
PHASE 5 & PHASE 6

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-PL-PH3-SOW03.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

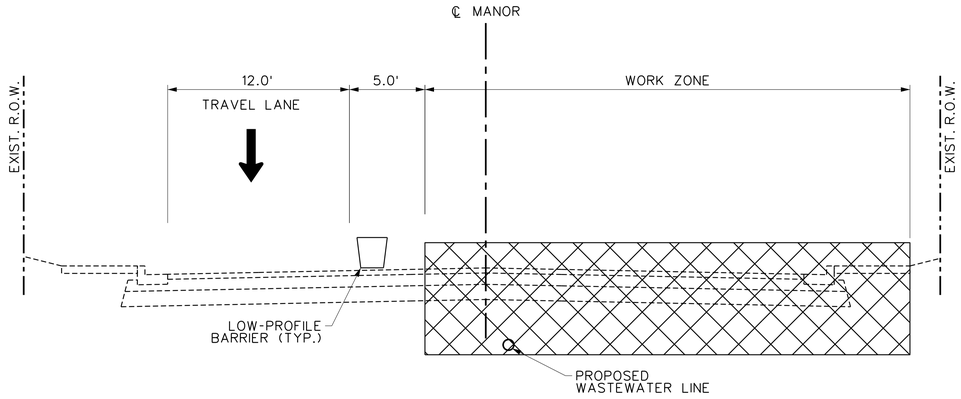
SHEET 110

SEQ. 110 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 - N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-SOW03.SHT
Level: Default, Color: 1, Weight: 0, Style: 0
Plot Scale: 5.0000 ' / in.
Date: Aug. 25, 2026 - 11:01:01 AM
Model: Default
Project: Freese and Nichols, Inc.

SEQUENCE OF WORK PHASE 7

CLOSE AND DETOUR EASTBOUND TRAFFIC ON MANOR ROAD AT CURTIS AVE AND CLOSE TRAFFIC ON CURTIS AVE. INSTALL WASTEWATER LINE.



MANOR RD.

PHASE 7
STA.10+06 TO STA.10+63

NOT TO SCALE

LEGEND

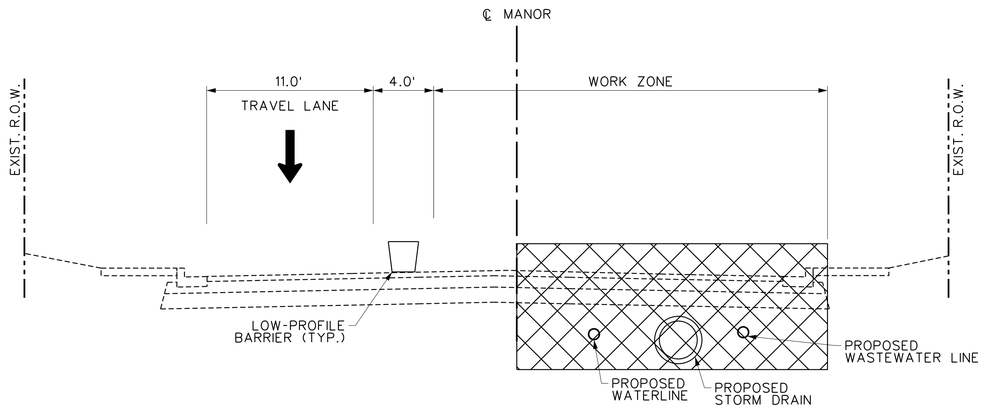
CONSTRUCTION THIS PHASE

NOTE:

PLEASE REFER TO UTILITY PLAN AND PROFILE SHEETS FOR UTILITY DEPTHS.

SEQUENCE OF WORK PHASE 8

CLOSE AND DETOUR EASTBOUND TRAFFIC ON MANOR ROAD BETWEEN WALNUT AVE AND CURTIS AVE. INSTALL WASTEWATER LINE.



MANOR RD.

PHASE 8
STA.5+60 TO STA.10+06

NOT TO SCALE

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/25/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

SEQUENCE OF WORK (5 OF 7)
PHASE 7 & PHASE 8

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-PL-PH3-SOW04.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

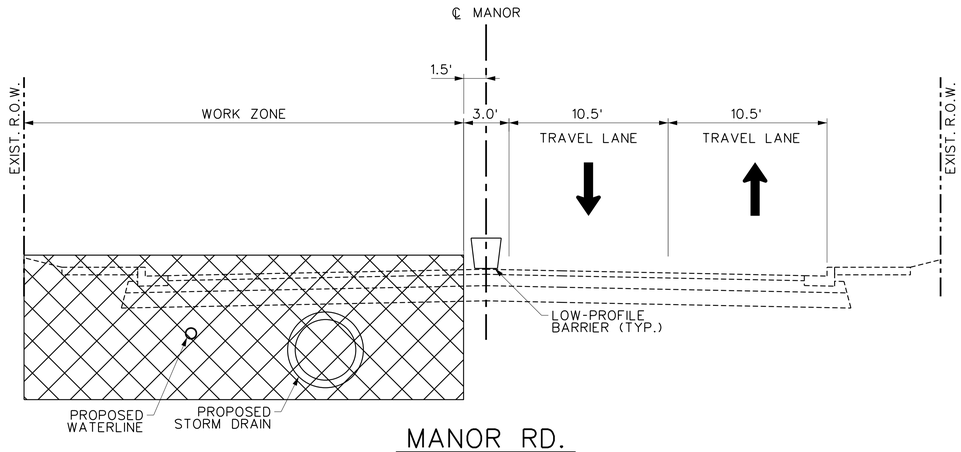
SHEET 111

SEQ. 111 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-SOW04.SHT
Plot Date/Time: AUG 25, 2026 - 11:01:02 AM
Plot Scale: 5.0000 ' / in. Model: Default
Date: Aug. 25, 2026 - 11:01:02 AM Project: Freese and Nichols, Inc.

SEQUENCE OF WORK PHASE 9

SHIFT TRAFFIC ON MANOR ROAD TO THE SOUTH SIDE OF THE ROAD. INSTALL WATER LINE, STORM DRAIN, AND RECONSTRUCT ROADWAY.

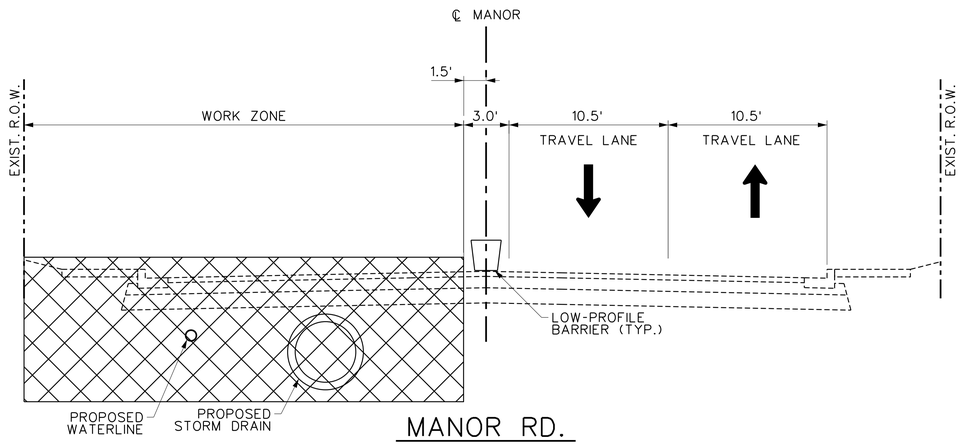


MANOR RD.

PHASE 9
STA.11+12 TO STA.14+21
NOT TO SCALE

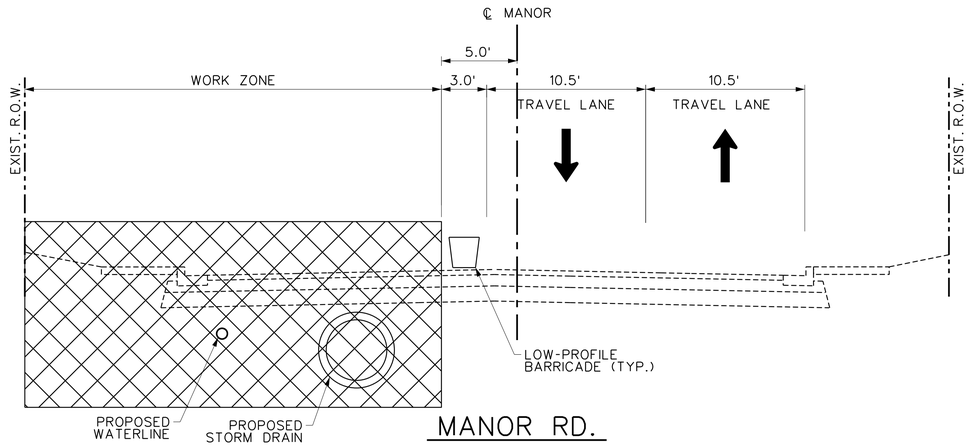
SEQUENCE OF WORK PHASE 10

SHIFT TRAFFIC ON MANOR ROAD TO THE SOUTH SIDE OF THE ROAD. INSTALL WATER LINE, STORM DRAIN, AND RECONSTRUCT ROADWAY.



MANOR RD.

PHASE 10 STEP 1
STA.07+07 TO STA.11+13
NOT TO SCALE



MANOR RD.

PHASE 10 STEP 2
STA.05+55 TO STA.07+07
NOT TO SCALE

LEGEND

CONSTRUCTION THIS PHASE

NOTE:

PLEASE REFER TO UTILITY PLAN AND PROFILE SHEETS FOR UTILITY DEPTHS.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

SEQUENCE OF WORK (6 OF 7)
PHASE 9, PHASE 10 STEP 1& STEP 2

NO.	ISSUES	BY	DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-PL-PH3-SQW06.SHT

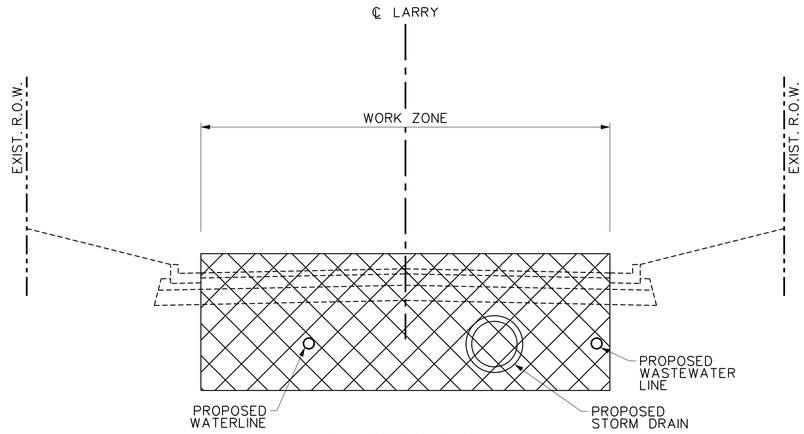
SHEET 112
SEQ. 112 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-SQW06.SHT
Plot Area: Layout: MAIN Model: Default
Plot Scale: 5.0000 '/ in Project: Freese and Nichols, Inc.
Date: Aug 25, 2026 - 11:01:02 AM

Office: On Site AU314361 Date: Aug. 25, 2026 - 11:01:02 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-SQW06.SHT

SEQUENCE OF WORK PHASE 11

CLOSE AND DETOUR BOTH DIRECTIONS OF TRAFFIC FOR LARRY LN. INSTALL STORM DRAIN, WATERLINE, WASTEWATER LINE AND RECONSTRUCT ROADWAY.



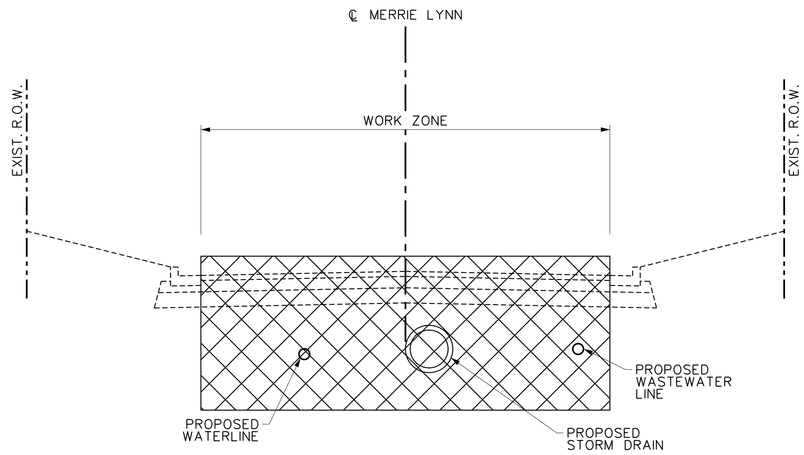
LARRY LN.

PHASE 11

NOT TO SCALE

SEQUENCE OF WORK PHASE 12

CLOSE AND DETOUR BOTH DIRECTIONS OF TRAFFIC FOR MERRIE LYNN AVE. INSTALL STORM DRAIN, WATERLINE, WASTEWATER LINE AND RECONSTRUCT ROADWAY.



MERRIE LYNN AVE.

PHASE 12

NOT TO SCALE

LEGEND

CONSTRUCTION THIS PHASE

NOTE:

PLEASE REFER TO UTILITY PLAN AND PROFILE SHEETS FOR UTILITY DEPTHS.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

REVIEWED & COMPLETE

RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

SEQUENCE OF WORK (7 OF 7)
PHASE 11 & PHASE 12

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-PL-PH3-SOW07.SHT

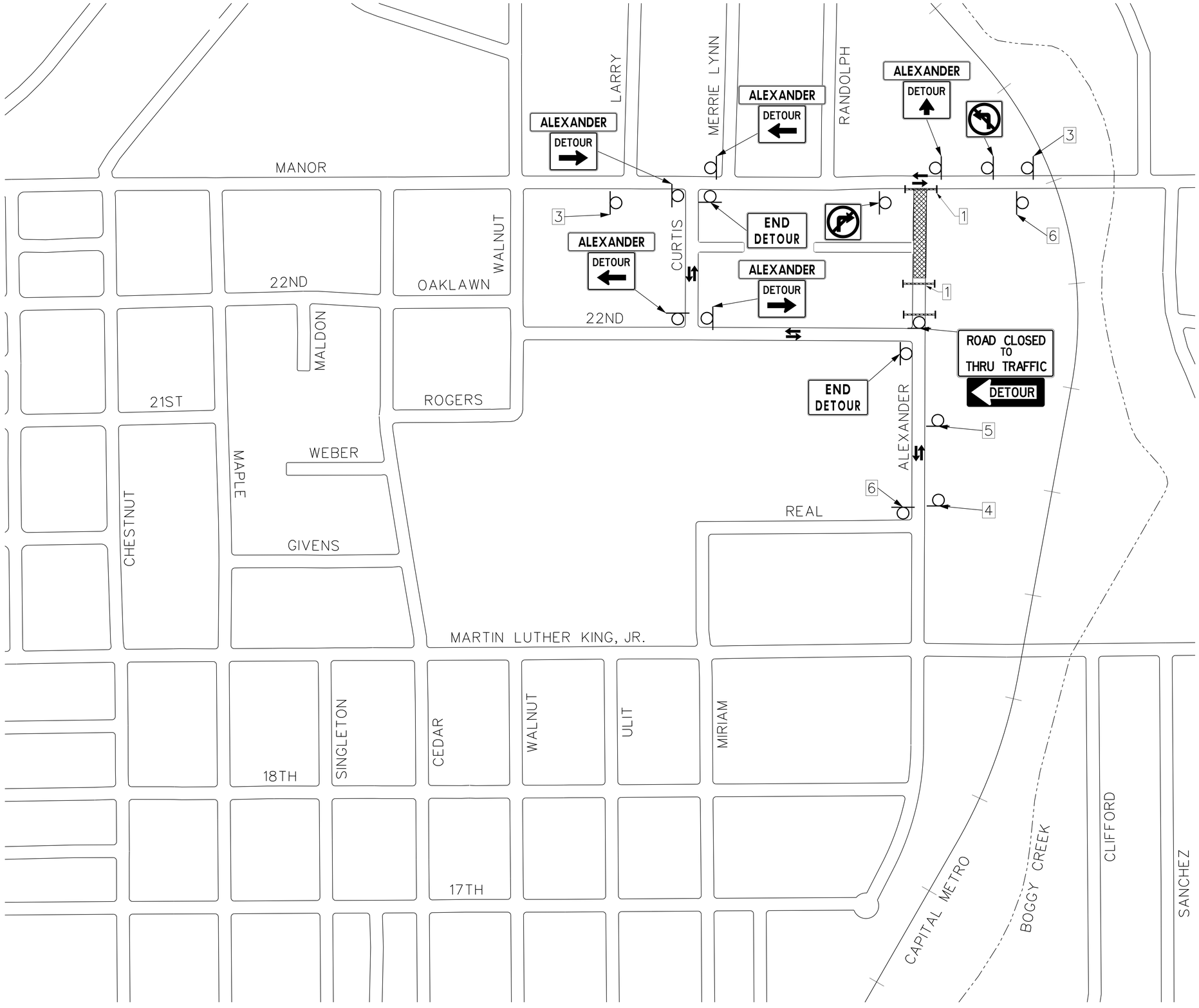
NO. ISSUES | BY | DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 113

SEQ. 113 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-SOW07.SHT
Plot Date: Aug 25, 2026 - 11:01:03 AM Model: Detour
Plot Scale: 5.0000 '/ in. Project: Freese and Nichols, Inc.



NOTES:

1. CONTRACTOR MUST SET UP ADVANCE WARNING SIGNS PER THE APPLICABLE COA DETAIL 804S-1 PRIOR TO COMMENCING WORK ON EACH PHASE.

2. DUAL-CYCLE TRACK AND SIDEWALKS TO REMAIN IN OPERATION DURING CONSTRUCTION. REFER TO SHEET 106

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

DETOUR AND ADVANCE WARNING LAYOUT
PHASE 1 AND PHASE 2 STEP 1

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-PL-PH3-DETOUR01.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 114
SEQ. 114 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 - N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-DETOUR01.SHT
Plot Driver: ...\DGN\PDFLib.pltPaper: ANSI D (24.00 IN. X 36.00 IN.)
Plot Scale: 20.0000 '/ in.
Date: Aug. 25, 2026 - 11:01:05 AM
Model: Default
Project: Freese and Nichols, Inc.

NOTES:
1. MANOR ROAD EASTBOUND (EB) DETOUR ROUTE APPLIES TO PHASES 2, 5, 6, AND 8.
2. DUAL-CYCLE TRACK AND SIDEWALKS TO REMAIN OPEN ON ALEXANDER AVENUE DURING CONSTRUCTION. REFER TO SHEET 106

SEE SHEETS
PHASE 2 - 116 - 118
PHASE 5 - 123
PHASE 6 - 124
PHASE 8 - 127

N

N.T.S.

LEGEND
- CONSTRUCTION THIS PHASE
- TYPE III BARRICADE
- TRAFFIC DIRECTION

1 ROAD CLOSED

2 ROAD CLOSED TO THRU TRAFFIC

3 ROAD WORK AHEAD

4 ROAD CLOSED AHEAD

5 DETOUR AHEAD

6 END ROAD WORK

EB MANOR DETOUR

WB MANOR DETOUR

END DETOUR

DANCY ST
LAFAYETTE AVE
FRENCH PL
BREEZE TERRACE
CHERRYWOOD
34TH
38 1/2 ST
CLARKSON
AIRPORT BLVD
LARRY
MERRIE LYNN
RANDOLPH
WALNUT
MANOR
22ND
CURTIS
STAFFORD
MAPLE
CEDAR
REAL
LEONA ST
SALINA ST
CHICON ST
POQUITO ST
ALAMO ST
COLETO ST
CHESTNUT AVE
MARTIN LUTHER KING
18TH
ULIT
MIRIAM
ALEXANDER

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026
☑ REVIEWED & COMPLETE
☐ RETURNED FOR REVISIONS
BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
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08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
DETOUR AND ADVANCED WARNING LAYOUT
PHASE 2, 5, 6 AND 8

NO.	ISSUES	BY	DATE

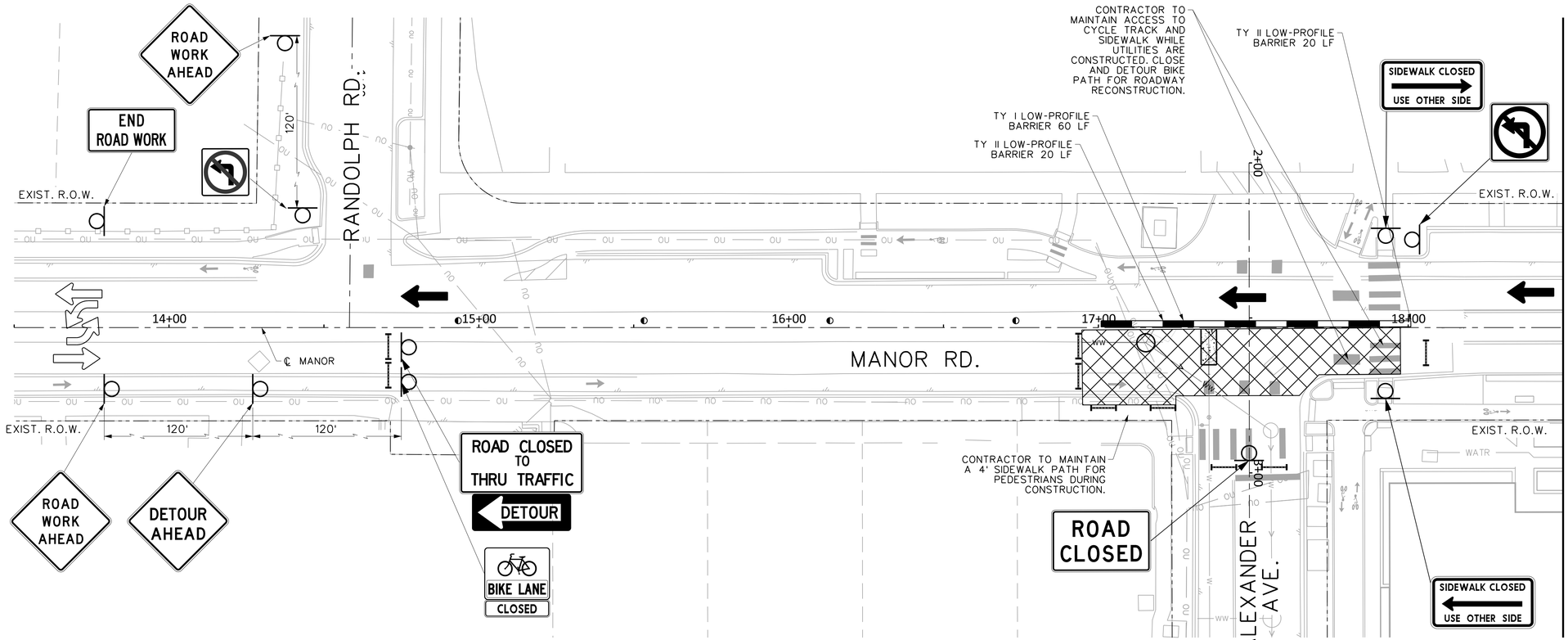
F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN BP
REVISED
CHECKED MB
FILE NAME T-PH3-DETOUR-EB-MANOR.SHT

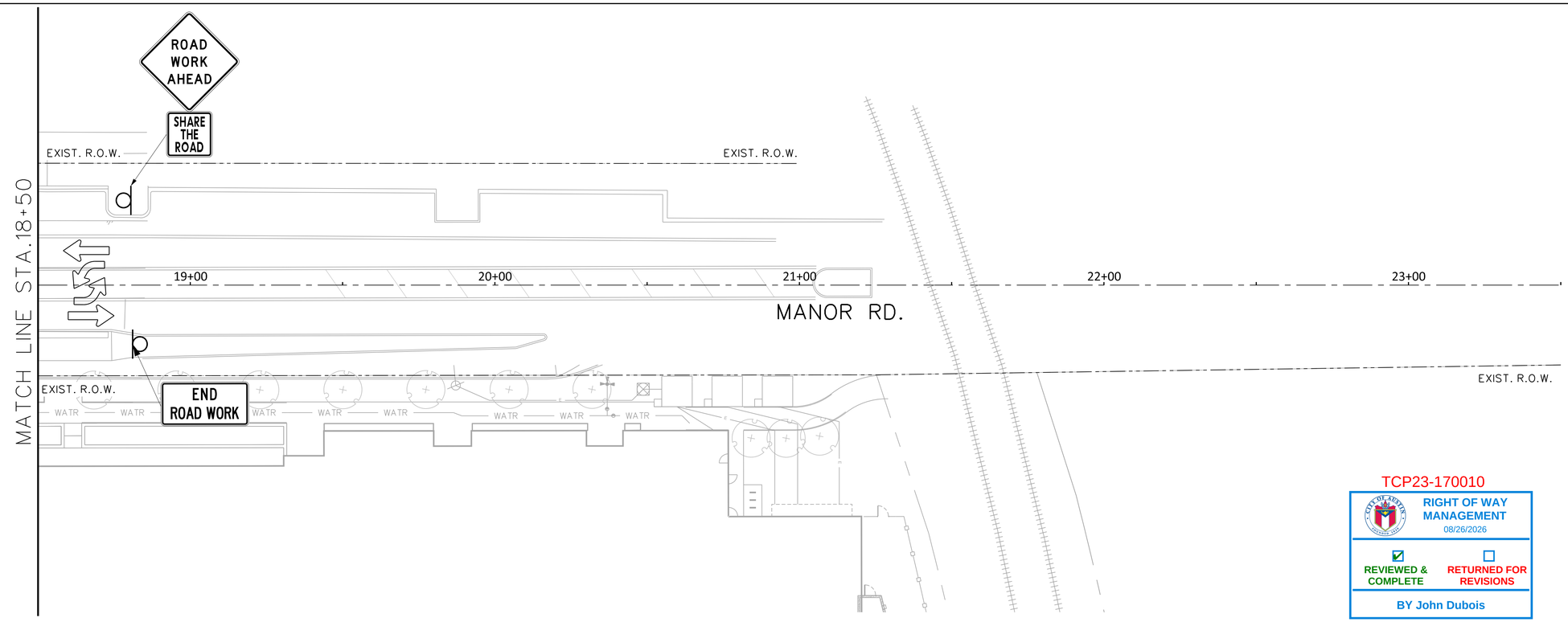
VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale

SHEET 115
SEQ. 115 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-DETOUR-EB-MANOR.SHT
Active Level: [PHASE 3] EB-MANOR-DETOUR
Plot Scale: 205.0000 ' / in.
Date: Aug. 25, 2026 - 11:01:06 AM
Model: Default
Project: Freese and Nichols, Inc.

Office: On Site AU314361 Date: Aug. 25, 2026 - 11:01:06 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-DETOUR-EB-MANOR.SHT





NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING DRIVEWAYS. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS WHEN DRIVEWAY CLOSURES ARE REQUIRED.

2. CONTRACTOR TO COORDINATE WITH CAPMETRO WHEN BUS STOPS ARE IMPACTED BY CLOSURES AND DETOURS.

TCP23-170010

CITY OF AUSTIN — RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
Heather McNeal
08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

TCP PHASE 2 STEP 1
STA.17+50 TO STA.23+50

NO.	ISSUES	BY	DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

FILE NAME: CV-TRT-PL-TCP PHASE0201.SHT

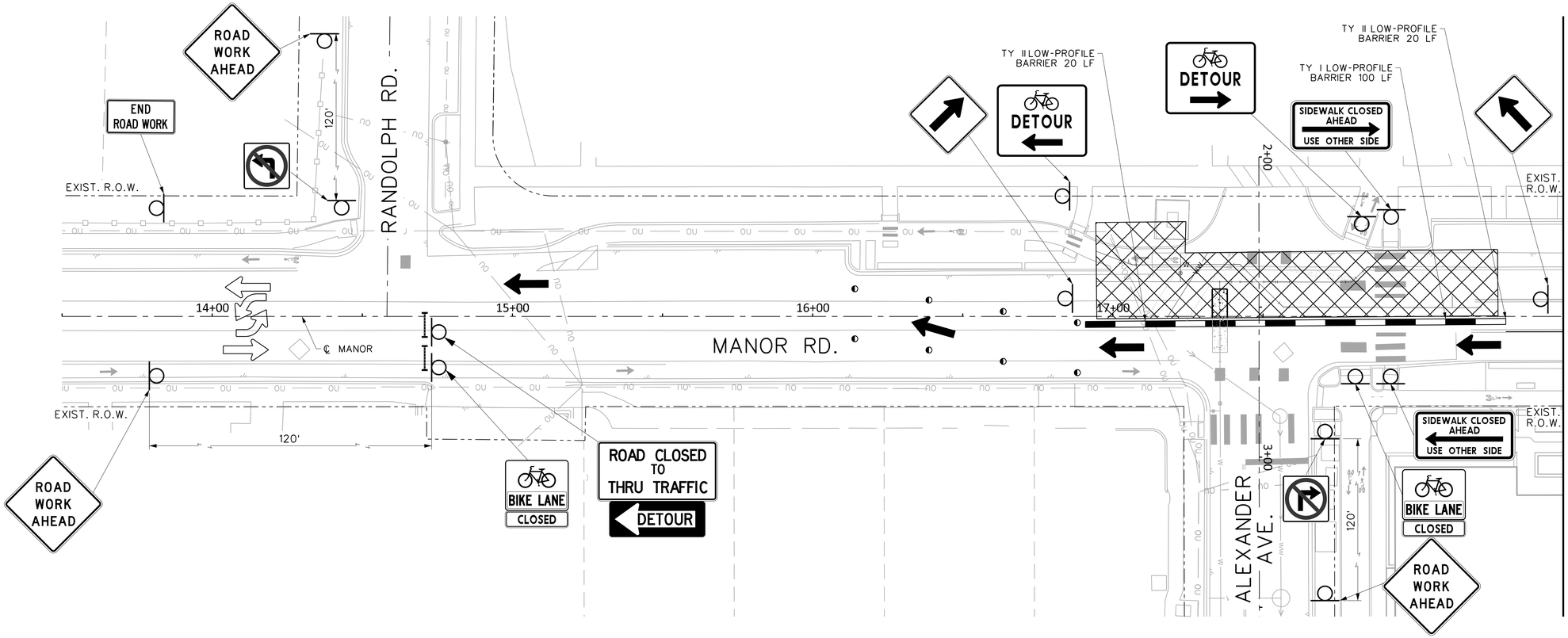
F&N JOB NO.	AU314361
DATE	08/17/2026
DESIGNED	BP
DRAWN	MIC
REVISED	
CHECKED	MB

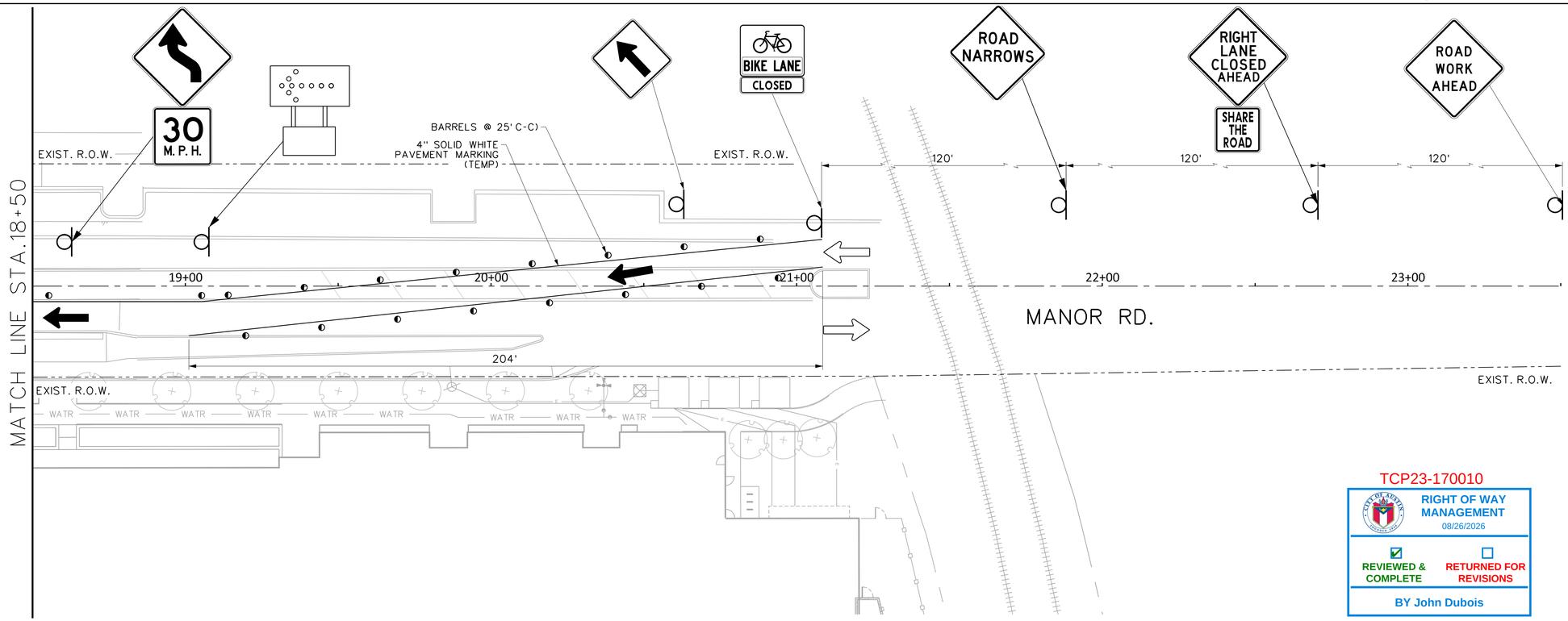
SHEET 116

SEQ. 116 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE0201.SHT
Active: Level: 1, Color: 7, Style: 0, Weight: 0, Class: 0
Plot Scale: 20.0000 '' / in. Model: Default
Date: Aug. 25, 2026 - 11:01:14 AM Project: Freese and Nichols, Inc.

Office: On Site AU314361 Date: Aug. 25, 2026 - 11:01:14 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE0201.SHT





NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING DRIVEWAYS. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS WHEN DRIVEWAY CLOSURES ARE REQUIRED.

2. CONTRACTOR TO COORDINATE WITH CAPMETRO WHEN BUS STOPS ARE IMPACTED BY CLOSURES AND DETOURS.

TCP23-170010

CITY OF AUSTIN
RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE
☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
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08/25/2026

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CITY OF AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

TCP PHASE 2 STEP 2
STA.17+50 TO STA.23+50

NO.	ISSUES	BY	DATE
0	1 drawing. If not one inch on this sheet, adjust scale.		

VERIFY SCALE Bar is one inch on original

FILE NAME: TRT-PL-TCP PHASE0202.SHT

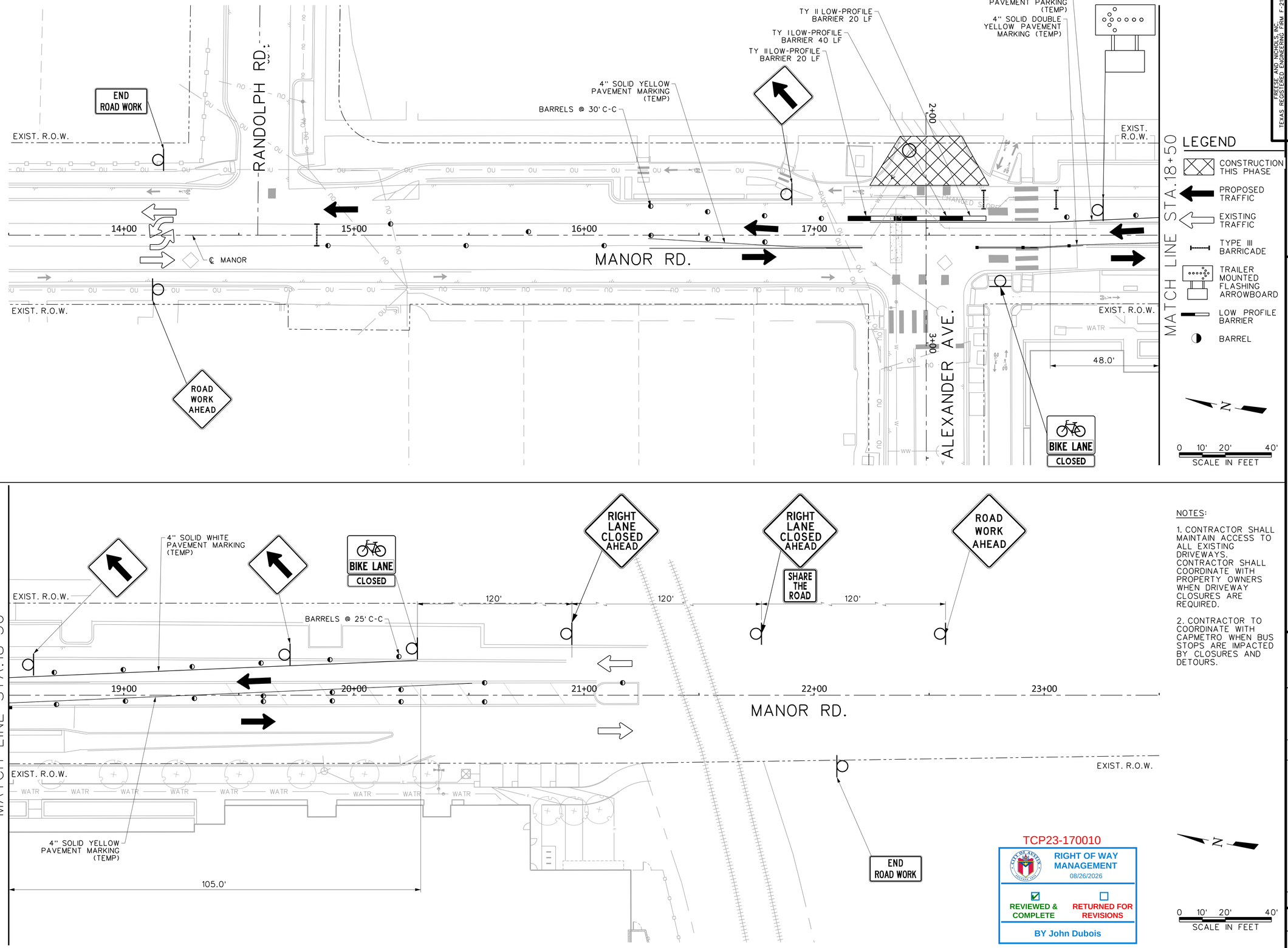
FAN - JOB NO.	DATE	DESIGNED	DRAWN	REVISED	CHECKED
AU314361	08/17/2026	BP	MIC		MB

SHEET 117

SEQ. 117 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE0202.SHT
Active: Phase 3 Plot Date: Aug. 25, 2026 - 11:01:15 AM
Plot Scale: 20.0000 '/ in. Model: Default
Plot Date: Aug. 25, 2026 - 11:01:15 AM Project: Freese and Nichols Inc

Office: On Site AU314361 Date: Aug. 25, 2026 - 11:01:15 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE0202.SHT



NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING DRIVEWAYS. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS WHEN DRIVEWAY CLOSURES ARE REQUIRED.

2. CONTRACTOR TO COORDINATE WITH CAPMETRO WHEN BUS STOPS ARE IMPACTED BY CLOSURES AND DETOURS.

TCP23-170010

CITY OF AUSTIN
RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE
☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
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CITY OF AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

TCP PHASE 2 STEP 3
STA.17+50 TO STA.23+50

NO.	ISSUES	BY	DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale. 0 1"

FILE NAME: CV-TRT-PL-TCP PHASE0203.SHT

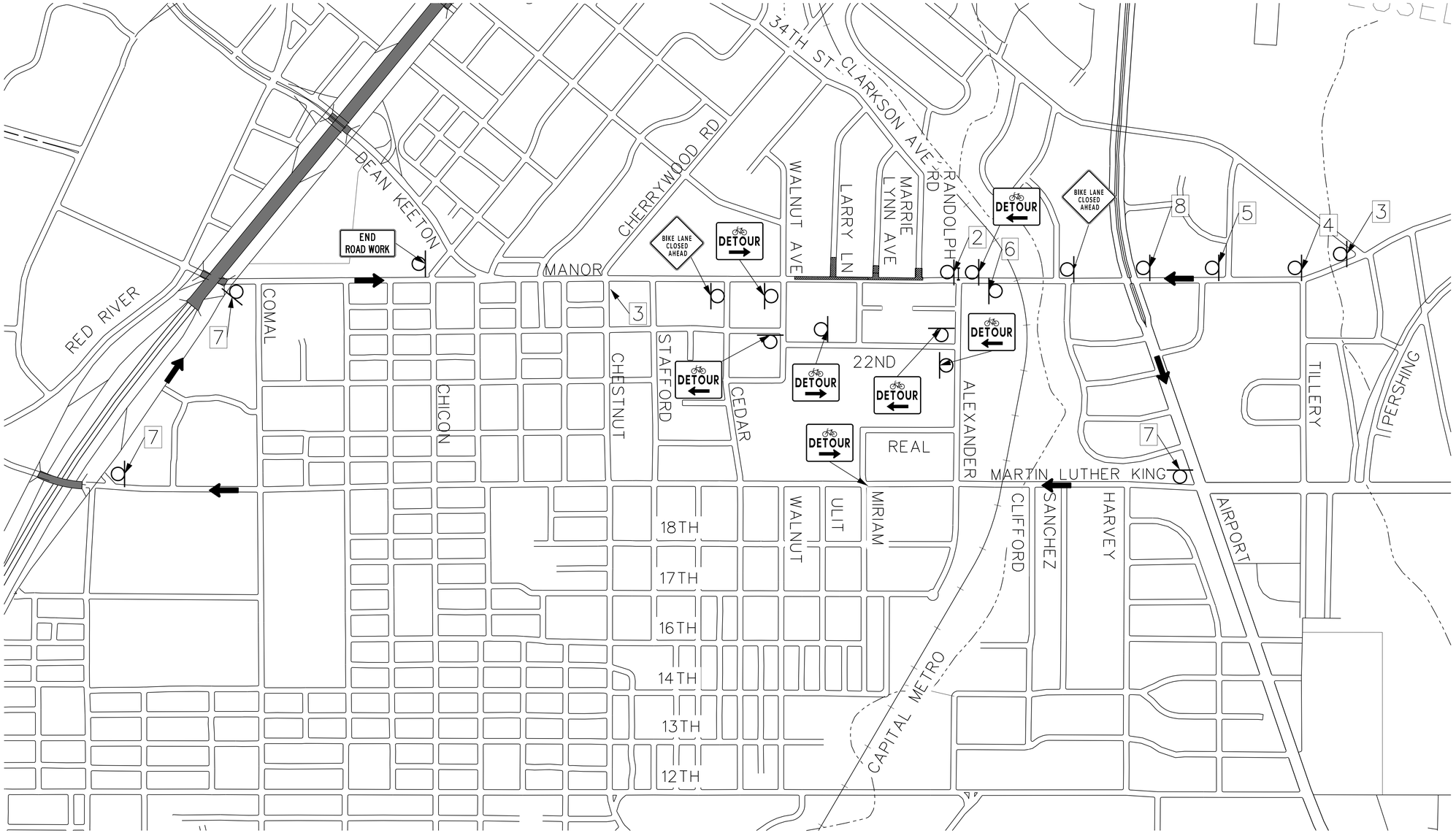
F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB

SHEET 118
SEQ. 118 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE0203.SHT
Level: 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64
Plot Scale: 20.0000 '' / in.
Date: Aug. 25, 2026 - 11:01:17 AM
Model: Default
Project: Freese and Nichols, Inc.

NOTES:

1) MANOR RD WESTBOUND (WB) DETOUR ROUTE APPLIES TO PHASES 3, 4, 9 AND 10.
2) REFER TO SHEETS 120,122,128, AND 129
3) REFER TO SHEET 121 FOR PHASE 4 DETOUR LAYOUT



LEGEND

- CONSTRUCTION THIS PHASE
- TYPE III BARRICADE
- TRAFFIC DIRECTION

1. ROAD CLOSED
2. ROAD CLOSED TO THRU TRAFFIC
3. ROAD WORK AHEAD
4. ROAD CLOSED AHEAD
5. DETOUR AHEAD
6. END ROAD WORK
7. WB MANOR DETOUR
8. WB MANOR DETOUR

N

N.T.S.

TCP23-170010

CITY OF AUSTIN TEXAS
RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE
☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

DETOUR AND ADVANCED WARNING LAYOUT PHASE 3,4,9, AND 10

NO.	ISSUES	BY	DATE

FNI JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB

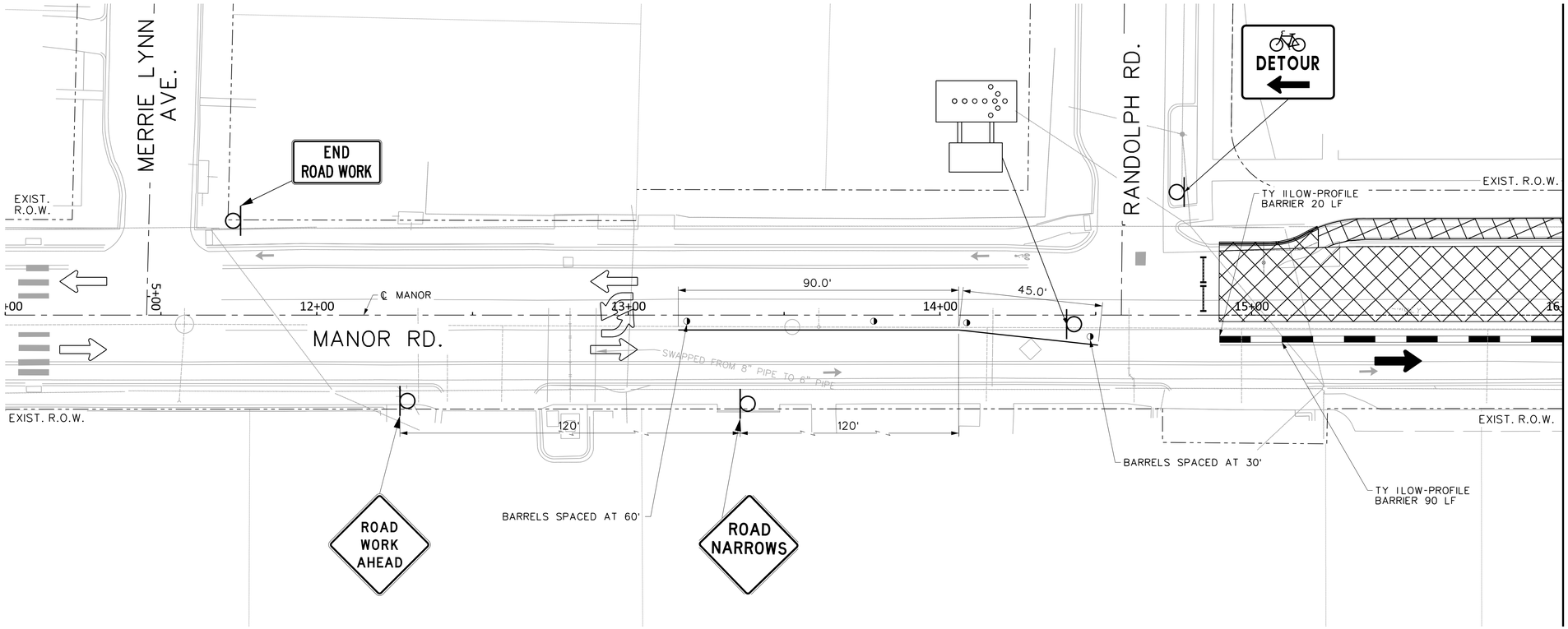
FILE NAME 03926-PH3-DETOUR-WB-MANOR_01.SHT

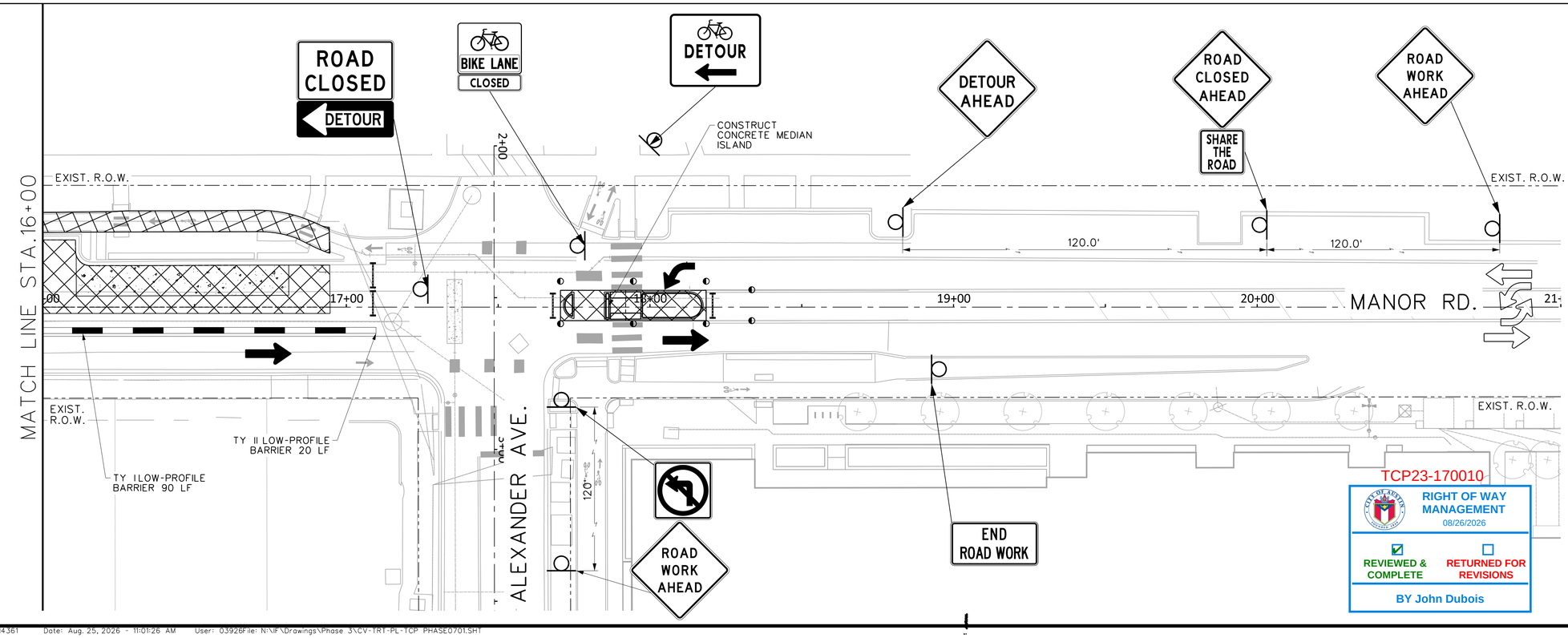
VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale accordingly.
0 1"

SHEET 119
SEQ. 119 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-DETOUR-WB-MANOR_01.SHT
Plotted by: Vinod Patel on Aug 25, 2026 - 11:01:19 AM
Plot Scale: 400.0000 ' / in. Model: Default
Date: Aug. 25, 2026 - 11:01:19 AM Project: Freese and Nichols, Inc.

Office: On Site AU314361 Date: Aug. 25, 2026 - 11:01:19 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-DETOUR-WB-MANOR_01.SHT





NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING DRIVEWAYS. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS WHEN DRIVEWAY CLOSURES ARE REQUIRED.
2. DURING WATER LINE INSTALLATION IN THE BIKE LANE, CONTRACTOR SHALL KEEP THE ROAD OPEN TO NORMAL TRAFFIC CONDITIONS.
3. CONTRACTOR TO COORDINATE WITH CAPMETRO WHEN BUS STOPS ARE IMPACTED BY CLOSURES AND DETOURS.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/25/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

TCP
STA.11+00 TO END

CIVIL

NO.	ISSUES	BY	DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME TRT-PL-TCP PHASE0701.SHT

SHEET 120
SEQ. 120 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 P:\NF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE0701.SHT
Level: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64
Plot Scale: 20.0000 '/ in. Plot Date: Aug 25, 2026 - 11:01:26 AM
Model: Detour
Project: Freese and Nichols, Inc.



NOTES:
1) MANOR RD SHALL BE RETURNED TO NORMAL TRAFFIC CONDITION FOR THIS PHASE OF WORK.
2) REFER TO SHEET 119 FOR PHASE 4 ADVANCED WARNING LAYOUT.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

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BY John Dubois

FREESE AND NICHOLS, INC.
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

DETOUR AND ADVANCE WARNING LAYOUT PHASE 4

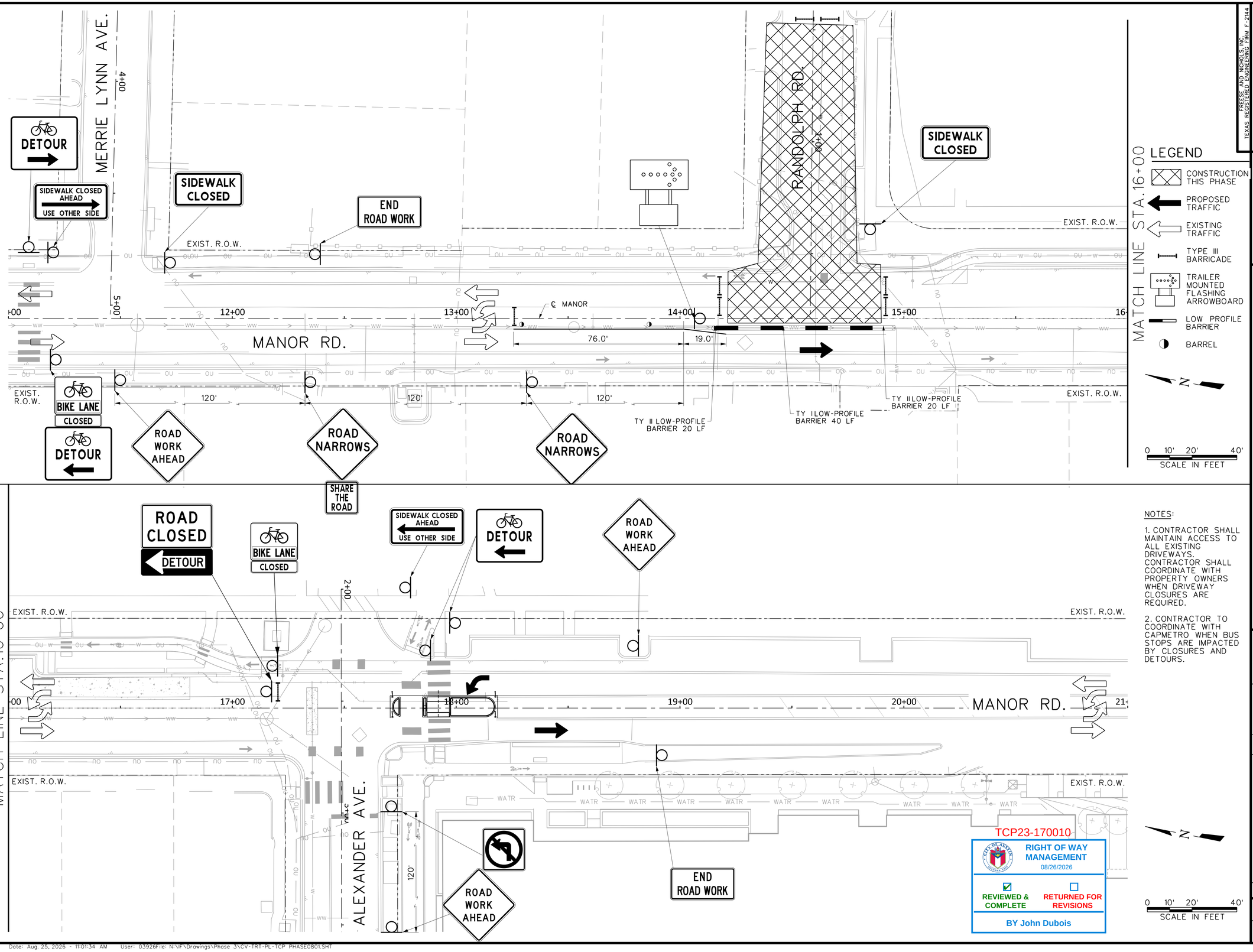
F&N JOB NO.	AU314361		
DATE	08/17/2026		
DESIGNED	BP		
DRAWN	BP		
REVISED			
CHECKED	MB		
FILE NAME	CV-TRT-PL-PH3-DETOUR13.SHT		
NO.	BY	DATE	ISSUES

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale. 0 1"

SHEET 121

SEQ. 121 OF 143

MicroStation V8 User: 03926Office: On Site
N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-DETOUR13.SHT
AU314361 LEVELS:(ALL) REFS:(NONE)
Plot Scale: 20.0000 '/ in. Model: Default
Date: Aug. 25, 2026 11:01:27 AM Project: Freese and Nichols, Inc.



NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING DRIVEWAYS. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS WHEN DRIVEWAY CLOSURES ARE REQUIRED.

2. CONTRACTOR TO COORDINATE WITH CAPMETRO WHEN BUS STOPS ARE IMPACTED BY CLOSURES AND DETOURS.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

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CITY OF AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

TCP PHASE 4
STA.11+00 TO END

CIVIL

NO.	ISSUES	BY	DATE

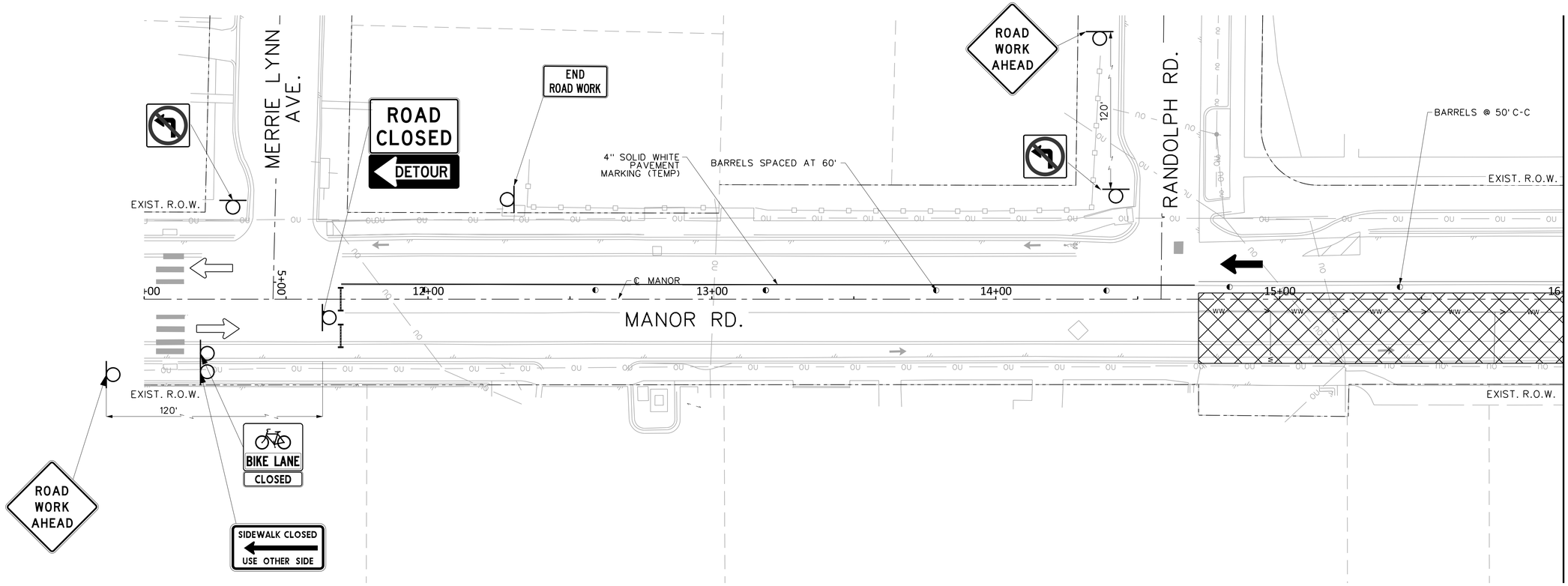
F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME TRT-PL-TCP PHASE0801.SHT

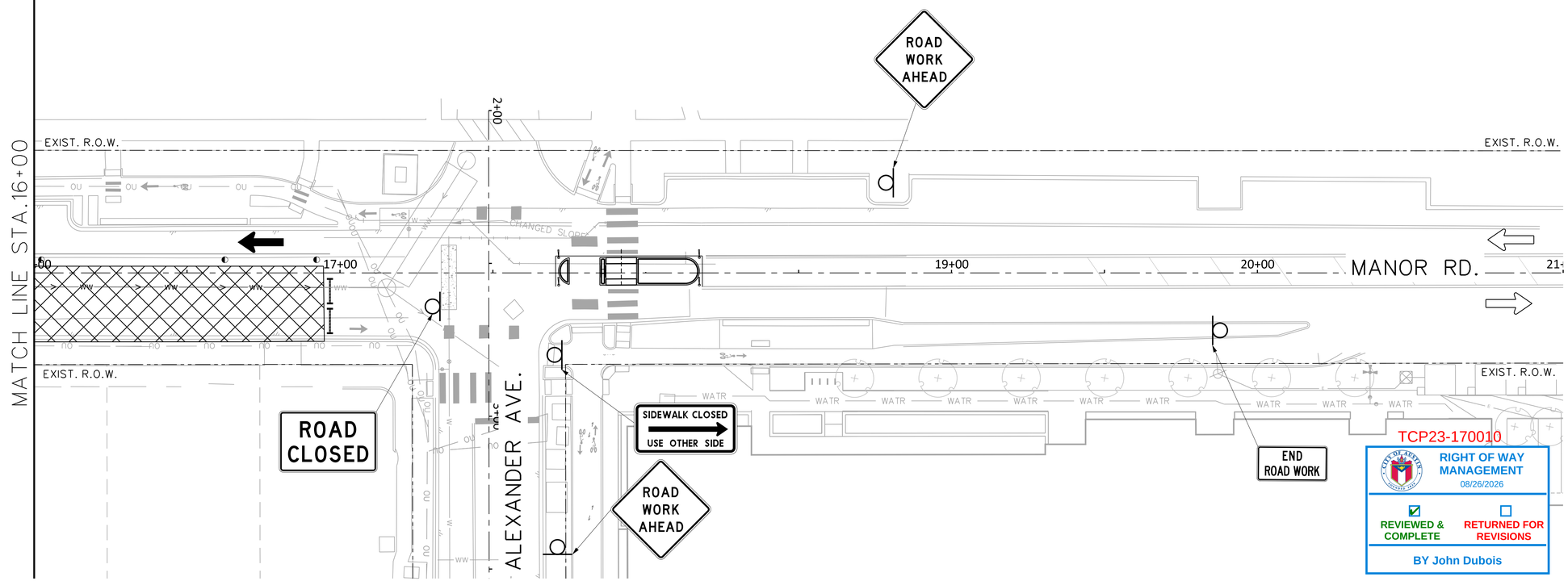
VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale. CV

SHEET 122
SEQ. 122 OF 143

MicroStation V8 User: 03926Office: On Site
N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE0801.SHT
AU314361 Phase 3\CV-TRT-PL-TCP PHASE0801.SHT
Plot Scale: 20.0000 '/ in. Model: Default
Plot Date: Aug. 25, 2026 - 11:01:34 AM Project: Freese and Nichols, Inc.

Office: On Site AU314361 Date: Aug. 25, 2026 - 11:01:34 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE0801.SHT





NOTE:

CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING DRIVEWAYS. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS WHEN DRIVEWAY CLOSURES ARE REQUIRED.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

TCP
STA.11+00 TO END

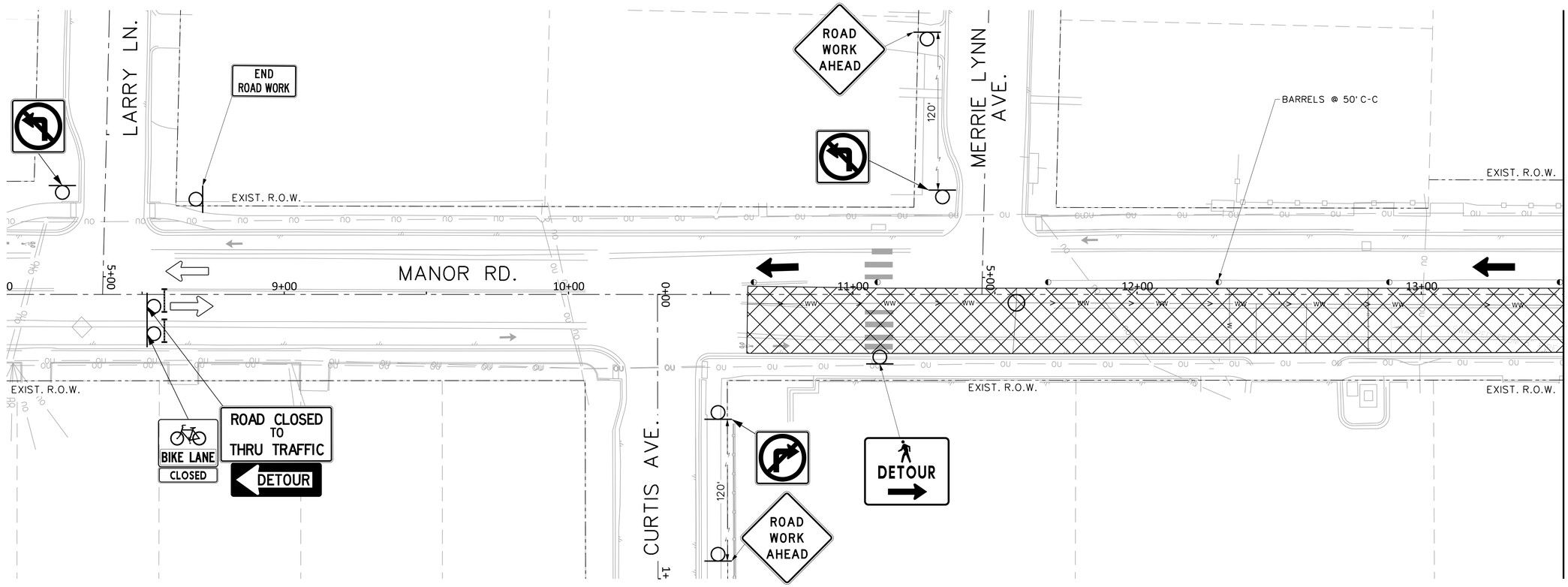
NO.	ISSUES	BY	DATE	FILE NAME
				TRT-PL-TCP PHASE0301.SHT

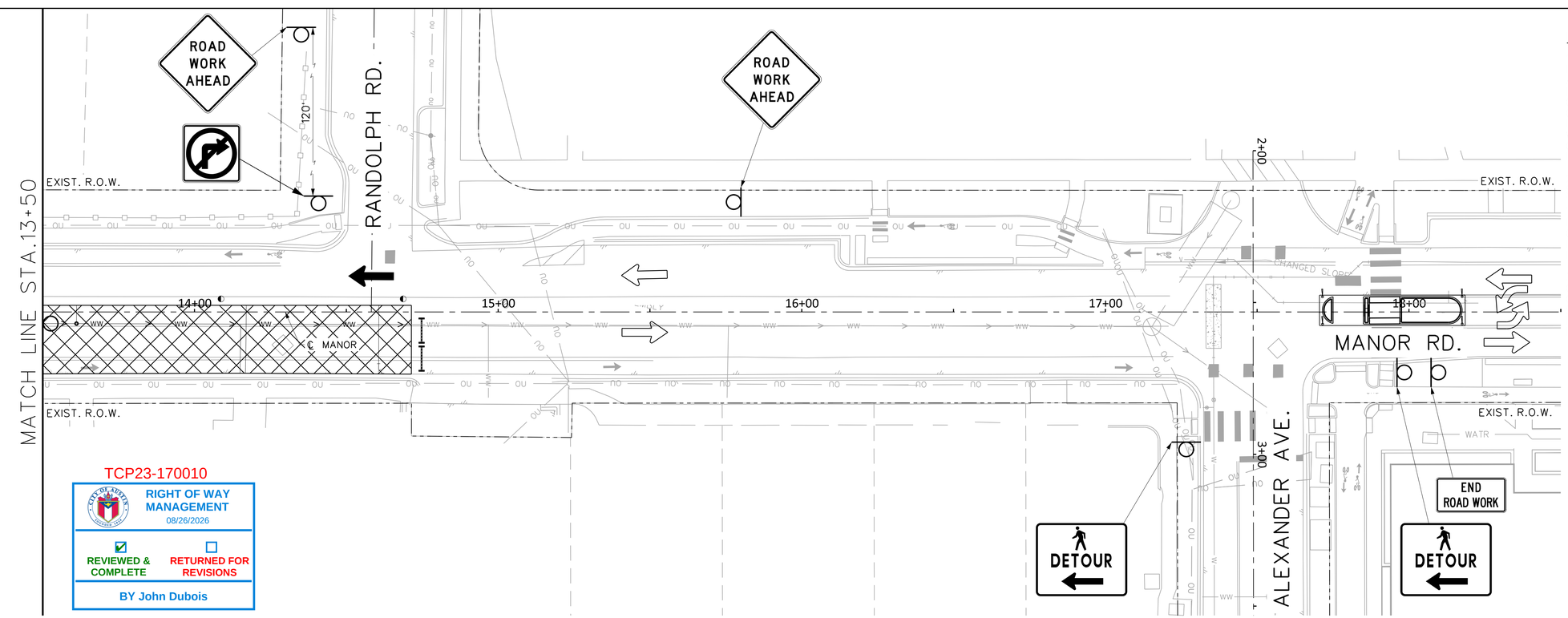
F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale. CV 0

SHEET 123
SEQ. 123 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE0301.SHT
Plot Scale: 20.0000 '' / in. Plot Date: Aug 25, 2026 - 11:01:37 AM
Model: Default
Project: Freese and Nichols, Inc.





NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING DRIVEWAYS. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS WHEN DRIVEWAY CLOSURES ARE REQUIRED.

2. CONTRACTOR SHALL STEEL PLATE ANY OPEN TRENCHES AND RETURN THE ROADWAY TO NORMAL OPERATION OUTSIDE OF WORKING HOURS DURING THIS PHASE.

3. CONTRACTOR TO COORDINATE WITH CAPMETRO WHEN BUS STOPS ARE IMPACTED BY CLOSURES AND DETOURS.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

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08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

TCP PHASE 6
STA.8+50 TO STA.18+50

NO.	ISSUES	BY	DATE

FAN JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB

FILE NAME TRT-PL-TCP PHASE0401.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale. CV

SHEET 124
SEQ. 124 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE0401.SHT
Area=1.PHASE 6 Model=Detour
Plot Scale: 20.0000 '/ in. Project=Freese and Nichols, Inc.
Date: May 29, 2026 - 10:03:39 AM

NOTE:

SEE DETOUR ROUTE FOR EB MANOR RD DETOUR ROUTING.

N

N.T.S.

LEGEND

- CONSTRUCTION THIS PHASE
- TYPE III BARRICADE
- TRAFFIC DIRECTION

1 — ROAD CLOSED

2 — ROAD CLOSED TO THRU TRAFFIC

3 — ROAD WORK AHEAD

4 — ROAD CLOSED AHEAD

5 — DETOUR AHEAD

6 — END ROAD WORK

CHERRYWOOD
HEMLOCK
CLARKSON
E 32ND
LARRY
MERRIE LYNN
RANDOLPH
MANOR
WALNUT
CURTIS
22ND
OAKLAWN
MALDON
21ST
ROGERS
WEBER
MAPLE
CHESTNUT
GIVENS
CEDAR
REAL
ALEXANDER
MARTIN LUTHER KING, JR.

DETOUR
CURTIS DETOUR
ROAD CLOSED TO THRU TRAFFIC DETOUR

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026
☑ REVIEWED & COMPLETE
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BY John Dubois

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
DETOUR AND ADVANCE WARNING LAYOUT
PHASE 7

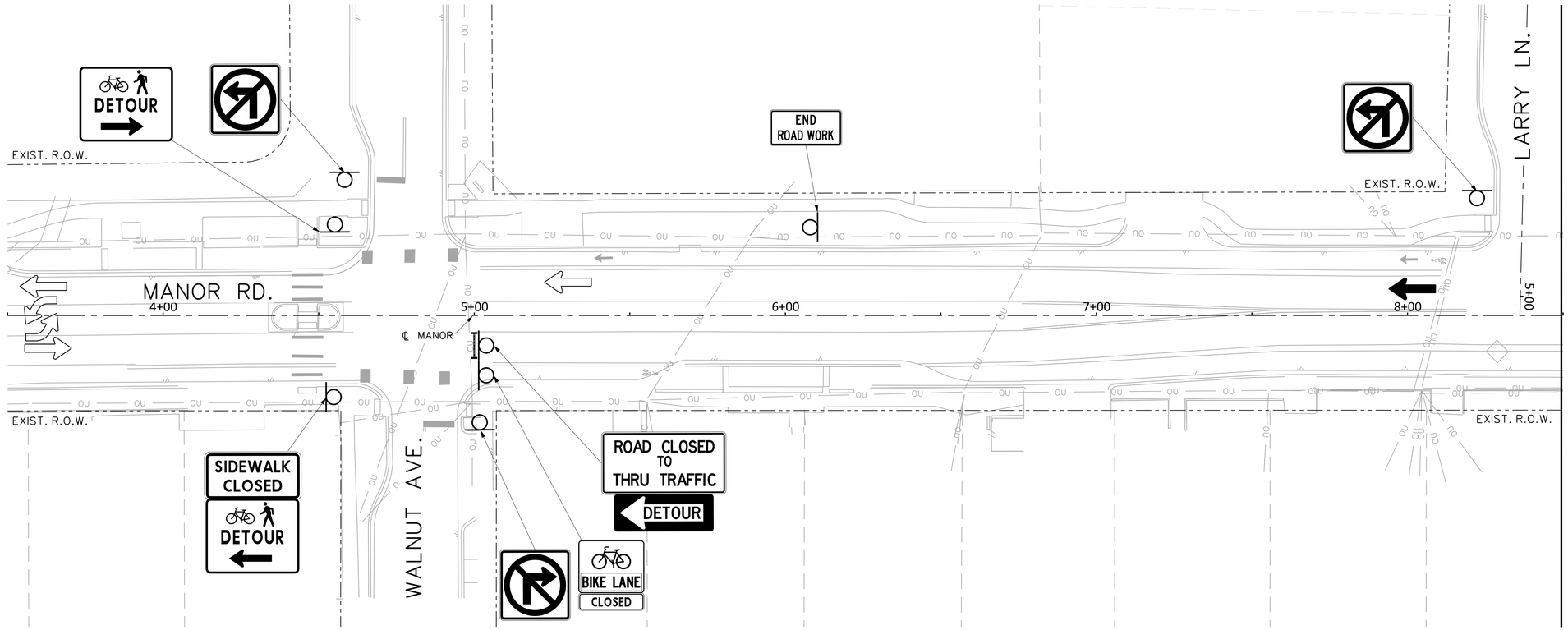
NO.	ISSUES	BY	DATE

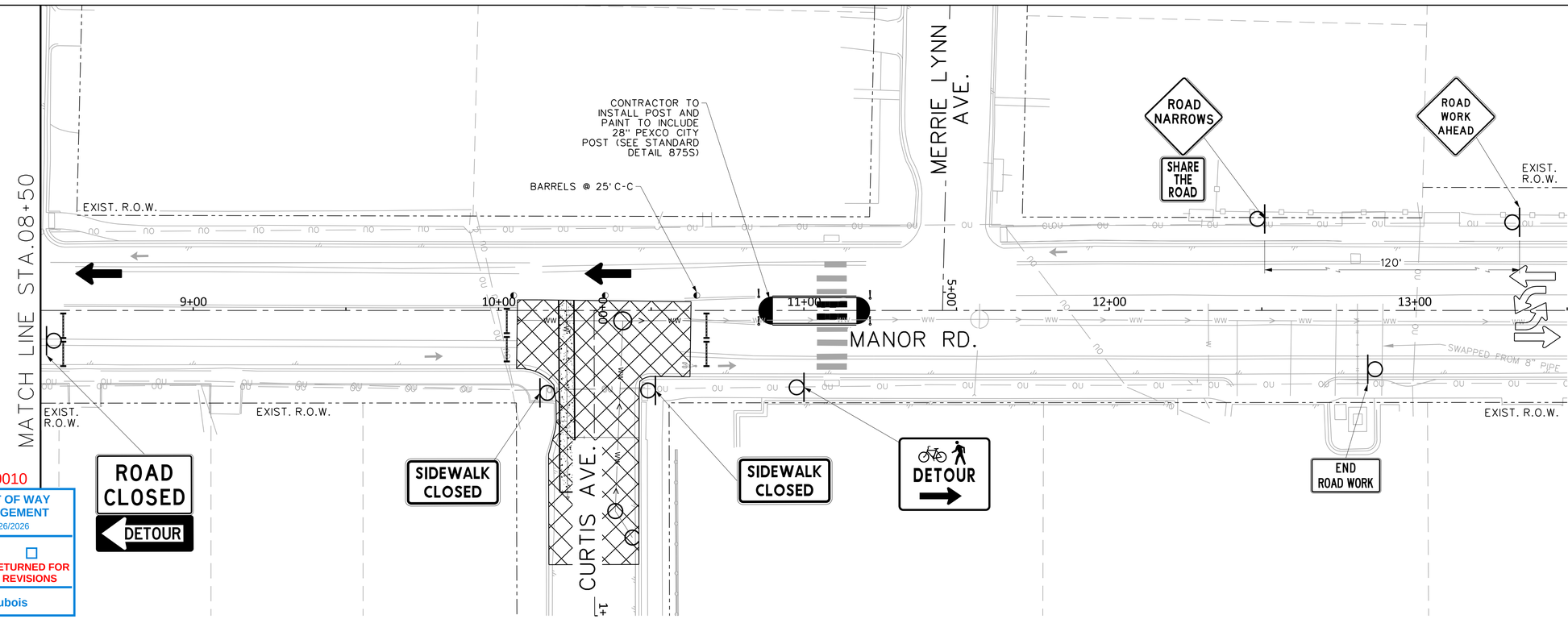
F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN BP
REVISED
CHECKED MB
FILE NAME CV-TRT-PL-PH3-DETOUR05.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale. 0 1"

SHEET 125
SEQ. 125 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 - N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-DETOUR05.SHT
Plot Driver: HP DesignJet 4500 PostScript Level 2
Plot Scale: 20.0000 '/ in.
Date: Aug. 25, 2026 - 11:01:40 AM
Model: Default
Project: Freese and Nichols, Inc.





NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING DRIVEWAYS. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS WHEN DRIVEWAY CLOSURES ARE REQUIRED.
2. CONTRACTOR SHALL STEEL PLATE ANY OPEN TRENCHES AND RETURN THE ROADWAY TO NORMAL OPERATION OUTSIDE OF WORKING HOURS DURING THIS PHASE.
3. CONTRACTOR TO COORDINATE WITH CAPMETRO WHEN BUS STOPS ARE IMPACTED BY CLOSURES AND DETOURS.

TCP23-170010

CITY OF AUSTIN RIGHT OF WAY MANAGEMENT 08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
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Heather McNeal
08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

TCP PHASE 7
STA.8+50 TO STA.18+50

NO.	ISSUES	BY	DATE

FILE NAME: TRT-PL-TCP PHASE0501.SHT

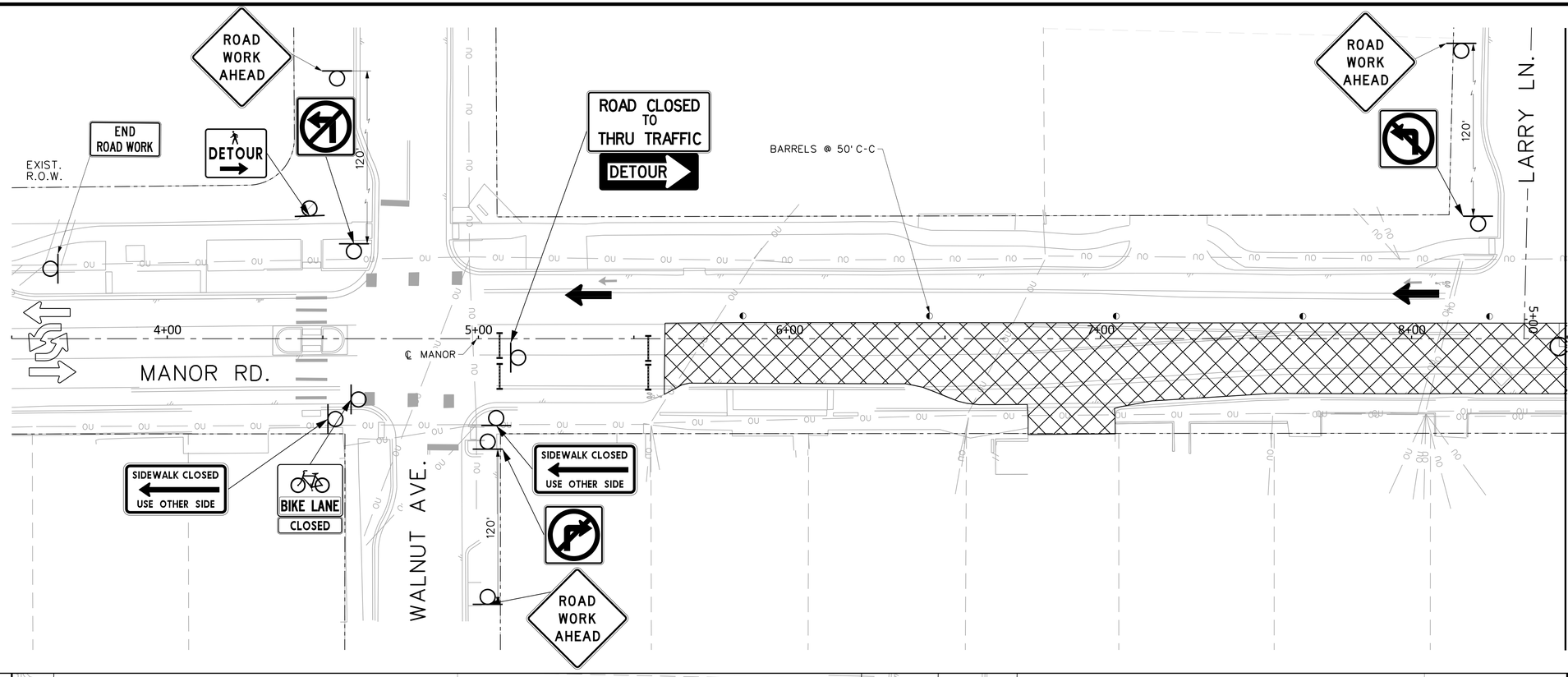
F&N JOB NO.	AU314361
DATE	08/17/2026
DESIGNED	BP
DRAWN	MIC
REVISED	
CHECKED	MB

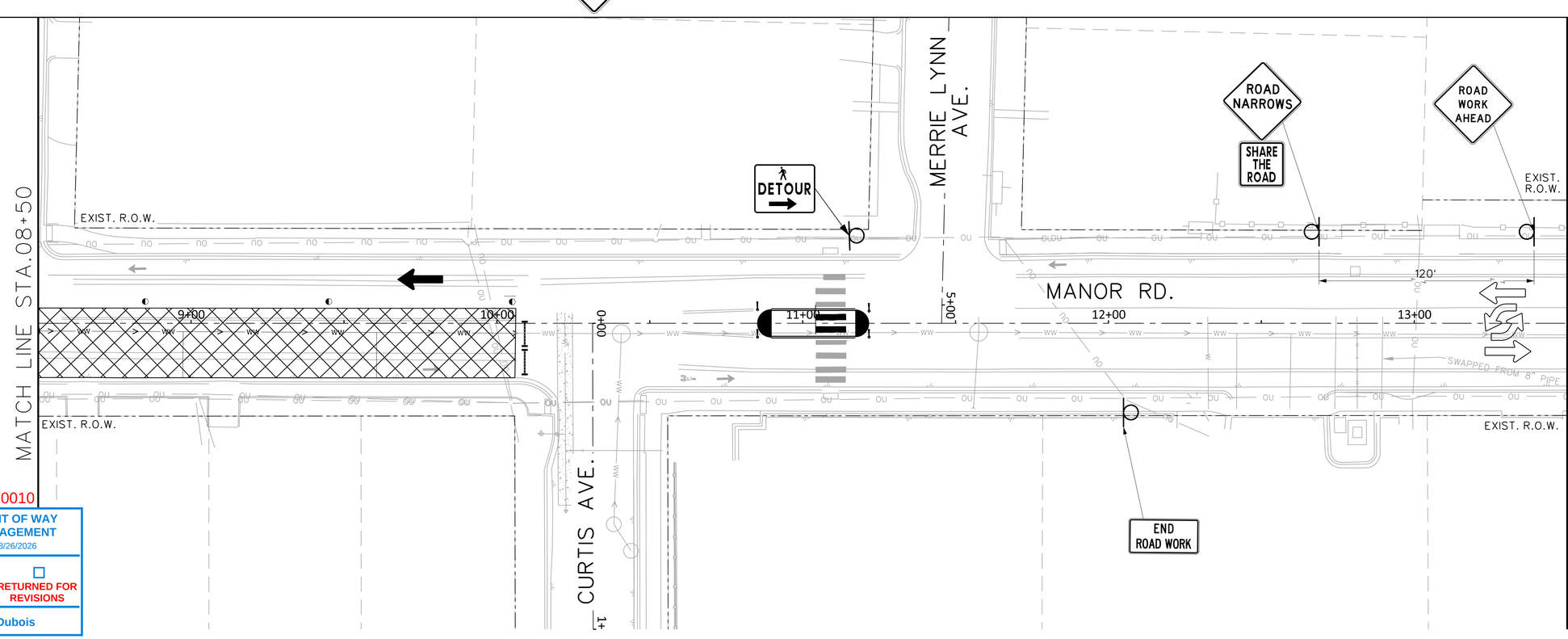
VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale. 0 1"

SHEET 126

SEQ. 126 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE0501.SHT
Plot Scale: 20.0000 '' / 1 in. Model: Detour
Date: Aug. 25, 2026 - 11:01:47 AM Project: Freese and Nichols, Inc.





NOTES:

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2. CONTRACTOR TO COORDINATE WITH CAPMETRO WHEN BUS STOPS ARE IMPACTED BY CLOSURES AND DETOURS.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026
☑ REVIEWED & COMPLETE
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BY John Dubois

FREESE AND NICHOLS, INC.
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

TCP PHASE 8
STA.8+50 TO STA.18+50

NO.	ISSUES	BY	DATE

FAN - JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME TRT-PL-TCP PHASE0601.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale. CV

SHEET 127
SEQ. 127 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE0601.SHT
Plot Scale: 20.0000 '/ in. Model: Detour
Plot Date: Aug. 25, 2026 - 11:01:50 AM Project: Freese and Nichols, Inc.

Office: On Site AU314361 Date: Aug. 25, 2026 - 11:01:50 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE0601.SHT

END ROAD WORK

EXIST. R.O.W.

MANOR RD.

9+00

10+00

0+00

1+

EXIST. R.O.W.

120'

120'

ROAD WORK AHEAD

ROAD NARROWS

SHARE THE ROAD

ROAD NARROWS

CURTIS AVE.

60'

30 MPH

TY II LOW-PROFILE BARRIER 20 LF

BARRELS SPACED AT 30'

MERRIE LYNN AVE.

TY I LOW-PROFILE BARRIER 280 LF

EXIST. R.O.W.

60'

12+00

13+00

4" SOLID DOUBLE YELLOW PAVEMENT MARKING (TEMP)

EXIST. R.O.W.

MATCH LINE STA.13+50

LEGEND

- CONSTRUCTION THIS PHASE
- PROPOSED TRAFFIC
- EXISTING TRAFFIC
- TYPE III BARRICADE
- TRAILER MOUNTED FLASHING ARROWBOARD
- LOW PROFILE BARRIER
- BARREL

N

0 10' 20' 40'

SCALE IN FEET

MATCH LINE STA.13+50

SIDEWALK CLOSED

SIDEWALK CLOSED

USE OTHER SIDE

DETOUR

RANDOLPH RD.

EXIST. R.O.W.

BARRELS @ 10' C-C

BARRELS @ 10' C-C

4" SOLID WHITE PAVEMENT MARKING (TEMP)

30 MPH

BARRELS @ 50' C-C

BARRELS @ 25' C-C

BIKE LANE CLOSED

DETOUR

ROAD WORK AHEAD

2+00

120'

EXIST. R.O.W.

14+00

15+00

16+00

17+00

℄ MANOR

18+00

MANOR RD.

EXIST. R.O.W.

4" SOLID DOUBLE YELLOW PAVEMENT MARKING (TEMP)

TY II LOW-PROFILE BARRIER 20 LF

3+00

ALEXANDER AVE.

WATR

END ROAD WORK

DETOUR

60'

120'

125'

N

0 10' 20' 40'

SCALE IN FEET

NOTES:

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TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

TCP PHASE 9
STA.8+50 TO STA.18+50

NO.	ISSUES	BY	DATE

FAN JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME TRT-PL-TCP PHASE0901.SHT

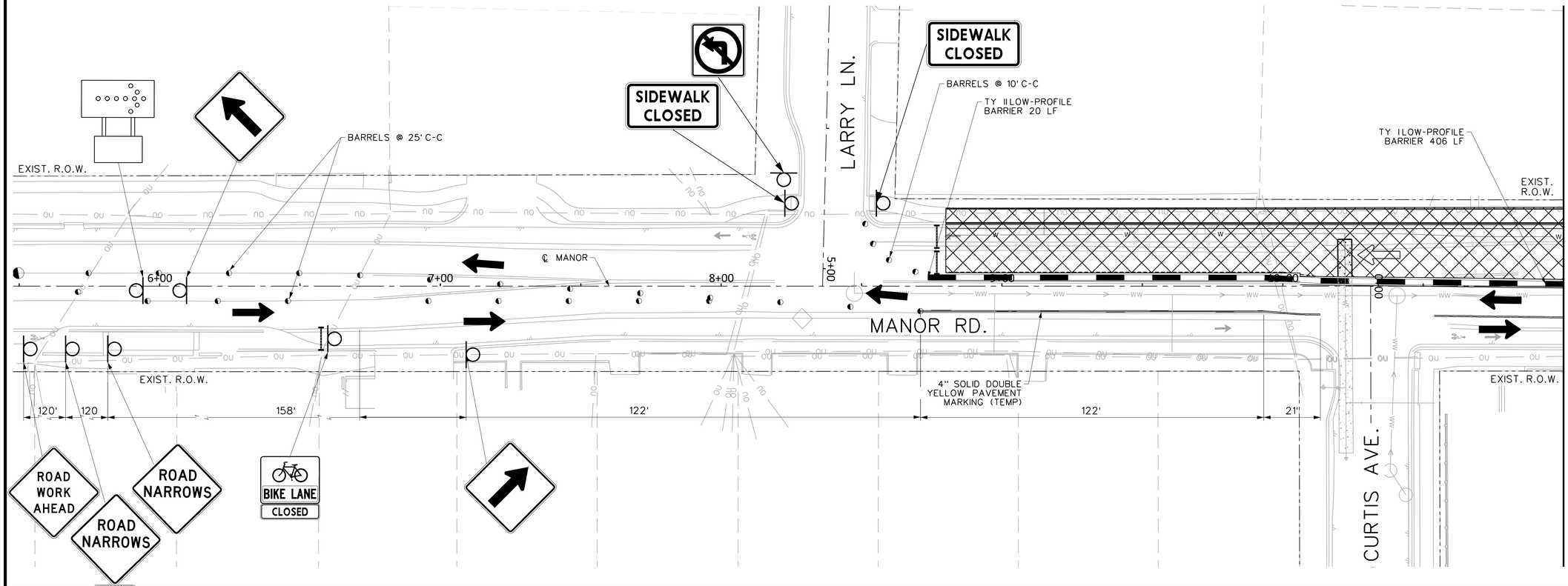
VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale. CV

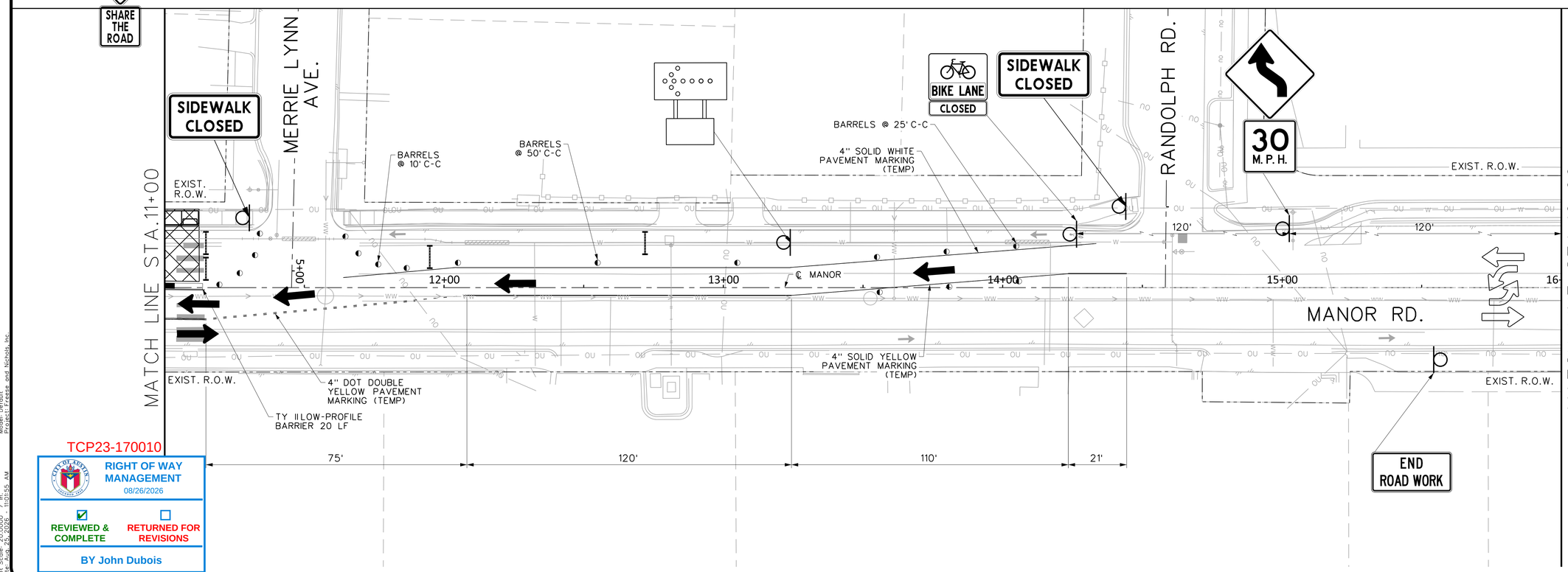
SHEET 128

SEQ. 128 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE0901.SHT
Level: PLOT, Use Set: ALL, Active Model: Default
Plot Scale: 20.0000 '/ in. Model: Default
Date: Aug. 25, 2026 - 11:01:53 AM Project: Freese and Nichols, Inc.

Office: On Site AU314361 Date: Aug. 25, 2026 - 11:01:53 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE0901.SHT





NOTES:

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TCP23-170010

CITY OF AUSTIN
RIGHT OF WAY MANAGEMENT
08/26/2026
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CITY OF AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

TCP PHASE 10 STEP 1
STA.2+00 TO STA.16+00

NO.	ISSUES	BY	DATE
0			

FILE NAME CV-TRT-PL-TCP PHASE1001.SHT

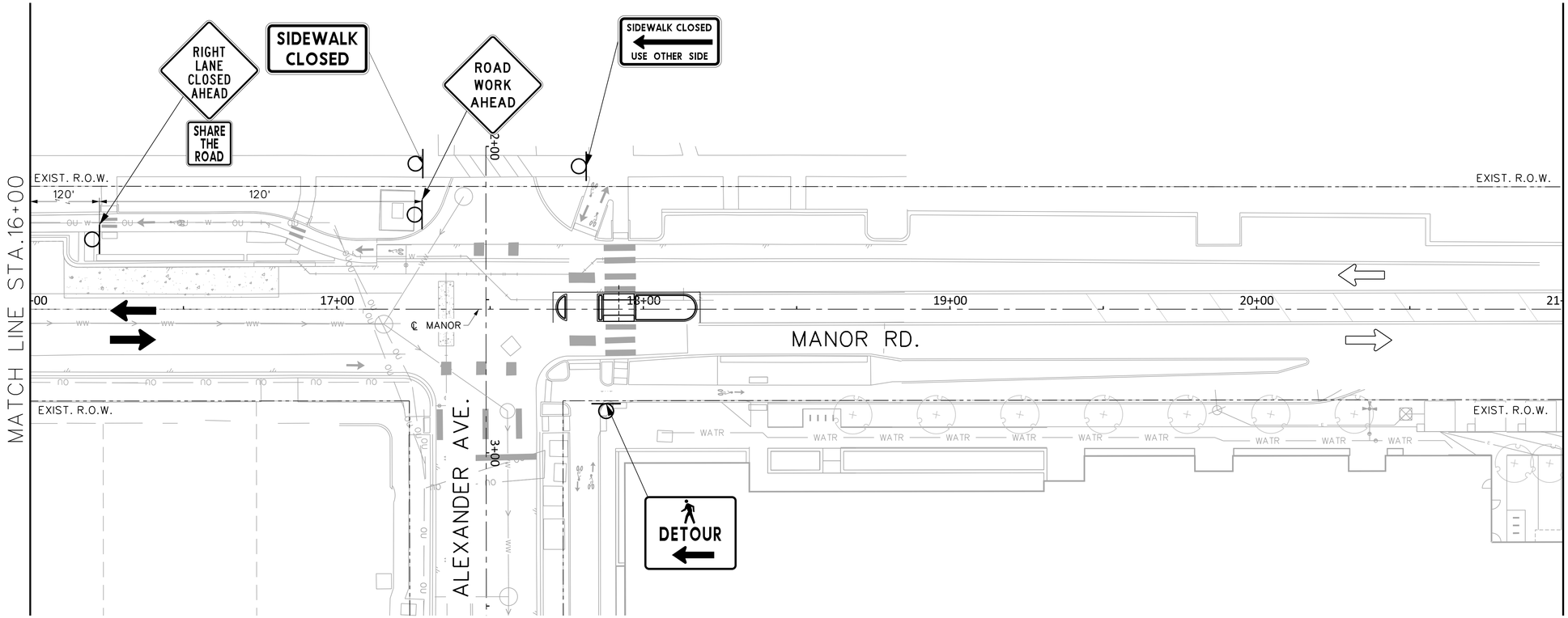
VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

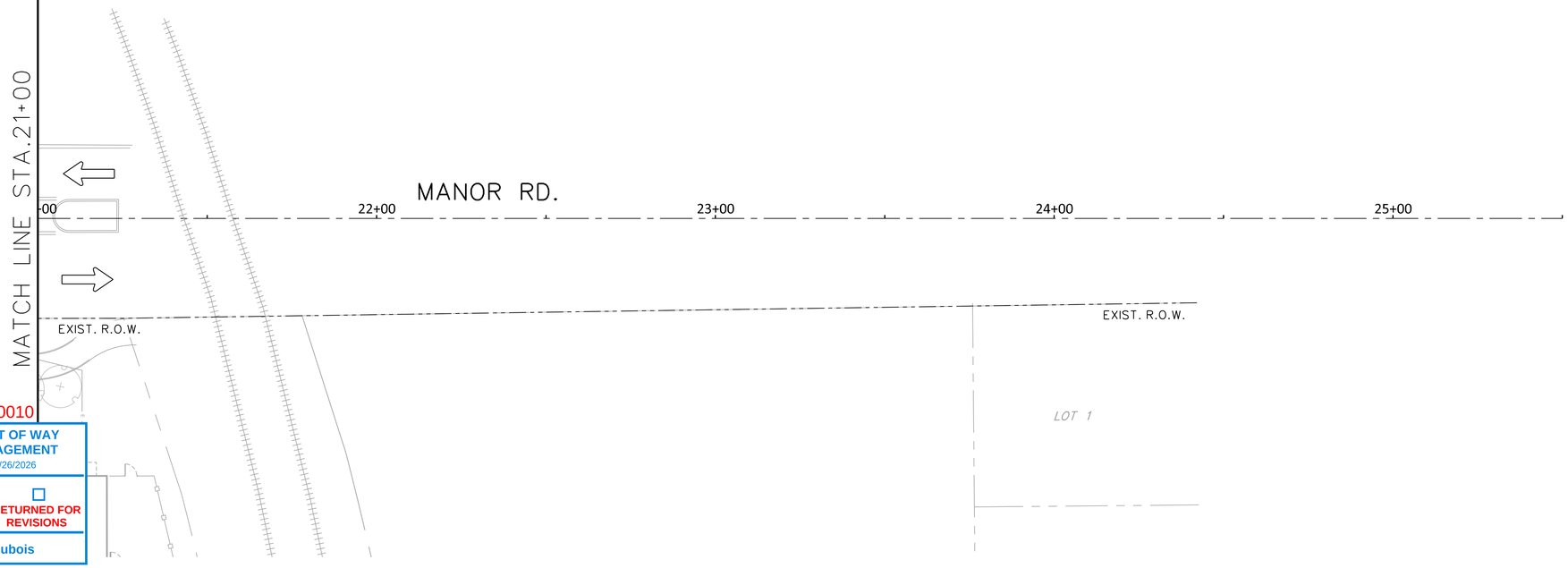
FAN JOB NO.	DATE	CHECKED
AU314361	08/17/2026	MB
DESIGNED		
BP		
DRAWN		REVISED
MIC		

SHEET 129

SEQ. 129 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE1001.SHT
Active Level: [0] CV-TRT-PL-TCP PHASE1001.SHT
Plot Scale: 20.0000 '/ in. Model: Default
Date: Aug. 25, 2026 - 11:01:55 AM Project: Freese and Nichols, Inc.





LEGEND

- CONSTRUCTION THIS PHASE
- PROPOSED TRAFFIC
- EXISTING TRAFFIC
- TYPE III BARRICADE
- TRAILER MOUNTED FLASHING ARROWBOARD
- LOW PROFILE BARRIER
- BARREL

N

0 10' 20' 40'
SCALE IN FEET

NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING DRIVEWAYS. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS WHEN DRIVEWAY CLOSURES ARE REQUIRED.

2. CONTRACTOR TO COORDINATE WITH CAPMETRO WHEN BUS STOPS ARE IMPACTED BY CLOSURES AND DETOURS.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED
PROFESSIONAL ENGINEER
08/25/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

TCP PHASE 10 STEP 1
STA.16+00 TO STA.25+50

NO.	ISSUES	BY	DATE

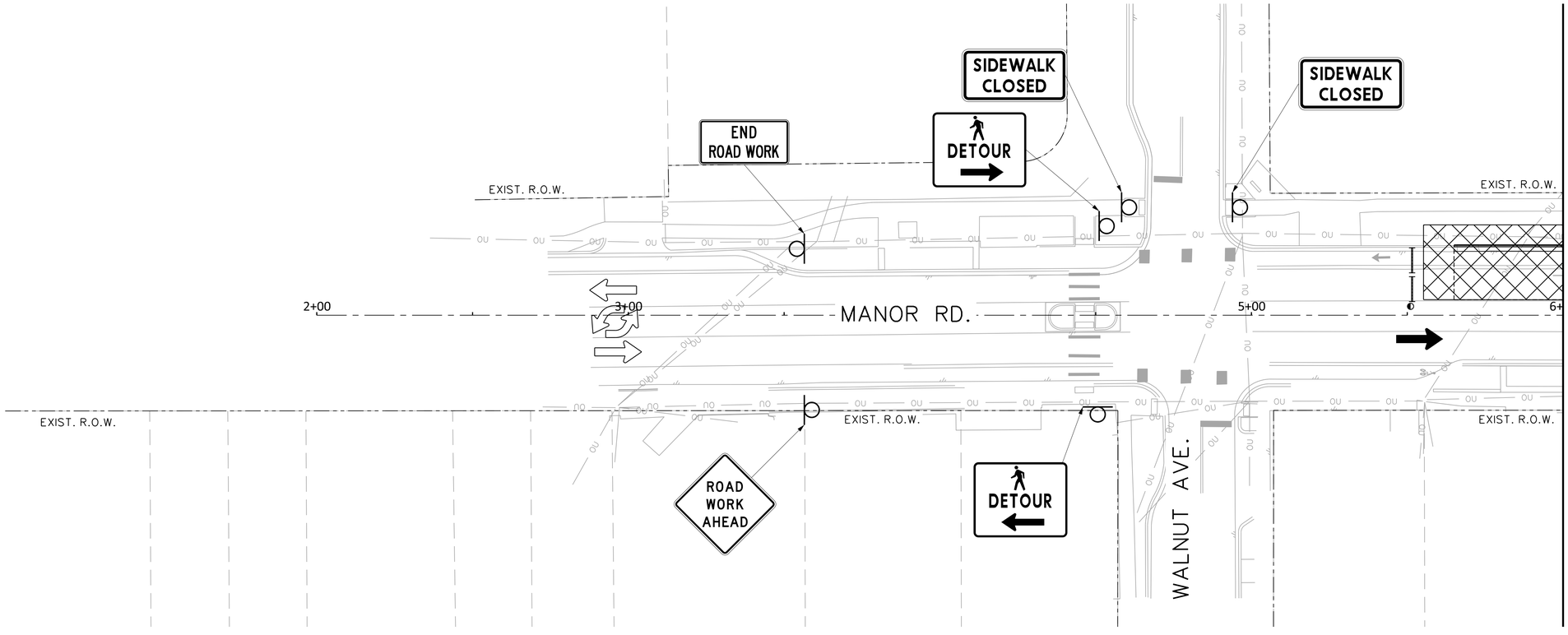
VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale

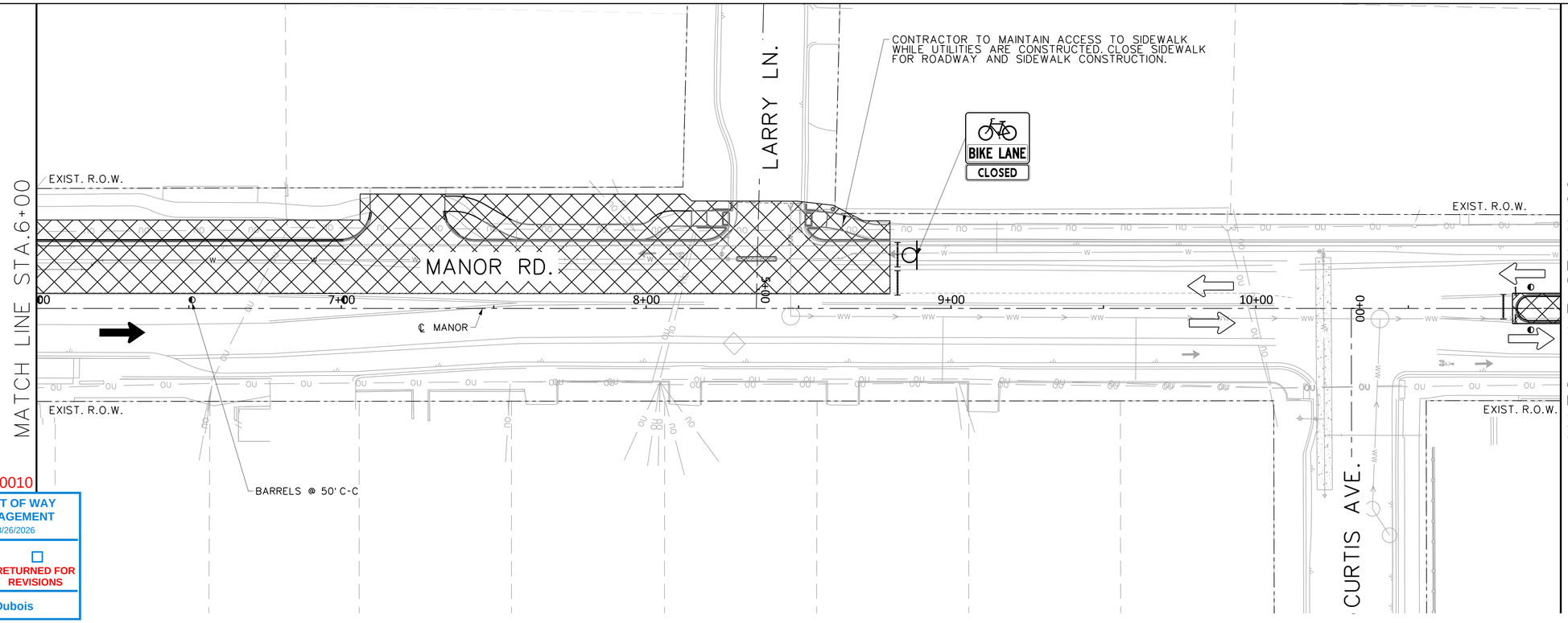
F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME AU314361-TRT-PL-TCP PHASE1001_02.SHT

SHEET 130
SEQ. 130 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 - N:\F\Drawings\Phase 3\CV-TRT-PL-TCP PHASE1001_02.SHT
Plot Driver: HP DesignJet 4500 PS3 for 24x36 Model
Plot Scale: 20.0000 '' / in. Model: Default
Date: Aug. 25, 2026 - 11:01:57 AM Project: Freese and Nichols, Inc.

Office: On Site AU314361 Date: Aug. 25, 2026 - 11:01:57 AM User: 03926File: N:\F\Drawings\Phase 3\CV-TRT-PL-TCP PHASE1001_02.SHT





NOTES:

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2. CONTRACTOR TO COORDINATE WITH CAPMETRO WHEN BUS STOPS ARE IMPACTED BY CLOSURES AND DETOURS.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

TCP PHASE 2
STA.2+00 TO STA.11+00

NO.	ISSUES	BY	DATE

FAN JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME TRT-PL-TCP PHASE1002.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale. CV

SHEET 131
SEQ. 131 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE1002.SHT
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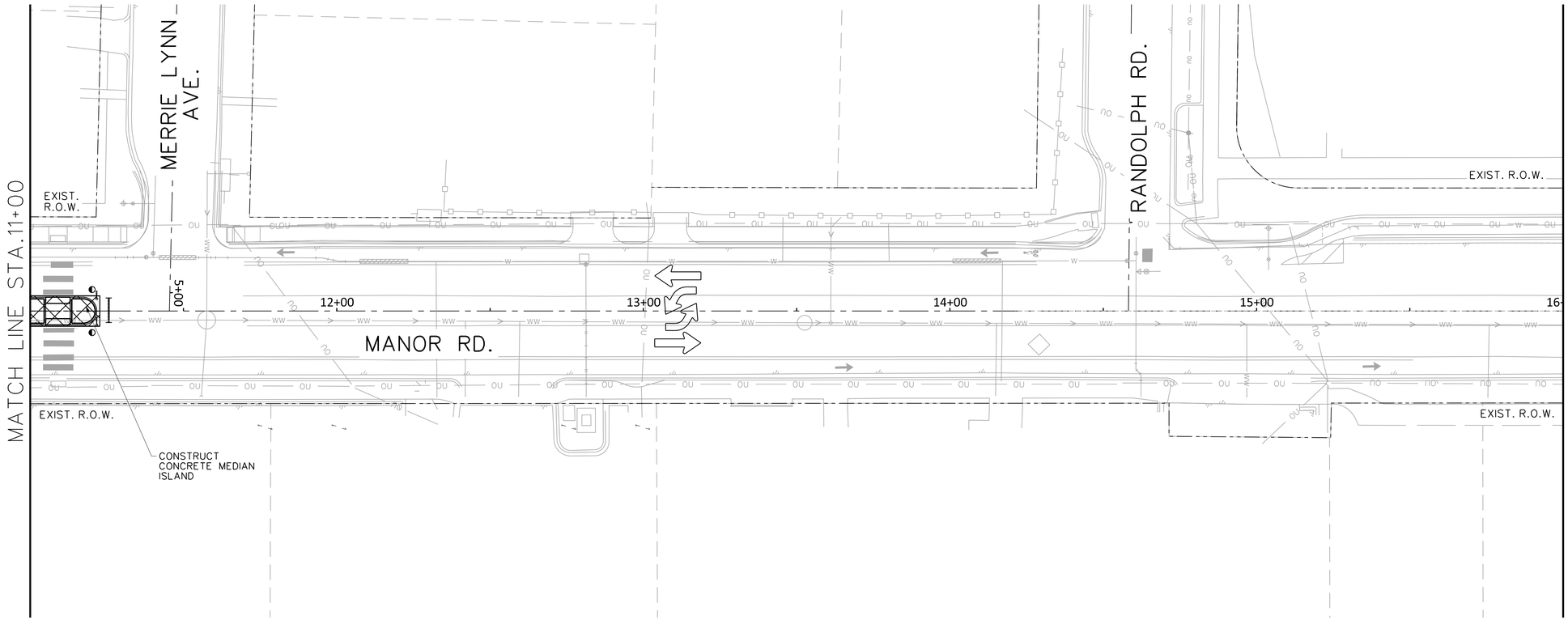
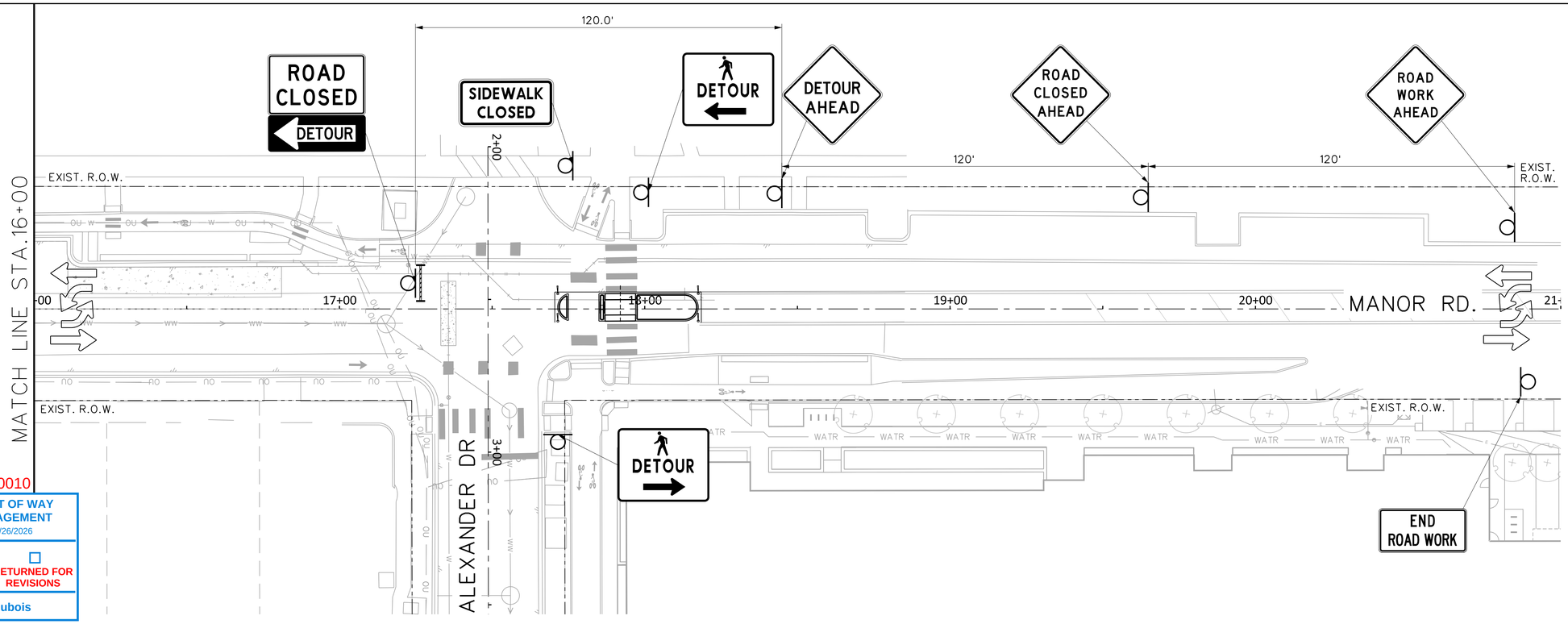
Date: Aug. 25, 2026 - 11:01:59 AM Project: Freese and Nichols, Inc.





NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING DRIVEWAYS. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS WHEN DRIVEWAY CLOSURES ARE REQUIRED.

2. CONTRACTOR TO COORDINATE WITH CAPMETRO WHEN BUS STOPS ARE IMPACTED BY CLOSURES AND DETOURS.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026
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08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
TCP PHASE 10 STEP 2
STA.11+00 TO END

NO.	ISSUES	BY	DATE

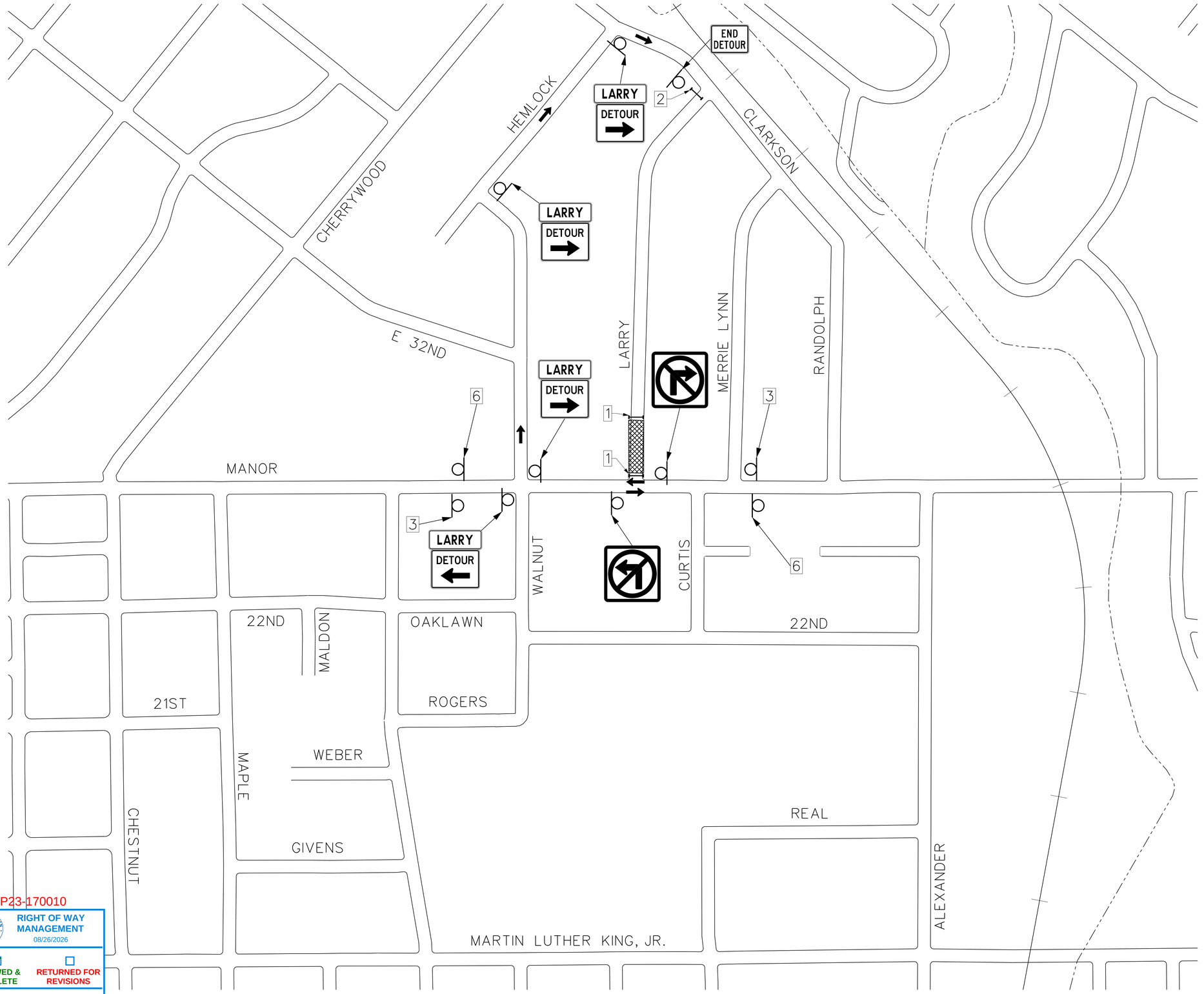
F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-PL-TCP PHASE1002_02.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 132
SEQ. 132 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE1002_02.SHT
Plot Scale: 20.0000 '/ in. Plot Date: Aug. 25, 2026 - 11:02:00 AM
Model: Detour
Project: Freese and Nichols, Inc.

Office: On Site AU314361 Date: Aug. 25, 2026 - 11:02:00 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-PL-TCP PHASE1002_02.SHT



NOTE:
MANOR RD SHALL BE RETURNED TO NORMAL TRAFFIC CONDITION FOR THIS PHASE OF WORK.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026
☑ REVIEWED & COMPLETE
☐ RETURNED FOR REVISIONS
BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
DETOUR AND ADVANCE WARNING LAYOUT
PHASE 11

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN BP
REVISED
CHECKED MB
FILE NAME CV-TRT-PL-PH3-DETOUR11.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 133
SEQ. 133 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-DETOUR11.SHT
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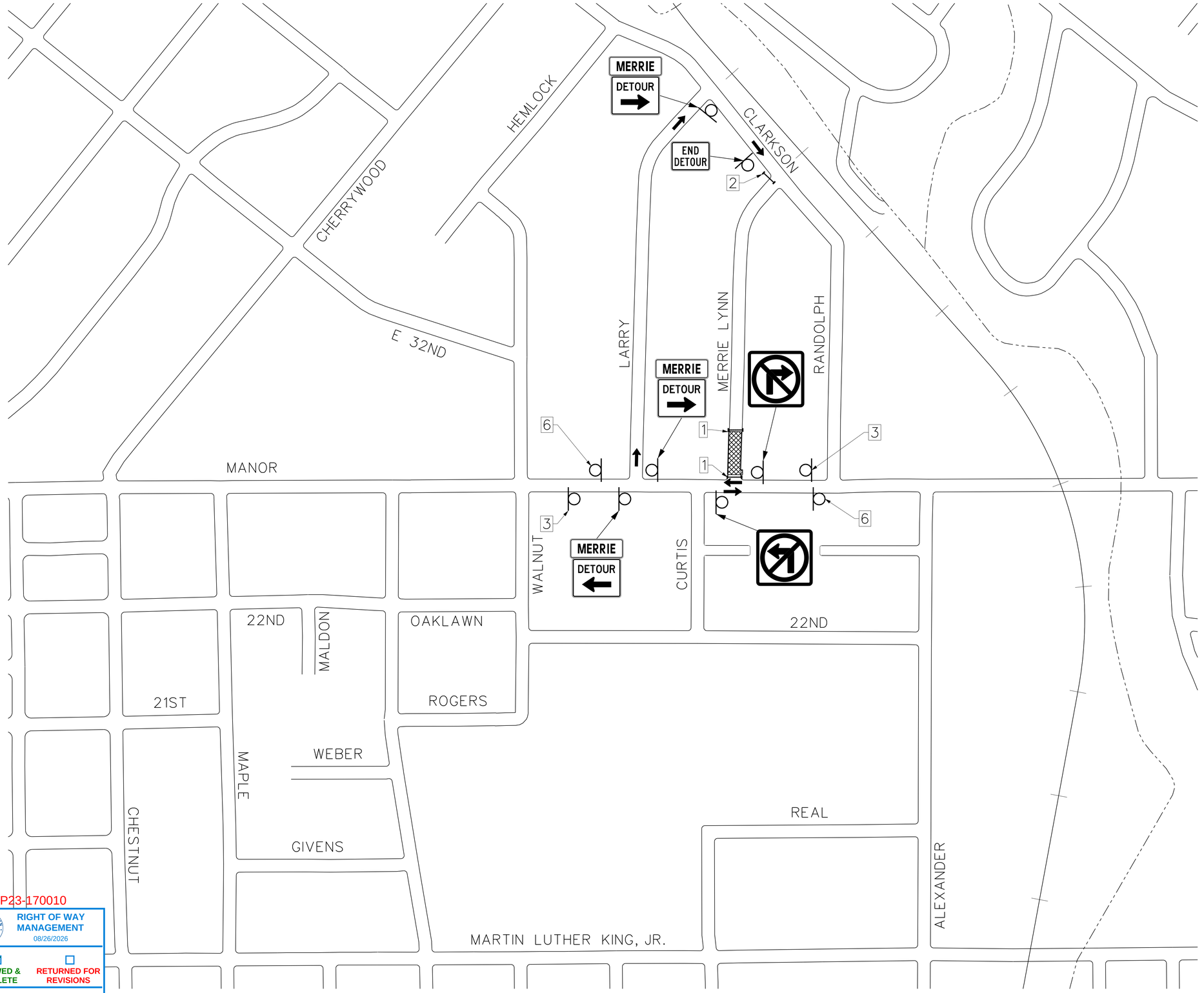
Date: Aug. 25, 2026 - 11:02:01 AM Model: Detour
Project Freese and Nichols, Inc.



NOTE:
MANOR RD SHALL BE RETURNED TO NORMAL TRAFFIC CONDITION FOR THIS PHASE OF WORK.

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026
☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS
BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144
STATE OF TEXAS
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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
DETOUR AND ADVANCE WARNING LAYOUT PHASE 12

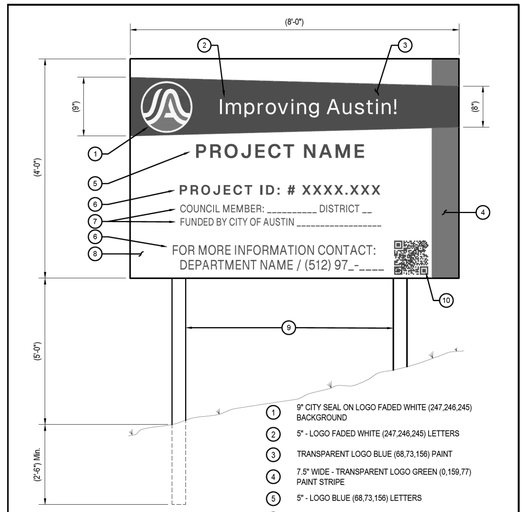
NO.	ISSUES	BY	DATE

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN BP
REVISED
CHECKED MB
FILE NAME CV-TRT-PL-PH3-DETOUR12.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 134
SEQ. 134 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-PL-PH3-DETOUR12.SHT
Plot Scale: 20.0000 '= 1" Plot Date: Aug. 25, 2026 - 11:02:02 AM
Model: Detour
Project Freese and Nichols, Inc.

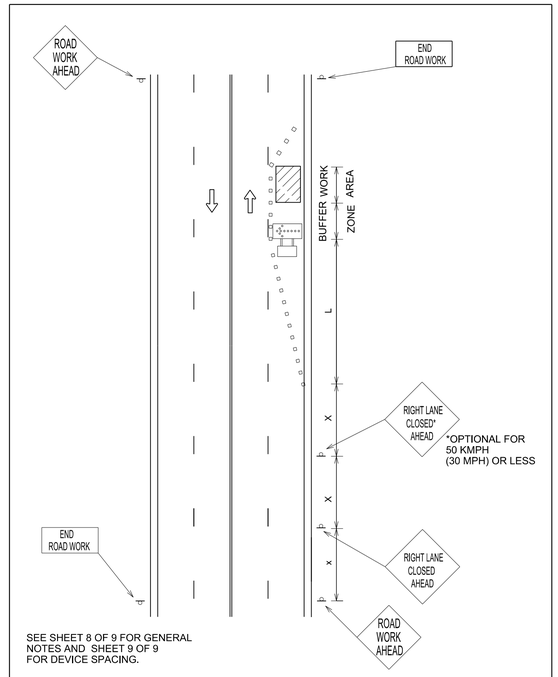


1. 9" CITY SEAL ON LOGO FADED WHITE (247,246,245) BACKGROUND
2. 5" - LOGO FADED WHITE (247,246,245) LETTERS
3. TRANSPARENT LOGO BLUE (68,73,156) PAINT
4. 7.5" WIDE - TRANSPARENT LOGO GREEN (0,159,77) PAINT STRIPE
5. 5" - LOGO BLUE (68,73,156) LETTERS
6. 3" - LOGO BLUE (68,73,156) LETTERS
7. 2" - LOGO BLUE (68,73,156) LETTERS
8. WHITE BACKGROUND ON PLYWOOD, NON-REFLECTIVE. PAINT REQUIREMENTS FOR BACKGROUND AND POST, BLUE TONED WHITE 93-21667 CROSS ALLEN OR EQUAL.
9. 4"X4" CLASS 6 WOOD POST PAINTED WHITE
10. 10"x10" LOGO BLUE (68,73,156) QR CODE LINK TO CONSTRUCTION PROJECT WEB PAGE

NOTES:

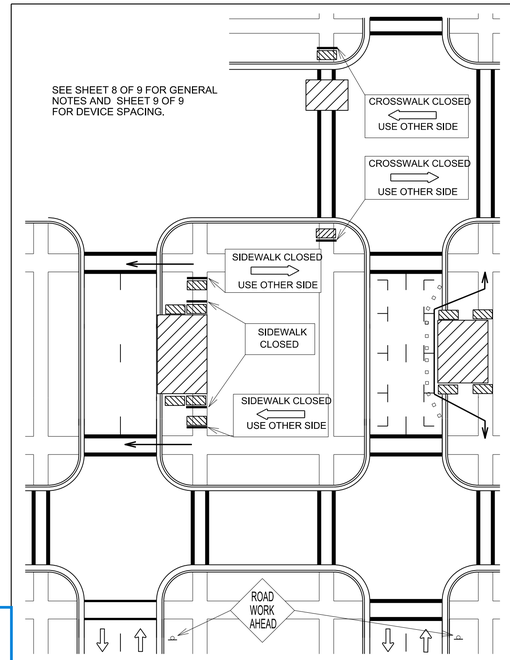
1. ALL MATERIALS SHALL BE FURNISHED BY THE CONTRACTOR.
2. IF SIGN IS USED IN PHASED CONSTRUCTION, POSTS SHALL BE MOUNTED ON SKIDS. SEE STANDARD 804S-5, SHEET 5 OF 13.
3. SIGN MUST BE IN COLOR.

CITY OF AUSTIN CAPITAL DELIVERY SERVICES	8'x4' C.I.P. BUILDING PROJECT SIGN	
RECORD COPY SIGNED ERIC BAILEY 03/23/2026 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 802S-1 1 OF 1

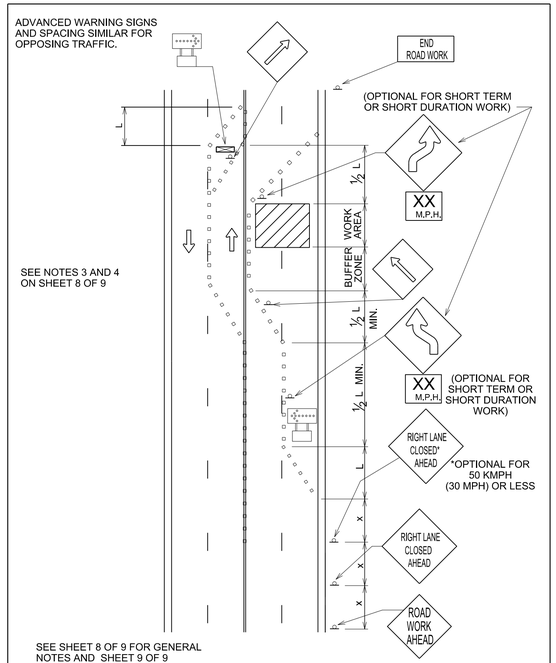


SEE SHEET 8 OF 9 FOR GENERAL NOTES AND SHEET 9 OF 9 FOR DEVICE SPACING.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	ARTERIAL ONE LANE CLOSURE	
RECORD COPY SIGNED BY KERI JUAREZ 01/04/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-1 1 OF 9



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	BYPASS WALKWAY, SIDEWALK AND CROSSWALK CLOSURES	
RECORD COPY SIGNED BY KERI JUAREZ 01/04/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-1 4 OF 9



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPICAL TRAFFIC CONTROL PLAN FOR SHIFTING TRAFFIC	
RECORD COPY SIGNED BY KERI JUAREZ 01/04/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-1 6 OF 9

1. ALL SETUPS SHALL BE IN ACCORDANCE WITH THE CURRENT ADDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL.
2. TO DETERMINE APPROPRIATE DEVICES AND SIGN SIZES TO BE USED, REFER TO STANDARD 804S-5. SHEETS 5, 6 AND 7 OF 11.
3. FOR INTERMEDIATE-TERM SITUATIONS, WHEN IT IS NOT FEASIBLE TO REMOVE AND RESTORE PAVEMENT MARKINGS, THE CHANNELIZATION MUST BE MADE DOMINANT BY USING A VERY CLOSE DEVICE SPACING. THIS IS ESPECIALLY IMPORTANT IN LOCATIONS OF CONFLICTING INFORMATION, SUCH AS WHERE TRAFFIC IS DIRECTED OVER A DOUBLE YELLOW CENTERLINE. IN SUCH LOCATIONS, A MAXIMUM CHANNELIZING DEVICE SPACING OF 3 m (10') IS REQUIRED.
4. FOR LONG TERM STATIONARY WORK, ALL CONFLICTING PAVEMENT MARKINGS MUST BE REMOVED AND CENTERLINE STRIPING PROVIDED WHERE TWO WAY TRAFFIC IS IN ADJACENT LANES.
5. FOR TEMPORARY PAVEMENT MARKING REQUIREMENTS SEE STANDARD 804S-3.
6. FOR ONE-WAY AND MULTI-LANE ROADWAYS THE "LANE BLOCKED" SIGN MAY BE USED IN LIEU OF THE "LANE CLOSED AHEAD" SIGN. THE NUMBER OF DIGITS ON THE SIGN SHALL NOT BE GREATER THAN THE NUMBER OF LANES PRESENT ON THE ROADWAY. THE "X" SHALL BE PLACED UNDER THE NUMBER OF LANE(S) BLOCKED.
7. FOR FLAGGING OPERATION REQUIREMENTS SEE STANDARD 804S-2.
8. CONTRACTOR SHALL PROVIDE SIDEWALK CLOSURES, CROSSWALK CLOSURES OR WALKWAY BYPASS WHEREVER PEDESTRIAN MOVEMENTS ARE AFFECTED BY CONSTRUCTION ACTIVITIES. ALL SIDEWALKS AND CROSSWALKS SHALL BE ACCESSIBLE WHEN CONTRACTOR IS NOT WORKING UNLESS APPROVED BY THE TRANSPORTATION DIVISION.
9. FOR EXCAVATION PROTECTION AND SAFETY FENCE REQUIREMENTS SEE STANDARD 804S-4.
10. THE USE OF ARROW DISPLAYS ARE REQUIRED ON ALL LANE CLOSURES. THE CONTRACTOR SHALL PROVIDE ONE (1) STAND-BY UNIT IN GOOD WORKING CONDITION AT THE JOB SITE, READY FOR USE IF THE OPERATION REQUIRES 24-HOUR A DAY LANE CLOSURE SET-UPS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	GENERAL NOTES	
RECORD COPY SIGNED BY KERI JUAREZ 01/04/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-1 8 OF 9

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED PROFESSIONAL ENGINEER
08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
TRAFFIC CONTROL DETAILS I

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-DT-TCP.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 135
SEQ. 135 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-DT-TCP.SHT
Plot Scale: 1.0000 ' / in. Plot Date: Aug. 25, 2026 - 11:02:04 AM Model: Default
Project Freese and Nichols, Inc.

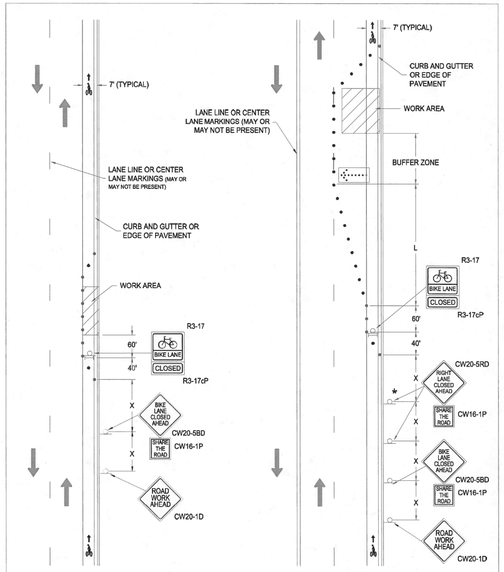
Typical Transition Lengths and Suggested Maximum Spacing of Devices

Speed KMPH	Posted Speed MPH	Formula	Minimum Desirable Taper Lengths (L) Meters (Feet) 3.0(10) Offset Meters (feet)	3.3(11) Offset Meters (feet)	3.6(12) Offset Meters (feet)	Suggested Max. Device Spacing On a taper Meters (feet)	On a tangent Meters (feet)	Suggested Sign Spacing Meters (Feet) "X" Dimension
50	30	$L=WS^2/60$	45 (150)	50 (165)	55 (180)	9 (30)	15-20 (60-75)	40 (120)
55	35		65 (205)	70 (225)	75 (245)	10 (35)	25-25 (70-90)	50 (160)
65	40		80 (265)	90 (295)	100 (320)	12 (40)	25-30 (80-100)	75 (240)
70	45	L=WS	135 (450)	150 (495)	165 (540)	13 (45)	25-30 (90-110)	100 (320)
80	50		150 (500)	165 (550)	180 (600)	15 (50)	30-35 (100-125)	120 (400)
90	55		165 (550)	185 (605)	200 (660)	16 (55)	35-40 (110-140)	150 (500)
95	60		180 (600)	200 (660)	220 (720)	18 (60)	40-45 (120-150)	180 (600)
105	65		195 (650)	215 (715)	235 (780)	19 (65)	40-50 (130-165)	210 (700)
115	70		215 (700)	235 (770)	255 (840)	21 (70)	45-55 (140-175)	240 (800)

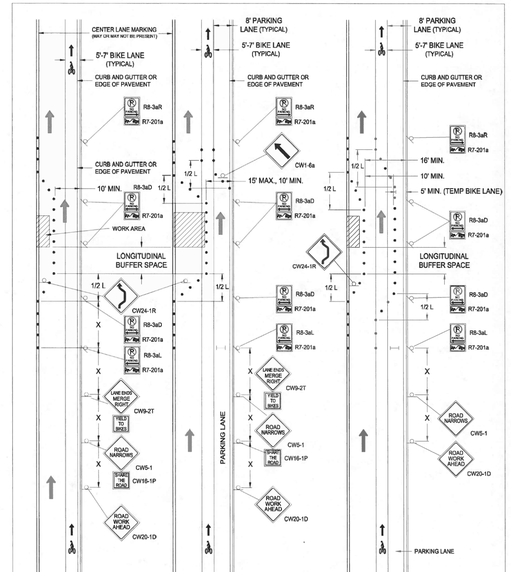
LEGEND

- Channelizing devices
- Trailer mounted flashing arrow board
- Flagger

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	DEVICE SPACING	
RECORD COPY SIGNED BY KERI JUAREZ 01/04/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-1 9 OF 9



CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT, ROW MANAGEMENT DIVISION	BIKE LANE CLOSURE AND BIKE LANE CLOSURE WITH ADJACENT TRAVEL LANE; 35 MPH OR LESS	
RECORD COPY SIGNED BY LEE AUSTIN 6/22/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-1 10 OF 13



CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT, ROW MANAGEMENT DIVISION	TRAFFIC ENCROACHMENT INTO BIKE LANE; 35 MPH OR LESS	
RECORD COPY SIGNED BY LEE AUSTIN 6/22/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-1 12 OF 13

Notes for Standard 804S-1, 12 of 13

Traffic Encroachment into Bike Lane

Definitions:

Bicycle Lane: A portion of a roadway that has been designated by signs and pavement markings for preferential or exclusive use by bicycles.

Standard:

1. **Where bike lanes exist on a roadway with a posted speed limit of 35 mph or less, and work or other activity will close the traffic lane, and traffic is redirected to travel in the bike lane, and adjacent parking lane, when a parking lane is present, a temporary shared traffic lane shall be established to maintain both vehicular and bicycle flow around the work or activity.**
2. **On roadways with a posted speed limit above 35 mph, alternative bicycle accommodations shall be developed.**
3. **Advance warning signs to establish temporary shared traffic lane shall consist of a Road Work/Utility Work Ahead sign a Road Narrows sign with a Share the Road (CW16-1P) plaque and a Lane Ends Merge Right (CW92T) sign with a Yield to Bikes plaque.**

Guidance:

4. The Yield to Bikes plaque should have a white background and black legend and border.

Standard:

5. **Where parking is not specifically prohibited, a No Parking/Tow Away zone shall be established. The "closed" No Parking/Tow Away zone shall begin at the first channelizing device on the approach, and end at the last channelizing device in the termination area. This No Parking/Tow Away zone shall utilize the symbolic version of the R7-1(P covered by a circle and slash) signs with appropriate arrows (see note 7) and R7-201P tow away plaques.**

Guidance:

6. When used, a minimum of three (3) No Parking/Tow Away signs should be used to establish the no parking zone with a minimum spacing of 50 feet and maximum 75 feet spacing.
7. Since the parking restriction applies to a limited area, the limits of the restriction should be shown by arrows on the signs. At the end of the parking zone, a single headed arrow pointing in the direction of the restriction should be used. For intermediate signs, there should be a double headed arrow pointing both ways.
8. When No Parking/Tow Away signs are used to indicate the extent of the restricted parking zone, the signs should be set at an angle of not less than 30 degrees or more than 45 degrees with the line of traffic flow in order to be visible to approaching traffic.
9. When used, the no parking zone should be established 48 hours prior to the scheduled work and remain in place through the expected project duration.

Standard:

10. **Sign vertical mounting height and lateral placement shall be as specified in 804S-5, 6 & 7 of 13.**
11. **Warning sign size shall be as shown for conventional roads in 804S-5, 6 & 7 of 13.**
12. **When a parking lane is adjacent to the bike lane and sufficient space is available (16 feet minimum), a separate traffic and bike lane shall be channelized around the work or activity area.**
13. **A channelized bike lane shall maintain a 5 foot minimum clear travel path for bicycle traffic.**
14. **A channelized traffic lane shall maintain a 10 foot minimum clear travel path for motor vehicle traffic.**
15. **This traffic control detail shall not be used on Long-term stationary work that occupies a location more than 3 days.**

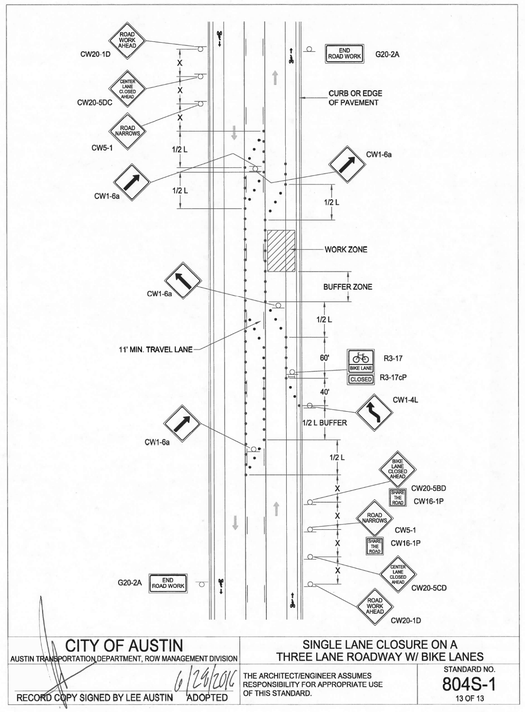
CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT, ROW MANAGEMENT DIVISION	TRAFFIC ENCROACHMENT INTO BIKE LANE; 35 MPH OR LESS	
Record Copy Signed by Lee Austin 6/22/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD	STANDARD NO. 804S-1 12 of 13

TCP23-170010

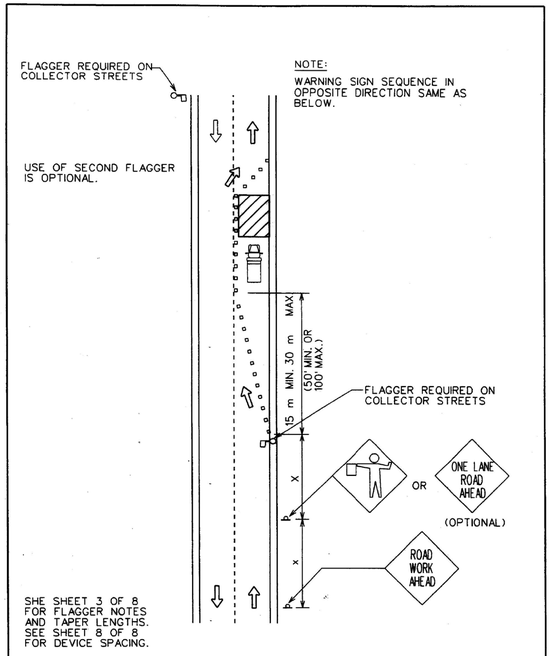
RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois



CITY OF AUSTIN AUSTIN TRANSPORTATION DEPARTMENT, ROW MANAGEMENT DIVISION	SINGLE LANE CLOSURE ON A THREE LANE ROADWAY W/ BIKE LANES	
RECORD COPY SIGNED BY LEE AUSTIN 6/22/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-1 13 OF 13



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	COLLECTOR / RESIDENTIAL STREET FLAGGING OPERATIONS	
Bill Gardner 3/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-2 1 OF 8

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED PROFESSIONAL ENGINEER
08/25/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
TRAFFIC CONTROL DETAILS II

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-DT-TCP.SHT

VERIFY SCALE Bar is one inch on orginol drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 136
SEQ. 136 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\F\Drawings\Phase 3\CV-TRT-DT-TCP.SHT
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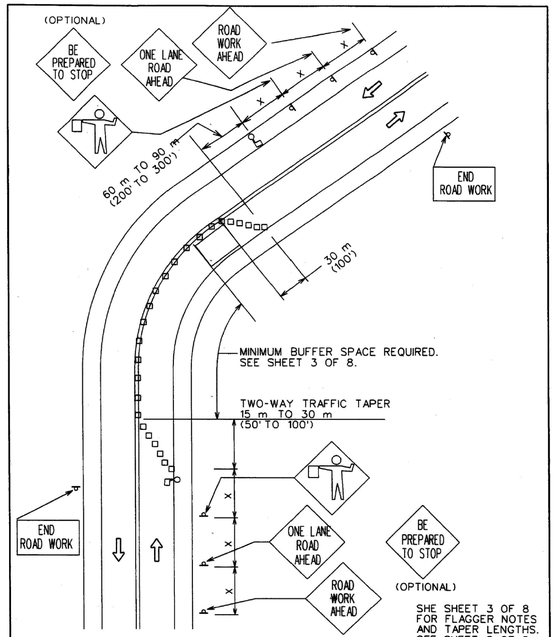
Date: Aug. 25, 2026 - 11:02:06 AM Project: Freese and Nichols, Inc.



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	FLAGGER SETUP FOR 2 LANE ROADWAY	
Bill Gardner 3/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-2 2 OF 8

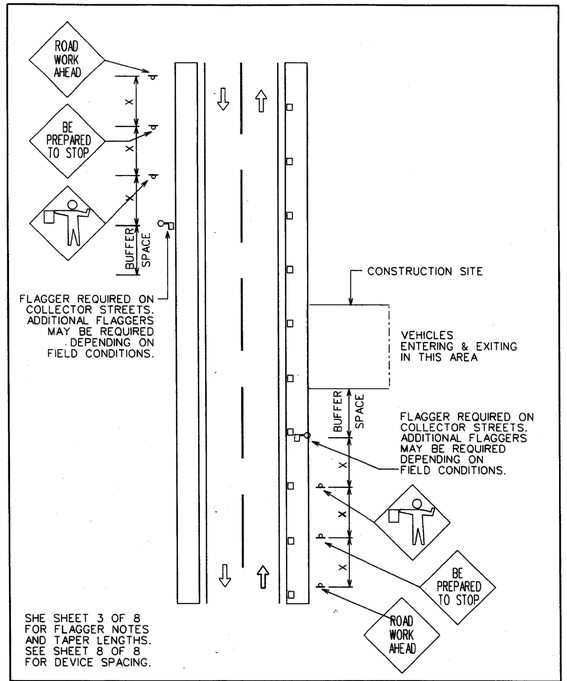
1. FOR DAYTIME WORK, THE FLAGGER SHALL WEAR AN APPROVED BRIGHTLY COLORED VEST. FOR NIGHTTIME WORK, THE VEST SHALL BE RETROFLECTIVE. THE RETRO-REFLECTIVE MATERIAL SHALL BE ORANGE, YELLOW, WHITE, SILVER, STRONG YELLOW-GREEN OR A FLOURESCENT VERSION OF THESE COLORS AND SHALL BE VISIBLE AT A MINIMUM DISTANCE OF 305 m (1,000').
2. FOR LOW-VOLUME APPLICATIONS, A SINGLE FLAGGER MAY BE ADEQUATE. WHERE ONE FLAGGER CAN BE USED, SUCH AS FOR SHORT WORK AREAS ON STRAIGHT ROADWAYS, THE FLAGGER MUST BE VISIBLE TO APPROACHING TRAFFIC FROM BOTH DIRECTIONS.
3. FLAGGERS SHALL USE ONLY STOP/SLOW PADDLE TO DIRECT TRAFFIC UNLESS WORKING IN A SIGNALIZED INTERSECTION WHERE DRIVERS MAY BE CONFUSED BY THE SIGN PADDLE. HAND SIGNAL MAY BE USED IN THESE SITUATIONS.
4. FLAGGERS SHALL ENSURE THAT ALL REQUIRED SIGNING IS IN PLACE PRIOR TO BEGINNING FLAGGING OPERATIONS.
5. FLAGGERS SHALL NOT PERFORM WORK THAT IS NOT RELATED TO FLAGGING WHILE ON DUTY.
6. FLAGGERS MAY CARRY AIR HORNS OR WHISTLES TO WARN WORKERS OF AN EMERGENCY CONDITION.
7. FLAGGERS SHALL BE REQUIRED TO USE TWO-WAY RADIOS WHEN OUT OF CLEAR VIEW OF EACH OTHER.
8. FLOODLIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.

TAPER LENGTHS

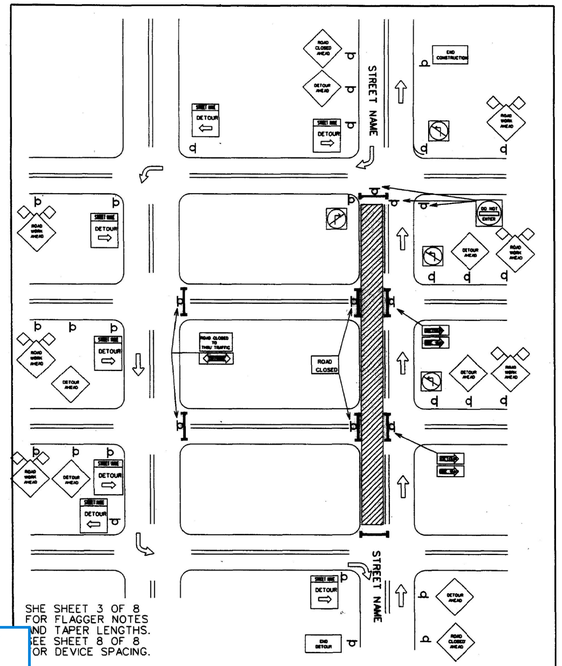
SPEED (kmph)	SPEED* (mph)	LENGTH (meters)	LENGTH (feet)
30	20	11	35
40	25	17	55
50	30	26	85
55	35	36	120
65	40	51	170
70	45	66	220
80	50	84	280
90	55	101	335
95	60	125	415
105	65	146	485

*POSTED SPEED

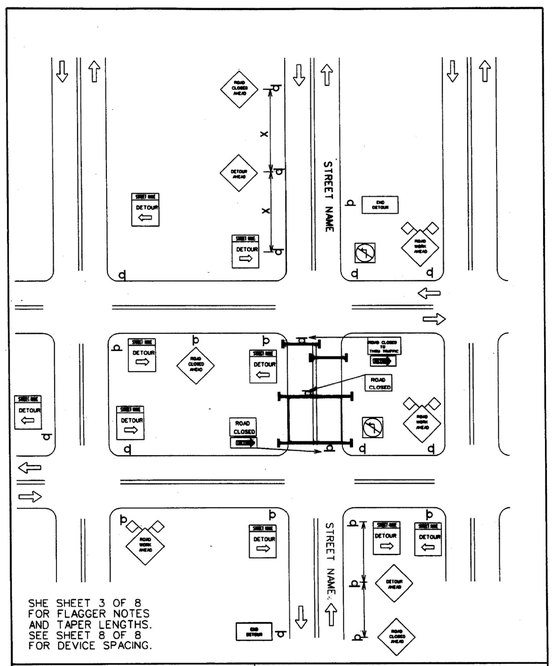
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	FLAGGER SETUP FOR 2 LANE ROADWAY	
Bill Gardner 3/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-2 3 OF 8



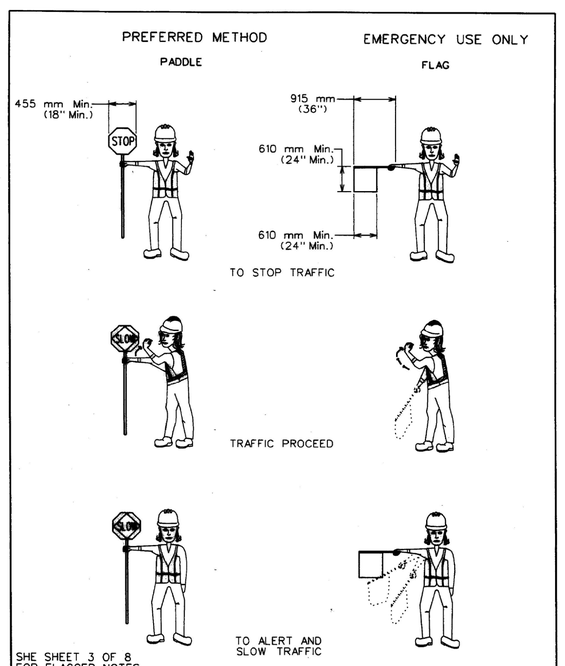
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	FLAGGER SETUP FOR VEHICLES ENTERING AND EXITING WORK SITE	
Bill Gardner 3/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-2 4 OF 8



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	STREET DETOUR SINGLE DIRECTION	
Bill Gardner 3/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-2 5 OF 8



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	STREET DETOUR BOTH DIRECTIONS	
Bill Gardner 3/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-2 6 OF 8



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	USE OF HAND SIGNALING DEVICES	
Bill Gardner 3/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-2 7 OF 8

TCP23-170010

CITY OF AUSTIN DEVELOPMENT SERVICES
RIGHT OF WAY MANAGEMENT
08/26/2026
☑ REVIEWED & COMPLETE
☐ RETURNED FOR REVISIONS
BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED PROFESSIONAL ENGINEER
Heather McNeal
08/25/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
TRAFFIC CONTROL DETAILS III

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
CHECKED MB
FILE NAME CV-TRT-DT-TCP.SHT

NO.	ISSUES	BY	DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 137
SEQ. 137 OF 143

MicroStation V8 User: 03926Office: On Site
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Office: On Site AU314361 Date: Aug. 25, 2026 - 11:02:11 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-DT-TCP.SHT

Typical Transition Lengths and Suggested Maximum Spacing of Devices

Speed KMPH	Posted Speed MPH	Formula	Minimum Desirable Taper Lengths (L) Meters (Feet) 3.0(10) Offset Meters (feet)	3.3(11) Offset Meters (feet)	3.6(12) Offset Meters (feet)	Suggested Max. Device Spacing On a taper Meters (feet)	On a tangent Meters (feet)	Suggested Sign Spacing Meters (Feet) "X" Dimension
50	30	$L=\frac{WS^2}{60}$	45 (150)	50 (165)	55 (180)	9 (30)	15-20 (60-75)	40 (120)
55	35		65 (205)	70 (225)	75 (245)	10 (35)	25-25 (70-90)	50 (160)
65	40		80 (265)	90 (295)	100 (320)	12 (40)	25-30 (80-100)	75 (240)
70	45	L=WS	135 (450)	150 (495)	165 (540)	13 (45)	25-30 (90-110)	100 (320)
80	50		150 (500)	165 (550)	180 (600)	15 (50)	30-35 (100-125)	120 (400)
90	55		165 (550)	185 (605)	200 (660)	16 (55)	35-40 (110-140)	150 (500)
95	60		180 (600)	200 (660)	220 (720)	18 (60)	40-45 (120-150)	180 (600)
105	65		195 (650)	215 (715)	235 (780)	19 (65)	40-50 (130-165)	210 (700)
115	70		215 (700)	235 (770)	255 (840)	21 (70)	45-55 (140-175)	240 (800)

LEGEND
- Channelizing devices
- Trailer mounted flashing arrow board
- Flagger

TRAFFIC DETOUR NOTES:
1. "STREET CLOSED" AND "STREET CLOSED TO THRU TRAFFIC" MAY BE USED IN PLACE OF "ROAD CLOSED" AND "ROAD CLOSED TO THRU TRAFFIC".
2. THE USE OF A STREET SIGN NAME NAME MOUNTED WITH THE M4-9 DETOUR SIGN** IS REQUIRED. THE STREET NAME PLATE SHOULD BE PLACED ABOVE THE DETOUR SIGN. THE PLATE MAY HAVE EITHER A WHITE-ON-GREEN OR A BLACK-ON-ORANGE LEGEND.
3. ADDITIONAL "DO NOT ENTER SIGNS" MAY BE DESIRABLE AT INTERSECTIONS WITH INTERVENING STREETS.
4. A M4-9 DETOUR SIGN** WITH AN ADVANCE TURN ARROW MAY BE USED IN ADVANCE OF A TURN. ON MULTI-LANE STREETS, SUCH SIGNS SHOULD BE USED.
5. M4-9 DETOUR SIGNS** MAY BE LOCATED ON THE FAR SIDE OF INTERSECTIONS.

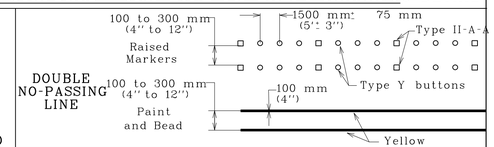
** TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPICAL LENGTHS & SPACING OF DEVICES, LEGEND and GENERAL NOTES	STANDARD NO.
Bill Gardner 3/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	804S-2 8 OF 8

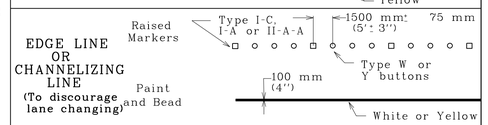
STANDARD WORK ZONE PAVEMENT MARKINGS DETAIL

SOLID LINES

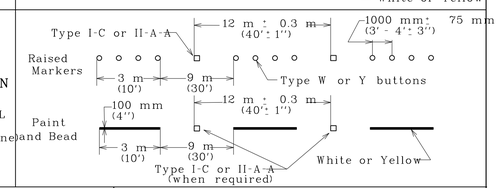
DOUBLE NO-PASSING LINE



EDGE LINE OR CHANNELIZING LINE (To discourage lane changing)

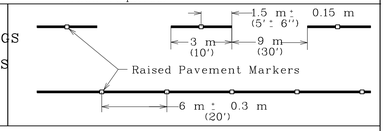


BROKEN LINE (For CL or Lane Line)



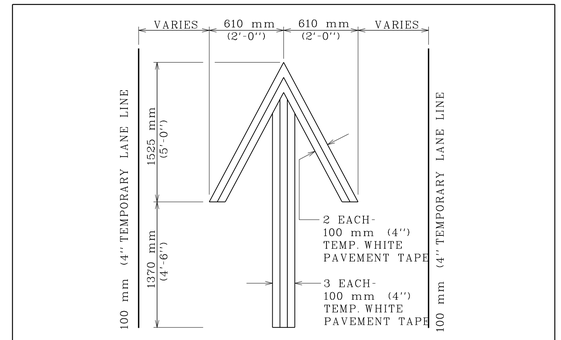
REMOVABLE MARKINGS WITH RAISED PAVEMENT MARKERS

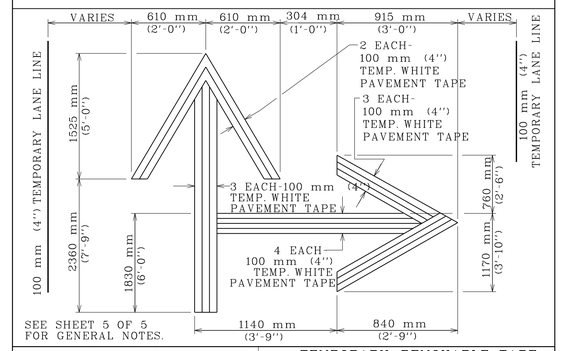
SEE STANDARD 804S-3 SHEET 5 OF 5 FOR GENERAL NOTES.



NOTE: IF RAISED PAVEMENT MARKERS ARE USED TO SUPPLEMENT REMOVABLE MARKINGS, THE MARKERS SHALL BE APPLIED TO THE TOP OF THE TAPE AT THE APPROXIMATE MID-LENGTH OF TAPE BROKEN LINES AND AT APPROXIMATE 6 m (20') SPACING FOR SOLID LINES. THIS ALLOWS AN EASIER REMOVAL OF RAISED MARKERS AND TAPE.

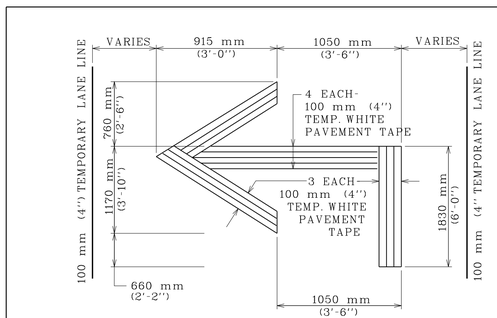
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TEMPORARY TRAFFIC CONTROL PAVEMENT MARKINGS	STANDARD NO.
RECORD COPY SIGNED BY BILL GARDNER 03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	804S-3 1 OF 5

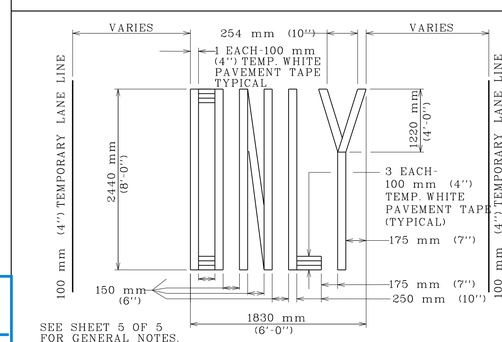




SEE SHEET 5 OF 5 FOR GENERAL NOTES.

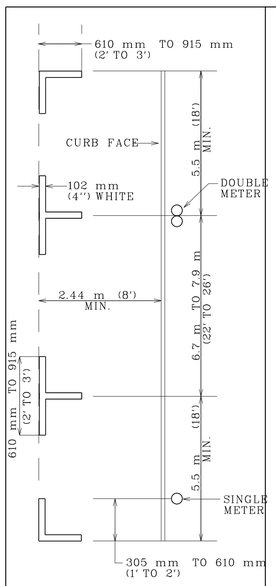
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TEMPORARY REMOVABLE TAPE, ARROWS AND LEGENDS	STANDARD NO.
RECORD COPY SIGNED BY BILL GARDNER 03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	804S-3 2 OF 5



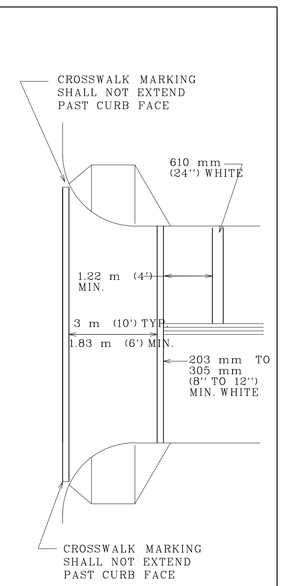


SEE SHEET 5 OF 5 FOR GENERAL NOTES.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TEMPORARY REMOVABLE TAPE, ARROWS AND LEGENDS	STANDARD NO.
RECORD COPY SIGNED BY BILL GARDNER 03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	804S-3 3 OF 5



PARKING STALLS



CROSSWALK AND STOPBARS

SEE SHEET 5 OF 5 FOR GENERAL NOTES.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	PARKING STALLS, CROSSWALK AND STOP BARS	STANDARD NO.
RECORD COPY SIGNED BY BILL GARDNER 03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	804S-3 4 OF 5

1. ALL PAVEMENT MARKINGS USED SHALL CONFORM TO THE CURRENT EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) AND THE CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY AND EXISTING PAVEMENT MARKINGS ON ALL ROADWAYS WITHIN THE CONSTRUCTION LIMITS AND ON ANY ROADWAY OUTSIDE THE CONSTRUCTION LIMITS THAT REQUIRES THE REROUTING OF TRAFFIC FOR HIS WORK.
3. ALL ROADWAYS TO BE OPENED TO TRAFFIC SHALL HAVE TEMPORARY OR STANDARD PAVEMENT MARKINGS INSTALLED AS SHOWN IN THE DRAWINGS, AT THE END OF EACH DAY'S OPERATION.
4. MARKINGS SHALL PROVIDE A VISIBLE REFERENCE FOR A MINIMUM DISTANCE OF 91.5 m (300') DURING NORMAL DAYLIGHT HOURS AND 49 m (160') WHEN ILLUMINATED BY AUTOMOBILE LOW-BEAM HEADLIGHTS AT NIGHT, UNLESS SIGHT DISTANCE IS RESTRICTED BY ROADWAY GEOMETRICS.
5. ALL TEMPORARY REMOVABLE PAVEMENT MARKINGS SHALL BE SUPPLEMENTED WITH RAISED PAVEMENT MARKERS.
6. TEMPORARY REMOVABLE PAVEMENT MARKING TAPE IS THE PREFERRED PAVEMENT MARKING; HOWEVER, THE CONTRACTOR MAY, WITH APPROVAL OF THE ENGINEER OR DESIGNATED REPRESENTATIVE, USE RAISED PAVEMENT MARKINGS, PAINT AND BEADS OR THERMOPLASTIC IF THE ROADWAY IS TO BE COMPLETELY RESURFACED.
7. PAVEMENT MARKINGS THAT ARE NO LONGER APPLICABLE AND WHICH MAY CREATE CONFUSION OR DIRECT A MOTORIST TOWARD OR INTO THE CLOSED PORTION OF THE ROADWAY, SHALL BE REMOVED OR OBLITERATED BEFORE THE ROADWAY IS OPENED TO TRAFFIC. THE ABOVE DOES NOT APPLY TO SHORT-DURATION, SHORT TERM STATIONARY OR INTERMEDIATE TERM STATIONARY WORK.
8. REMOVAL OR OBLITERATION OF PAVEMENT MARKINGS INCLUDES CENTERLINES, CHANNELIZING LINES, LANE LINES, EDGE LINES, WORDS, ARROWS, SYMBOLS AND RAISED PAVEMENT MARKINGS.
9. PAVEMENT MARKINGS SHALL BE REMOVED OR OBLITERATED TO THE FULLEST EXTENT POSSIBLE, SO AS NOT TO LEAVE A DISCERNIBLE MARK. GRINDING OF PAVEMENT MARKINGS WILL ONLY BE ALLOWED ON PAVEMENT THAT IS TO BE COMPLETELY REPLACED.
10. TEMPORARY FLEXIBLE-REFLECTIVE TABS MAY BE USED FOR TEMPORARY PAVEMENT MARKINGS ON NEW PAVEMENT, PROVIDED THEY ARE PLACED ON 1.5 m (5') CENTERS.
11. THE CONTRACTOR SHALL PLACE TEMPORARY FLEXIBLE-REFLECTIVE TABS IMMEDIATELY AFTER THE FINAL HMAC OVERLAY AS EACH LANE IS COMPLETED AND READY FOR TRAFFIC. NO DIRECT PAYMENT WILL BE MADE FOR THIS OPERATION, BUT WILL BE CONSIDERED SUBSIDIARY TO THE OTHER BID ITEMS. FINAL STRIPING SHOULD BE COMPLETED WITHIN FOURTEEN (14) DAYS OF THE FINAL PAVING.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	GENERAL NOTES	STANDARD NO.
RECORD COPY SIGNED BY BILL GARDNER 03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	804S-3 5 OF 5

TCP23-170010

RIGHT OF WAY MANAGEMENT 08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144
STATE OF TEXAS HEATHER McNEAL 114428 LICENSED PROFESSIONAL ENGINEER
Heather McNeal 08/25/2026

FREESE NICHOLS
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Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web: www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

TRAFFIC CONTROL DETAILS IV

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-DT-TCP.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale. 0 1"

SHEET 138
SEQ. 138 OF 143

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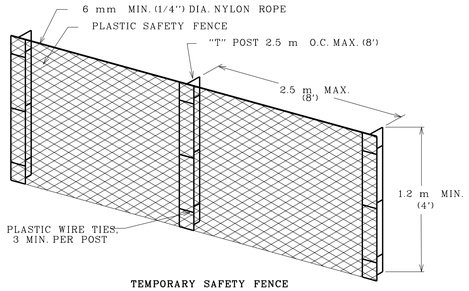
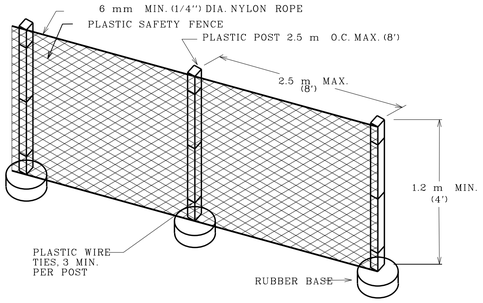


TEMPORARY SAFETY FENCE

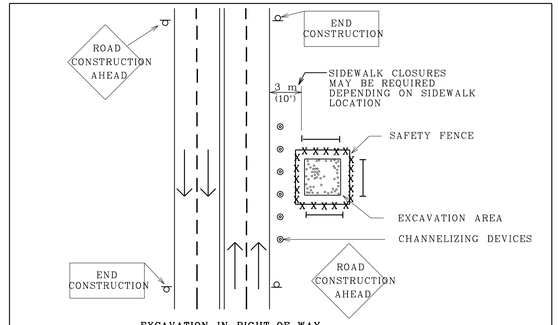


PORTABLE SAFETY FENCE

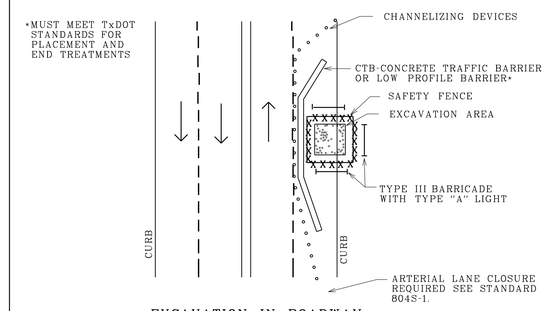
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SAFETY FENCE	
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-4 1 OF 9

1. SAFETY FENCE SHALL BE USED TO PROTECT ALL EXCAVATIONS IN THE RIGHT-OF-WAY.
2. SAFETY FENCES SHALL BE USED TO SEPARATE CONSTRUCTION ACTIVITIES FROM PEDESTRIAN.
3. ALL SAFETY FENCING SHALL BE PLASTIC, 1,200 mm (48") MINIMUM HEIGHT AND ORANGE IN COLOR.
4. SAFETY FENCE USED WITHIN THE ROADWAY SHALL BE REFLECTORIZED WITH A MINIMUM OF TWO (2) STRIPS OF RETROREFLECTIVE MATERIAL, A MINIMUM OF 25 mm (1") WIDE, THE LENGTH OF THE FENCE OR DELINEATED BY CHANNELIZING DEVICES.
5. SAFETY FENCE USED TO SEPARATE SIDEWALKS FROM CONSTRUCTION ACTIVITIES SHALL HAVE MINIMUM ENCROACHMENT TO THE SIDEWALK.
6. AS A MINIMUM, SAFETY FENCING IS REQUIRED IN AREAS ADJACENT TO EXCAVATIONS GREATER THAN OR EQUAL TO 150 mm (6").
7. SAFETY FENCING SHALL BE PAID FOR UNDER ITEM 803S, "BARRICADES, SIGNS AND TRAFFIC HANDLING", PAY ITEM NO. 803S-SF.
8. PORTABLE SAFETY FENCE MOUNTS SHALL BE APPROVED BY THE TRANSPORTATION DIVISION PRIOR TO CONSTRUCTION.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SAFETY FENCE	
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-4 2 OF 9

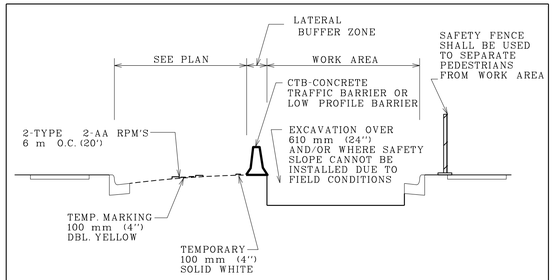


EXCAVATION IN RIGHT OF WAY

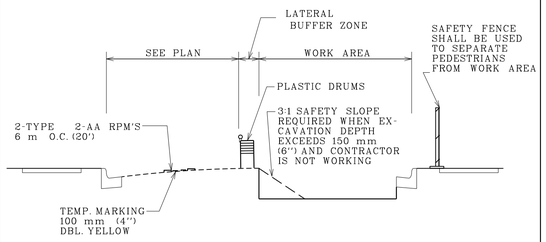


EXCAVATION IN ROADWAY

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		LARGE EXCAVATION	
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-4 3 OF 9

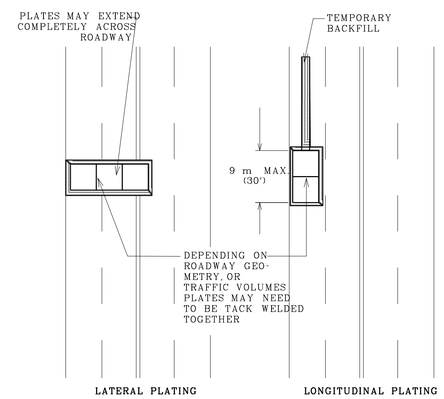


POSITIVE BARRIERS TYPICAL CROSS SECTION



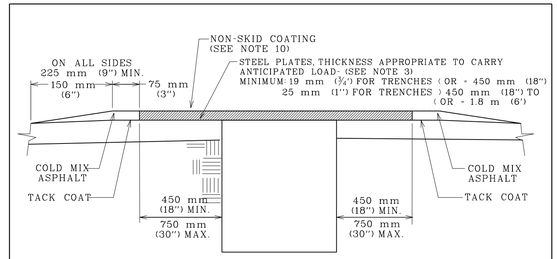
SAFETY SLOPE TYPICAL CROSS SECTION

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		WORK AREA PROTECTION	
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-4 4 OF 9



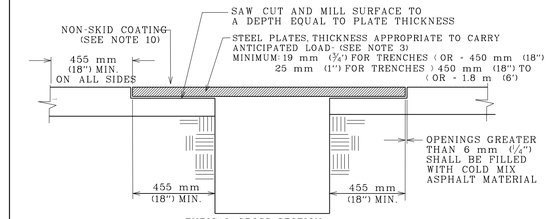
LATERAL PLATING LONGITUDINAL PLATING

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		STEEL PLATING	
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-4 5 OF 9



TYPICAL CROSS SECTION

CASE I- LOW TRAFFIC VOLUME/LIMITED IN-SERVICE TIME



TYPICAL CROSS SECTION

CASE II- EXTENDED IN-SERVICE PLATING AND/OR HEAVILY-TRAFFICKED ROADS/STREETS (HMAC PAVEMENTS ONLY)

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		STEEL PLATING	
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-4 6 OF 9

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED PROFESSIONAL ENGINEER
08/25/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web: www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

TRAFFIC CONTROL DETAILS V

NO.	ISSUES	BY	DATE

F&N JOB NO. AU31436
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-DT-TCP.SHT

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SHEET 139
SEQ. 139 OF 143

MicroStation V8 User: 03926Office: On Site
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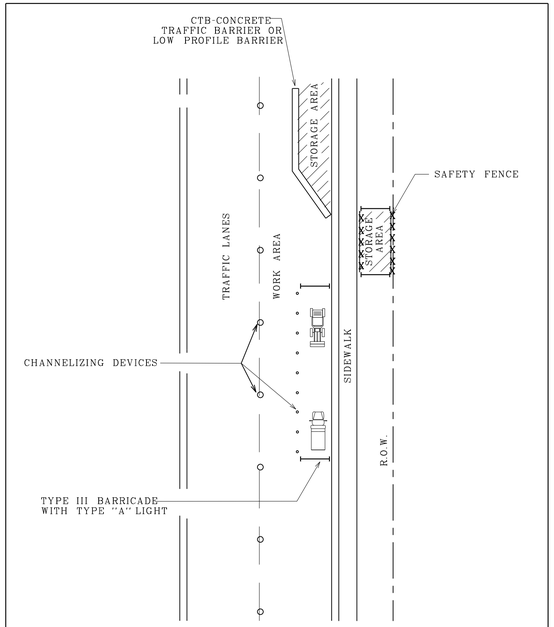
Plot Scale: 1.0000 ' / in. Plot Date: 25 Aug 2026 - 11:02:18 AM
Model: Default
Project: Freese and Nichols Inc.

NOTES:

1. WHERE TRAFFIC MUST CROSS TRENCHES, THE CONTRACTOR SHALL PROVIDE SUITABLE BRIDGES.
2. THE USE OF STEEL PLATES SHALL BE APPROVED BY THE RIGHT OF WAY MANAGEMENT DIVISION OF WATERSHED PROTECTION AND DEVLOPMENT DEPARTMENT PRIOR TO INITIATION OF CONSTRUCTION.
3. THE THICKNESS OF PLATES FOR TRENCH WIDTHS EXCEEDING 1.8 m (6') SHALL BE ESTABLISHED IN AN ANALYSIS COMPLETED BY A LICENSED PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF TEXAS. THE ANALYSIS SHALL BE BASED ON HS-20 TRAFFIC LOADING WITH A MAXIMUM PLATE DEFLECTION OF 50 mm (½") WHEN EXPERIENCING SAID LOADING. FOR SITUATIONS WHERE MULTIPLE LAYERS OF PLATES (OR STACKED PLATES) ARE TO BE EMPLOYED, THE SEAMS (IE, THE INTER-FACE BETWEEN PLACED SIDE-BY-SIDE) OF THE UPPER LAYER SHALL BE PLACED PERPENDICULAR TO THE SEAMS OF THE UNDERLYING PLATES.
4. WHEN APPROVED, THE TYPE OF PLATE INSTALLATION SHALL BE BASED ON THE ANTICIPATED LENGTH OF TIME THE PLATE WILL BE IN SERVICE:
   CASE I: A CASE I INSTALLATION SHALL APPLY FOR NO LONGER THAN A 2 WEEK PERIOD.
   CASE II: A CASE II INSTALLATION SHALL APPLY FOR NO LONGER THAN 2 WEEK PERIOD.
5. THE TOPSIDE OF THE STEEL PLATE SHALL BE FLAT AND FREE OF ANY CLIPS, CHAINS, ATTACHMENTS, WELDMENTS OR SURFACE IRREGULARITIES.
6. PLATES WITH A PERMANENT DISPLACEMENT (I.E. DISPLACEMENT ANYWHERE ON THE SURFACE OF THE PLATE WITH RESPECT TO A PLANE FORMED BY THE OUTSIDE EDGES) THAT EXCEEDS 12 mm (½") SHALL NOT BE USED FOR PLATING PURPOSES. PLATES THAT DEVELOP A PERMANENT DISPLACEMENT EXCEEDING 12 mm (½") DURING SERVICE SHALL BE REMOVED AND REPLACED.
7. THE PLATES SHALL BE PROVIDED WITH APPROPRIATE NUMBER OF KEYHOLE SLOTS OR CIRCULAR HOLES FOR HANDLING, LIFTING, INSTALLATION AND REMOVAL PURPOSES.
8. THE CONTRACTOR SHOULD AVOID USING A LONG SERIES OF PLATES THAT RUN PARALLEL TO VEHICULAR TRAFFIC WHEELS PATHS.
9. ADDITIONAL METHODS OF SECURING PLATES MAY BE REQUIRED DEPENDING ON FIELD CONDITIONS.
10. FOR PLATES 1.8 M (6') OR GREATER IN DIRECTION OF TRAFFIC, A NON-SKID COATING SHOULD BE APPLIED TO THE ENTIRE SURFACE AREA OF ALL PLATES, AS WELL AS ADJACENT AREAS. THE NON-SKID COATING SHALL BE TCA (TEXTURED COATING OF AMERICA, INC.) STRATA-GRIP DECK COATING SYSTEM; SLIPFIX, INC. SPS (SLIP PROTECTION SURFACE) OR AN EQUIVALENT PRODUCT APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.

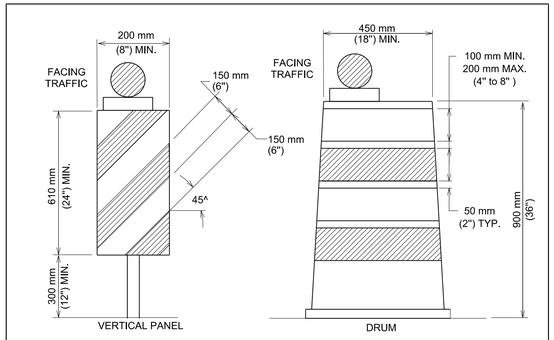
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		STEEL PLATING	
RECORD COPY SIGNED BY SAM ANGOORI	*04/03/09* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-4 7 OF 9



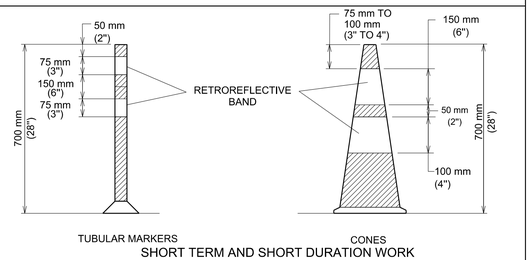
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		MATERIAL AND EQUIPMENT STORAGE	
RECORD COPY SIGNED BY SAM ANGOORI	*04/03/09* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-4 8 OF 9

1. STORAGE OF EQUIPMENT AND MATERIALS SHALL BE RESTRICTED TO LOCATIONS WHERE DRIVER SIGHT DISTANCES TO TRAFFIC, PEDESTRIANS, BUSINESSES AND SIDE STREET INTERSECTIONS ARE NOT OBSTRUCTED OR WHERE AN UNSIGHTLY APPEARANCE, AS DETERMINED BY THE ENGINEER, WILL NOT EXIST.
2. EQUIPMENT MUST BE PARKED AS FAR AWAY FROM THE TRAVELWAYS AS PRACTICAL.
3. TOTAL AREA USED FOR EQUIPMENT STORAGE SHALL BE KEPT TO A MINIMUM.
4. ALL MATERIALS STORED IN THE RIGHT-OF-WAY MUST BE MAINTAINED IN A NEAT AND ORGANIZED MANNER.
5. MATERIALS STORED MAY NOT BE MORE THAN 915 mm (36") IN HEIGHT.
6. ALL MATERIALS STORED MUST BE USED WITHIN THREE (3) DAYS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		MATERIAL AND EQUIPMENT STORAGE	
RECORD COPY SIGNED BY SAM ANGOORI	*04/03/09* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-4 9 OF 9



LONG TERM AND INTERMEDIATE TERM STATIONARY WORK



SHORT TERM AND SHORT DURATION WORK

SEE STANDARD 804S-5
SHEET 12 OF 13 AND SHEET 13 OF 13
FOR GENERAL NOTES AND DEVICE SPACING.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		CHANNELIZING DEVICES	
RECORD COPY SIGNED BY SAM ANGOORI	*01/04/10* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5 1 OF 13

CHANNELIZING DEVICES

1. ALL CHANNELIZING DEVICES SHALL HAVE WARNING LIGHTS OR LARGE REFLECTORS WHEN USED AT NIGHT. FLASHING WARNING LIGHTS MAY BE PLACED ON CHANNELIZING DEVICES USED SINGULARLY OR IN GROUPS TO MARK A SPOT CONDITION. WARNING LIGHTS ON CHANNELIZING DEVICES USED IN A SERIES SHALL BE STEADY-BURN. CHANNELIZING DEVICES IN TAPERS AT NIGHT SHALL HAVE TYPE C WARNING LIGHTS.
2. THE RETROREFLECTIVE MATERIAL USED ON CHANNELIZING DEVICES SHALL HAVE A SMOOTH, SEALED OUTER SURFACE.
3. THE NAME AND TELEPHONE NUMBER OF THE AGENCY, CONTRACTOR OR SUPPLIER SHALL BE SHOWN ON THE NON-RETROREFLECTIVE SURFACE OF ALL CHANNELIZING DEVICES. THE LETTERS AND NUMBERS SHALL BE A NON-RETROREFLECTIVE COLOR AND NOT OVER 50 mm (2") IN HEIGHT.
4. PARTICULAR ATTENTION SHOULD BE GIVEN TO ASSURE THAT CHANNELIZING DEVICES ARE MAINTAINED AND KEPT CLEAN, VISIBLE AND PROPERLY POSTITIONED AT ALL TIMES. DEVICES SHALL BE REPLACED THAT ARE DAMAGED AND HAVE LOST A SIGNIFICANT AMOUNT OF THEIR RETROREFLECTIVITY AND EFFECTIVENESS.

CONES

CONES SHALL PREDOMINANTLY BE ORANGE, FLUORESCENT RED-ORANGE, OR FLUORESCENT YELLOW-ORANGE IN COLOR, NOT LESS THAN 70 mm (28") IN HEIGHT, AND SHALL BE MADE OF A MATERIAL THAT CAN BE STRUCK WITHOUT DAMAGING VEHICLES ON IMPACT. FOR NIGHT TIME USE, CONES SHALL BE RETROREFLECTIVE OR EQUIPPED WITH LIGHTING DEVICES FOR MAXIMUM VISIBILITY. RETROREFLECTION OF CONES SHALL BE PROVIDED BY A WHITE BOND 150 mm (6") WIDE, NO MORE THAN 75 TO 100 mm (3 TO 4") FROM THE TOP OF THE CONE, AND AN ADDITIONAL 100 mm (4") WHITE BAND A MINIMUM OF 50 mm (2") BELOW THE 150 mm (6") BAND. TRAFFIC CONES ARE NORMALLY USED FOR SHORT-TERM STATIONARY AND SHORT DURATION WORK. HOWEVER, CONES MAY BE USED FOR INTERMEDIATE-TERM STATIONARY WORK AT NIGHT, IF THE SITE IS CONTINUOUSLY MANNED.

TUBULAR MARKERS

TUBULAR MARKERS SHALL PREDOMINANTLY BE ORANGE IN COLOR, NOT LESS THAN 700 mm (28") IN HEIGHT , A MINIMUM 50 mm (2") WIDE WHEN FACING TRAFFIC AND MADE OF A MATERIAL THAT CAN BE STRUCK WITHOUT DAMAGING VEHICLES. FOR NIGHT TIME USE, TUBULAR MARKERS SHALL BE RETROREFLECTIVE PROVIDED BY TWO (2) 75 mm (3") WIDE WHITE BANDS PLACED A MAXIMUM OF 50 mm (2") FROM THE TOP, WITH A MAXIMUM OF 150 mm (6") BETWEEN BANDS. TUBULAR MARKERS ARE NORMALLY USED FOR SHORT-TERM STATIONARY AND SHORT DURATION WORK, HOWEVER, TUBULAR MARKERS MAY BE USED FOR INTERMEDIATE-TERM STATIONARY WORK AT NIGHT, IF THE SITE IS CONTINUOUSLY MANNED.

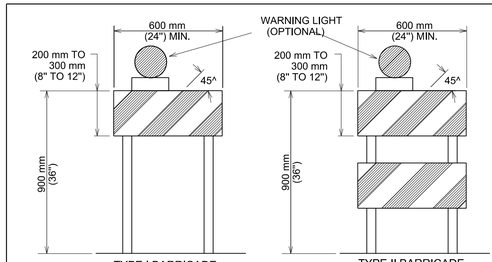
VERTICAL PANELS

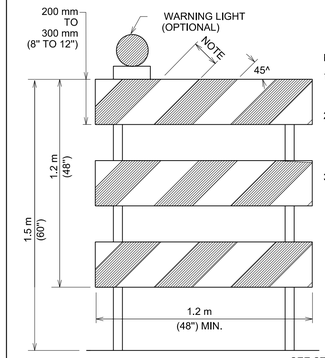
VERTICAL PANELS SHALL BE 200 TO 300 mm (8 TO 12") WIDE AND AT LEAST 600 mm (24") IN HEIGHT, THEY SHALL HAVE ORANGE AND WHITE STRIPES, AND BE RETROREFLECTIVE. PANEL STRIPE WIDTHS SHALL BE 150 mm (6") EXCEPT WHERE PANEL HEIGHTS ARE LESS THAN 900 mm (36"), WHEN 100 mm (4") STRIPES MAY BE USED. IF USED FOR TWO-WAY TRAFFIC, BACK-TO-BACK PANELS SHALL BE USED.

DRUMS

1. DRUMS USED FOR TRAFFIC WARNING OR CHANNELIZATION SHALL BE CONSTRUCTED OF LIGHT-WEIGHT FLEXIBLE AND DEFORMABLE MATERIALS AND BE A MINIMUM OF 900 mm (36") IN HEIGHT, AND HAVE AT LEAST 450 mm (18") MINIMUM WIDTH, REGARDLESS OF ORIENTATION. STEEL DRUMS SHALL NOT BE USED. THE MARKINGS ON DRUMS SHALL BE HORIZONTAL, CIRCUNFERENTIAL, ALTERNATING ORANGE AND WHITE RETROREFLECTIVE STRIPES 100 TO 200 mm (4 TO 8") WIDE. EACH DRUM SHALL HAVE A MINIMUM OF TWO (2) ORANGE AND TWO (2) WHITE STRIPES. ANY NON-RETROREFLECTIVE SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE STRIPES, SHALL NOT EXCEED 50 mm (2") WIDE. DRUMS SHALL HAVE CLOSED TOPS THAT WILL NOT ALLOW COLLECTION OF ROADWORK OR OTHER DEBRIS.
2. DRUMS SHOULD NOT BE WEIGHTED WITH SAND, WATER OR ANY MATERIAL TO AN EXTENT THAT WOULD MAKE THE HAZARDOUS TO MOTORISTS, PEDESTRIANS OR WORKERS. WHEN THEY ARE USED IN REGIONS SUSCEPTIBLE TO FREEZING, THEY SHOULD HAVE DRAINAGE HOLES IN THE BOTTOM SO WATER WILL NOT ACCUMULATE AND FREEZE,CAUSING A HAZARD IF STRUCK BY A MOTORIST. BALLAST SHALL NOT BE PLACED ON TOP OF THE DRUM.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		CHANNELIZING DEVICES	
RECORD COPY SIGNED BY SAM ANGOORI	*01/04/10* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5 2 OF 13





NOTES:

1. NOMINAL LUMBER DIMENSIONS ARE SATISFACTORY FOR BARRICADE RAIL WIDTH DIMENSIONS.
2. RAIL STRIPE WIDTHS SHALL BE 150 mm (6") EXCEPT WHERE RAIL LEGNTHS ARE LESS THAN 900 mm (36"), THEN 100 mm (4") WIDE STRIPES MAY BE USED.
3. THE SIDE OF BARRICADES FACING TRAFFIC SHALL HAVE RETRO-REFLECTIVE RAIL FACES.

SEE STANDARD 804S-5
SHEET 12 OF 13 AND SHEET 13 OF 13
FOR GENERAL NOTES AND DEVICE SPACING.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		BARRICADES	
RECORD COPY SIGNED BY SAM ANGOORI	*01/04/10* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5 3 OF 13

TCP23-170010

RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED PROFESSIONAL ENGINEER
08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
TRAFFIC CONTROL DETAILS VI

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
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FILE NAME CV-TRT-DT-TCP.SHT

NO.	ISSUES	BY	DATE	REVISED

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SHEET 140
SEQ. 140 OF 143

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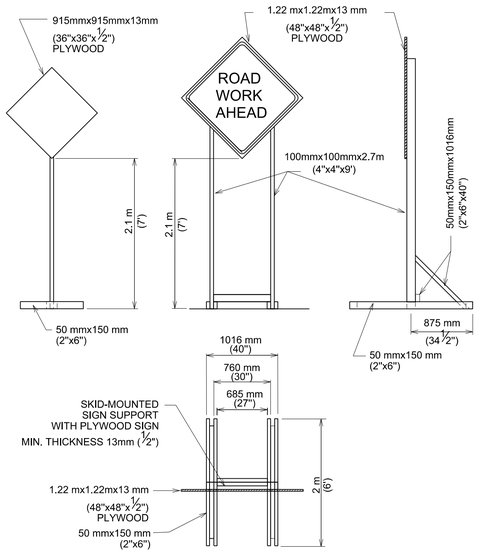
BARRICADES

1. BARRICADES SHALL BE OF THREE TYPES: TYPE I, TYPE II OR TYPE III.
2. STRIPES ON BARRICADE RAILS SHALL BE ALTERNATING ORANGE AND WHITE RETROREFLECTIVE STRIPES (SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS). THE STRIPES SHALL BE 150 mm (6") WIDE, EXCEPT WHERE RAIL LENGTHS ARE LESS THAN 900 mm (36"), WHEN 100 mm (4") WIDE STRIPES MAY BE USED.
3. WHERE A BARRICADE EXTENDS ENTIRELY ACROSS A ROADWAY, THE SURFACE STRIPES SHOULD SLOPE DOWNWARD IN THE DIRECTION TOWARD WHICH TRAFFIC MUST TURN. WHERE BOTH RIGHT AND LEFT TURNS ARE PROVIDED, THE STRIPES MAY SLOPE DOWNWARD IN BOTH DIRECTIONS FROM THE CENTER OF THE BARRICADE OR BARRICADES. WHERE NO TURNS ARE INTENDED, THE STRIPES SHOULD SLOPE DOWNWARD TOWARD THE CENTER OF THE BARRICADE OR BARRICADES.
4. BARRICADE RAILS SHOULD BE SUPPORTED IN A MANNER THAT WILL ALLOW THEM TO BE SEEN BY THE MOTORIST AND PROVIDE A STABLE SUPPORT NOT EASILY BLOWN OVER BY THE WIND OR TRAFFIC. FOR TYPE I BARRICADES, THE SUPPORT MAY INCLUDE OTHER UNSTRIPED HORIZONTAL PANELS NECESSARY TO PROVIDE STABILITY.
5. BARRICADES ARE LOCATED ADJACENT TO TRAFFIC AND ARE THEREFORE SUBJECT TO IMPACT WITH ERRANT VEHICLES. BECAUSE OF THEIR VULNERABLE POSITION AND THE HAZARD THEY COULD CREATE, THEY SHOULD BE CONSTRUCTED OF LIGHTWEIGHT MATERIALS AND HAVE NO RIGID STAY BRACING FOR A-FRAME DESIGNS. ALL BARRICADE SYSTEMS SHOULD BE CRASHWORTHY.
6. ON HIGH-SPEED EXPRESSWAYS OR IN OTHER SITUATION WHERE BARRICADES MAY BE SUSCEPTIBLE TO OVERTURING IN THE WIND, SANDBAGS SHOULD BE USED FOR BALLASTING. SANDBAGS MAY BE PLACED ON PARTS OF THE FRAME OR STAYS TO PROVIDE THE REQUIRED BALLAST BUT SHALL NOT BE PLACED ON TOP OF ANY STRIPED RAIL. BARRICADES SHALL NOT BE BALLASTED BY HEAVY OBJECTS SUCH AS ROCKS OR CHUNKS OF CONCRETE.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		BARRICADES	
RECORD COPY SIGNED BY SAM ANGOORI	*01/04/10*	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5
	ADOPTED		4 OF 13

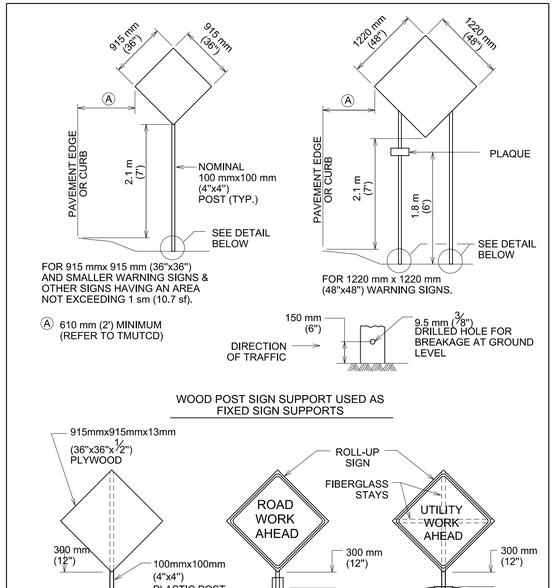


(LONG TERM AND INTERMEDIATE-TERM STATIONARY WORK)

TEMPORARY SIGN SUPPORT

SEE STANDARD 804S-5
SHEET 12 OF 13 AND SHEET 13 OF 13
FOR GENERAL NOTES AND DEVICE SPACING.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TRAFFIC CONTROL SIGNS	
RECORD COPY SIGNED BY SAM ANGOORI	*01/04/10*	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5
	ADOPTED		5 OF 13



WOOD POST SIGN SUPPORT USED AS FIXED SIGN SUPPORTS

PORTABLE SIGN SUPPORT

SEE STANDARD 804S-5
SHEET 12 OF 13 AND
SHEET 13 OF 13 FOR
GENERAL NOTES AND DEVICE SPACING.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TRAFFIC CONTROL SIGNS	
RECORD COPY SIGNED BY SAM ANGOORI	*01/04/10*	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5
	ADOPTED		6 OF 13

1. WARNING SIGNS SHALL BE ORANGE, FLUORESCENT RED-ORANGE OR FLUORESCENT YELLOW-ORANGE IN COLOR. THE FLUORESCENT VERSIONS OF ORANGE PROVIDE HIGHER CONSPICUITY THAN STANDARD ORANGE, ESPECIALLY DURING TWILIGHT. ALL SIGNS USED AT NIGHT SHALL BE EITHER RETROREFLECTIVE, WITH A MATERIAL THAT HAS A SMOOTH, SEALED OUTER SURFACE, OR ILLUMINATED TO SHOW SIMILAR SHAPE AND COLOR BOTH DAY AND NIGHT. SIGN ILLUMINATION MAY BE EITHER INTERNAL OR EXTERNAL. ROADWAY LIGHTING DOES NOT MEET THE REQUIREMENTS FOR SIGN ILLUMINATION.
2. TYPE A FLASHING WARNING LIGHTS MAY BE USED IN CONJUNCTION WITH SIGNS AT NIGHT. STANDARD ORANGE FLAGS MAY BE USED FOR DAY TIME OPERATIONS. HOWEVER, NEITHER LIGHTS NOR FLAGS MAY BLOCK THE SIGN LEGEND.
3. SIGNS SHOULD BE LOCATED ON THE RIGHT-HAND SIDE OF THE ROADWAY. WHEN SPECIAL EMPHASIS IS NEEDED, SIGNS MAY BE PLACE ON BOTH THE LEFT AND RIGHT SIDES OF ROADWAY. SIGNS SHALL BE PLACED ON BOTH THE LEFT AND RIGHT SIDES OF ONE-WAY OR DIVIDED ROADWAYS. SIGNS USED FOR LONG-TERM STATIONARY AND INTERMEDIATE-TERM STATIONARY WORK SHALL BE MOUNTED AT A HEIGHT OF AT LEAST 2.1 m (7'), MEASURED FROM THE BOTTOM OF THE SIGN. THE HEIGHT TO THE BOTTOM OF A SECONDARY SIGN MOUNTED BELOW ANOTHER SIGN MAY BE 0.3 m (1') LESS THAN THE APPROPRIATE HEIGHT ABOVE.
4. SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, MOBILE CONDITIONS AND EMERGENCIES. SIGNS MOUNTED ON PORTABLE SUPPORTS SHALL BE AT A HEIGHT OF AT LEAST 0.3 m (1'), MEASURED FROM THE BOTTOM OF THE SIGN.
5. ALL SIGN SYSTEMS SHOULD BE CRASHWORTHY. NO SIGN MOUNTS SHALL BLOCK OR IMPEDE SIDEALKS UNLESS NO OTHER OPTION IS AVAILABLE. ONLY SANDBAGS SHOULD BE USED FOR BALLASTING SIGN MOUNTS.

TABLE VI-3 TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING

Roadway Classification	Posted Speed	Sign Spacing ☆	Long-term Stationary Or Intermediate-term Stationary Approaching Warning Signs CW20 Series And CW22-1 Sign		Short-term Stationary Or Short Duration Approach Warning Signs CW22 Series		Other Warning Signs
			Standard	Minimum[4]	Standard	Minimum[4]	Standard
Conven.	KPH (MPH)	meter (feet)	mm (inches)	mm (inches)	mm (inches)	mm (inches)	mm (inches)
	50 (30)	40 (120)	1220x1220 (48x48)	915x915 (36x36)			
	55 (35)	50 (160)			915x915 (36x36)		915x915 (36x36)
	65 (40)	75 (240)					
	70 (45)	100 (320)		Use Standard Size		Use Standard Size	
	80 (50)	120 (400)					
	90 (55)	150 (500) [2]					
	100 (60)	180 (600) [2]			1220x1220 (48x48)		1220x1220 (48x48)
	105 (65)	210 (700) [2]					
	115 (70)	240 (800) [2]					
Exp. or Fwy	☆☆	☆☆ [3]			☆☆☆	☆☆☆	☆☆☆

☆ MINIMUM DISTANCE FROM WORK TO 1st ADVANCE WARNING SIGN AND/OR DISTANCE BETWEEN EACH ADDITIONAL SIGN.
☆☆ FOR TYPICAL SIGN SPACINGS ON EXPRESSWAYS AND FREEWAYS, REFER TO THE CURRENT ADDITION OF TMUTCD.
☆☆☆ SMALLER SIGN SIZES MAY BE USED WHERE SIGN DESIGNS HAVE NOT BEEN INCLUDED IN THE "STANDARD HIGHWAY SIGNS DESIGN MANUAL".

TCP23-170010

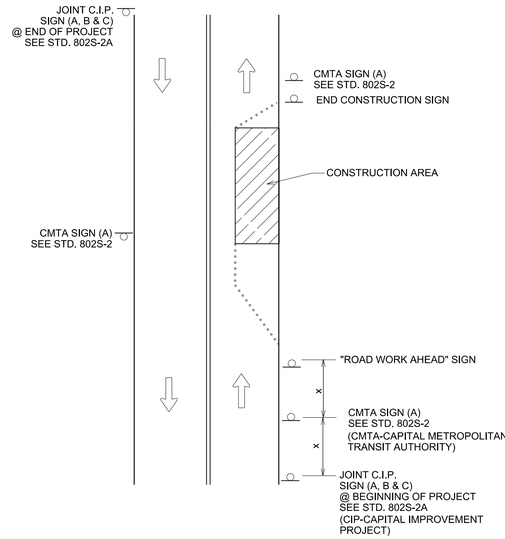
RIGHT OF WAY MANAGEMENT
08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

1. SPECIAL OR LARGER SIZE SIGNS MAY BE USED AS NECESSARY.
2. DISTANCE BETWEEN SIGNS SHOULD BE INCREASED AS REQUIRED TO HAVE 450 m (1500') OR MORE ADVANCE WARNING.
3. DISTANCE BETWEEN SIGNS SHOULD BE INCREASED AS REQUIRED TO HAVE A 0.8 km (½ MILE) OR MORE ADVANCE WARNING.
4. FOR USE ONLY ON SECONDARY ROADS OR CITY STREETS WHERE SPEEDS ARE LOW.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TRAFFIC CONTROL SIGNS	
RECORD COPY SIGNED BY SAM ANGOORI	*01/04/10*	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5
	ADOPTED		7 OF 13

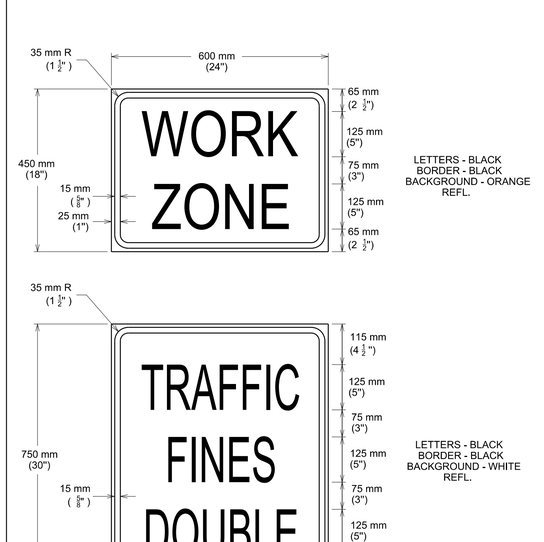


NOTES:

1. OTHER REQUIRED SIGNS NOT SHOWN FOR CLARITY.
2. "X" DISTANCES SAME AS STANDARD TABLE SHOWN ON SHEET 13 OF 13.

SEE STANDARD 804S-5
SHEET 12 OF 13 AND SHEET 13 OF 13
FOR GENERAL NOTES AND DEVICE SPACING.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPICAL CMTA/C.I.P. SIGN LOCATIONS	
RECORD COPY SIGNED BY SAM ANGOORI	*01/04/10*	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5
	ADOPTED		8 OF 13



SEE STANDARD DETAIL 804S-5
SHEET 5 OF 13 FOR SKID-
MOUNTED SIGN SUPPORT.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SPECIAL WORK ZONE SIGNS	
RECORD COPY SIGNED BY SAM ANGOORI	*01/04/10*	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5
	ADOPTED		9 OF 13

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED PROFESSIONAL ENGINEER
08/25/2026

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10431 Morado Circle, Suite 300
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Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION

MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3

CIVIL

TRAFFIC CONTROL DETAILS VII

NO.	ISSUES	BY	DATE

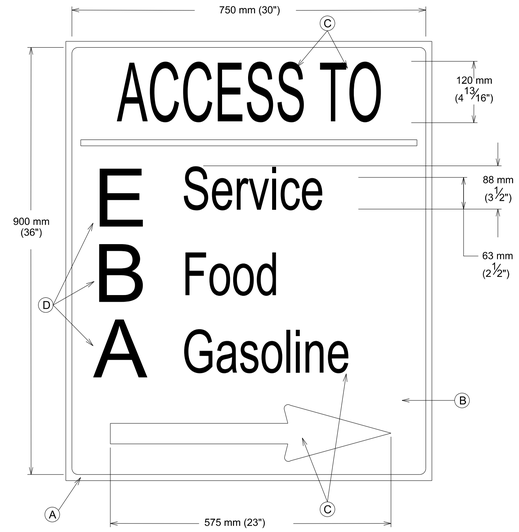
VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

F&N JOB NO. AU314361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-DT-TCP.SHT

SHEET 141
SEQ. 141 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IF\Drawings\Phase 3\CV-TRT-DT-TCP.SHT
Plot Driver: PLOTTER.PLT Model: Default
Plot Scale: 1.0000 '= 1.0000 ' Project: Freese and Nichols Inc.
Date: May 26, 2026 - 11:02:18 AM

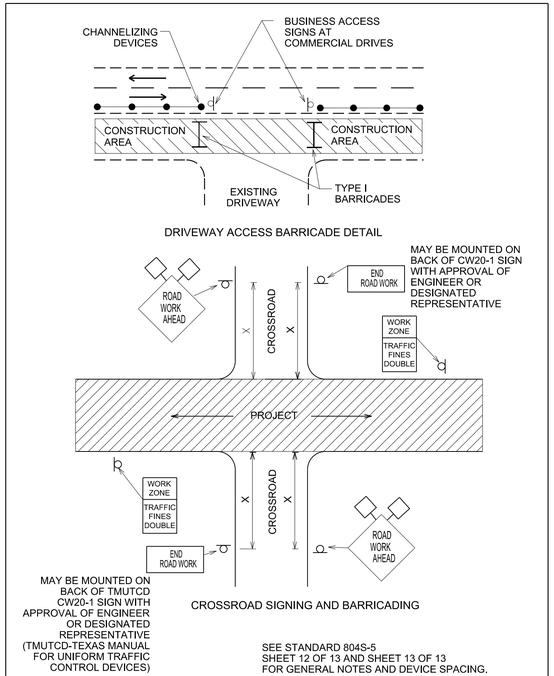
Office: On Site AU314361 Date: Aug. 25, 2026 - 11:02:18 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-DT-TCP.SHT



(A) 50 mm (1/2") WHITE RETROREFLECTIVE BORDER
(B) BLUE RETROFEFLECTIVE BACKGROUND
(C) WHITE RETROREFLECTIVE ARROW AND LETTERS
(D) WHITE RETRORFEFLCTIVE BUSINESS LOGO

NOTES:
1. CONTRACTORS CAN MAKE BUSINESS NAMES REMOVABLE/CHANGEABLE AS AN OPTION.
2. BUSINESS LOGO ARE OPTIONAL. IF USED LETTERING MUST BE MINIMIZED.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SPECIAL WORK ZONE SIGNS	
RECORD COPY SIGNED BY SAM ANGOORI	*01/04/10* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5 10 OF 13



SEE STANDARD 804S-5
SHEET 12 OF 13 AND SHEET 13 OF 13
FOR GENERAL NOTES AND DEVICE SPACING.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SIGNING AND BARRICADING CROSSROAD & DRIVEWAY	
RECORD COPY SIGNED BY SAM ANGOORI	*01/04/10* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5 11 OF 13

1. ALL TRAFFIC CONTROL DEVICES, SIGNS, BARRICADES AND WARNING SIGNS SHALL BE FURNISHED, PLACED, CONSTRUCTED AND MAINTAINED IN THE APPROPRIATE TYPES AND SIZES AND FLAGGER OPERATIONS EXECUTED IN ACCORDANCE WITH THE CURRENT EDITION OF THE TEXAS MANUAL ON UNIFORM CONTROL DEVICES (TMUTCD), THE CITY OF AUSTIN STANDARD SPECIFICATIONS SERIES 800 AND THE CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL, OR AS DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. IF A CONFLICT ARISES THEN THE CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL SHALL CONTROL UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
2. THE CONTRACTOR SHALL NOTIFY THE TRANSPORTATION DIVISION OF THE DEPARTMENT OF PUBLIC WORKS AT 974-7024 NO LATER THAN THE MONDAY OF THE WEEK DURING WHICH THE CONTRACTOR INTENDS TO SET UP BARRICADES TO START CONSTRUCTION.
3. PROPOSED CONSTRUCTION TRAFFIC MOVEMENTS MAY REQUIRE EXISTING SIGNAL HEADS TO BE RELOCATED. THE CITY OF AUSTIN WILL REVIEW SIGNAL HEAD LOCATIONS DURING CONSTRUCTION AND PERFORM THE REQUIRED ADJUSTMENTS. THE CONTRACTOR SHALL CONTACT THE TRANSPORTATION DIVISION OF THE DEPARTMENT OF PUBLIC WORKS AT 974-7024, THREE (3) DAYS PRIOR TO PLACMENT ANY TRAFFIC CONTROLS WHICH MAY REQUIRE SIGNAL HEAD ADJUSTMENTS/RELOCATION.
4. THE CONTRACTOR SHALL PROVIDE ONE (1) FULL-TIME OFF-DUTY, UNIFORMED AUSTIN POLICE DEPARTMENT CERTIFIED PEACE OFFICER AND ONE (1) VEHICLE OF THE TYPE APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE FOR TEMPORARY LANE CLOSURES WHEN UNDERSEALING, MILLING, PAVING AND WHEN WORKING IN INTERSECTIONS AS PART OF THE TRAFFIC CONTROL OPERATIONS. THE PEACE OFFICER SHALL BE ABLE TO SHOW PROOF OF CERTIFICATION BY THE TEXAS COMMISSION ON LAW ENFORCEMENT OFFICER STANDARDS.
5. THE CONTRACTOR SHALL NOTIFY ALL OTHER GOVERNMENTAL AGENCIES WHOSE RIGHTS-OF-WAY ARE AFFECTED BY HIS WORK ACTIVITIES. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL TRAFFIC CONTROL DEVICES THAT THEY MAY NEED.
6. THE CONTRACTOR SHALL MAINTAIN ONE (1) DUST-FREE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES, UNLESS OTHERWISE NOTED IN THE DRAWINGS OR APPROVED THE ENGINEER OR DESIGNATED REPRESENTATIVE.
7. THERE SHALL BE A MINIMUM OF THREE (3) METERS (10 FEET) CLEAR WIDTH FOR EACH LANE OF TRAFFIC IN CHANNELIZED AREAS, UNLESS OTHERWISE NOTED ON THE DRAWINGS OR APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
8. THE CONTRACTOR SHALL MAINTAIN DRIVEWAY ACCESS AT ALL TIMES. IF ACCESS CANNOT BE MAINTAINED, THE CONTRACTOR WITH THE APPROVAL OF THE ENGINEER OR DESIGNATED REPRESENTATIVE SHALL PROVIDE AT LEAST 24 HOUR WRITTEN NOTICE OF LIMITED ACCESS TO AFFECTED PROPERTY OWNERS. THE CONTRACTOR SHALL PROVIDE BUSINESS ACCESS SIGNS AS NEEDED TO NFORM DRIVERS OF THE LOCATIONS OF ALL DRIVEWAYS.
9. TEMPORARY LANE CLOSURES IN THE CENTRAL BUSINESS DISTRICT (CBD) OR ON ARTERIAL STREETS SHALL NOT BE PERMITTED DURING THE HOURS OF 7 AM TO 9 AM AND 4 PM TO 6PM MONDAY THROUGH FRIDAY UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE TRANSPORTATION DIVISION.
10. TRAFFIC CONTROL SHOWN ON STANDARD DETAILS IS TYPICAL. ADDITIONAL SIGNING AND/OR BARRICADING, AS WELL AS TEMPORARY PAVEMENT MARKINGS AND OBLITERATION/RESTORATION OF EXISTING PAVEMENT MARKINGS, MAY BE REQUIRED DEPENDING ON FIELD CONDITIONS. FIELD ADJUSTMENTS TO TRAFFIC CONTROLS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO ITEM NO. 803S "BARRICADES, SIGNS AND TRAFFIC HANDLING".
11. THE CONTRACTOR SHALL DESIGNATE A COMPETENT PERSON FOR TRAFFIC CONTROL. THE COMPETENT PERSON SHALL MAKE INSPECTIONS OF THE TRAFFIC CONTROL DEVICES AT LEAST TWO (2) TIMES A DAY (ONCE AT THE BEGINNING OF THE DAY AND ONCE AT THE END OF THE DAY), INCLUDING NON-WORKING DAYS, ENSURING THAT ALL DEVICES ARE IN THEIR PROPER PLACE AND ARE IN WORKING ORDER.
12. ALL DEVICES SHALL BE MADE USING MATERIALS LISTED ON THE TxDOT APPROVED PRODUCTS LIST.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		GENERAL TRAFFIC CONTROL NOTES	
RECORD COPY SIGNED BY SAM ANGOORI	*01/04/10* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5 12 OF 13

13. ALL PERSONS WORKING WITHIN THE RIGHT-OF-WAY SHALL WEAR A BRIGHTLY COLORED SAFETY VEST. FOR NIGHTTIME WORK THE VEST SHALL BE RETROREFLECTIVE,
14. WHEN AN INTERSECTION IS CLOSED FOR CONSTRUCTION, THE CONTRACTOR SHALL PROCEED WITH CONSTRUCTION IN SUCH A MANNER THAT THE CLOSURE TIME IS MINIMIZED.
15. THE CONTRACTOR SHALL NOTIFY THE CAPITAL METRO DISPATCHER AT 385-4295 ONE (1) WEEK PRIOR TO LANE CLOSURES ADJACENT TO BUS STOPS.

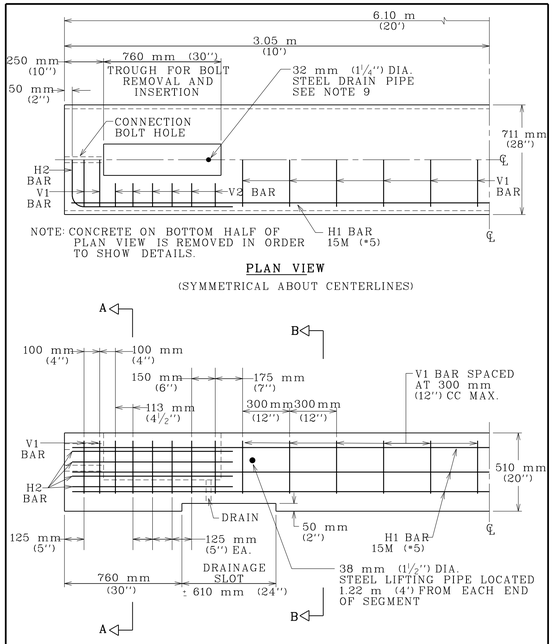
DURATION OF WORK
WORK DURATION IS A MAJOR FACTOR IN DETERMINING THE NUMBER AND TYPES OF DEVICES USED IN TEMPORARY TRAFFIC ZONES. THE FIVE (5) CATEGORIES OF WORK DURATION AND THEIR TIME AT A LOCATION ARE AS FOLLOWS:

- LONG-TERM STATIONARY-WORK THAT OCCUPIES A LOCATION FOR MORE THAN 3 DAYS.
- INTERMEDIATE-TERM STATIONARY-WORK THAT OCCUPIES A LOCATION FROM OVERNIGHT TO 3 DAYS.
- SHORT-TERM STATIONARY-DAYTIME WORK THAT OCCUPIES A LOCATION FROM 1 TO 12 HOURS.
- SHORT-DURATION WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR.
- MOBILE-WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY.

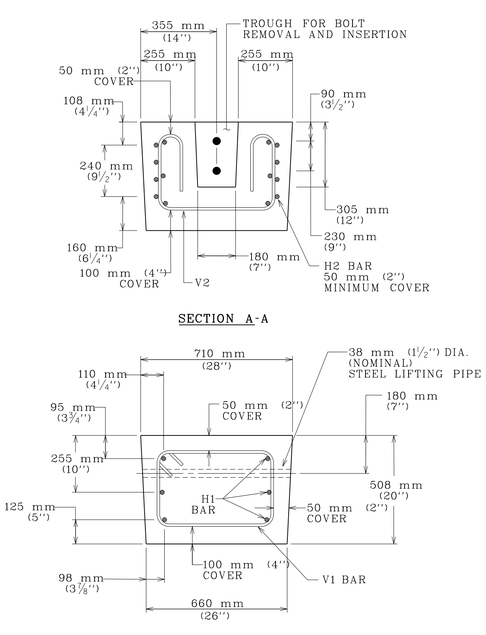
Typical Transition Lengths and Suggested Maximum Spacing of Devices

Posted Speed KPH (MPH)	Formula	Minimum Desirable Taper Lengths (L) Meters (Feet) 3.0(10) Offset Meters (feet)	3.3(11) Offset Meters (feet)	3.6(12) Offset Meters (feet)	Suggested Max. Device Spacing: On a taper Meters (feet)	On a tangent Meters (feet)	Suggested Sign Spacing Meters (Feet) "X" Dimension
50 (30)	L=WS²/60	45 (150)	50 (165)	55 (180)	9 (30)	15-20 (60-75)	40 (120)
55 (35)		65 (205)	70 (225)	75 (245)	10 (35)	25-25 (70-90)	50 (160)
65 (40)		80 (265)	90 (295)	100 (320)	12 (40)	25-30 (80-100)	75 (240)
70 (45)	L=WS	135 (450)	(495)	165 (540)	13 (45)	25-30 (90-110)	100 (320)
80 (50)		150 (500)	165 (550)	180 (600)	15 (50)	30-35 (100-125)	120 (400)
90 (55)		165 (550)	185 (605)	200 (660)	16 (55)	35-40 (110-140)	150 (500)
100 (60)		180 (600)	200 (660)	220 (720)	18 (60)	40-45 (120-150)	180 (600)
105 (65)		195 (650)	215 (715)	235 (780)	19 (65)	40-50 (130-165)	210 (700)
115 (70)		215 (700)	235 (770)	255 (840)	21 (70)	45-55 (140-175)	240 (800)

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		GENERAL TRAFFIC CONTROL NOTES	
RECORD COPY SIGNED BY SAM ANGOORI	*01/04/10* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5 13 OF 13



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		LOW PROFILE CONCRETE BARRIER TYPE 1 (PORTABLE AND PRECAST)	
RECORD COPY SIGNED BY LEON BARBA	*2/21/01* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-6A 1 OF 4



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		LOW PROFILE CONCRETE BARRIER TYPE 1 (PORTABLE AND PRECAST)	
RECORD COPY SIGNED BY LEON BARBA	*2/21/01* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-6A 2 OF 4

TCP23-170010
RIGHT OF WAY MANAGEMENT
08/26/2026
☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS
BY John Dubois

FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

STATE OF TEXAS
HEATHER McNEAL
114428
LICENSED PROFESSIONAL ENGINEER
08/25/2026

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CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
TRAFFIC CONTROL DETAILS VIII

NO.	ISSUES	BY	DATE

F&N JOB NO. AU314.361
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-DT-TCP.SHT

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 142
SEQ. 142 OF 143

MicroStation V8 User: 03926Office: On Site
AU314361 - N:\IF\Drawings\Phase 3\CV-TRT-DT-TCP.SHT
Plot Scale: 1.0000 '/ in. Model: Default
Plot Date: Aug 25, 2026 - 11:02:19 AM Project: Freese and Nichols, Inc.

Office: On Site AU314361 Date: Aug. 25, 2026 - 11:02:19 AM User: 03926File: N:\IF\Drawings\Phase 3\CV-TRT-DT-TCP.SHT

WHEN NOT IN USE, REMOVE THE PCMS FROM THE RIGHT-OF-WAY OR PLACE THE PCMS BEHIND BARRIER OR GUARDRAIL WITH SIGN PANEL TURNED PARALLEL TO TRAFFIC

PORTABLE CHANGEABLE MESSAGE SIGNS

1. The Engineer/Inspector shall approve all messages used on portable changeable message signs (PCMS).
2. Messages on PCMS should contain no more than 8 words (about four to eight characters per word), not including simple words such as "TO," "FOR," "AT," etc.
3. Messages should consist of a single phase, or two phases that alternate. Three-phase messages are not allowed. Each phase of the message should convey a single thought, and must be understood by itself.
4. Use the word "EXIT" to refer to an exit ramp on a freeway; i.e., "EXIT CLOSED." Do not use the term "RAMP."
5. Always use the route or interstate designation (IH, US, SH, FM) along with the number when referring to a roadway.
6. When in use, the bottom of a stationary PCMS message panel should be a minimum 7 feet above the roadway, where possible.
7. The message term "WEEKEND" should be used only if the work is to start on Saturday morning and end by Sunday evening at midnight. Actual days and hours of work should be displayed on the PCMS if work is to begin on Friday evening and/or continue into Monday morning.
8. The Engineer/Inspector may select one of two options which are available for displaying a two-phase message on a PCMS. Each phase may be displayed for either four seconds each or for three seconds each.
9. Do not "flash" messages or words included in a message. The message should be steady burn or continuous while displayed.
10. Do not present redundant information on a two-phase message; i.e., keeping two lines of the message the same and changing the third line.
11. Do not use the word "Danger" in message.
12. Do not display the message "LANES SHIFT LEFT" or "LANES SHIFT RIGHT" on a PCMS. Drivers do not understand the message.
13. Do not display messages that scroll horizontally or vertically across the face of the sign.
14. The following table lists abbreviated words and two-word phrases that are acceptable for use on a PCMS. Both words in a phrase must be displayed together. Words or phrases not on this list should not be abbreviated, unless shown in the TMUTCD.
15. PCMS character height should be at least 18 inches for trailer mounted units. They should be visible from at least 1/2 (.5) mile and the text should be legible from at least 600 feet at night and 800 feet in daylight. Truck mounted units must have a character height of 10 inches and must be legible from at least 400 feet.
16. Each line of text should be centered on the message board rather than left or right justified.
17. If disabled, the PCMS should default to an illegible display that will not alarm motorists and will only be used to alert workers that the PCMS has malfunctioned. A pattern such as a series of horizontal solid bars is appropriate.

WORD OR PHRASE	ABBREVIATION
Access Road	ACCS RD
Alternate	ALT
Avenue	AVE
Best Route	BEST RTE
Boulevard	BLVD
Bridge	BRDG
Cannot	CANT
Center	CTR
Construction Ahead	CONST AHD
CROSSING	XING
Detour Route	DETOUR RTE
Do Not	DONT
East	E
Eastbound	(route) E
Emergency	EMER
Emergency Vehicle	EMER VEH
Entrance, Enter	ENT
Express Lane	EXP LN
Expressway	EXPWY
XXXX Feet	XXXX FT
Fog Ahead	FOG AHD
Freeway	FRWY, FWY
Freeway Blocked	FWY BLKD
Friday	FRI
Hazardous Driving	HAZ DRIVING
Hazardous Material	HAZMAT
High-Occupancy Vehicle	HOV
Highway	HWY
Hour(s)	HR, HRS
Information	INFO
It Is	ITS
Junction	JCT
Left	LFT
Left Lane	LFT LN
Lane Closed	LN CLOSED
Lower Level	LWR LEVEL
Maintenance	MAINT

WORD OR PHRASE	ABBREVIATION
Major	MAJ
Miles	MI
Miles Per Hour	MPH
Minor	MNR
Monday	MON
Normal	NORM
North	N
Northbound	(route) N
Parking	PKING
Road	RD
Right Lane	RT LN
Saturday	SAT
Service Road	SERV RD
Shoulder	SHLDR
Slippery	SLIP
South	S
Southbound	(route) S
Speed	SPD
Street	ST
Sunday	SUN
Telephone	PHONE
Temporary	TEMP
Thursday	THURS
To Downtown	TO DWNTN
Traffic	TRAF
Travelers	TRVLRS
Tuesday	TUES
Time Minutes	TIME MIN
Upper Level	UPR LEVEL
Vehicles (s)	VEH, VEHS
Warning	WARN
Wednesday	WED
Weight Limit	WT LIMIT
West	W
Westbound	(route) W
Wet Pavement	WET PVMT
Will Not	WONT

Roadway designation # IH-number, US-number, SH-number, FM-number

RECOMMENDED PHASES AND FORMATS FOR PCMS MESSAGES DURING ROADWORK ACTIVITIES

(The Engineer may approve other messages not specifically covered here.)

Phase 1: Condition Lists

Road/Lane/Ramp Closure List

FREEWAY CLOSED X MILE	FRONTAGE ROAD CLOSED
ROAD CLOSED AT SH XXX	SHOULDER CLOSED XXX FT
ROAD CLSD AT FM XXXX	RIGHT LN CLOSED XXX FT
RIGHT X LANES CLOSED	RIGHT X LANES OPEN
CENTER LANE CLOSED	DAYTIME LANE CLOSURES
NIGHT LANE CLOSURES	I-XX SOUTH EXIT CLOSED
VARIOUS LANES CLOSED	EXIT XXX CLOSED X MILE
EXIT CLOSED	RIGHT LN TO BE CLOSED
MALL DRIVEWAY CLOSED	X LANES CLOSED TUE - FRI
XXXXXXXX BLVD CLOSED	

Other Condition List

ROADWORK XXX FT	ROAD REPAIRS XXXX FT
FLAGGER XXXX FT	LANE NARROWS XXXX FT
RIGHT LN NARROWS XXXX FT	TWO-WAY TRAFFIC XX MILE
MERGING TRAFFIC XXXX FT	CONST TRAFFIC XXX FT
LOOSE GRAVEL XXXX FT	UNEVEN LANES XXXX FT
DETOUR X MILE	ROUGH ROAD XXXX FT
ROADWORK PAST SH XXXX	ROADWORK NEXT FRI-SUN
BUMP XXXX FT	US XXX EXIT X MILES
TRAFFIC SIGNAL XXXX FT	LANES SHIFT *

* LANES SHIFT in Phase 1 must be used with STAY IN LANE in Phase 2.

Phase 2: Possible Component Lists

Action to Take/Effect on Travel List		Location List	Warning List	** Advance Notice List
MERGE RIGHT	FORM X LINES RIGHT	AT FM XXXX	SPEED LIMIT XX MPH	TUE-FRI XX AM- X PM
DETOUR NEXT X EXITS	USE XXXXX RD EXIT	BEFORE RAILROAD CROSSING	MAXIMUM SPEED XX MPH	APR XX-XX X PM-X AM
USE EXIT XXX	USE EXIT I-XX NORTH	NEXT X MILES	MINIMUM SPEED XX MPH	BEGINS MONDAY
STAY ON US XXX SOUTH	USE I-XX E TO I-XX N	PAST US XXX EXIT	ADVISORY SPEED XX MPH	BEGINS MAY XX
TRUCKS USE US XXX N	WATCH FOR TRUCKS	XXXXXXX TO XXXXXXX	RIGHT LANE EXIT	MAY X-X XX PM - XX AM
WATCH FOR TRUCKS	EXPECT DELAYS	US XXX TO FM XXXX	USE CAUTION	NEXT FRI-SUN
EXPECT DELAYS	PREPARE TO STOP		DRIVE SAFELY	XX AM TO XX PM
REDUCE SPEED XXX FT	END SHOULDER USE		DRIVE WITH CARE	NEXT TUE AUG XX
USE OTHER ROUTES	WATCH FOR WORKERS			TONIGHT XX PM- XX AM
STAY IN LANE *				

** See Application Guidelines Note 6.

APPLICATION GUIDELINES

1. Only 1 or 2 phases are to be used on a PCMS.
2. The 1st phase (or both) should be selected from the "Road/Lane/Ramp Closure List" and the "Other Condition List".
3. A 2nd phase can be selected from the "Action to Take/Effect on Travel, Location, General Warning, or Advance Notice Phase Lists".
4. A Location Phase is necessary only if a distance or location is not included in the first phase selected.
5. If two PCMS are used in sequence, they must be separated by a minimum of 1000 ft. Each PCMS shall be limited to two phases, and should be understandable by themselves.
6. For advance notice, when the current date is within seven days of the actual work date, calendar days should be replaced with days of the week. Advance notification should typically be for no more than one week prior to the work.

WORDING ALTERNATIVES

1. The words RIGHT, LEFT and ALL can be interchanged as appropriate.
2. Roadway designations IH, US, SH, FM and LP can be interchanged as appropriate.
3. EAST, WEST, NORTH and SOUTH (or abbreviations E, W, N and S) can be interchanged as appropriate.
4. Highway names and numbers replaced as appropriate.
5. ROAD, HIGHWAY and FREEWAY can be interchanged as needed.
6. AHEAD may be used instead of distances if necessary.
7. FT and MI, MILE and MILES interchanged as appropriate.
8. AT, BEFORE and PAST interchanged as needed.
9. Distances or AHEAD can be eliminated from the message if a location phase is used.

PCMS SIGNS WITHIN THE R.O.W. SHALL BE BEHIND GUARDRAIL OR CONCRETE BARRIER OR SHALL HAVE A MINIMUM OF FOUR (4) PLASTIC DRUMS PLACED PERPENDICULAR TO TRAFFIC ON THE UPSTREAM SIDE OF THE PCMS, WHEN EXPOSED TO ONE DIRECTION OF TRAFFIC. WHEN EXPOSED TO TWO WAY TRAFFIC, THE FOUR DRUMS SHOULD BE PLACED WITH ONE DRUM AT EACH OF THE FOUR CORNERS OF THE UNIT.

FULL MATRIX PCMS SIGNS

1. When Full Matrix PCMS signs are used, the character height and legibility/visibility requirements shall be maintained as listed in Note 15 under "PORTABLE CHANGEABLE MESSAGE SIGNS" above.
2. When symbol signs, such as the "Flagger Symbol"(CW20-7) are represented graphically on the Full Matrix PCMS sign and, with the approval of the Engineer, it shall maintain the legibility/visibility requirement listed above.
3. When symbol signs are represented graphically on the Full Matrix PCMS, they shall only supplement the use of the static sign represented, and shall not substitute for, or replace that sign.
4. A full matrix PCMS may be used to simulate a flashing arrow board provided it meets the visibility, flash rate and dimming requirements on BC(7), for the same size arrow.

SHEET 6 OF 12

Texas Department of Transportation — Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

BC(6)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS				
9-07 8-14	DIST	COUNTY		SHEET NO.
7-13 5-21				

100

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DATE:
FILE:

TCP23-170010

CITY OF AUSTIN — RIGHT OF WAY MANAGEMENT — 08/26/2026

☑ REVIEWED & COMPLETE ☐ RETURNED FOR REVISIONS

BY John Dubois

MicroStation V8 User: 03926Office: On Site
AU314361 N:\IP\Drawings\Phase 3\CV-TRT-DT-TCP.SHT
Project Level: Default Model: Default
Plot Scale: 1.3000 '= 1'-0" Plot Date: Aug. 25, 2026 - 11:02:20 AM
Project: Freese and Nichols, Inc.

Office: On Site AU314361 Date: Aug. 25, 2026 - 11:02:20 AM User: 03926File: N:\IP\Drawings\Phase 3\CV-TRT-DT-TCP.SHT

TEXAS REGISTERED ENGINEERING FIRM F-2144
FREESE AND NICHOLS, INC.

STATE OF TEXAS — HEATHER McNEAL — 114428 — LICENSED PROFESSIONAL ENGINEER
08/25/2026

FREESE NICHOLS
10431 Morado Circle, Suite 300
Austin, Texas 78759
Phone: (512) 617-3100
Fax: (512) 617-3101
Web - www.freese.com

CITY OF AUSTIN AUSTIN WATERSHED PROTECTION
MLK TOD SW CONVEYANCE IMPROVEMENTS - PHASE 3
CIVIL
TRAFFIC CONTROL DETAILS IX

F&N JOB NO. AU31436
DATE 08/17/2026
DESIGNED BP
DRAWN MIC
REVISED
CHECKED MB
FILE NAME CV-TRT-DT-TCP.SHT

NO. ISSUES | BY | DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET 143
SEQ. 143 OF 143