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**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 SHOAL CREEK WATERSHED (CLASSIFIED AS URBAN) 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. FOR TRAVIS COUNTY, TEXAS AND INCORPORATED AREAS. MAP NO. 48453C0465J, EFFECTIVE DATE 01/06/2016. THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE AREA, PROPERTY AND/OR THE STRUCTURES THERE ON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR, OR ENGINEER.
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 CRITICAL ENVIRONMENTAL FEATURES WITHIN 150' OF ANY PORTION OF THIS PROJECT. A FIELD INVESTIGATION HAS NOT BEEN PERFORMED AS A 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 INSPECTOR 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.



AUSTIN ENERGY



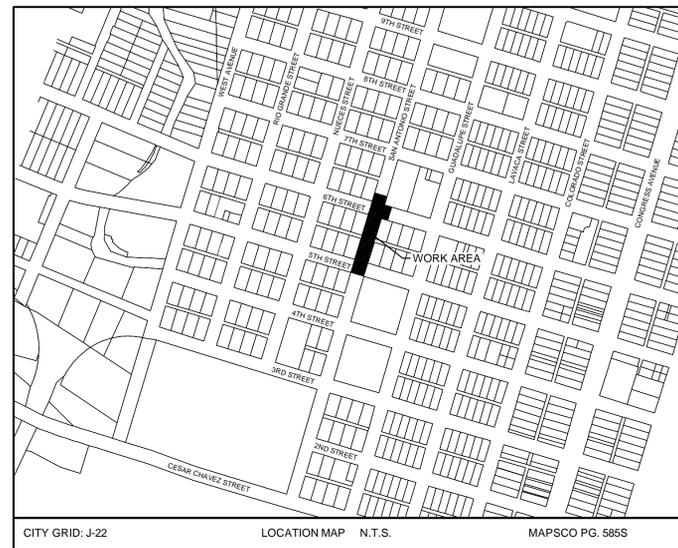
CITY OF AUSTIN

# CITY OF AUSTIN AUSTIN ENERGY ON-SITE ENERGY RESOURCES

## C.I.P. NO. 7173.063 IFB CLMC804

# SAN ANTONIO STREET CHILLED WATER DISTRIBUTION EXTENSION

## 100% DESIGN SUBMITTAL



CITY GRID: J-22      LOCATION MAP      N.T.S.      MAPSCO PG. 585S

UC TRACKING NUMBER: UCC-190328-07-01  
ROW ID NUMBER: 12144870

**PROJECT INFORMATION:**

STREET ADDRESS:  
0 TO 441.38 SAN ANTONIO STREET  
(FROM WEST 5TH ST. TO WEST 6TH ST.)  
441.38 TO 512.52 SAN ANTONIO STREET  
(FROM SAN ANTONIO ST. TO 600 GUADALUPE PROPERTY)  
AUSTIN, TEXAS

OWNER:  
AUSTIN ENERGY ON-SITE RESOURCES  
721 BARTON SPRINGS ROAD  
AUSTIN, TEXAS 78704-1145

CONTACT:  
MR. RICHARD DUANE P.E., PMP  
AUSTIN ENERGY ON-SITE RESOURCES  
721 BARTON SPRINGS ROAD  
AUSTIN, TEXAS 78704-1145  
TEL: (512) 482-5435

**SUBMITTAL PREPARED BY:**



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www.stanleyconsultants.com  
Texas Firm Registration No.: F-174

CONTACT:  
GAYLE DAVIS, P.E.  
6836 AUSTIN CENTER BLVD.  
SUITE 350  
AUSTIN, TEXAS 78731  
TEL: (512) 427-3600

**REVIEWS:**

SUBMITTED FOR APPROVAL BY: \_\_\_\_\_ DATE \_\_\_\_\_  
ENGINEER OF RECORD - GAYLE A. DAVIS, P.E.

**APPROVED BY GENERAL PERMIT HOLDER:**

FOR GENERAL PERMIT HOLDER \_\_\_\_\_ DATE \_\_\_\_\_  
GP-17-0000-AEU  
ANNUAL GENERAL PERMIT NUMBER

**APPROVAL FOR SITE DEVELOPMENT PERMIT:**

GENERAL PERMIT PROGRAM COORDINATOR PLANNING AND DEVELOPMENT REVIEW DEPARTMENT \_\_\_\_\_ DATE \_\_\_\_\_  
DEVELOPMENT PERMIT NUMBER \_\_\_\_\_  
SUBMITTAL DATE: \_\_\_\_\_

**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



GENERAL PERMIT OFFICE

TITLE SHEET & DRAWING INDEX

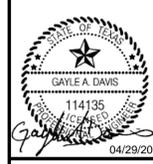
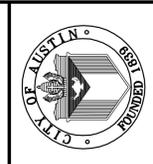
NO.	0
REVISIONS	
REMARKS	100% DESIGN SUBMITTAL

SCI PROJECT NO.	26560.05.00
DESIGNED	G. DAVIS
DRAWN	J. ROGERS
CHECKED	N. GRIFFIN
APPROVED	G. DAVIS
DATE	APRIL 29, 2020

SCALE:	NONE
SHEET NO.	GG00
REV.	0

GENERAL PERMIT PROGRAM

FILE INFO: C:\projects\database-ficomm\075617626560.05\_GG00.dwg, MODIFIED: Apr 29, 2020 9:52pm, PLOTTED: Apr 29, 2020 9:52pm BY: 6141 PLOT SCALE: 1=1



GENERAL PERMIT OFFICE  
GENERAL  
PROJECT NOTES

REVISIONS		DATE
NO.	REVISIONS	DATE
0	100% DESIGN SUBMITTAL	04/29/20

DESIGNED	G. DAVIS	26660.05.00
DRAWN	J. ROGERS	
CHECKED	N. GRIFFIN	
APPROVED	G. DAVIS	
DATE	APRIL 29, 2020	

SCALE: NONE	SHEET NO. GG01	REV. 0
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**PROJECT GENERAL NOTES:**

1. READ THE SPECIFICATIONS AND ALL DRAWING NOTES PRIOR TO STARTING ANY WORK.
2. SHOULD ANY CONTRACTOR ENCOUNTER ANY QUESTIONS OR CONFLICTS BETWEEN THE PLANS AND SPECIFICATIONS, EITHER AMONG THEMSELVES OR WITH THE REQUIREMENTS OF ANY AND ALL REVIEWING AND PERMIT-ISSUING AGENCIES, THE CONTRACTOR SHALL BRING THESE CONFLICTS TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL SEEK CLARIFICATION IN WRITING PRIOR TO START OF WORK, AND SHALL NOT PROCEED WITH THE WORK IF THERE ARE DISCREPANCIES OR CONFLICTS UNTIL ALL SUCH HAVE BEEN RESOLVED.
3. ALL DRAWING ELEMENTS AND TEXT SHOWN IN GRAYS SCALE ARE EXISTING ELEMENTS EITHER PROVIDED BY OWNER RECORD DRAWINGS OR OBTAINED THROUGH FIELD OBSERVATIONS WHERE POSSIBLE, AND ARE USED FOR BACKGROUND AND REFERENCE PURPOSES.
4. THE DETAILS DESIGNATED AS "TYPICAL DETAILS" APPLY GENERALLY TO THE DRAWINGS IN ALL AREAS WHERE CONDITIONS ARE SIMILAR TO THOSE DESCRIBED IN THE DETAILS.
5. FOR CLARITY, NOT ALL EQUIPMENT, DUCTWORK, PIPING, PANELS, CONDUIT, ETC. MAY BE SHOWN IN EACH VIEW. ACTUAL FIELD CONDITIONS MAY VARY. PRIOR TO START OF NEW WORK, ALL CONTRACTORS FOR ALL TRADES SHALL, IN THE PRESENCE OF THE OWNER, VISIT THE SITE AND PERFORM AN INSPECTION TO BECOME FAMILIAR WITH EXISTING FACILITIES AND AREAS SCHEDULED FOR WORK AND DETERMINE THE CONDITION OF EXISTING ELEMENTS TO BE AFFECTED AND/OR TO REMAIN. OTHER FIELD INVESTIGATIONS, AND/OR MINOR ADJUSTMENTS MAY BE REQUIRED TO ENSURE NEW WORK CAN BE INSTALLED WITH MINIMAL EFFORT OR REWORK. NOTIFY OWNER REPRESENTATIVE AND ENGINEER FOR ALL CLARIFICATIONS AS WORK PROGRESSES.
6. ANY QUESTIONS RELATED TO THE PROJECT SCOPE OF DEMOLITION AND NEW WORK, WORKING CONDITIONS SUCH AS STARTING TIME, NOISE AND VIBRATION LIMITATIONS, SHUTDOWN OF ELECTRICAL POWER SERVICES SHOULD BE ADDRESSED TO THE OWNER'S PROJECT MANAGER FOR CLARIFICATION PRIOR TO START OF WORK.
7. THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED FOR CONSTRUCTION OF THIS PROJECT.
8. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES AT THE SITE. INTERRUPTION OF UTILITY SERVICES IS NOT PERMITTED WITHOUT FULL COORDINATION WITH OWNER. SOME AREAS MAY REQUIRE WORK ON WEEKENDS OR SPECIAL SHUTDOWNS AS DIRECTED AND SEQUENCED BY OWNER.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER OF ALL UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK. WHEN ANY EXISTING UTILITY REQUIRES ADJUSTMENT OR RELOCATION, THE CONTRACTOR SHALL NOTIFY THE PROPER UTILITY AND COORDINATE HIS WORK ACCORDINGLY. THE CONTRACTOR SHALL NOTIFY THE PROPER UTILITY IMMEDIATELY UPON BREAK OR DAMAGE TO ANY UTILITY LINE OR APPURTENANCE, OR THE INTERRUPTION OF THEIR SERVICE. IF EXISTING UTILITY CONSTRUCTION CONFLICTS WITH PROJECT REQUIREMENTS, CONTRACTOR SHALL NOTIFY OWNER SO THE CONFLICT MAY BE RESOLVED.
10. WORK SHALL COMPLY WITH APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND ORDINANCES AND STANDARD SPECIFICATIONS OF ALL AGENCIES HAVING THE RESPONSIBILITY OF REVIEWING PLANS AND SPECIFICATIONS FOR CONSTRUCTION OF ALL ITEMS PER THESE PLANS AND SPECIFICATIONS IN THIS LOCALITY. COMPLY WITH ALL RECOMMENDED PRACTICES AS SET FORTH BY THE FOLLOWING, BUT NOT LIMITED TO: ASME, SMACNA, ASHRAE, NFPA, ALL LOCAL BUILDING, MECHANICAL, PLUMBING, NATIONAL ELECTRICAL CODE, OSHA, AND REGULATIONS OF ALL GOVERNING BODIES AS THEY APPLY TO THIS PROJECT.
11. THE CONTRACT DOCUMENTS ARE COMPLIMENTARY, AND WHAT IS REQUIRED BY ONE DISCIPLINE'S DRAWINGS OR SPECIFICATIONS, ADDENDUM, BULLETIN, OR OTHER DOCUMENT SHALL BE BINDING AS IF REQUIRED BY ALL. CONTRACTOR SHALL USE ONLY COMPLETE SETS OF CONTRACT DOCUMENTS FOR WORK AND THESE PLANS AND SPECIFICATIONS SHALL HAVE BEEN APPROVED BY ALL APPLICABLE PERMIT-ISSUING AGENCIES.
12. IN ACCORDANCE WITH GENERALLY ACCEPTED PRACTICES, CONTRACTOR SHALL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. THIS INCLUDES BUT IS NOT LIMITED TO: SAFETY OF ALL PERSONS, INCLUDING CONTRACTOR'S EMPLOYEES & SUBCONTRACTORS, AND PROPERTY AND ANY OTHER ITEMS OF PUBLIC SAFETY REGULATIONS DEEMED NECESSARY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
13. ALL WORK SHALL BE GUARANTEED BY THE CONTRACTOR TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS AND IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND THAT THE CONTRACTOR SHALL REPLACE OR REPAIR ANY WORK OR MATERIAL FOUND TO BE DEFECTIVE.
14. THE GENERAL CONTRACTOR SHALL PROVIDE NOT LESS THAN TWO (2) COPIES OF THE AS-BUILT DRAWINGS TO THE OWNER AT THE COMPLETION OF THE PROJECT, UNLESS NOTED OTHERWISE. AS-BUILT DRAWINGS SHALL BE KEPT ON THE JOB AT ALL TIMES AND UPDATED THROUGHOUT THE CONSTRUCTION PHASE.
15. CONTRACTOR SHALL COORDINATE INSTALLATION AND ROUTING OF ALL ELECTRICAL AND CONTROL WIRE CONDUIT, EQUIPMENT, AND ASSOCIATED SUPPORTS WITH ALL CONFLICTS, RATED WALL, OR CEILING CONDITIONS PRIOR TO INSTALLATION.
16. ANY REFERENCE TO SPECIFIC MANUFACTURER'S PRODUCTS IS FOR THE PURPOSE OF ESTABLISHING A STANDARD FOR PERFORMANCE AND/OR TO PHYSICALLY FIT WITHIN EXISTING SPACE CONSTRAINTS, ETC. IT IS NOT INTENDED TO LIMIT SELECTIONS OF APPROVED EQUAL PRODUCTS FROM OTHER MANUFACTURERS, BUT CONTRACTOR SHALL ENSURE SELECTIONS WILL NOT COMPROMISE PROJECT REQUIREMENTS.

17. THE DESIGN AND PROVISION OF ALL TEMPORARY ITEMS REQUIRED SUCH AS FALSEWORK, SHORING, SUPPORTS AND ANCHORS FOR SAFETY LINES, FENCING, OR ANY OTHER TEMPORARY ELEMENTS REQUIRED FOR THE EXECUTION OF THE CONTRACT ARE NOT INCLUDED IN THESE DRAWINGS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. TEMPORARY SUPPORTS SHALL NOT RESULT IN THE OVERSTRESS OR DAMAGE OF ANY ELEMENTS TO BE BRACED NOR ELEMENTS USED AS BRACE SUPPORTS.
18. THE DESIGN TEAM OR OWNER'S REPRESENTATIVE SHALL NOT BE RESPONSIBLE FOR, OR HAVE CONTROL OF, OR TAKE CHARGE OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, NOR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, AND WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE DESIGN TEAM OR OWNER'S REPRESENTATIVE SHALL NOT BE RESPONSIBLE NOR HAVE CONTROL OF THE CONTRACTOR, SUBCONTRACTORS OR ANY OF THEIR AGENTS OR EMPLOYEES, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK.
19. CONTRACTOR SHALL EXAMINE AND PREPARE ALL NEW INSULATED AND BARE SURFACES (PIPES, BRACKETS, COLLARS, SUPPORTS EXCEPT WHERE ITEMS ARE PLATED OR COVERED WITH PREFINISHED COATING) TO REMOVE DIRT, OIL, GREASE, ETC. AS NECESSARY, TO PROVIDE FOR MANUFACTURER'S COMPATIBLE PRIMER AND PAINT.

**DUST AND NOISE CONTROL:**

1. REFER TO CITY OF AUSTIN ORDINANCE CHAPTER 9-2: NOISE AND AMPLIFIED SOUND FOR NOISE REQUIREMENTS APPLICABLE TO THIS PROJECT.
2. DUST AND NOISE CONTROL SHALL BE MAINTAINED FOR DEMOLITION, VEHICLE OPERATION, DRILLING, CONCRETE SAWCUTTING, AND SITE WORK.
3. CONTRACTOR SHALL IMMEDIATELY CLEAN MUD OR DEBRIS TRACKED ONTO ROADWAYS.

**TRAFFIC CONTROL NOTES:**

1. CONTRACTOR IS RESPONSIBLE FOR FOLLOWING ALL APPLICABLE CITY OF AUSTIN REQUIREMENTS AND ORDINANCES RELATED TO ROADWAY ACCESS AND KEEPING ROADWAYS FREE OF CONSTRUCTION SITE DEBRIS.
2. SEE TC DRAWINGS FOR TRAFFIC CONTROL PLAN AND DETAILS.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SURFACE INSIDE OF CONSTRUCTION ACCESS AREA FOR THE DURATION OF THE CONSTRUCTION PROJECT. CONTRACTOR SHALL CLEAN CONSTRUCTION SITE ON A DAILY BASIS AND BROOM CLEAN ROAD SURFACE AT THE END OF EACH WORK DAY.
4. PROVIDE FULL-TIME CERTIFIED FLAGMEN. FLAGMEN SHALL BE TRAINED AND ARE REQUIRED FOR THE PURPOSE OF MAINTAINING TRAFFIC FLOW SAFETY THROUGH THE CONSTRUCTION SITE AND TO GUIDE CONSTRUCTION AND PEDESTRIAN TRAFFIC AROUND PROJECT SITE. FLAGMEN SHALL BE ABLE TO VERBALLY COMMUNICATE WITH GENERAL PUBLIC.
5. CONTRACTOR SHALL PROVIDE AND MAINTAIN SIGNS, TRAFFIC CONES, AND BARRICADES AS SHOWN ON THE TRAFFIC CONTROL PLAN(S) AND AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
6. CONTRACTOR SHALL PROVIDE AND MAINTAIN FENCINGS AS REQUIRED OR REQUESTED BY OWNER AND AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
7. CONTRACTOR SHALL AT ALL TIMES DURING CONSTRUCTION PERIOD MAINTAIN FREE ACCESS TO ALL BUILDINGS AND AREAS OF SITE FOR EMERGENCY VEHICLES, SERVICE VEHICLES, AND FIRE FIGHTING EQUIPMENT AND SHALL AT NO TIME BLOCK OFF OR CLOSE ROADWAYS OR FIRE LANES WITHOUT PROVIDING PRIOR APPROVED ALTERNATE ROADWAYS AND MEANS OF ENTRANCE.

**STREET REPAIR NOTES:**

1. **TRENCH REPAIR:** USE THE APPROPRIATE 1100S SERIES DETAILS FOR TRENCH
  - a. REPAIRS: 1100S-2 (FLEXIBLE BASE AND AN ASPHALT SURFACE), 1100S-3 (CONCRETE OR ASPHALT OVERLAD CONCRETE), AND 1100S-5 (FULL DEPTH ASPHALT STREETS). CLSM SHALL BE SUBSTITUTED FOR BACKFILL AND FLEXIBLE BASE REPLACEMENT PER THE DETAIL NOTES.
2. **SURFACE RESTORATION:** SURFACE PAVEMENT RESTORATION IS REQUIRED WHEN CUTS 1) ARE OVER 300 LINEAR FEET IN LENGTH, 2) OCCUR WITHIN THE DAPCZ AREA, OR 3) OCCUR WITHIN PROTECTED STREET SEGMENTS. 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 HMAAC TYPE D FOR LOCAL OR RESIDENTIAL STREETS AND A MINIMUM 3 INCHES HMAAC TYPE C FOR COLLECTOR OR ARTERIAL STREETS (SEE ITEM 340S, SECTION 340S.4).
3. **CONCRETE AND COMPOSITE PAVEMENTS:** IN CONCRETE STREETS, ACTUAL RESTORATION LIMITS ARE DETERMINED BY JOINT LOCATIONS. FOR COMPOSITE PAVEMENTS CONSTRUCTED OF CONCRETE WITH A HMAAC OVERLAY, USE 1100S-3 FOR TRENCH REPAIR (USING GLASS 360S CONCRETE) AND 1100S-7 FOR DETERMINATION OF ASPHALT SURFACE RESTORATION AREAS.

**CODES & STANDARDS:**

1. AUTHORITY HAVING JURISDICTION: CITY OF AUSTIN, TEXAS
2. APPLICABLE CODES: THE CONSTRUCTION WILL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS AND APPLICABLE UTILITY COMPANY REQUIREMENTS AS APPROVED AND ADMINISTERED BY AUTHORITIES HAVING JURISDICTION (AHJ) AT THE PROJECT LOCATION AT THE TIME OF CONSTRUCTION WHERE THERE IS A CONFLICT BETWEEN THE VARIOUS CODES AND REGULATION REFERENCES, THE CITY OF AUSTIN WILL MAKE A DETERMINATION IN CONSULTATION WITH THE DESIGN CONSULTANT.
  - BUILDING CODE:** 2015 INTERNATIONAL BUILDING CODE WITH LOCAL AMENDMENTS.
  - ENERGY CODE:** 2015 INTERNATIONAL ENERGY CONSERVATION CODE WITH LOCAL AMENDMENTS.
  - ELECTRICAL CODE:** 2017 NATIONAL ELECTRICAL CODE WITH LOCAL AMENDMENTS.
  - FIRE CODE:** 2015 INTERNATIONAL FIRE CODE WITH LOCAL AMENDMENTS.
  - MECHANICAL CODE:** 2015 UNIFORM MECHANICAL CODE WITH LOCAL AMENDMENTS.
  - PLUMBING CODE:** 2015 UNIFORM PLUMBING CODE WITH LOCAL AMENDMENTS.
3. STANDARDS AS REFERENCED BY THE INTERNATIONAL BUILDING CODE:
  - NFPA 13 - INSTALLATION OF SPRINKLER SYSTEMS
  - NFPA 70 - NATIONAL ELECTRICAL CODE
  - NFPA 72 - NATIONAL FIRE ALARM AND SIGNALING CODE

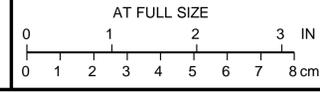
**SEQUENCE OF CONSTRUCTION NOTES:**

1. SEQUENCE OF WORK SHALL BE PLANNED AND SCHEDULED BY THE CONTRACTOR AND REVIEWED BY OWNER AND ENGINEER PRIOR TO BEGINNING ANY WORK.
2. THE PROPOSED SEQUENCE OF CONSTRUCTION ACTIVITIES DEFINES CONSTRAINTS THAT ARE TO BE ACCOMMODATED AND SPECIFIC TIME RESTRAINTS ASSOCIATED WITH THE CONSTRUCTION ACTIVITIES. CONTRACTOR TO REVIEW THIS PROPOSED SEQUENCE OF CONSTRUCTION AND BECOME THOROUGHLY FAMILIAR WITH ALL ASPECTS OF THIS REQUIREMENT. CONTRACTOR TO PROPOSE A SEQUENCE OF CONSTRUCTION INCORPORATING THESE CONSTRAINTS AND SECURE CONCURRENCE OF OWNER PRIOR TO STARTING WORK. SHOULD THE CONTRACTOR DECIDE TO ADOPT THIS PROPOSED SEQUENCE OF CONSTRUCTION AS THEIR PROPOSED SEQUENCE OF CONSTRUCTION, THEY DO SO WITH THE UNDERSTANDING THAT THIS IN NO WAY RELIEVES THEM FROM THEIR OBLIGATIONS FOR PREPARATION OF A WORKABLE SEQUENCE OF CONSTRUCTION AND ASSUMING FULL RESPONSIBILITY FOR SAME.
3. SEQUENCE OF CONSTRUCTION:
  - A. PROVIDE TRAFFIC CONTROL AS INDICATED ON APPROVED TRAFFIC CONTROL PLANS.
  - B. PROVIDE EROSION CONTROL AS INDICATED ON APPROVED EROSION SEDIMENTATION CONTROL PLANS.
  - C. PROVIDE TREE PROTECTION AND INITIATE TREE MITIGATION MEASURES.
  - D. PROVIDE JACK & BORE PIPELINE CONSTRUCTION & HOT TAPPING EXISTING CHILLED WATER PIPES FROM 5<sup>TH</sup> STREET TO SAN ANTONIO STREET BORE PIT (STA 0+00 TO STA 2+25). PERFORM ALL TESTING OF PIPELINE PER SPECIFICATIONS.
  - E. REPAIR 6<sup>TH</sup> STREET AS INDICATED ON APPROVED SURFACE RESTORATION PLANS.
  - F. PROVIDE JACK & BORE PIPELINE CONSTRUCTION FROM SAN ANTONIO STREET BORE PIT TO 6<sup>TH</sup> STREET (STA 2+25 TO STA 4+41.38). PERFORM ALL TESTING OF PIPELINE PER SPECIFICATIONS.
  - G. REPAIR SAN ANTONIO STREET BORE PIT AS INDICATED ON APPROVED SURFACE RESTORATION PLANS.
  - H. PROVIDE JACK & BORE PIPELINE CONSTRUCTION FROM 6<sup>TH</sup> STREET TO 600 GUADALUPE (STA 4+41.38 TO STA 5+05.23). PERFORM ALL TESTING OF PIPELINE PER SPECIFICATIONS.
  - I. REPAIR 6<sup>TH</sup> STREET AS INDICATED ON APPROVED SURFACE RESTORATION PLANS AND IN COORDINATION WITH THE BUILDING CONSTRUCTION CONTRACTOR (J. E. DUNN).
  - J. PROVIDE HOT TAPPING PIPELINE CONSTRUCTION OF NEW CHILLED WATER PIPES AT 6<sup>TH</sup> STREET (-STA 3+65) AS INDICATED ON APPROVED PLANS. PERFORM ALL TESTING OF PIPELINE PER SPECIFICATIONS.
  - K. REPAIR 6<sup>TH</sup> STREET AS INDICATED ON APPROVED SURFACE RESTORATION PLANS.
  - L. REMOVE TEMPORARY EROSION CONTROL AFTER INSPECTION AND APPROVAL BY ENVIRONMENTAL INSPECTOR.
  - M. COMPLETE ANY NECESSARY FINAL CLEANING AND REPAIR OF ALL DISTURBED AREAS.



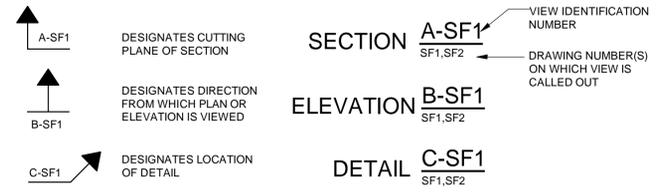
AUSTIN ENERGY  
SAN ANTONIO STREET CHILLED WATER  
DISTRIBUTION EXTENSION

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www.stanleyconsultants.com  
Texas Firm Registration No.: F-174



GENERAL PERMIT PROGRAM

**VIEW MARKERS**



**DIMENSIONS AND SCALE**

DIMENSIONS AND/OR ELEVATIONS MARKED THUS (\*) ARE APPROXIMATE. OBTAIN FINAL DIMENSIONS FOR CONSTRUCTION FROM THE ENGINEER.

DIMENSIONS AND/OR ELEVATIONS MARKED THUS (#) ARE ASSUMED AND SHALL BE VERIFIED OR MODIFIED AS REQUIRED BY THE CONTRACTOR TO SUIT EQUIPMENT FURNISHED. FINAL DIMENSIONS ARE SUBJECT TO THE REVIEW OF THE ENGINEER.

DIMENSIONS AND/OR ELEVATIONS MARKED THUS (+) MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR.

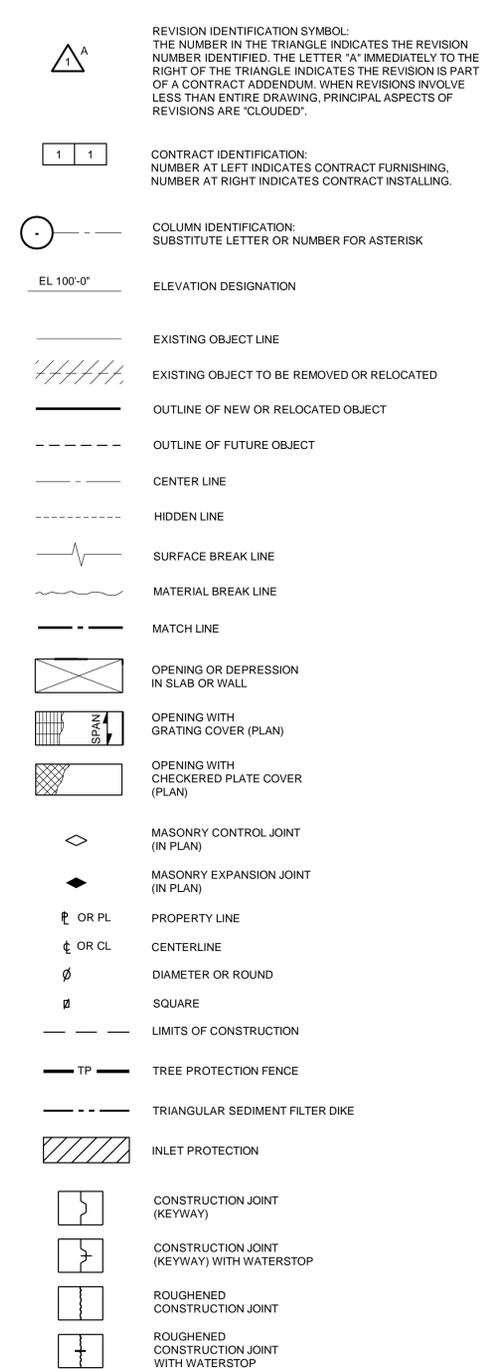
DIMENSIONS ARE GENERALLY TO SCALE, BUT SHOULD NOT BE SCALED. USE DIMENSIONS SHOWN. NTS (NOT TO SCALE) IS SHOWN ONLY WHERE DIMENSION IS OBVIOUSLY OUT OF SCALE.

NUMERIC SCALE VALUES (1/4"=1'-0", ETC) APPLY ONLY FOR DRAWING PRINTED AT FULL SIZE.

**FIELD MEASUREMENT NOTES**

- ALL DIMENSIONS OF EXISTING CONSTRUCTION ARE APPROXIMATE. CONTRACTOR SHALL SURVEY AND MAKE ALL NECESSARY FIELD MEASUREMENTS OF EXISTING STRUCTURES AND EQUIPMENT TO VERIFY DIMENSIONS SHOWN ON DRAWINGS, AND TO PROVIDE DIMENSIONS NOT SHOWN, PRIOR TO FABRICATION. ERRORS, INCONSISTENCIES OR OMISSIONS DISCOVERED SHALL BE REPORTED IN WRITING TO THE DESIGN PROFESSIONAL AND OWNER'S REPRESENTATIVE WITHIN TWENTY-FOUR (24) HOURS. COSTS FOR MODIFICATIONS OF NEW CONSTRUCTION, DUE TO LACK OF CONFIRMATION OF DIMENSIONS BY FIELD MEASUREMENTS, SHALL BE BORNE BY CONTRACTOR.
- CONTRACTOR SHALL REVIEW CONTRACT DOCUMENTS TO DETERMINE THE EXACT LOCATION OF ALL WORK AND VERIFY SPATIAL RELATIONSHIPS OF ALL WORK. ANY QUESTION CONCERNING LOCATION OR SPATIAL RELATIONSHIPS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE. SPECIFIC LOCATIONS FOR EQUIPMENT, PIPELINES, DUCTWORK AND OTHER SUCH ITEMS OF WORK, WHERE NOT DIMENSIONED ON DRAWINGS, SHALL BE DETERMINED IN CONSULTATION WITH OWNER'S REPRESENTATIVE AND DESIGN PROFESSIONAL. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FITTING OF THE WORK IN PLACE.

**GENERAL SYMBOLS**



**GENERAL NOTES**

- ALL SYMBOLS AND ABBREVIATIONS SHOWN ON THIS LEGEND MAY NOT APPEAR ON THIS SET OF DRAWINGS.



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**GENERAL LEGEND**

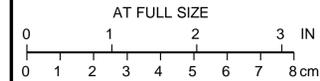
NO.	REVISIONS	REVISIONS				DATE
		REMARKS	DESIGN	CHKD	APVD	
0	100% DESIGN SUBMITTAL	GD	NG	GD	04/29/20	

DESIGNED	G. DAVIS	DATE	APRIL 29, 2020
DRAWN	J. ROEBERS		
CHECKED	N. GRIFFIN		
APPROVED	G. DAVIS		

SCALE: NONE	SHEET NO. <b>GG02</b>
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**GENERAL PERMIT PROGRAM**

ABBREVIATIONS

ABBREVIATION	TERM
A	AMPERE
AA	ADHESIVE ANCHOR
AB	ANCHOR BOLT(S)
AC	ACRE; ALTERNATING CURRENT
ACC	ACCESS CONTROL; AIR CONDITION(ING)
ACB	AIR CIRCUIT BREAKER
ACI	AMERICAN CONCRETE INSTITUTE
ACCUR	ACCURATE
ACV	AUTOMATIC CONTROL VALVE
ACV-3	3 WAY AUTOMATIC CONTROL VALVE
AD	ACCESS DOOR
ADA	AMERICAN DISABILITIES ACT
ADDL	ADDITIONAL
ADJ	ADJACENT; ADJOINING; ADJUST(ABLE)
AF	AMPERE FRAME; AUDIO FREQUENCY
AFF	ABOVE FINISH(ED) FLOOR
AFG	ABOVE FINISHED GRADE
AH	AMPERE HOUR
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AIC	AMPERE INTERRUPTING CURRENT (CAPACITY)
AL	ALUMINUM
ALT	ALTERNATE; ALTITUDE
AMP	AMPERE
ANN	ANNUNCIATOR
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AO	ANALOG OUTPUT
APPROX	APPROXIMATE
ARCH	ARCHITECTURE; ARCHITECTURAL
AS	AIR SUPPLY
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASD	ADJUSTABLE SPEED DRIVE
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BAT	BATTEN; BATTERY
B/B	BACK TO BACK
BD	BOARD
BITUM	BITUMINOUS
BL	BASELINE; BUILDING LINE
BLDG	BUILDING
BM	BEAM(S); BENCHMARK; BENDING MOMENT
BOC	BACK OF CURB
BOF	BOTTOM OF FOOTING
BOG	BOTTOM OF GIRT
BOT	BOTTOM
BOTR	BOTTOM OF TRENCH
BRG	BEARING
BRKR	BREAKER
BTU	BRITISH THERMAL UNIT
BSMT	BASEMENT
C	CELSIUS; CHANNEL
CA	CABLE
CAB	CABINET
CAP	CAPACITOR; CAPACITY
CB	CARRIAGE BOLT; CATCH BASIN; CIRCUIT BREAKER
C TO C	CENTER TO CENTER
CCTV	CLOSED CIRCUIT TELEVISION
CCVT	COUPLING CAPACITIVE VOLTAGE TRANSFORMER
CD	CEILING DIFFUSER
CEB	CONCRETE EQUIPMENT BASE
CEMS	CONTROL EMISSIONS MONITORING
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CG	CEILING GRILLE
C&G	CURB AND GUTTER
CHAN	CHANNEL
CHGR	CHARGER
CHKR PL	CHECKER PLATE
CIP	CAST IN PLACE; CAST IRON PIPE
CIRC	CIRCULAR
CISP	CAST IRON SOIL PIPE
CJ	CONSTRUCTION JOINT
CKT	CIRCUIT
CL	CENTERLINE; CLEARANCE; CLOSE
CLF	CURRENT LIMITING FUSE
CLG	CEILING; COOLING
CLJ	CONTROL JOINT
CLR	CLEAR
cm	CENTIMETER (DIMENSION)
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CND	CONDUIT
CNTOR	CONTACTOR
CNTRL	CONTROL
CNSL	CONSOLE
CO	CLEANOUT
COL	COLUMN
COMB	COMBINATION
CONC	CONCENTRIC; CONCRETE
CONN	CONNECTOR
CONT	CONTINUATION; CONTINUOUS
CONST	CONSTRUCTION
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY; CURRENT RELAY
CS	LOCAL CONTROL STATION
CT	CERAMIC TILE; CURRENT TRANSFORMER
CTR	CENTER
CTV	CABLE TELEVISION
CU	COPPER
CU CM	CUBIC CENTIMETER

ABBREVIATION	TERM
CU FT	CUBIC FOOT
CU IN	CUBIC INCH
CU M	CUBIC METER
CU MM	CUBIC MILLIMETER
CU YD	CUBIC YARD
D	DEEP
DB	DUCT BANK
DBM	DECIBEL METER
DC	DIRECT CURRENT
DCS	DISTRIBUTED CONTROL SYSTEM
DDC	DIRECT DIGITAL CONTROLS
DEG	DEGREES
DET	DETAIL
DF	DRINKING FOUNTAIN
DG	DIESEL GENERATOR
DI	DIGITAL INPUT; DUCTILE IRON
DIM	DIMENSION(S)
DIP	DUCTILE IRON PIPE
DIA	DIAMETER
DIAG	DIAGONAL
DISC	DISCONNECT
DIST	DISTANCE
DISTR	DISTRIBUTION
DM	DEMAND METER
DN	DOWN
DO	DIGITAL OUTPUT; DITTO
DOT	DEPARTMENT OF TRANSPORTATION
DP	DEPTH
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DR	DRAIN
DS	DOWNSPOUT
DWG	DRAWING(S)
E	EAST
EA	EACH
EAT	ENTERING AIR TEMPERATURE
ED	EQUIPMENT DRAIN
E-E	EDGE TO EDGE
EF	EACH FACE; EXHAUST FAN
EG	ENGINE GENERATOR; EXHAUST GRILLE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMBED	EMBEDMENT
EMER	EMERGENCY
EMS	ENERGY MANAGEMENT SYSTEM
EMT	ELECTRICAL METALLIC TUBING
EP	EXPLOSION PROOF
EQ	EQUAL
EQ SP	EQUALLY SPACED
EQPT	EQUIPMENT
ER	EMERGENCY REMOTE
ES	ELECTRICAL SUPPLY
ESO	EMERGENCY SHUTDOWN
EST	ESTIMATE
ET	EXPANSION TANK
ETC	ET CETERA
ETR	EXISTING TO REMAIN
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EXP	EXPANSION; EXPOSED
EXST	EXISTING
EXT	EXTENSION; EXTERIOR
FACP	FIRE ALARM CONTROL PANEL
FC	FAIL CLOSED
FCO	FLOOR CLEANOUT
FCU	FAN COIL UNIT
FD	FIRE DAMPER; FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FAR FACE
F/I	FREQUENCY TO CURRENT
FIP	FAIL IN PLACE
FIN FLR	FINISH(ED) FLOOR
FL	FAIL LAST; FLOOR
FL	FLOWLINE
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
FLG	FLANGE(S)
FMC	FLEXIBLE METAL CONDUIT
FO	FAIL OPEN; FIBER OPTIC
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FRP	FIBERGLASS REINFORCED PIPE (OR PLASTIC)
FS	FAR SIDE
FT	FEET; FOOT
FTG	FOOTING
FU	FUSE
FWD	FORWARD
FXTR	FIXTURE
GA	GAUGE (GAGE)
GALV	GALVANIZE(D)
GD	GROUND DETECTOR
GEN	GENERATOR
GFI	GROUND FAULT INTERRUPTER
GL	GIRT LINE
GND	GROUND
GR	GRADE
GRAN	GRANULAR
GRS	GALVANIZED RIGID STEEL CONDUIT

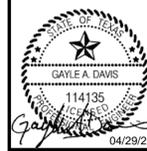
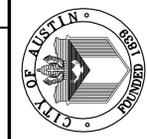
ABBREVIATION	TERM
GRTG	GRATING
GS	GAS SUPPLY
GWB	GYPSON WALL BOARD
GYP	GYPSON
H	HIGH
HA	HAND-AUTO
HB	HOSE BIBB
HGR	HANGER
HH	HANDHOLE
HM	HOLLOW METAL
HOA	HAND-OFF-AUTO
HOR	HAND-OFF-REMOTE
HORIZ	HORIZONTAL
HP	HIGH POINT; HORSE POWER
HR	HOUR
HRSG	HEAT RECOVERY STEAM GENERATOR
HS	HIGH STRENGTH; HYDRAULIC SUPPLY
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT; HIGH TENSION
HV	HIGH VOLTAGE
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
HWH	HOT WATER HEATER
HZ	HERTZ
I	CURRENT TO CURRENT
I/O	INPUT/OUTPUT
I/P	CURRENT TO PNEUMATIC
IA	INSTRUMENT AIR
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IF	INSIDE FACE
IG	ISOLATED GROUND
IMC	INTERMEDIATE METALLIC CONDUIT
IN	INCH(ES)
INL	INLET
INST	INSTANTANEOUS
INSTR	INSTRUMENTATION
INSUL	INSULATION
INT	INTERIOR
INTLK	INTERLOCK
INV	INVERT
ISA	INSTRUMENTATION, SYSTEMS, & AUTOMATION SOCIETY
JB	JUNCTION BOX
JOA	JOG-OFF-AUTO
JT	JOINT
KCM	KILOGRAMS PER CUBIC CENTIMETER
KCMIL	THOUSAND CIRCULAR MIL
KO	KNOCKOUT
KSCM	KILOGRAMS PER SQUARE CENTIMETER
KSM	KILOGRAMS PER SQUARE METER
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KVAR	KILOVOLT AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR
KWY	KEYWAY
L	LENGTH, ANGLE
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LB	POUND(S)
LC	LOAD CENTER
LF	LINEAL FEET
LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
LG	LENGTH; LONG
LLBB&H	LONG LEGS BACK TO BACK AND HORIZONTAL
LLBB&V	LONG LEGS BACK TO BACK AND VERTICAL
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LMT	LIMIT
LOA	LOCAL-OFF-AUTO
LOR	LOCAL-OFF-REMOTE
LP	LOW POINT; 3 PH, 4W POWER PANEL
LPG	LIQUIFIED PETROLEUM GAS
LR	LOCAL-REMOTE
L/S	LITERS PER SECOND
LT	LEFT
LTG	LIGHTING
LTWT	LIGHTWEIGHT
LV	LOW VOLTAGE
LVR	LOUVER
LWC	LIGHTWEIGHT CONCRETE
LWT	LEAVING WATER TEMPERATURE
m	METER (DIMENSION)
M	METER (DEVICE)
mm	MILLIMETER (DIMENSION)
MA	MECHANICAL ANCHOR; MILLIAMPERE
MAG	MAGNETIC
MAN	MANUAL
MATL	MATERIAL
MAX	MAXIMUM
MB	MOP BASIN
MBH	1000 BTU'S PER HOUR
MCB	MINIATURE CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCCB	MOLDED CASE CIRCUIT BREAKER
MCOV	MAXIMUM CONTINUOUS OPERATING VOLTAGE
MCP	MOTOR CIRCUIT PROTECTOR
MECH	MECHANICAL
MFR	MANUFACTURER; MULTIFUNCTION RELAY
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MLO	MAIN LUG ONLY
MO	MASONRY OPENING

ABBREVIATION	TERM
MOR	MAINT-OFF-REMOTE
MOT	MOTOR
MOV	METAL OXIDE VARISTOR; MOTOR OPERATED VALVE
MPR	MOTOR PROTECTION RELAY
MS	MOP SINK
MS	METERS PER SECOND
MTG	MOUNTING
MV	MEDIUM VOLTAGE
MVA	MEGAVOLT AMPERE
MVMCC	MEDIUM VOLTAGE MOTOR CONTROL CENTER
MVMS	MEDIUM VOLTAGE MOTOR STARTER
N	NEW; NORTH
NC	NORMAL CROWN
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NESC	NATIONAL ELECTRICAL SAFETY CODE
NEUT	NEUTRAL
NF	NEAR FACE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO.	NUMBER
NPT	NATIONAL PIPE THREAD
NS	NEAR SIDE
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OC	ON CENTER; OPEN-CLOSE; OVERCURRENT
OCR	OPEN-CLOSE-REMOTE
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OIC	OPERATOR INTERFACE STATION
OMR	ON-MAINTENANCE-REMOTE
OPNG	OPENING
OPP	OPPOSITE
ORD	OVERFLOW ROOF DRAIN
OSC	OPEN-STOP-CLOSE
OSHA	OCCUPATIONAL SAFETY AND HEALTH ASSOCIATION
OVL	OVERLOAD
P	POLE
P&ID	PIPING & INSTRUMENTATION DIAGRAM
P/I	PNEUMATIC TO CURRENT
PA	PLANT AIR; PUBLIC ADDRESS
PB	PULLBOX
PC	PERSONAL COMPUTER; POINT OF CURVATURE
PCB	POWER CIRCUIT BREAKER
PCC	PORTLAND CEMENT CONCRETE
PF	POWER FACTOR
PFM	PROCESS FLOW DIAGRAM
PFM	POWER FACTOR METER
PH	PHASE
PI	POINT OF INTERSECTION OF HORIZONTAL CURVE
PL	PLATE; PROPERTY LINE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PMCS	POWER MANAGEMENT CONTROL SYSTEM
PNL	PANEL
POT	POINT OF TANGENT
PP	3 PH, 3W POWER PANEL
PRC	POINT OF REVERSE CURVE
PRCST	PRECAST
PRE	POWER ROOF EXHAUSTER
PRESS	PRESSURE
PROJ	PROJECT; PROJECTED; PROJECTION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PWR	POWER
QTY	QUANTITY
R	RADIUS; RELOCATED; RISER(S)
R/I	RESISTANCE TO CURRENT
RA	RETURN AIR
RC	REMOVE CROWN
RCCP	REINFORCED CONCRETE CULVERT PIPE
RCCP	REINFORCED CONCRETE PIPE
RCPT	RECEPTACLE
RD	ROOF DRAIN
RVT	RECTANGLE
REF	REFERENCE
REFRIG	REFRIGERATOR
REINF	REINFORCING
RELOC	RELOCATED
REQD	REQUIRED
REV	REVERSE; REVISION
RG	RETURN GRILLE
RGS	RIGID GALVANIZED STEEL
RH	REHEAT COIL
RLA	RATED LOAD AMPS
RLY	RELAY
RM	ROOM
RMS	ROOT MEAN SQUARE
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RPM	REVOLUTIONS PER MINUTE
RR	RAILROAD
RT	RIGHT
S	SOUTH
S/S	START/STOP
SA	SUPPLY AIR; SURGE ARRESTOR
SAN	SANITARY SEWER
SC	SLIP-CRITICAL
SCHED	SCHEDULE
SD	SANITARY DRAIN

ABBREVIATION	TERM
SEC	SECONDS
SECT	SECTION
SG	SUPPLY GRILLE
SH	SHOWER
SHT	SHEET
SIM	SIMILAR
SK	SINK
SLBB&H	SHORT LEGS BACK TO BACK AND HORIZONTAL
SLBB&V	SHORT LEGS BACK TO BACK AND VERTICAL
SP	SPACE
SPDT	SINGLE POLE, DOUBLE THROW
SPEC	SPECIFICATION(S)
SPST	SINGLE POLE, SINGLE THROW
SQ	SQUARE
SQ CM	SQUARE CENTIMETERS
SQ FT	SQUARE FEET
SQ IN	SQUARE INCHES
SQ M	SQUARE METERS
SQ MM	SQUARE MILLIMETERS
SS	SERVICE SINK
SST	STAINLESS STEEL; SOLID STATE TRIP
SSW	SYNC SELECTOR SWITCH
ST	SHUNT TRIP
STBY	STANDBY
STD	STANDARD; STORM DRAIN
STIFF	STIFFENER
STL	STEEL
STR	STARTER
STRL	STRUCTURAL
STS	STORM SEWER
SUS	SECONDARY UNIT SUBSTATION
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SWYD	SWITCHYARD
SYMM	SYMMETRICAL
SYNC	SYNCHRONIZE
T	TREAD(S)
T/	TOP OF
T&B	TOP AND BOTTOM
TB	TERMINAL BLOCK
TBX	TERMINAL BOX
TC	TEST CONNECTION; TRIP COIL
TD	TRENCH DRAIN
TEL	TELEPHONE
TEMP	TEMPORARY
TERM	TERMINAL
THK	THICKNESS
THRU	THROUGH
TMH	TELECOMMUNICATION MANHOLE
TOB	TOP OF BOLT
TOC	TOP OF CONCRETE; TOP OF CURB
TOG	TOP OF GIRT; TOP OF GRATING
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TOW	TOP OF WALL
TRI	TRIAD; TRIPLEX
TS	TUBULAR STEEL
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TW	TWISTED
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UFC	UNIFORM FIRE CODE
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
UR	URINAL
UTIL	UTILITY
UV	UNIT VENTILATOR
V	VENT; VOLT
VA	VOLT AMPERE
VAR	VOLT AMPERE REACTIVE
VC	VERTICAL CURVE
VCU	VOLUME CONTROL UNIT
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VH	VOLT HOUR
VPC	VERTICAL POINT OF CURVE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
VS	VOLTMETER SWITCH
VSD	VARIABLE SPEED DRIVE
VT	VOLTAGE TRANSFORMER
VTR	VENT THRU ROOF
VV	VALVE VAULT
W	WATER; WEST; WIDE; WIDE FLANGE
W	WITH
W/O	WITHOUT
WC	WATER CLOSET
WCO	WALL CLEANOUT
WD	WIDTH
WF	WIDE FLANGE
WG	WATER GAUGE
WH	WALL HYDRANT; WATER HEATER; WATTHOUR
WIV	WATER INLET VALVE
WP	WEATHER PROOF; WORKING POINT
WS	WATER SUPPLY
WT	WEIGHT
X/R	REACTIVE/RESISTANCE
XFMR	TRANSFORMER
XFR	TRANSFER
YCO	YARD CLEANOUT
ZCV	ZONE CONTROL VALVE

GENERAL NOTES

- ALL ABBREVIATIONS SHOWN ON THIS LEGEND MAY NOT APPEAR ON THIS SET OF DRAWINGS.



GENERAL PERMIT OFFICE  
GENERAL  
ABBREVIATIONS

GENERAL PERMIT PROGRAM

NO.	REVISIONS	DATE
0	100% DESIGN SUBMITTAL	04/29/20

DESIGNED	G. DAVIS	DATE	APRIL 29, 2020
DRAWN	J. ROEBERS		
CHECKED	N. GRIFFIN		
APPROVED	G. DAVIS		
SHEET NO.	GG03		

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SYSTEM CODES

CODE	DESCRIPTION
AEAR	AERATION AIR
AGAR	AGITATION AIR
AC	ACID
ACS	ASH COLLECTION SYSTEM
ACVT	ACID VENT
ACWD	ACID WASTE DRAIN
AXCW	AUXILIARY COOLING WATER
AXS	AUXILIARY STEAM
BB	BOILER BLOWDOWN
BCA	BOILER COMBUSTION AIR
BCF	BOILER - COAL FIRED
BCND	BUILDING HEATING CONDENSATE
BFW	BOILER FEEDWATER
BGAS	BUTANE GAS
BGF	BOILER GAS FIRED
BHS	BUILDING HEATING STEAM
BLD	BOILER DRAINS
BLVT	BOILER VENTS
BRN	BRINE
BWWT	BACKWASH WATER
CA	COMPRESSED AIR
CAEX	CONDENSER AIR EXTRACTION
CCCW	CLOSED CYCLE COOLING WATER
CCF	CYCLE CHEMICAL FEED
CCLN	CONDENSER CLEANING
CDMU	CYCLE MAKEUP
CDOF	CYCLE OVERFLOW
CDRN	CHEMICAL DRAIN
CEMS	CONTROL EMISSIONS MONITORING
CF	CHEMICAL FEED SYSTEM
CHS	COAL HANDLING SYSTEM
CHWB	CHILLED WATER BYPASS
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CHYO	HYDROGEN SYSTEM
CIWR	CIRCULATING WATER RETURN
CIWS	CIRCULATING WATER SUPPLY
CLG	CHLORINE GAS
CLL	CHLORINE LIQUID
CLS	CHLORINE SOLUTION
CLV	CHLORINE VACUUM
CLW	CHLORINE WATER
CND	CONDENSATE
CNS	CONTROL SYSTEM
CO2	CARBON DIOXIDE SYSTEM
COMM	COMMUNICATION
COMS	COMBINATION SEWER
CRS	COLD REHEAT STEAM
CS	CIRCULATING SLUDGE
CSA	COLLECTION SYSTEM - ASH
CVT	CHEMICAL VENT
CWCF	CIRCULATING WATER CHEMICAL FEED
CWB	CONDENSER WATER BYPASS
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
CWTR	CITY WATER
DCS	DISTRIBUTED CONTROL SYSTEM
DCW	DOMESTIC COLD WATER
DDC	DIRECT DIGITAL CONTROL SYSTEM
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RECIRCULATION
DIWR	DEIONIZED WATER RETURN
DIWS	DEIONIZED WATER SUPPLY
DRN	DRAIN
DS	DIGESTED SLUDGE
DWTR	DEMINEALIZER WATER
EBE	EQUALIZATION BASIN EFFLUENT
ECP	CATHODIC PROTECTION
EDC	DIRECT CURRENT POWER
EDRN	EQUIPMENT DRAIN SYSTEM
EEP	ELECTRICAL EMERGENCY POWER
EG	ELECTRICAL GENERATION
EHT	ELECTRICAL HEAT TRACE
EL	MISCELLANEOUS POWER LESS THAN OR EQUAL TO 240V
EM	MISCELLANEOUS POWER GREATER THAN 240V AND LESS THAN OR EQUAL TO 600V
EPM	PROTECTIVE RELAY SYSTEM
ER	2.4, 4.16 OR 7.2KV POWER
ES	12.47, 13.2 OR 13.8KV POER
ET	GREATER THAN 26KV POWER
EUPS	UNINTERRUPTIBLE POWER SUPPLY
EVT	EQUIPMENT VENT
EWTR	EFFLUENT WATER
EXTD	EXTRACTION DRAINS
EXTS	EXTRACTION STEAM
FCS	FOAM CONTROL SOLUTION
FCYD	FEEDWATER CYCLE DRAINS
FE	FINAL EFFLUENT
FFD	FAN, FORCED DRAFT
FG	FUEL GAS
FGR	FUEL GAS RECIRCULATION
FHTD	FEEDWATER HEATER VENTS AND DRAINS
FID	FAN, INDUCED DRAFT
FLT	FILTRATE
FM	FORCE MAIN
FO	FUEL OIL, FIBER OPTIC
FOF	FAN, OVER FIRE
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOT	FUEL OIL TRANSFER
FOV	FUEL OIL VENT
FP	FIRE PROTECTION

CODE	DESCRIPTION
FWTR	FEEDWATER SYSTEM
G	GAS
GBE	GENERAL BUILDING EQUIPMENT
GC	GAS CIRCULATION
GCWTV	GENERATOR COOLING AND PURGE
GR	GRIT
GTE	GRIT TANK EFFLUENT
HOR	HYDRAULIC OIL RETURN
HOS	HYDRAULIC OIL SUPPLY
HPC	HIGH PRESSURE CONDENSATE
HPNG	HIGH PRESSURE NATURAL GAS
HPS	HIGH PRESSURE STEAM
HPWR	HEAT PUMP WATER RETURN
HPWS	HEAT PUMP WATER SUPPLY
HRS	HOT REHEAT SYSTEM
HRWR	HEAT RESERVOIR RETURN
HRWS	HEAT RESERVOIR SUPPLY
HTWR	HEATING WATER RETURN
HTWS	HEATING WATER SUPPLY
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
IA	INSTRUMENT AIR
JWTR	JACKET WATER
LA	LABORATORY AIR
LEM	LIGHTING, EMERGENCY
LG	LABORATORY GAS
LOL	LUBE OIL
LOLR	LUBE OIL RETURN
LOLS	LUBE OIL SUPPLY
LPC	LOW PRESSURE CONDENSATE
LPNG	LOW PRESSURE NATURAL GAS
LPS	LOW PRESSURE STEAM
LS	LIME SOLUTION
LSG	LOW PRESSURE SLUDGE GAS
LV	LAB VACUUM
MDGS	MEDICAL GAS
ML	MIXED LIQUOR
MOIL	MAINTENANCE OIL
MPC	MEDIUM PRESSURE CONDENSATE
MPS	MEDIUM PRESSURE STEAM
MSTM	MAIN STEAM
MUWT	MAKE-UP WATER
NG	NATURAL GAS
NITG	NITROGEN
NPWT	NONPOTABLE WATER
OF	OVERFLOW
OH	OVERHEAD ELECTRIC
ORFD	OVERFLOW ROOF DRAIN
OSTD	OVERFLOW STORM DRAIN
PC	POLISHED CONDENSATE
PCND	PUMPED CONDENSATE
PCS	PLANT CONTROL SYSTEM
PE	PRIMARY EFFLUENT
PLTD	PLANT DRAIN
PMPD	PUMPED DRAINAGE
POL	LIQUID POLYMER
POS	POLYMER SOLUTION
PRWT	PROCESS WATER
PS	PRIMARY SLUDGE
PSC	PRIMARY SCUM
PWTR	POTABLE WATER
RAS	RETURN ACTIVATED SLUDGE
REFL	REFRIGERANT LIQUID
REFS	REFRIGERANT SUCTION
RFD	ROOF DRAINS
RS	RAW SEWAGE
RW	RAW WATER
RWTR	RADIATOR WATER RETURN
RWTS	RADIATOR WATER SUPPLY
SA	SERVICE AIR
SAM	SAMPLE SYSTEM
SAN	SANITARY SEWER
SBA	SOOT BLOWING AIR
SC	SCUM
SCW	SOFT COLD WATER
SD	SANITARY DRAIN
SDG	SULFUR DIOXIDE GAS
SDL	SULFURE DIOXIDE LIQUID
SDS	SULFUR DIOXIDE SOLUTION
SDV	SULFUR DIOXIDE VACUUM
SE	SECONDARY EFFLUENT
SEP	SEPTAGE
SFTW	SOFT WATER
SHW	SOFT HOT WATER
SL	SLUDGE
SN	SUPERNATANT
SRS	SCREENED RAW SEWAGE
SS	SECONDARY SLUDGE
SSC	SECONDARY SCUM
STD	STORM DRAIN
STM	STEAM, STORM SEWER
SVT	SANITARY VENT
SVWT	SERVICE WATER
SWTR	SEAL WATER
TCED	TURBINE AND EQUIPMENT CONDENSING DRAIN
TCEV	TURBINE AND EQUIPMENT CONDENSING VENTS
TCS	TURBINE CONTROL SYSTEM
TFE	TRICKLING FILTER EFFLUENT
TFR	TRICKLING FILTER RECYCLE
THS	THICKENED SLUDGE

CODE	DESCRIPTION
TLOL	TURBINE LUBE OIL
TNKD	TANK DRAIN
TRWT	TREATED WATER
TS	TRANSFER SLUDGE
TSD	TURBINE SEALS AND DRAINS
TWAS	THICKENED WASTE ACTIVATED SLUDGE
TWTR	TEMPERED WATER
UC	UNDERGROUND COMMUNICATION
UE	UNDERGROUND ELECTRIC
UPS	UNINTERRUPTIBLE POWER SUPPLY
VAC	VACUUM
VT	VENT
VTR	VENT THRU ROOF
WAS	WASTE ACTIVATED SLUDGE
WD	WASTE DISPOSAL (SANITARY)
WOIL	WASTE OIL
WT	WATER TREATMENT
WTR	WATER
WW	WASTE WATER (PROCESS)
WWTR	WELL WATER

EQUIPMENT CODES

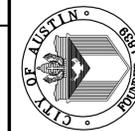
CODE	DESCRIPTION
A	AERATOR
ACB	AIR CIRCUIT BREAKER
ACCU	AIR COOLED CONDENSER UNIT
ACU	AIR CONDITIONING UNIT
AD	AIR DRYER
AF	FLAME ARRESTOR
AFIL	AIR FILTER (VENTILATION AND AIR CONDITIONING ONLY)
AHC	AIR HEATING COIL
AHU	AIR HANDLING UNIT
AND	ANODE
ANT	ANTENNA
ARV	AIR RELEASE VALVE
ASC	ADJUSTABLE SPEED CONTROLLER (ELECTRONIC)
ASD	ADJUSTABLE SPEED DRIVE (MECHANICAL)
ATS	AUTOMATIC TRANSFER SWITCH
BAT	BATTERY
BFP	BACK FLOW PREVENTER
BFU	BOILER FEEDWATER UNIT
BGH	BAGHOUSE
BRKR	BREAKER
BLR	BOILER
BLS	BALLAST
BNR	BURNER (WASTE GAS, INCINERATOR, ETC)
BOX	HVAC BOX (MIXING, REHEAT, VARIABLE VOLUME)
BWR	BLOWER
C	COIL
CAB	CABINET
CAP	CAPACITOR
CC	CALIBRATION CYLINDER
CFR	CHEMICAL FEEDER
CH	CHILLER
CHGR	CHARGER
CIP	CLEANING PORT
CLAR	CLARIFIER
CLS	CONTROL CONSOLE OR PANEL
CMP	COMPRESSOR
CND	CONDENSOR
CNSL	CONSOLE
CNV	CONVEYOR
COL	COLLECTOR
COM	COMMUNTOR
COOL	EVAPORATIVE COOLER
CPNL	CONTROL PANEL
CPT	COMPACTOR (SCREENINGS, ETC)
CPU	COMPUTER
CRN	CRANE
CRT	CATHODE RAY TUBE
CRU	CONDENSATE RETURN UNIT
CT	CURRENT TRANSFORMER
CTF	CENTRIFUGE
CTWR	COOLING TOWER
CUB	ELECTRICAL CUBICLE
CV	CHECK VALVE
CVB	CONSTANT VOLUME BOX
CWP	CIRCULATING WATER PUMP
CYL	CYLINDER (HYDRAULIC, PNEUMATIC, ETC)
DAS	DATA ACQUISITION SYSTEM
DB	DUCTBANK
DEA	DEAERATOR
DEH	DEHUMIDIFIER
DFC	DIGESTER FLOATING COVER
DGB	DIGESTER GAS BOOSTER
DIFF	DIFFUSER
DIS	DISTRIBUTOR (EDUCATOR, EJECTOR, ETC)
DLK	DEALKALIZER
DMP	DAMPER
DMST	DEMISTER
DRV	DRIVE
DRY	AIR DRYER
DS	DISCONNECT
DU	DRIVE UNIT
EB	ENGINE - BLOWER MODULE
ECO	ECONOMIZER
EDU	EDUCATOR
EF	EXHAUST FAN
EEW	EMERGENCY EYE WASH
EG	ENGINE GENERATOR
EJ	EXPANSION JOINT
ELV	ELEVATOR
EMH	ELECTRICAL MANHOLE
ENG	ENGINE
EPR	EVAPORATOR
EUH	ELECTRIC UNIT HEATER
EWS	ENGINEERING WORK STATION
EWSS	EYEWASH/SAFETY SHOWER
EXC	EXCITER
EXD	EXHAUST DUCT
EXG	EXHAUST GRILLE
EXH	EXHAUST HOOD
FACP	FIRE ALARM CONTROL PANEL
FAN	FAN OR BLOWER
FCU	FAN COIL UNIT
FCV	FLOW CONTROL VALVE
FD	FIRE OR HEAT DETECTOR
FDC	FIRE DEPARTMENT CONNECTION
FDP	FIRE DAMPER
FDR	FEEDER
FDV	FAN, FORCED DRAFT
FE	FLOW ELEMENT (METER)
FI	FLOW INDICATOR (METER)

CODE	DESCRIPTION
FIL	FILTER
FH	FIRE HYDRANT
FHS	FIRE HOSE STATION
FLC	FLOCCULATOR
FSD	FIRE SMOKE DAMPER
FP	FILTER PRESS
FPB	FAN POWERED BOX
FPJ	FLUID POWER UNIT (HYDRAULIC, ETC)
FUR	FURNACE
FV	FLOW VALVE
FWH	FEEDWATER HEATER
GAT	GATE
GEN	GENERATOR
GNDR	GROUNDING RESISTOR
GRN	GRINDER
HCL	HEATER COIL
HH	HANDHOLE (ELECTRICAL)
HK	HAND CONTROL STATION
HMI	HUMAN MACHINE INTERFACE
HOP	HYDRAULIC OPERATOR
HP	HEAT PUMP
HS	HAND SWITCH
HTR	HEATER COIL
HTT	HEAT TRACE TAPE
HUM	HUMIDIFIER
HV	HEATING & VENTILATING UNIT
HWHC	HOT WATER HEATING COIL
HX	HEAT EXCHANGER
IDF	INDUCED DRAFT FAN
IMC	INDIVIDUAL MOTOR CONTROLLER
INJ	INJECTOR (INDUCTOR)
INV	INVERTER
IOE	ION EXCHANGE UNIT (WATER SOFTENER)
J	EJECTOR
JB	JUNCTION BOX
KV	TIME (K) CONTROLLED VALVE
LAB	LABORATORY EQUIPMENT
LC	480 VOLT LOAD CENTER
LCV	LEVEL CONTROL VALVE
LV	LEVEL CONTROLLED VALVE (NON-SELF ACTING)
LVR	LOUVER
M	METER
MAU	MAKEUP AIR UNIT
MCC	MOTOR CONTROL CENTER
MDR	MOTOR OPERATED DOOR
MEE	MISCELLANEOUS ELECTRICAL EQUIPMENT
MH	MANHOLE (ELECTRICAL)
MIE	MISCELLANEOUS INSTRUMENTATION EQUIPMENT
MIX	MIXER
MJ	MECHANICAL JOINT
MME	MISCELLANEOUS MECHANICAL EQUIPMENT
MNV	HAND (MANUALLY OPERATED) VALVE
MO	MOTOR
MOD	MOTOR OPERATED DAMPER
MOP	MOTOR OPERATOR
MOV	MOTOR OPERATED VALVE
MS	MOTOR STARTER
MSP	MOISTURE SEPARATOR
MTR	MOTOR (ELECTRIC, PNEUMATIC, HYDRAULIC, ETC)
MTS	MANUAL TRANSFER SWITCH
MUX	MULTIPLEXER
MZU	MULTIZONE UNIT
ORT	ODOR REDUCTION TOWER
OWS	OPERATOR WORK STATION
PB	PULLBOX
PBD	PANELBOARD
PCV	PRESSURE CONTROL VALVE
PDCV	PRESSURE DIFFERENTIAL CONTROL VALVE
PEC	PHOTOELECTRIC CELL
PEJ	PNEUMATIC EJECTOR
PLC	PROGRAMMABLE LOGIC CONTROLLER
PMP	PUMP
PNL	PANEL
POP	PNEUMATIC OPERATOR
PRE	POWER ROOF EXHAUSTER
PRT	PRINTER
PRV	PRESSURE REGULATING VALVE (SELF-ACTING)
PS	PULL STATION
PSV	PRESSURE SAFETY VALVE (VACUUM OR PRESSURE RELIEF)
PV	PRESSURE CONTROLLED VALVE (NON SELF-ACTING)
PVL	PRESSURE VESSEL (AIR RECEIVER, HYDRO-PNEUMATIC TANK, ETC)
RAK	RACK OR STORAGE STAND
RCPT	RECEPTACLE
RCVR	RECEIVERS (AIR, BLOWDOWN, ETC)
RE	REFERENCE ELECTRODE
RECT	RECTIFIER
REG	REGISTER
RES	RESISTOR
RF	RETURN FAN
RFV	GRAVITY ROOF VENTILATOR
RG	RETURN GRILLE
RHC	REHEAT COIL
RLY	RELAY
RTU	ROOF TOP UNIT
RUP	RUPTURE DISC
RV	RELIEF VALVE

CODE	DESCRIPTION
SA	SURGE ARRESTOR
SCA	SCALE
SCN	SCREEN
SCP	SCREW PRESS
SCR	SCRUBBER
SD	SMOKE DAMPER OR DETECTOR
SDF	SUPPLY DIFFUSER
SF	SUPPLY FAN
SHE	SLUDGE HEAT EXCHANGER
SIL	SILENCER (INLET OR EXHAUST)
SIL0	SIL0 (ASH, COAL, ETC.)
SKID	SKID
SMP	SUMP
SMPG	SAMPLE CONTAINER
SMPL	SAMPLER
SOV	SOLENOID VALVE
SP	SEPARATOR
SSP	VOLUME CHAMBER SURGE SUPPRESSOR
STP	SOUND TRAP
STR	STRAINER
SV	SAFETY VALVE
SUS	SECONDARY UNIT SUBSTATION
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYN	SYNCHROSCOPE
TB	TERMINAL BLOCK
TBX	TERMINAL BOX
TCV	TEMPERATURE CONTROL VALVE (SELF-ACTING)
TEL	TELEPHONE
TGR	TURNING GEAR
THK	THICKENER
TNK	TANK
TRG	TRANSFER GRILLE
TRIP	TRIPPER
TRP	TRAP
TRS	TRANSFER SWITCH
TRAY	CABLE TRAY
TS	TEST STATION
TURB	TURBINE
TV	TEMPERATURE CONTROL VALVE (NON SELF-ACTING)
UH	UNIT HEATER
UPS	UNINTERRUPTIBLE POWER SUPPLY
US	UTILITY STATION
UTIL	UTILITY
UV	MULTI-VARIABLE (U) CONTROLLED VALVE (NON SELF-ACTING)
UVM	ULTRAVIOLET MODULE
VAV	VARIABLE AIR VOLUME BOX
VCU	VOLUME CONTROL UNIT
VFD	VARIABLE FREQUENCY DRIVE
VIB	VIBRATOR
VNT	VENTILATOR
VP	VACUUM PUMP
VSD	VARIABLE SPEED DRIVE
VT	VOLTAGE TRANSFORMER
WASH	WASHER
WCLR	WATER COOLER
WCC	WATER COOLING COIL
WH	WATER HEATER
WR	WELDING RECEPTACLE
WS	WATER SOFTENER
WW	WIREFRAY
XFMR	TRANSFORMER
YV	EVENT (Y) CONTROLLED VALVE (NON SELF-ACTING)

GENERAL NOTES

1. ALL ABBREVIATIONS SHOWN ON THIS LEGEND MAY NOT APPEAR ON THIS SET OF DRAWINGS.



GENERAL PERMIT OFFICE  
GENERAL SYSTEM/EQUIPMENT ABBREVIATIONS

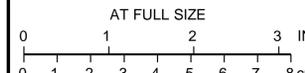
NO.	REVISIONS	DATE
0	100% DESIGN SUBMITTAL	04/29/20

DESIGNED	G. DAVIS	DATE	APRIL 29, 2020
DRAWN	J. ROGERS		
CHECKED	N. GRIFFIN		
APPROVED	G. DAVIS		
APPROVED	G. DAVIS		

AUSTIN ENERGY  
SAN ANTONIO STREET CHILLED WATER  
DISTRIBUTION EXTENSION

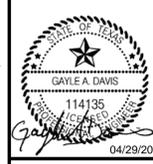
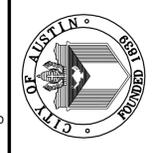


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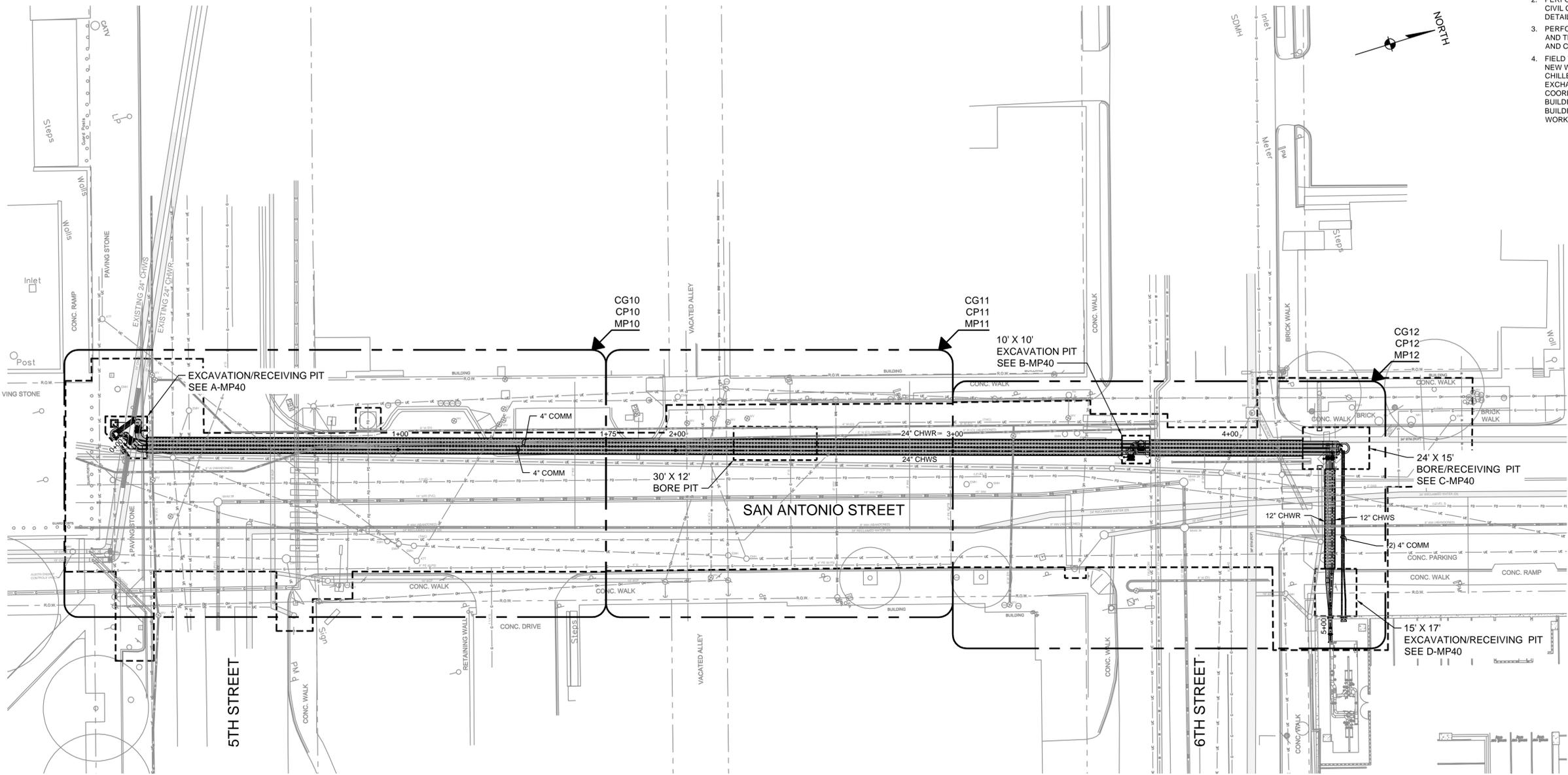


GENERAL PERMIT PROGRAM

SCALE: NONE  
SHEET NO. GG04



- NOTES:**
- SEE GG01 AND MG00 FOR GENERAL PROJECTS NOTES THAT APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN KEY NOTES.
  - PERFORM ALL ROAD REPAIR WORK AS SHOWN ON THE CIVIL CP DRAWINGS AND CITY OF AUSTIN STANDARD DETAILS.
  - PERFORM ALL EROSION CONTROL, ENVIRONMENTAL AND TREE PROTECTION AS SHOWN ON CG DRAWINGS AND CITY OF AUSTIN STANDARD DETAILS.
  - FIELD VERIFY ALL ELEVATIONS BEFORE BEGINNING ANY NEW WORK INCLUDING BUT NOT LIMITED TO: EXISTING CHILLED WATER PIPE ELEVATIONS, AND BUILDING HEAT EXCHANGER CONNECTION FINAL ELEVATIONS. COORDINATE HEAT EXCHANGER ELEVATIONS AND BUILDING WALL PENETRATION LOCATIONS WITH BUILDING CONTRACTOR PRIOR TO BEGINNING NEW WORK.



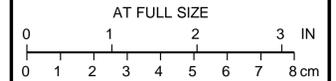
GENERAL PERMIT OFFICE  
GENERAL  
OVERALL SITE PLAN

# GENERAL PERMIT PROGRAM



AUSTIN ENERGY  
SAN ANTONIO STREET CHILLED WATER  
DISTRIBUTION EXTENSION

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REVISIONS		NO.	REMARKS	DESIGN	CHKD	APVD	DATE
0	100% DESIGN SUBMITTAL	GD	NG	GD	GD	04/29/20	

DESIGNED	G. DAVIS	26560.05.00
DRAWN	J. ROGERS	
CHECKED	N. GRIFFIN	
APPROVED	G. DAVIS	
DATE	APRIL 29, 2020	

SCALE:	1" = 20'-0"
SHEET NO.	GA10
REV.	0

FILE INFO: C:\projects\delaware-1\comm\1075617626560.05\_GA10.dwg MODIFIED: Apr 23, 2020 9:16pm BY: g741 PLOT SCALE: 1=1

Drawing: Y:\A\10 Projects\18-Proj\Stanley\18m Chilled Water Extension\3.0 Dwg\Construction Plans\01-691CHW-0N.dwg Last Plotted: Fri, Apr 03, 2020 12:44pm By: CLG

1. FOR RIGHT OF WAY VIOLATIONS INCLUDING BUT NOT LIMITED TO WORKING WITHOUT A PERMIT OR AN EXPIRED PERMIT WITHIN THE CITY OF AUSTIN ROW AN INVESTIGATION FEE WILL BE ASSESSED FOR EACH OFFENSE UNTIL THE VIOLATION IS CORRECTED. FOLLOWING IS THE INVESTIGATION FEE SCHEDULE FOR VIOLATIONS OF PUBLIC SAFETY:
  - a. NO OR EXPIRED PERMIT = EQUAL TO THE COST OF THE PERMIT
  - b. VIOLATION OF PERMIT CONDITIONS, RESTRICTION LIMITS, TIMES AND LOCATIONS ON ROW PERMIT = \$250
  - c. IMPROPER ADVANCE WARNING SIGN = \$250
  - d. IMPROPER USE OF DEVICE = \$250
  - e. FAILURE TO CORRECT DEFICIENCY = \$500
  - f. RESTRICTING TRAFFIC DURING PEAK HOURS = EQUAL TO THE COST OF THE PERMIT
  - g. MULTIPLE VIOLATIONS = UP TO A 4 DAY SUSPENSION OF WORK
2. CONTRACTORS AND THEIR SUBCONTRACTORS MUST BE LICENSED BY THE CITY OF AUSTIN FOR CONDUCTING WORK WITHIN THE RIGHT OF WAY.
3. CONTRACTOR MUST OBTAIN RIGHT OF WAY EXCAVATION PERMITS FROM RIGHT OF WAY MANAGEMENT DIVISION, FOR EACH STREET PRIOR TO COMMENCEMENT OF WORK. PLEASE CALL (512) 974-1150 FOR ADDITIONAL INFORMATION REGARDING PERMITTING PROCESS AND THE MOST CURRENT RIGHT OF WAY PERMITTING FEE SCHEDULE.
4. FOR WORK AT SIGNALIZED INTERSECTIONS CONTRACTOR MUST DIAL 311 OR (512) 974-2000 TO INITIATE A CITIZENS SERVICE REQUEST (CSR) FOR THE TRAFFIC SIGNALS GROUP; TO COORDINATE AND GAIN APPROVAL A MINIMUM OF 1 WEEK PRIOR TO CHANGE OF PROJECT LOCATION OR PHASE.
5. CONTRACTOR SHALL HAVE AN APPROVED RIGHT OF WAY PERMIT ON SITE AT ALL TIMES WHEN WORKING IN THE ROW.
6. CONTRACTOR MUST DIAL 311 OR (512) 974-2000 TO INITIATE A CITIZENS SERVICE REQUEST (CSR) FOR RIGHT OF WAY MANAGEMENT A MINIMUM OF 1 WEEK PRIOR TO START OF WORK.
7. CONTRACTOR MUST PROVIDE TRAINING CERTIFICATION OF COMPETENT PERSON THAT WILL BE RESPONSIBLE FOR THE TRAFFIC CONTROL PLACEMENT, TO RIGHT OF WAY INSPECTOR, PRIOR TO START OF WORK.
8. STORAGE OF EQUIPMENT AND/OR MATERIAL WITHIN THE ROW.
  - a. STORAGE OF EQUIPMENT IN THE ROW IS PERMISSIBLE ONLY WITHIN THE CURRENT LIMITS OF LONG-TERM OR INTERMEDIATE-TERM CLOSURES AND SHALL BE LIMITED TO THE EQUIPMENT REQUIRED FOR THE CURRENT WORK ACTIVITY. THIS EQUIPMENT SHALL BE PROTECTED BEHIND BARRICADES.
  - b. STORAGE OF MATERIAL IN THE ROW IS PERMISSIBLE ONLY WITHIN THE CURRENT LIMITS OF LONG-TERM OR INTERMEDIATE-TERM CLOSURES AND SHALL BE LIMITED TO NO MORE THAN THE MATERIAL REQUIRED FOR THREE DAYS OF PRODUCTION. THIS MATERIAL SHALL BE PROTECTED BEHIND WATER-FILLED BARRIER.
  - c. EQUIPMENT OR MATERIAL STORED IN THE ROW SHALL NOT CREATE A VISUAL BARRIER TO TRAFFIC.
9. NO MORE THAN ONE WORK ZONE LOCATION MAY BE SET AT ONE TIME.
10. PEAK HOURS FOR ARTERIAL AND COLLECTOR STREETS ARE 6AM TO 9AM AND 4PM TO 6 PM, MONDAY THROUGH FRIDAY. NO DISRUPTION OR REDUCTION OF ACTIVE ROADWAY OR PEDESTRIAN ROUTE CAPACITY SHALL OCCUR DURING THESE TIMES, UNLESS ALLOWED BY TRAFFIC CONTROL PLAN.
11. EXCAVATIONS SHALL BE BACKFILLED OR PLATED WHEN REQUIRED TO OPEN IMPACTED TRAFFIC LANES. FOR EXCAVATIONS EXCEEDING A TRANSVERSE WIDTH OF 6 FEET, THE CONTRACTOR SHALL PROVIDE AN ENGINEERED PLATING PLAN TO THE OWNER'S REPRESENTATIVE FOR REVIEW BY RIGHT OF WAY MANAGEMENT DIVISION. PER 804S-4, 5 OF 9
12. EXISTING SIDEWALKS AND BEATEN PATHS SHALL BE MAINTAINED AS ADA COMPLIANT THROUGHOUT THE PROJECT DURATION WITH THE EXCEPTION OF FINAL FLATWORK AND UTILITY TIE-INS. ANY WORK OVERHEAD WITHIN 25 FEET OF EXISTING PEDESTRIAN PATHWAYS WILL REQUIRE PEDESTRIAN COVERED WALKWAYS. SIDEWALK CLOSURES FOR MAJOR SIDEWALK IMPROVEMENTS HAVE A 14-DAY MAXIMUM PERIOD AND SHALL BE COMPLETED IN PHASES AS TO NOT CLOSE MORE THAN ONE BLOCK AT A TIME.
13. "ROAD WORK AHEAD" AND "CONSTRUCTION ENTRANCE AHEAD" SIGNS MUST BE PLACED AT ALL APPROACHES TO STABILIZED CONSTRUCTION ENTRANCE. SEE THE CITY OF AUSTIN STANDARD DETAILS FOR SIGN SPACING.
14. DRIVEWAYS SHALL NOT BE CLOSED FOR MORE THAN 3 CONSECUTIVE CALENDAR DAYS.
15. ADA COMPLIANCE SHALL BE MAINTAINED THROUGH STABILIZED CONSTRUCTION ENTRANCE.
16. BARRIER SHALL BE PLACED WITHIN GUIDELINES SET FORTH BY THE TMTCD CRASH TESTING REQUIREMENTS (NCHRP REPORT 350) FOR THAT PARTICULAR BARRIER USED. ANY MODIFICATIONS TO THAT TESTING APPLICATION SHALL BE APPROVED BY THE ENGINEER OF RECORD.
17. FOR OVERNIGHT PROTECTION OF WORK ZONES WITHIN THE ROW, REFER TO CITY OF AUSTIN STANDARD 804S-4 SERIES DETAILS.
18. ALL TEMPORARY PAVING SHALL CONFORM TO CITY OF AUSTIN STANDARD DETAIL 1100S-4.
19. INITIAL AND PHASE CHANGE TRAFFIC CONTROL CHANGES SHALL BE INSTALLED ON THE WEEKENDS.
20. THE NAME AND TELEPHONE NUMBER OF THE CONTRACTOR OR SUPPLIER SHALL BE SHOWN ON THE NON-REFLECTIVE SURFACE OF ALL CHANNELIZING DEVICES IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD 800 SERIES DETAILS.



**Stanley Consultants INC.**  
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Round Rock, Texas 78664  
(512) 992-0118 Fax (512) 246-1856  
Texas Registered Engineering Firm F-10523



NO.	DATE:	BY:	REVISION

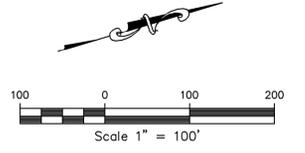
**AUSTIN ENERGY**

San Antonio Street  
Chilled Water Distribution Extension  
Austin, Texas 78701

**GENERAL NOTES**

Project No.:	
Date:	04/02/19
Scale:	AS SHOWN
Drawn By:	B.FRYE
Design By:	G.ULCAK
Approved By:	
Dwg Name:	

Sheet: **TC-01**  
1 of 11



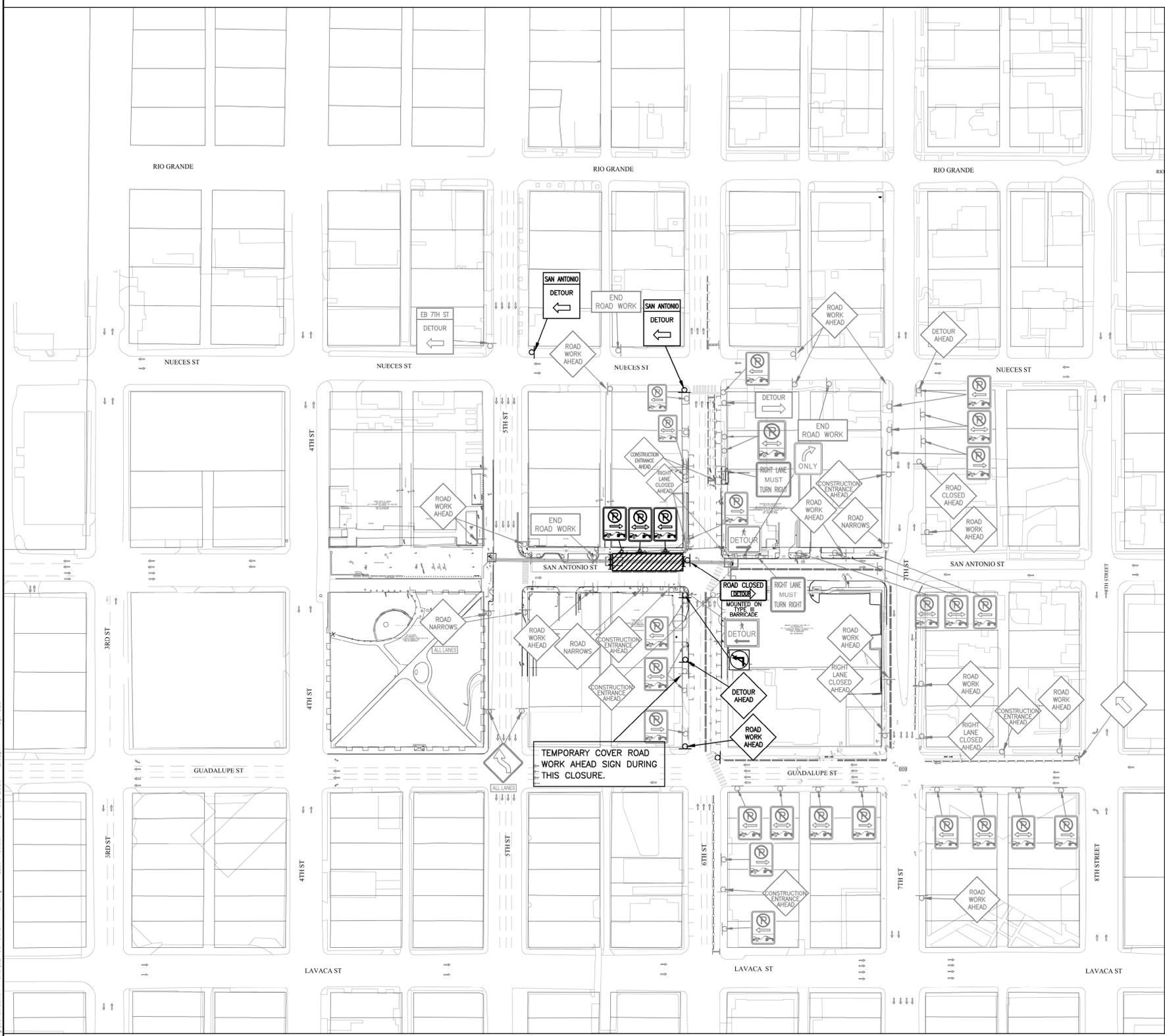
**LEGEND**

	WATER FILLED BARRICADES
	CHANNELING DEVICE
	TRAFFIC CONTROL SIGN
	STOP SIGN
	INTERSECTION SIGNALIZATION
	TYPE I BARRICADE
	TYPE III BARRICADE
	POTHOLE LOCATION
	WORK AREA (WA)

SEE TEMPORARY TRAFFIC CONTROL DETAIL SHEETS FOR CITY OF AUSTIN TRAFFIC CONTROL DETAILS

	PROPOSED TRAFFIC CONTROL SIGN
	EXISTING TRAFFIC CONTROL SIGN

- NOTE:**
- CONTRACTOR SHALL PROVIDE ASSISTANCE FOR PEDESTRIANS AROUND WORK AREA.
  - CONTRACTOR SHALL WORK WITH LOCAL BUSINESSES AND RESIDENTS TO PROVIDE FLAGGING ACCESS TO DRIVEWAYS.
  - WORK SHALL BE DONE AS DAILY LANE CLOSURES FROM 9AM TO 4PM.
  - NO PARKING SIGNS SHALL BE PLACED 48 HOURS PRIOR TO WORK.
  - NO PARKING SIGNS SHOULD BE PLACED AT 45° ANGLES 50 TO 75 FEET APART 48 HOURS PRIOR TO CLOSURE.



**BARRICADING SUMMARY TABLES**

**Intersections**

Street Intersection	Planned Improvements	Traffic Control Detail / Plan Sheet	Allowed Barricading Hours	Comments
San Antonio St. and 6th Street	San Antonio Street Chilled Water Distribution Extension	Sheet 7 of 11 / Sheet 2 of 11	24-Hours	Chilled Water Construction

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*Civil Land Group, LLC*  
206 W. Main Street Suite 101  
Round Rock, Texas 78664  
(512) 992-0118 Fax (512) 246-1856  
Texas Registered Engineering Firm F-10523



NO.	DATE	BY	REVISION

**AUSTIN ENERGY**

San Antonio Street  
Chilled Water Distribution Extension  
Austin, Texas 78701

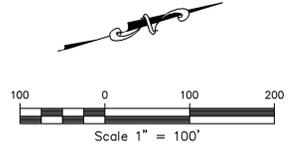
**TEMPORARY TRAFFIC CONTROL PLAN**  
**SAN ANTONIO STREET**  
**BORE PIT**  
**(PHASE 1)**

Project No.:	04/02/19
Date:	AS SHOWN
Scale:	B.FRYE
Drawn By:	G.LULCAK
Design By:	
Approved By:	
Dwg Name:	

Sheet: **TC-02**

2 of 11 **SP-2019-**





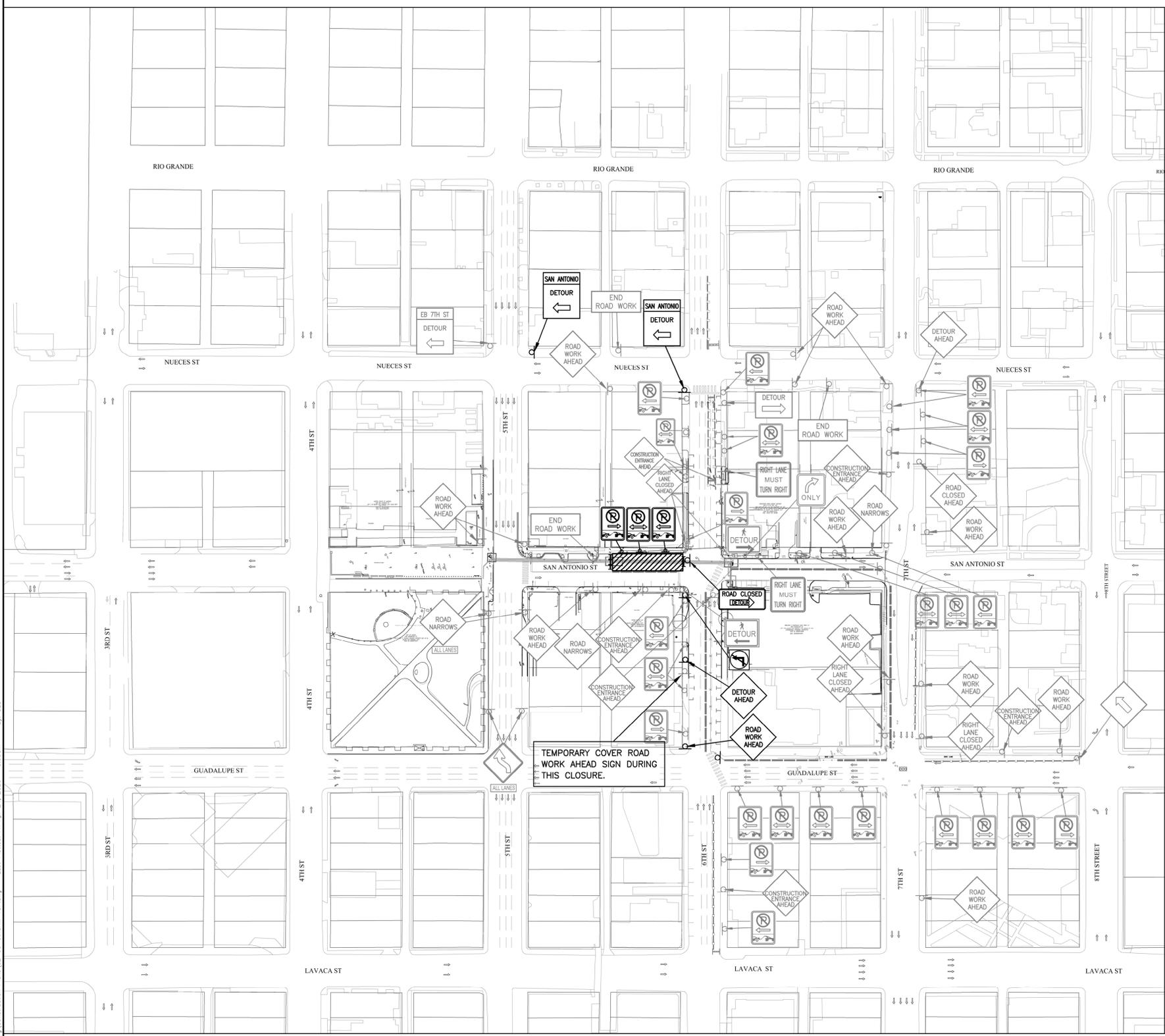
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	WATER FILLED BARRICADES
	CHANNELING DEVICE
	TRAFFIC CONTROL SIGN
	STOP SIGN
	INTERSECTION SIGNALIZATION
	TYPE I BARRICADE
	TYPE III BARRICADE
	P-1 POTHOLE LOCATION
	WORK AREA (WA)

SEE TEMPORARY TRAFFIC CONTROL DETAIL SHEETS FOR CITY OF AUSTIN TRAFFIC CONTROL DETAILS

	PROPOSED TRAFFIC CONTROL SIGN
	EXISTING TRAFFIC CONTROL SIGN

- NOTE:**
- CONTRACTOR SHALL PROVIDE ASSISTANCE FOR PEDESTRIANS AROUND WORK AREA.
  - CONTRACTOR SHALL WORK WITH LOCAL BUSINESSES AND RESIDENTS TO PROVIDE FLAGGING ACCESS TO DRIVEWAYS.
  - WORK SHALL BE DONE AS DAILY LANE CLOSURES FROM 9AM TO 4PM.
  - NO PARKING SIGNS SHALL BE PLACED 48 HOURS PRIOR TO WORK.
  - NO PARKING SIGNS SHOULD BE PLACED AT 45° ANGLES 50 TO 75 FEET APART 48 HOURS PRIOR TO CLOSURE.



**BARRICADING SUMMARY TABLES**

**Intersections**

Street Intersection	Planned Improvements	Traffic Control Detail / Plan Sheet	Allowed Barricading Hours	Comments
San Antonio St. and 6th Street	San Antonio Street Chilled Water Distribution Extension	Sheet 7 of 11 / Sheet 5 of 11	24-Hours	Chilled Water Construction

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(512) 992-0118 Fax (512) 246-1856  
Texas Registered Engineering Firm F-10523

APRIL 24, 2020  
STATE OF TEXAS  
GREGORY ULCAK  
91201  
Professional Engineer

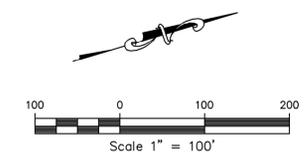
NO.	DATE	BY	REVISION

**AUSTIN ENERGY**  
San Antonio Street  
Chilled Water Distribution Extension  
Austin, Texas 78701

TEMPORARY TRAFFIC CONTROL PLAN  
SAN ANTONIO STREET  
BORE PIT  
(PHASE 2)

Project No.:	04/02/19
Date:	AS SHOWN
Scale:	B.FRYE
Drawn By:	GULCAK
Design By:	
Approved By:	
Dwg Name:	

Sheet:  
**TC-04**  
4 of 11  
SP-2019-



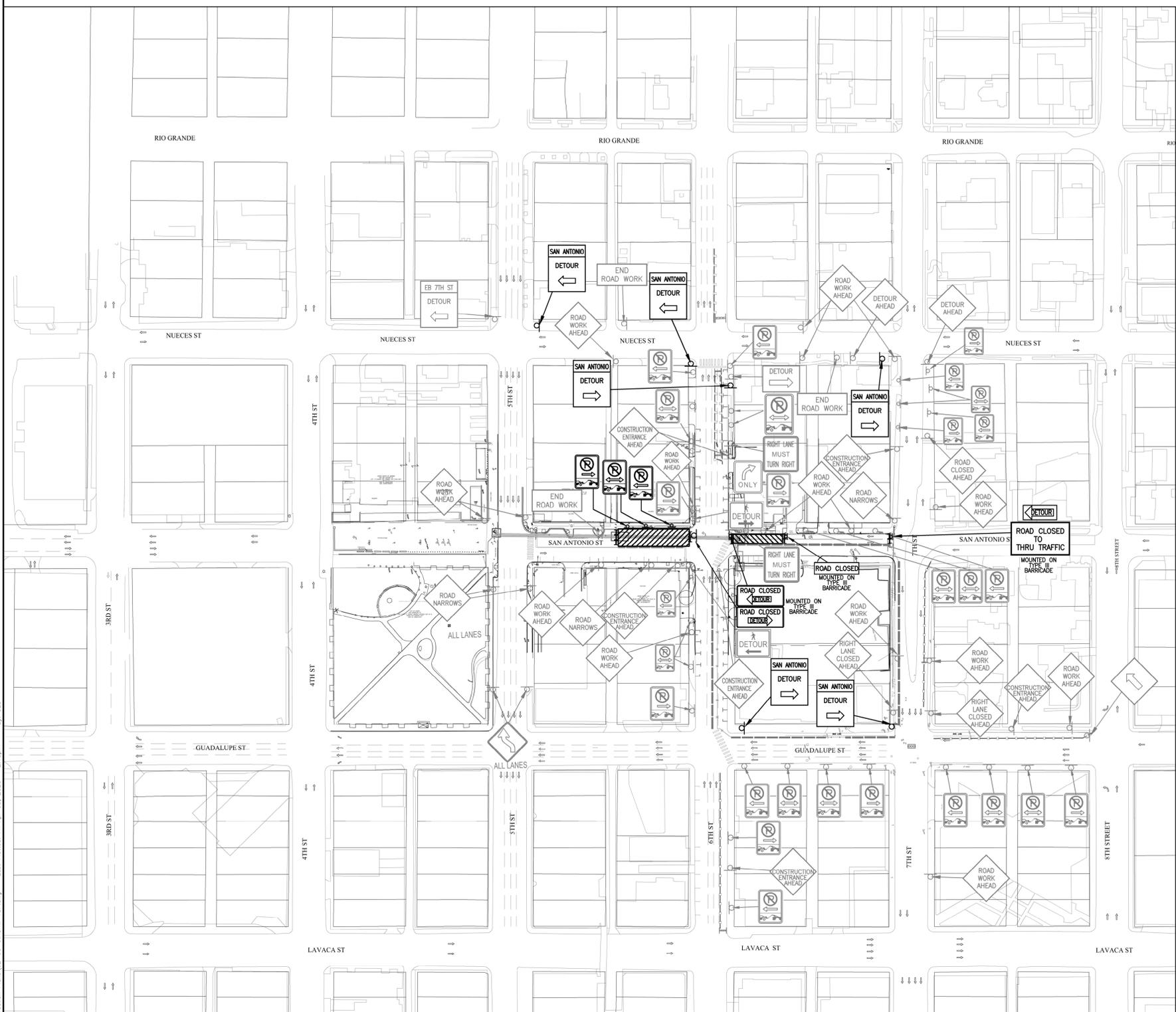
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	WATER FILLED BARRICADES
	CHANNELING DEVICE
	TRAFFIC CONTROL SIGN
	STOP SIGN
	INTERSECTION SIGNALIZATION
	TYPE I BARRICADE
	TYPE III BARRICADE
	P-1 POTHOLE LOCATION
	WORK AREA (WA)

SEE TEMPORARY TRAFFIC CONTROL DETAIL SHEETS FOR CITY OF AUSTIN TRAFFIC CONTROL DETAILS

	PROPOSED TRAFFIC CONTROL SIGN
	EXISTING TRAFFIC CONTROL SIGN

- NOTE:**
- CONTRACTOR SHALL PROVIDE ASSISTANCE FOR PEDESTRIANS AROUND WORK AREA.
  - CONTRACTOR SHALL WORK WITH LOCAL BUSINESSES AND RESIDENTS TO PROVIDE FLAGGING ACCESS TO DRIVEWAYS.
  - WORK SHALL BE DONE AS DAILY LANE CLOSURES FROM 9AM TO 4PM.
  - NO PARKING SIGNS SHALL BE PLACED 48 HOURS PRIOR TO WORK.
  - NO PARKING SIGNS SHOULD BE PLACED AT 45° ANGLES 50 TO 75 FEET APART 48 HOURS PRIOR TO CLOSURE.



**BARRICADING SUMMARY TABLES**

**Intersections**

Street Intersection	Planned Improvements	Traffic Control Detail / Plan Sheet	Allowed Barricading Hours	Comments
San Antonio St. and 6th Street	San Antonio Street Chilled Water Distribution Extension	Sheet 7 of 11 / Sheet 5 of 11	24-Hours	Chilled Water Construction

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 By: CLG

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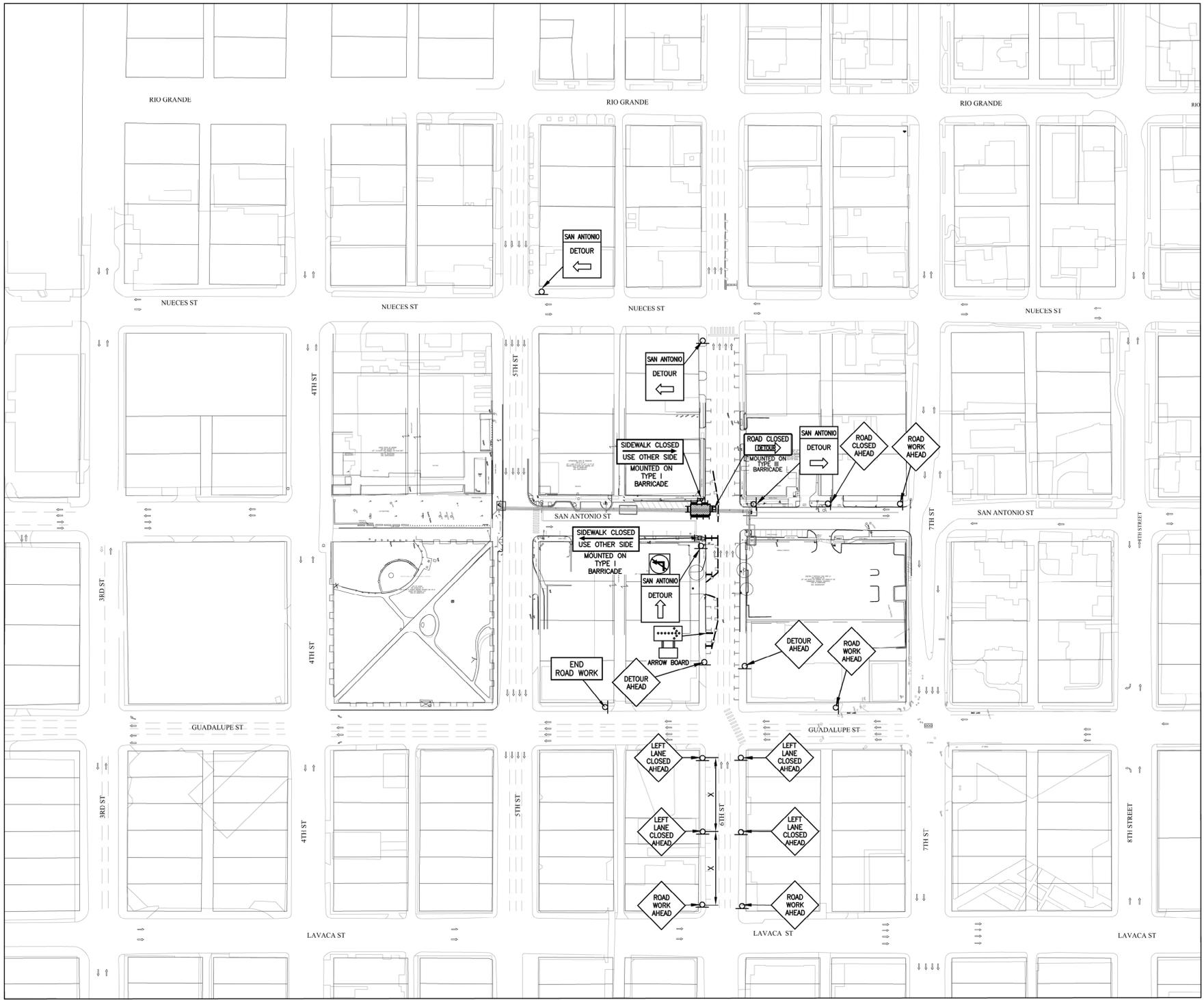
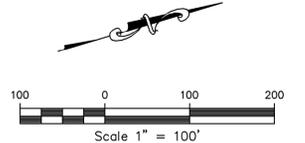
APRIL 3, 2020

NO.	DATE	BY	REVISION

**AUSTIN ENERGY**  
 San Antonio Street  
 Chilled Water Distribution Extension  
 Austin, Texas 78701

**TEMPORARY TRAFFIC CONTROL PLAN**  
**SAN ANTONIO STREET**  
**5th STREET BORE PIT**  
**(PHASE 2A)**

Project No.:	04/02/19
Date:	AS SHOWN
Scale:	B.FRYE
Drawn By:	GULCAK
Design By:	
Approved By:	
Dwg Name:	



**LEGEND**

	CHANNELING DEVICE
	TRAFFIC CONTROL SIGN
	STOP SIGN
	INTERSECTION SIGNALIZATION
	TYPE I BARRICADE
	TYPE III BARRICADE
	POT HOLE LOCATION
	WORK AREA (WA)

SEE TEMPORARY TRAFFIC CONTROL DETAIL SHEETS FOR CITY OF AUSTIN TRAFFIC CONTROL DETAILS

- NOTE:**
- CONTRACTOR SHALL PROVIDE ASSISTANCE FOR PEDESTRIANS AROUND WORK AREA.
  - CONTRACTOR SHALL WORK WITH LOCAL BUSINESSES AND RESIDENTS TO PROVIDE FLAGGING ACCESS TO DRIVEWAYS.
  - WORK SHALL BE DONE AS DAILY LANE CLOSURES FROM 9AM TO 4PM.
  - NO PARKING SIGNS SHALL BE PLACED 48 HOURS PRIOR TO WORK.

**BARRICADING SUMMARY TABLES**

Intersections				
Street Intersection	Planned Improvements	Traffic Control Detail / Plan Sheet	Allowed Barricading Hours	Comments
San Antonio St. and 6th Street	San Antonio Street Chilled Water Distribution Extension	Sheet 7 of 11 / Sheet 6 of 11	24-Hours	Chilled Water Construction

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NO.	DATE	BY	REVISION

**AUSTIN ENERGY**

San Antonio Street  
Chilled Water Distribution Extension  
Austin, Texas 78701

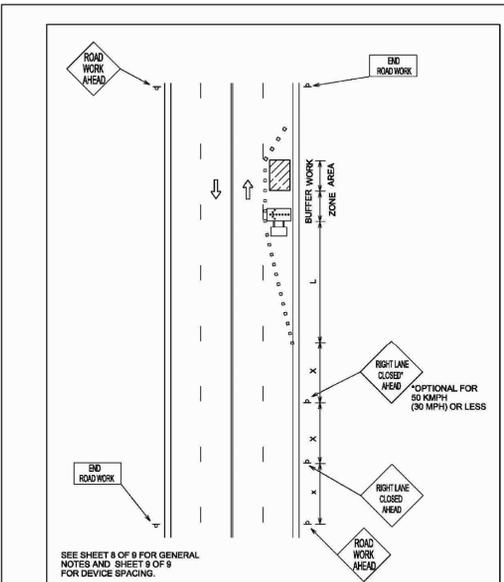
TEMPORARY TRAFFIC CONTROL PLAN  
SAN ANTONIO STREET  
SAN ANTONIO & 6TH STREET

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Design By:			
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Dwg Name:			

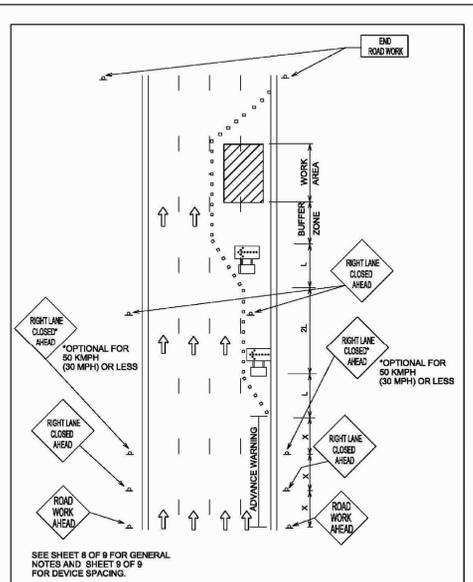
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SP-2019-

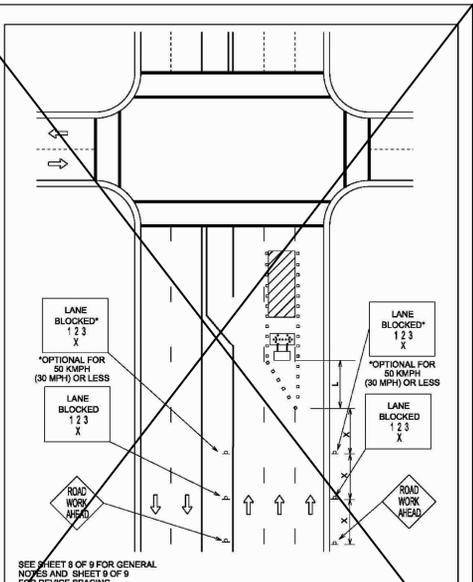
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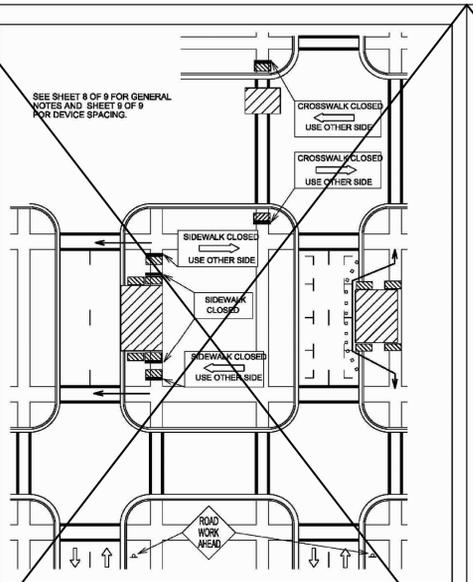
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**804S-1**  
1 OF 9



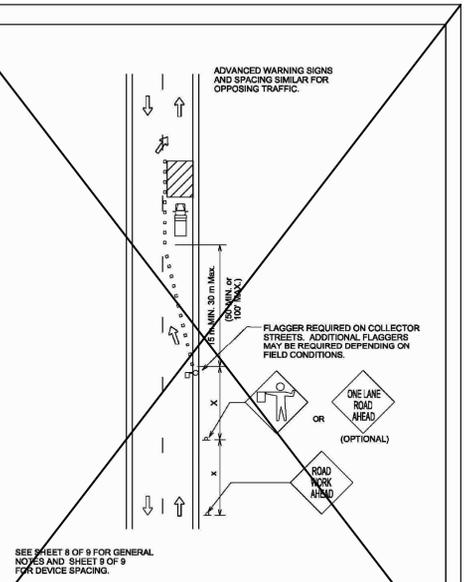
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**804S-1**  
2 OF 9



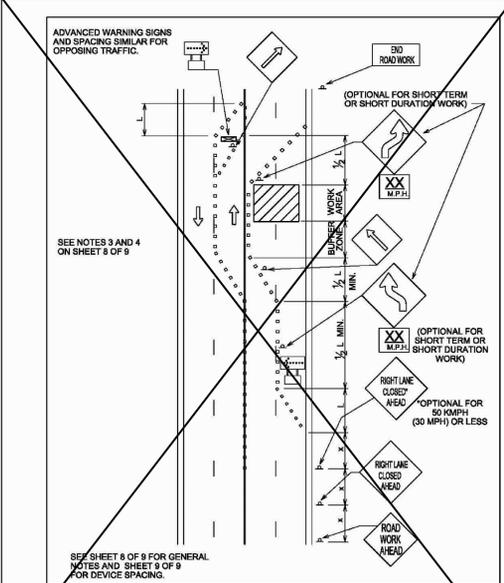
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**804S-1**  
3 OF 9



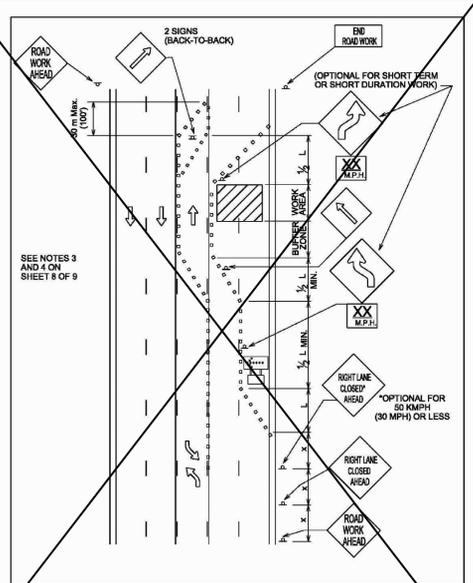
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5 OF 9



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**804S-1**  
7 OF 9

- CITY OF AUSTIN**  
DEPARTMENT OF PUBLIC WORKS  
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THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.  
**804S-1**  
8 OF 9
1. ALL SETUPS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION 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, 8 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 LANES(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) STANDBY 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**  
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**804S-1**  
9 OF 9

Typical Transition Lengths and Suggested Maximum Spacing of Devices

Speed KMPH	Posted Speed MPH	Formula	Minimum Desirable Taper Lengths (L) Meters (Feet)			Suggested Max. Device Spacing Meters (Feet)	Suggested Sign Spacing Meters (Feet)	
			3.0(10) Offset Meters (feet)	3.3(11) Offset Meters (feet)	3.6(12) Offset Meters (feet)			
50	30	L=WS <sup>2</sup> /60	45 (150)	50 (165)	55 (180)	9 (30)	40 (120)	
			65 (205)	70 (225)	75 (245)	10 (35)	25-25 (70-80)	59 (180)
65	40	L=WS <sup>2</sup> /60	80 (265)	90 (295)	100 (320)	12 (40)	75 (240)	
			135 (405)	150 (465)	165 (495)	15 (50)	25-30 (90-110)	100 (320)
80	50	L=WS <sup>2</sup> /60	150 (500)	165 (550)	180 (600)	15 (50)	30-35 (100-125)	120 (400)
			165 (550)	180 (600)	200 (660)	16 (55)	35-40 (110-140)	150 (500)
95	60	L=WS <sup>2</sup> /60	180 (600)	200 (660)	220 (720)	18 (60)	40-45 (120-150)	180 (600)
			195 (650)	215 (715)	235 (780)	19 (65)	45-50 (130-165)	210 (700)
105	65	L=WS <sup>2</sup> /60	215 (700)	235 (770)	255 (840)	21 (70)	45-55 (140-175)	240 (800)
			215 (700)	235 (770)	255 (840)	21 (70)	45-55 (140-175)	240 (800)

LEGEND

**Stanley Consultants INC.**  
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NO.	DATE:	BY:	REVISION:

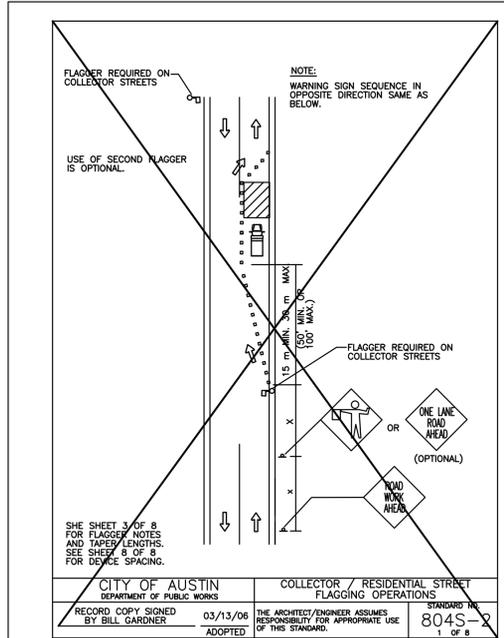
**AUSTIN ENERGY**  
San Antonio Street  
Chilled Water Distribution Extension  
Austin, Texas 78701

**TRAFFIC CONTROL DETAILS (1)**

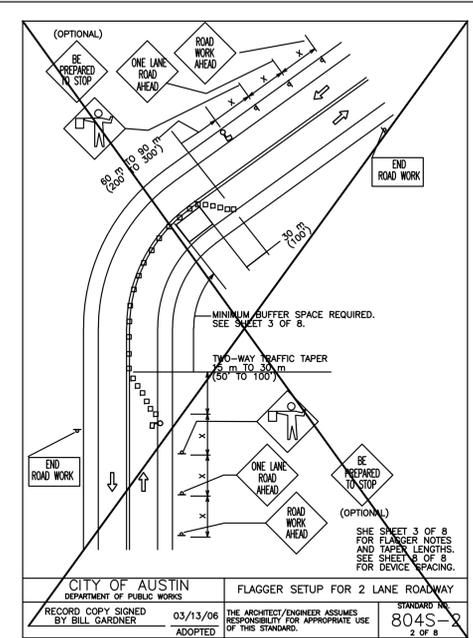
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Design By: GULCAK  
Approved By:  
Dwg Name:

Sheet: **TC-07**  
7 of 10  
SP-2019

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 STANDARD NO. 804S-2  
 1 OF 8



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 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 RETROREFLECTIVE. THE RETROREFLECTIVE 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.

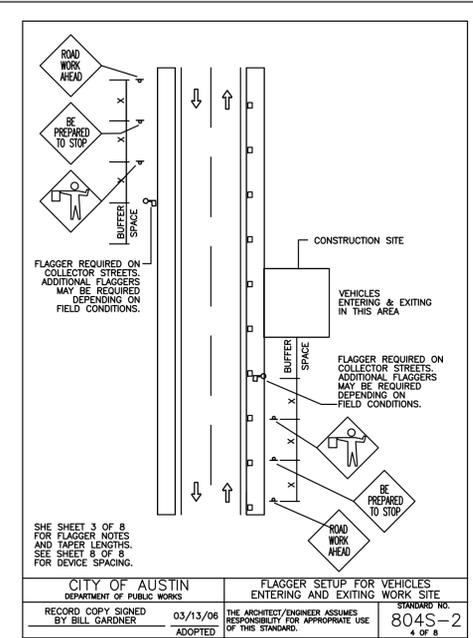
8. FLOODLIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.

TAPER LENGTHS

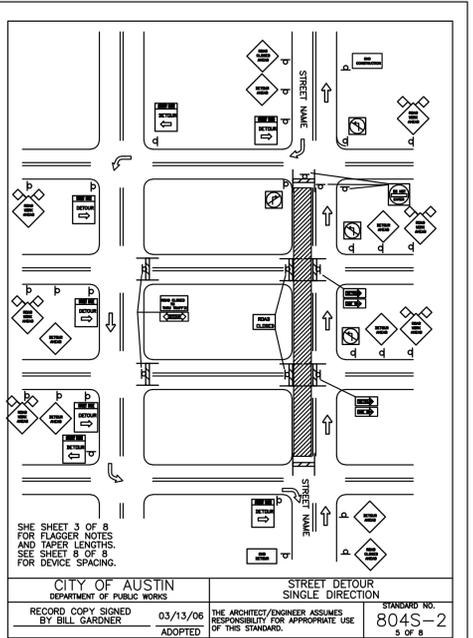
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40	25	17	55
50	30	25	85
55	35	36	120
65	40	51	170
70	45	66	220
80	50	84	280
90	55	101	335
95	60	125	415
105	65	146	485

\*POSTED SPEED

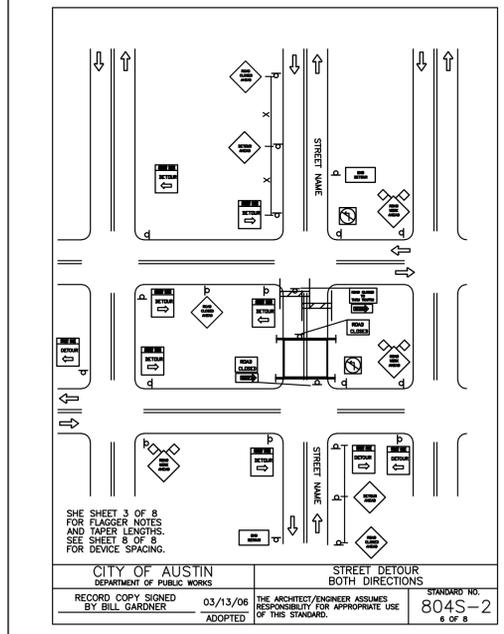
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 STANDARD NO. 804S-2  
 3 OF 8



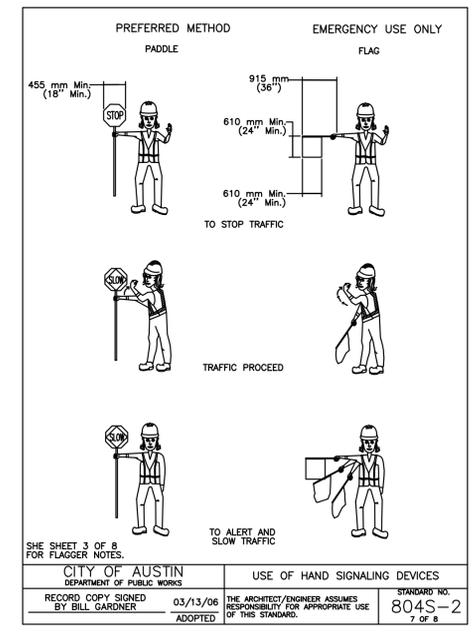
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 STANDARD NO. 804S-2  
 4 OF 8



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 STANDARD NO. 804S-2  
 5 OF 8



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 STANDARD NO. 804S-2  
 6 OF 8



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 STANDARD NO. 804S-2  
 7 OF 8

Typical Transition Lengths and Suggested Maximum Spacing of Devices

Speed (kmph)	Posted Speed (MPH)	Formula	Minimum Desirable Taper Lengths (L) Meters (Feet)			On a taper Meters (feet)	On a tangent Meters (feet)	Suggested Max. Device Spacing Meters (Feet)	Suggested Sign Spacing Meters (Feet)
			3.0(10) Offset Meters (feet)	3.3(11) Offset Meters (feet)	3.6(12) Offset Meters (feet)				
50	30	L=WS/60	45 (150)	50 (165)	65 (215)	9 (30)	15-20 (50-75)	40 (120)	
55	35	L=WS/60	65 (215)	70 (225)	85 (280)	10 (35)	25-30 (75-90)	50 (150)	
65	40	L=WS/60	80 (265)	90 (295)	100 (325)	12 (40)	30-35 (90-100)	75 (240)	
70	45	L=WS/60	135 (450)	150 (495)	165 (540)	13 (45)	30-35 (90-110)	100 (320)	
80	50	L=WS/60	150 (500)	165 (550)	180 (600)	15 (50)	30-35 (100-125)	120 (400)	
90	55	L=WS/60	185 (605)	185 (605)	200 (660)	16 (55)	35-40 (110-140)	150 (500)	
95	60	L=WS/60	180 (600)	200 (660)	220 (720)	18 (60)	40-45 (120-150)	180 (600)	
105	65	L=WS/60	195 (650)	215 (715)	235 (780)	19 (65)	40-50 (130-165)	210 (700)	
115	70	L=WS/60	215 (705)	235 (770)	255 (840)	21 (70)	45-55 (140-175)	240 (800)	

LEGEND

- Channelizing devices
- ▤ Trailer mounted flashing arrow board
- ⊠ Flagger

TRAFFIC DETOUR NOTES:

- "STREET CLOSED" AND "STREET CLOSED TO THRU TRAFFIC" MAY BE USED IN PLACE OF "ROAD CLOSED" AND "ROAD CLOSED TO THRU TRAFFIC".
- THE USE OF A STREET SIGN 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.
- ADDITIONAL "DO NOT ENTER SIGNS" MAY BE DESIRABLE AT INTERSECTIONS WITH INTERVENING STREETS.
- 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.
- 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  
 RECORD COPY SIGNED BY BILL GARDNER 03/13/06 ADOPTED  
 THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.  
 STANDARD NO. 804S-2  
 8 OF 8



**Civil Land Group, LLC**  
 206 W. Main Street Suite 101  
 Round Rock, Texas 78664  
 (512) 992-0118 Fax (512) 246-1856  
 Texas Registered Engineering Firm F-10523



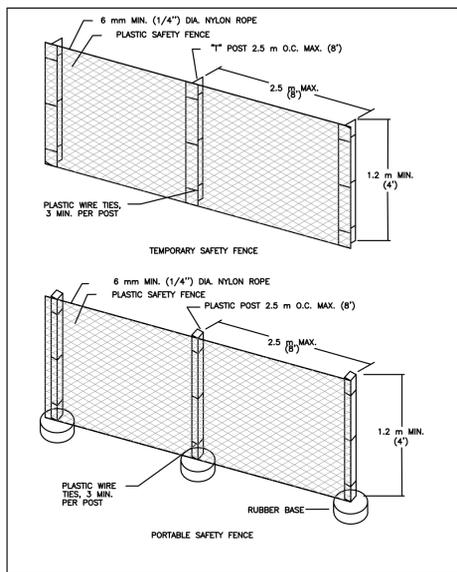
NO.	DATE	BY	REVISION

**AUSTIN ENERGY**  
 San Antonio Street  
 Chilled Water Distribution Extension  
 Austin, Texas 78701

**TRAFFIC CONTROL DETAILS (2)**

Project No.:	04/02/19	Sheet:	TC-08
Date:	AS SHOWN		
Scale:	B.FRYE		
Drawn By:	GULCAK		
Design By:			
Approved By:			
Dwg Name:			

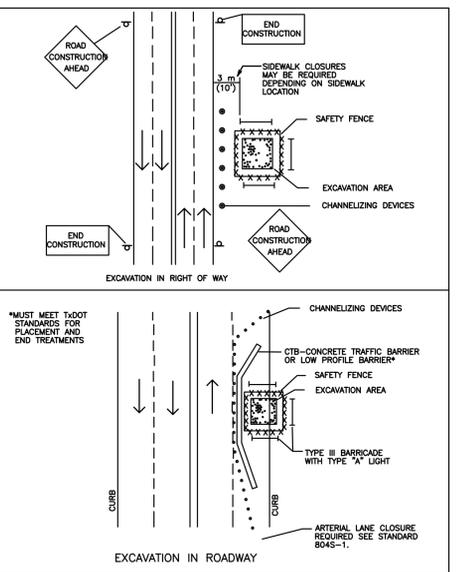
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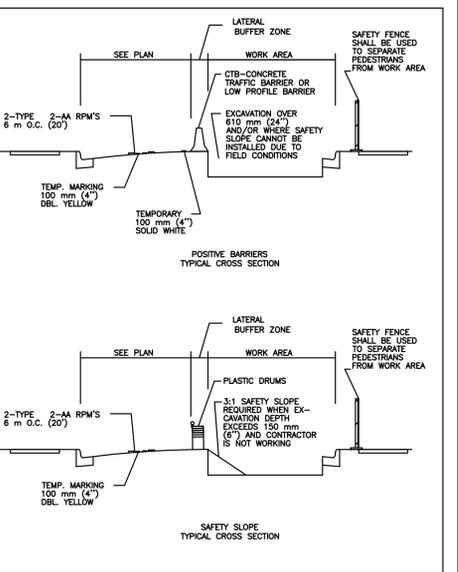
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SAFETY FENCE	STANDARD NO. 804S-4
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. 1 OF 9

- SAFETY FENCE SHALL BE USED TO PROTECT ALL EXCAVATIONS IN THE RIGHT-OF-WAY.
- SAFETY FENCES SHALL BE USED TO SEPARATE CONSTRUCTION ACTIVITIES FROM PEDESTRIAN.
- ALL SAFETY FENCING SHALL BE PLASTIC, 1,200 mm (48") MINIMUM HEIGHT AND ORANGE IN COLOR.
- 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.
- SAFETY FENCE USED TO SEPARATE SIDEWALKS FROM CONSTRUCTION ACTIVITIES SHALL HAVE MINIMUM ENCRoACHMENT TO THE SIDEWALK.
- AS A MINIMUM, SAFETY FENCING IS REQUIRED IN AREAS ADJACENT TO EXCAVATIONS GREATER THAN OR EQUAL TO 150 mm (6").
- SAFETY FENCING SHALL BE PAID FOR UNDER ITEM 8035, "BARRICADES, SIGNS AND TRAFFIC HANDLING", PAY ITEM NO. 8035-SF.
- PORTABLE SAFETY FENCE MOUNTS SHALL BE APPROVED BY THE TRANSPORTATION DIVISION PRIOR TO CONSTRUCTION.

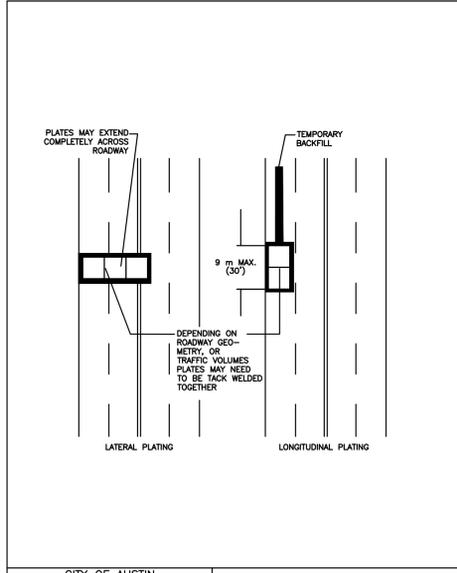
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SAFETY FENCE	STANDARD NO. 804S-4
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. 2 OF 9



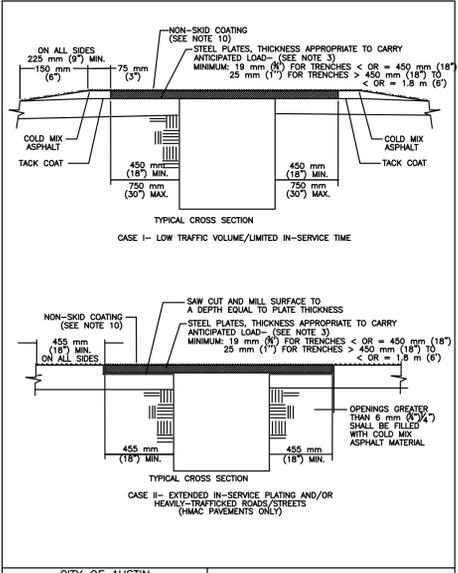
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	LARGE EXCAVATION	STANDARD NO. 804S-4
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. 3 OF 9



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	WORK AREA PROTECTION	STANDARD NO. 804S-4
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. 4 OF 9



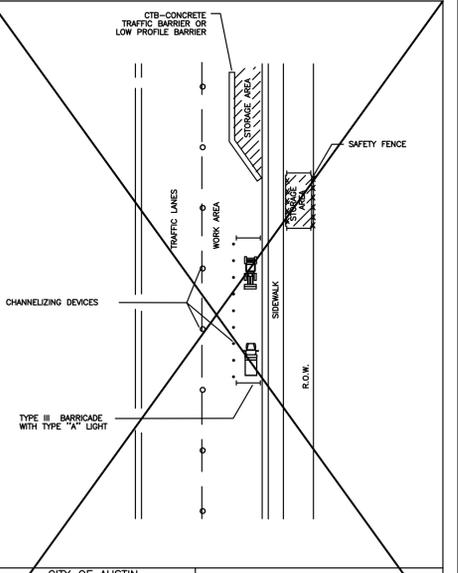
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	STEEL PLATING	STANDARD NO. 804S-4
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. 5 OF 9



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	STEEL PLATING	STANDARD NO. 804S-4
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. 6 OF 9

- NOTES:
- WHERE TRAFFIC MUST CROSS TRENCHES, THE CONTRACTOR SHALL PROVIDE SUITABLE BRIDGES.
  - THE USE OF STEEL PLATES SHALL BE APPROVED BY THE RIGHT OF WAY MANAGEMENT DIVISION OF WATERSHED PROTECTION AND DEVELOPMENT DEPARTMENT PRIOR TO INITIATION OF CONSTRUCTION.
  - 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 (2") WHEN EXPERIENCING SAID LOADING. FOR SITUATIONS WHERE MULTIPLE LAYERS OF PLATES (OR STACKED PLATES) ARE TO BE EMPLOYED, THE SEAMS (I.E. THE INTER-FACE BETWEEN PLACED SIDE-BY-SIDE) OF THE UPPER LAYER SHALL BE PLACED PERPENDICULAR TO THE SEAMS OF THE UNDERLYING PLATES.
  - 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.
  - THE TOPSIDE OF THE STEEL PLATE SHALL BE FLAT AND FREE OF ANY CLIPS, CHAINS, ATTACHMENTS, WELDMENTS OR SURFACE IRREGULARITIES.
  - 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 (1/2") SHALL NOT BE USED FOR PLATING PURPOSES. PLATES THAT DEVELOP A PERMANENT DISPLACEMENT EXCEEDING 12 mm (1/2") DURING SERVICE SHALL BE REMOVED AND REPLACED.
  - THE PLATES SHALL BE PROVIDED WITH APPROPRIATE NUMBER OF KEYHOLE SLOTS OR CIRCULAR HOLES FOR HANDLING, LIFTING, INSTALLATION AND REMOVAL PURPOSES.
  - THE CONTRACTOR SHOULD AVOID USING A LONG SERIES OF PLATES THAT RUN PARALLEL TO VEHICULAR TRAFFIC WHEELS PATHS.
  - ADDITIONAL METHODS OF SECURING PLATES MAY BE REQUIRED DEPENDING ON FIELD CONDITIONS.
  - 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.) STRAUGH-ORR DOLK COATING SYSTEM, SUPPLY, 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	STANDARD NO. 804S-4
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. 7 OF 9



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	MATERIAL AND EQUIPMENT STORAGE	STANDARD NO. 804S-4
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. 8 OF 9

- NOTES:
- 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.
  - EQUIPMENT MUST BE PARKED AS FAR AWAY FROM THE TRAVELWAYS AS PRACTICAL.
  - TOTAL AREA USED FOR EQUIPMENT STORAGE SHALL BE KEPT TO A MINIMUM.
  - ALL MATERIALS STORED IN THE RIGHT-OF-WAY MUST BE MAINTAINED IN A NEAT AND ORGANIZED MANNER.
  - MATERIALS STORED MAY NOT BE MORE THAN 915 mm (36") IN HEIGHT.
  - ALL MATERIALS STORED MUST BE USED WITHIN THREE (3) DAYS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	MATERIAL AND EQUIPMENT STORAGE	STANDARD NO. 804S-4
RECORD COPY SIGNED BY SAM ANGOORI	04/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. 9 OF 9



**Civil Land Group, LLC**  
206 W. Main Street Suite 101  
Round Rock, Texas 78664  
(512) 992-0118 Fax (512) 246-1856  
Texas Registered Engineering Firm F-10523



NO.	DATE	BY	REVISION

**AUSTIN ENERGY**  
San Antonio Street  
Chilled Water Distribution Extension  
Austin, Texas 78701

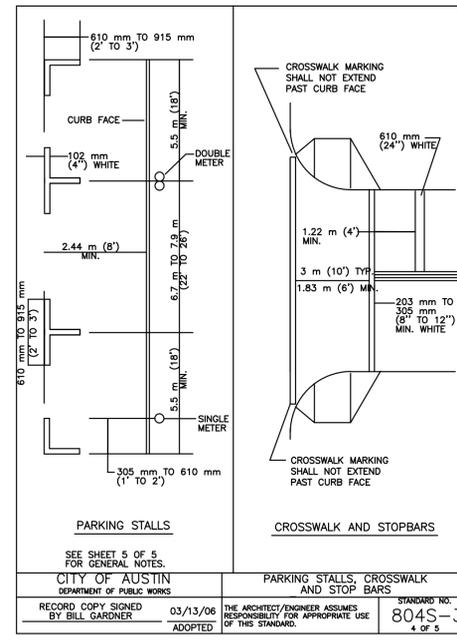
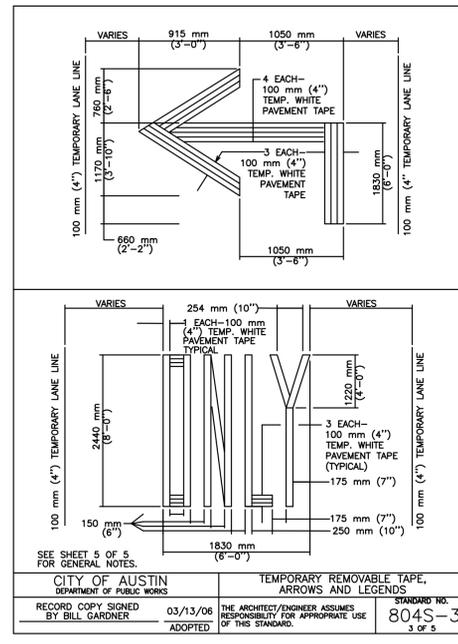
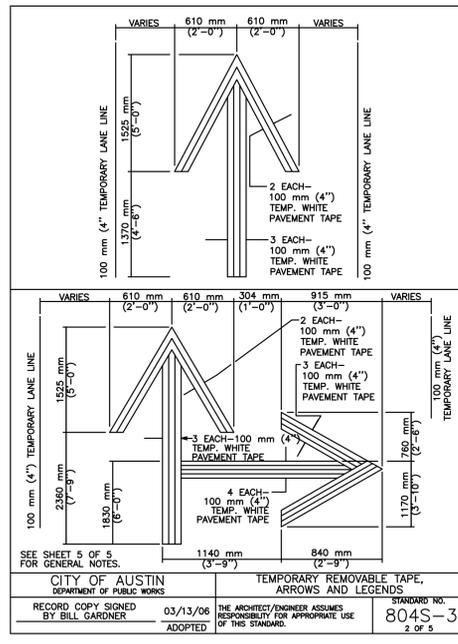
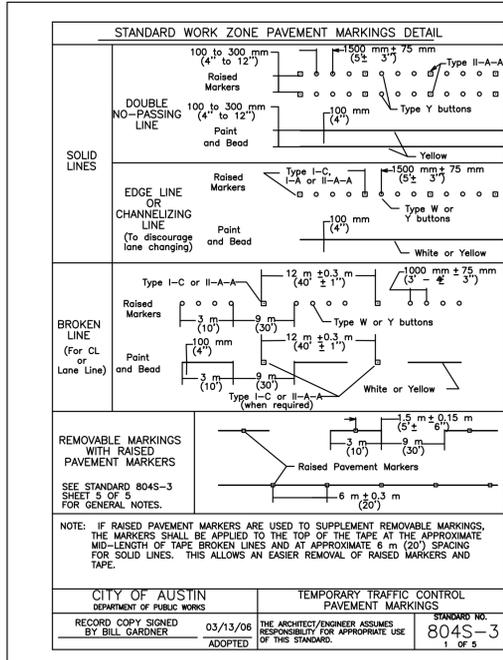
TRAFFIC CONTROL DETAILS (3)

Project No:	04/02/19
Date:	AS SHOWN
Scale:	B.FRYE
Drawn By:	GULCAK
Design By:	
Approved By:	
Dwg Name:	

TC-09

SP-2019-

Drawing: V:\CLD\Projects\18-Proj\Stanley\Utm\_Classes\Water\_Extension\3.0\_Dwg\Construction\Plans\10-691CHW-TCDetail\_02.dwg Last Plotted: Fri, Apr 05, 2020 - 11:32am By: Beninda



- |  |                     |   |
|--|---------------------|---|
| CITY OF AUSTIN<br>DEPARTMENT OF PUBLIC WORKS | GENERAL NOTES       | STANDARD NO.<br><b>804S-3</b><br>5 of 5   |
| RECORD COPY SIGNED<br>BY BILL GARDNER        | 03/13/06<br>ADOPTED | THE ARCHITECT/ENGINEER ASSUMES<br>RESPONSIBILITY FOR APPROPRIATE USE<br>OF THIS STANDARD. |
- 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.
  - 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 ROUTING OF TRAFFIC FOR HIS WORK.
  - 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.
  - 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.
  - ALL TEMPORARY REMOVABLE PAVEMENT MARKINGS SHALL BE SUPPLEMENTED WITH RAISED PAVEMENT MARKERS.
  - 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.
  - 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.
  - REMOVAL OR OBLITERATION OF PAVEMENT MARKINGS INCLUDES CENTERLINES, CHANNELIZING LINES, LANE LINES, EDGE LINES, WORDS, ARROWS, SYMBOLS AND RAISED PAVEMENT MARKINGS.
  - 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.
  - TEMPORARY FLEXIBLE-REFLECTIVE TABS MAY BE USED FOR TEMPORARY PAVEMENT MARKINGS ON NEW PAVEMENT, PROVIDED THEY ARE PLACED ON 1.5 m (5') CENTERS.
  - THE CONTRACTOR SHALL PLACE TEMPORARY FLEXIBLE-REFLECTIVE TABS IMMEDIATELY AFTER THE FINAL HMA 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.



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(512) 992-0118 Fax (512) 246-1856  
Texas Registered Engineering Firm F-10523



NO.	DATE	BY	REVISION

**AUSTIN ENERGY**  
San Antonio Street  
Chilled Water Distribution Extension  
Austin, Texas 78701

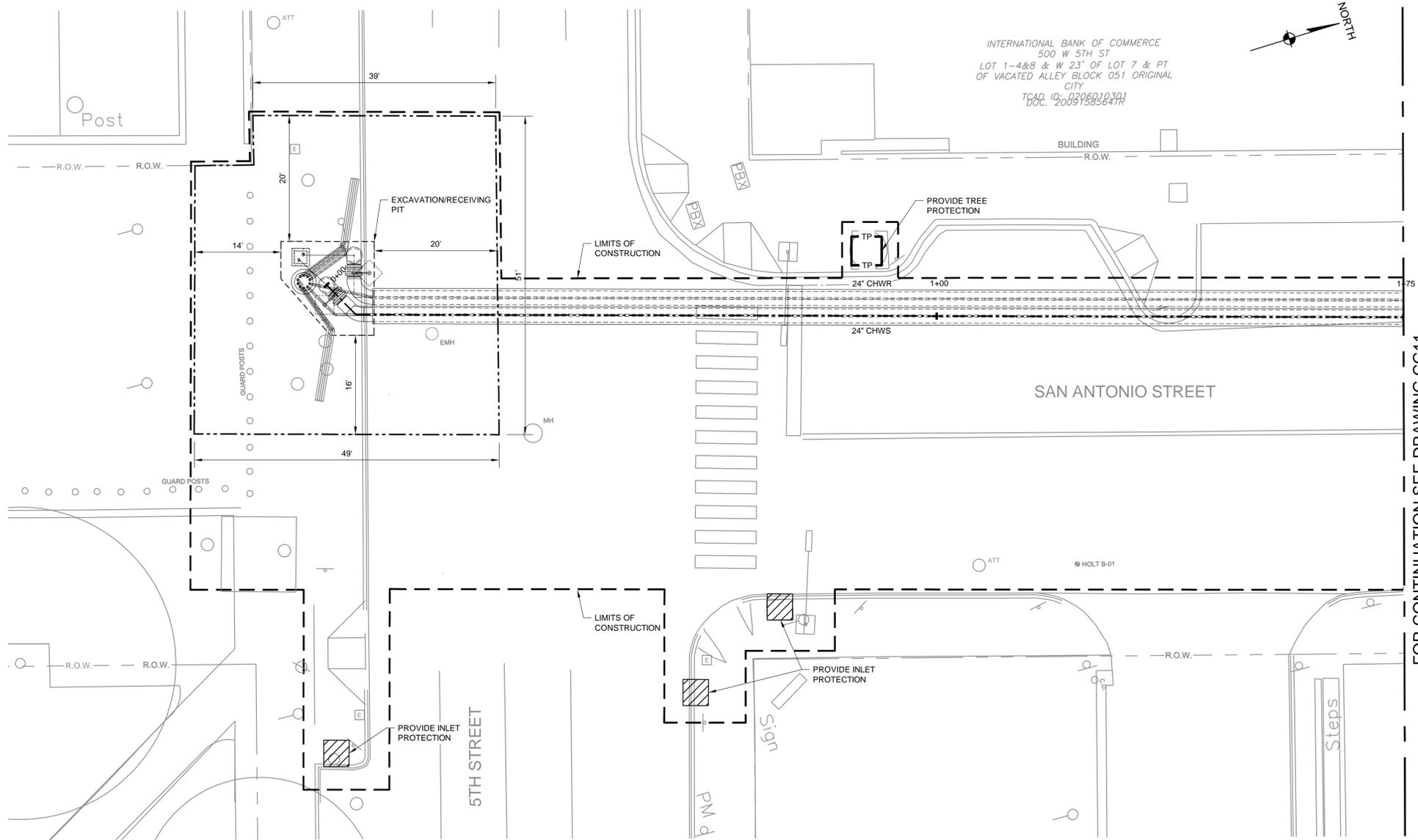
TRAFFIC CONTROL DETAILS (4)

Project No.:	
Date:	04/02/19
Scale:	AS SHOWN
Drawn By:	B.FRYE
Design By:	G.ULCAK
Approved By:	
Dwg Name:	

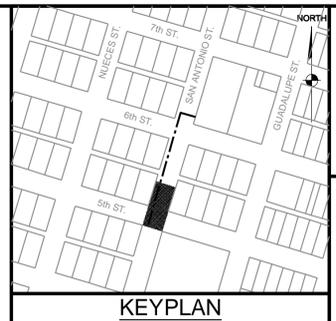
TC-10



FILE INFO: C:\projects\delaware-1\comm\1075617626560.05\_CG10.dwg, MODIFIED: Apr 29, 2020 9:11pm, PLOTTED: Apr 29, 2020 9:19pm BY: 8741, PLOT SCALE: 1=1



INTERNATIONAL BANK OF COMMERCE  
500 W 5TH ST  
LOT 1-4&8 & W 23' OF LOT 7 & PT  
OF VACATED ALLEY BLOCK 051 ORIGINAL  
CITY  
TCAD. ID: 0206010301  
DOC. 2009158584TR



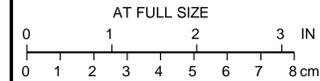
- NOTES:**
- SEE GG01 AND MG00 FOR GENERAL PROJECT NOTES THAT APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN KEY NOTES.
  - SEE SHEET CG51 FOR EROSION CONTROL NOTES AND DETAILS.
  - SEE SHEET CG52 FOR ENVIRONMENTAL NOTES AND TREE PROTECTION DETAILS.

FOR CONTINUATION SEE DRAWING CG11



AUSTIN ENERGY  
SAN ANTONIO STREET CHILLED WATER  
DISTRIBUTION EXTENSION

6836 Austin Center Blvd, Suite 350, Austin, Texas 78731  
www.stanleyconsultants.com  
Texas Firm Registration No.: F-174



GENERAL PERMIT OFFICE  
CIVIL  
EROSION & SEDIMENTATION CONTROL  
STA 0+00 THRU 1+75

REVISIONS		NO.	DATE
REMARKS	DESIGN	APPROVED	DATE
100% DESIGN SUBMITTAL	TT	ED	04/29/20

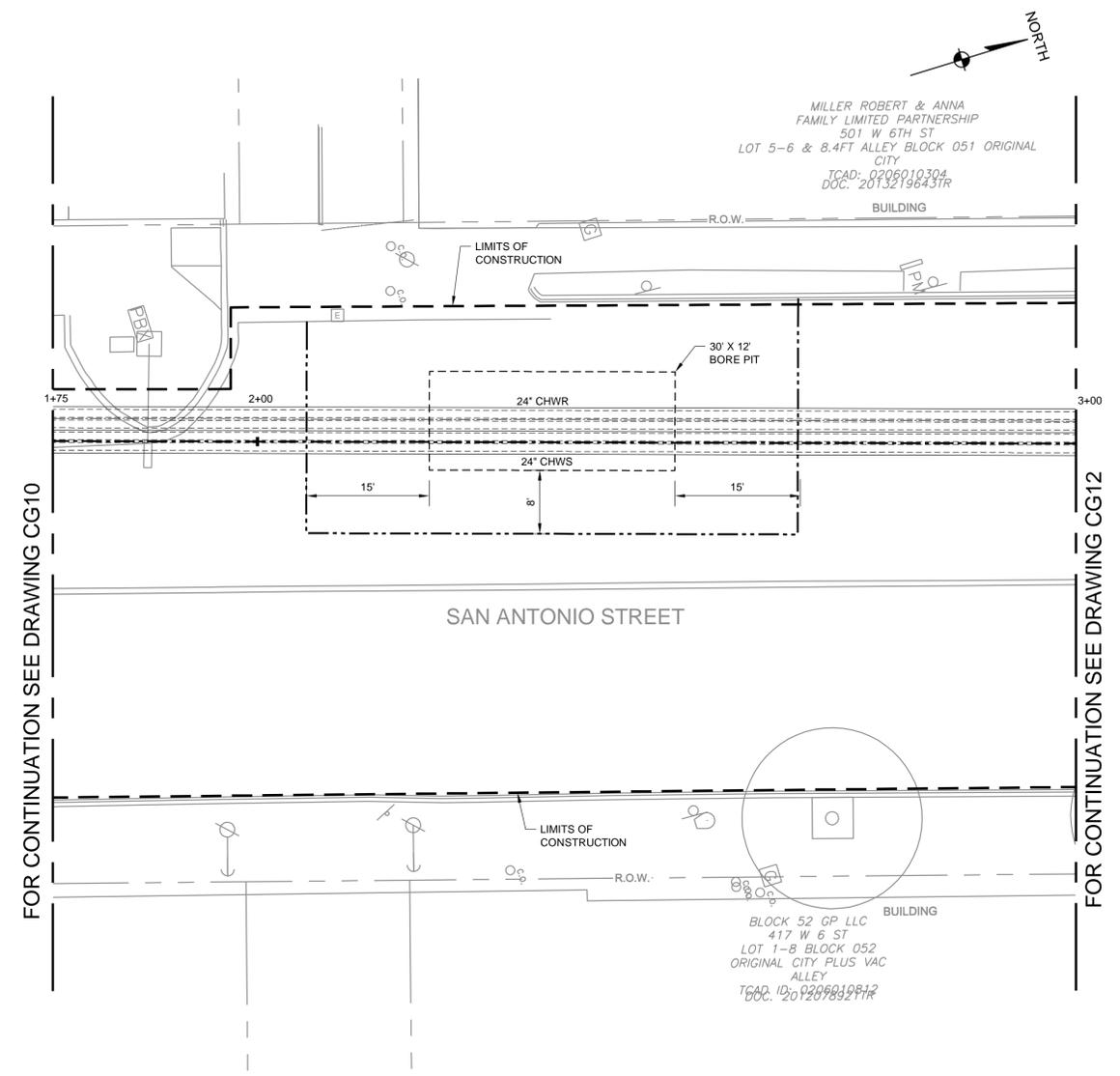
DESIGNED	T. THOMPSON
DRAWN	R. BARTLETT
CHECKED	E. DALY
APPROVED	E. DALY
DATE	APRIL 29, 2020

SCALE: 1" = 10'-0"	PROJECT NO. 26560.05.00
SHEET NO. CG10	REV. 0

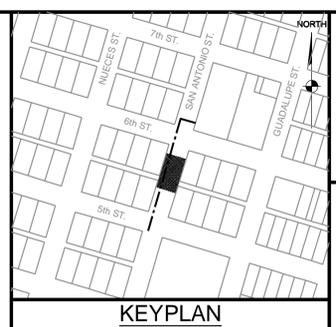
# GENERAL PERMIT PROGRAM

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FOR CONTINUATION SEE DRAWING CG10

FOR CONTINUATION SEE DRAWING CG12



**CITY OF AUSTIN**  
**SEAL**  
**ERIC D. DALY**  
 115128  
 LICENSE  
 04/29/20

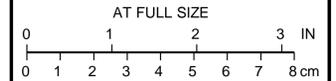
- NOTES:**
- SEE GG01 AND MG00 FOR GENERAL PROJECT NOTES THAT APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN KEY NOTES.
  - SEE SHEET CG51 FOR EROSION CONTROL NOTES AND DETAILS.
  - SEE SHEET CG52 FOR ENVIRONMENTAL NOTES AND TREE PROTECTION DETAILS.

GENERAL PERMIT OFFICE  
 CIVIL  
**EROSION & SEDIMENTATION CONTROL**  
 STA 1+75 THRU 3+00

# GENERAL PERMIT PROGRAM



**Stanley Consultants INC.**  
 6836 Austin Center Blvd, Suite 350, Austin, Texas 78731  
 www.stanleyconsultants.com  
 Texas Firm Registration No.: F-174



REVISIONS		NO.	REMARKS	DSGN	TT	ED	ED	APVD	DATE
100% DESIGN SUBMITTAL		0	100% DESIGN SUBMITTAL						04/29/20

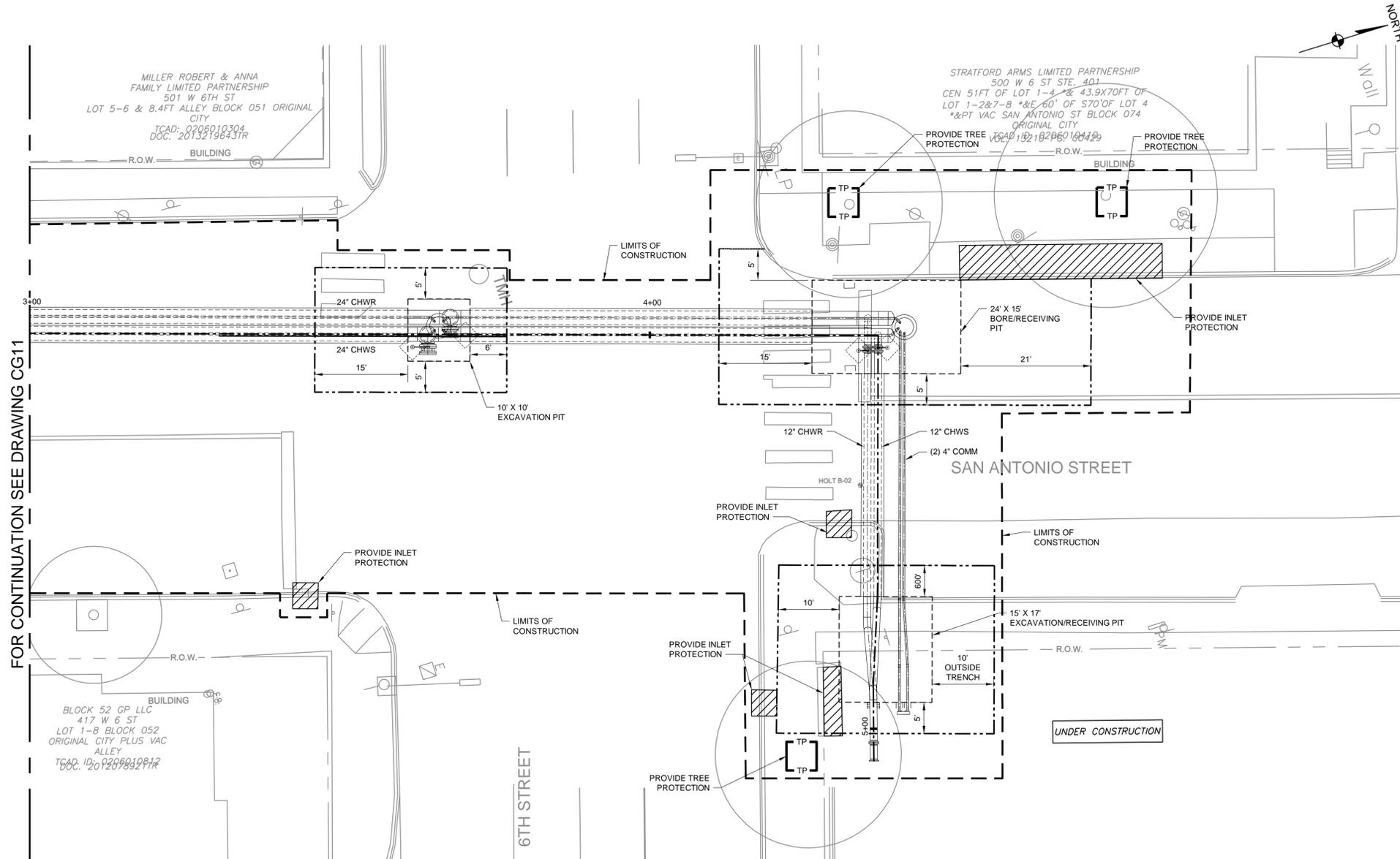
  

SCI PROJECT NO.	26560.05.00
DESIGNED	T. THOMPSON
DRAWN	R. BARTLETT
CHECKED	E. DALY
APPROVED	E. DALY
DATE	APRIL 29, 2020

SCALE: 1" = 10'-0"	SHEET NO.	CG11	0
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FILE INFO: C:\projects\stata\source-1\comm\plan\0756176-26560.05\_CG12.dwg MODIFIED: Apr 29, 2020 9:13pm PLOTTED: Apr 29, 2020 9:20pm BY: BT/41 PLOT SCALE: 1=1

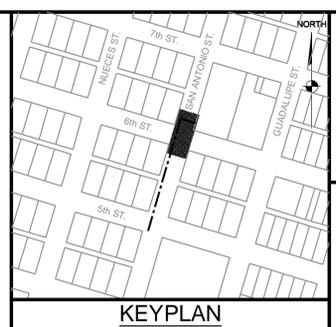


FOR CONTINUATION SEE DRAWING CG11

MILLER ROBERT & ANNA  
FAMILY LIMITED PARTNERSHIP  
501 W 6TH ST  
LOT 5-6 & 8.4FT ALLEY BLOCK 051 ORIGINAL  
CITY  
TCAD: 0206010304  
DOC: 2013219643TR

STRATFORD ARMS LIMITED PARTNERSHIP  
500 W 6 ST STE 401  
GEN 51FT OF LOT 1-4 & 43.9X70FT OF  
LOT 1-2&7-8 \*&E 60' OF S70' OF LOT 4  
\*&PT VAC SAN ANTONIO ST BLOCK 074  
ORIGINAL CITY  
TCAD: 182102860100420  
DOC: 182102860100420

BLOCK 52 GP LLC  
417 W 6 ST  
LOT 1-8 BLOCK 052  
ORIGINAL CITY PLUS VAC  
ALLEY  
TCAD: 1820920983271R  
DOC: 1820920983271R



CITY OF AUSTIN  
SEAL  
ERIC D. DALY  
115128  
LICENSE  
04/29/20

- NOTES:**
- SEE GG01 AND MG00 FOR GENERAL PROJECT NOTES THAT APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN KEY NOTES.
  - SEE SHEET CG51 FOR EROSION CONTROL NOTES AND DETAILS.
  - SEE SHEET CG52 FOR ENVIRONMENTAL NOTES AND TREE PROTECTION DETAILS.

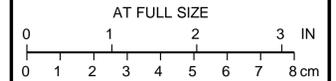
GENERAL PERMIT OFFICE  
CIVIL  
EROSION & SEDIMENTATION CONTROL  
STA 3+00 THRU END

# GENERAL PERMIT PROGRAM



AUSTIN ENERGY  
SAN ANTONIO STREET CHILLED WATER  
DISTRIBUTION EXTENSION

Stanley Consultants INC.  
6836 Austin Center Blvd, Suite 350, Austin, Texas 78731  
www.stanleyconsultants.com  
Texas Firm Registration No.: F-174



REVISIONS		NO.		REMARKS		DATE	
NO.	DATE	BY	CHKD	ED	ED	ED	ED
0	04/29/20						

DESIGNED	T. THOMPSON	DATE	APRIL 29, 2020
DRAWN	R. BARTLETT		
CHECKED	E. DALY		
APPROVED	E. DALY		

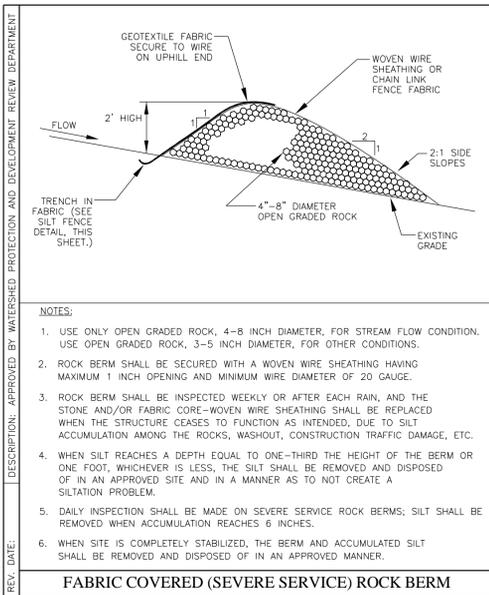
SHEET NO.	CG12
REV.	0

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

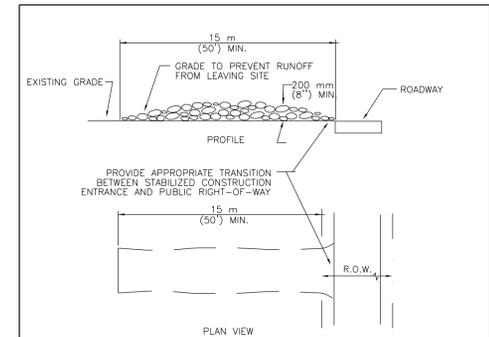
- THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR EXCAVATION).
- THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE ENVIRONMENTAL CRITERIA MANUAL AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
- 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.
- 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 PROTECTIVE 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- DEVELOPER INFORMATION:  
OWNER:  
COMPANY: CITY OF AUSTIN – AUSTIN ENERGY  
CONTACT: MR. RICHARD DUANE, P.E., PMP  
ADDRESS: 721 BARTON SPRINGS ROAD  
AUSTIN, TEXAS 78704-1145  
PHONE: (512) 482-5435  
E-MAIL: Richard.Duane@austinenergy.com

- OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:  
COMPANY: STANLEY CONSULTANTS  
CONTACT: GAYLE DAVIS, P.E.  
ADDRESS: 6836 AUSTIN CENTER BLVD, SUITE 350  
AUSTIN, TEXAS 78731  
PHONE: (512) 427-3600  
E-MAIL: DavisGayle@stanleygroup.com
- PARTY RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE:  
COMPANY: CONTRACTOR
- PARTY RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE:  
COMPANY: CONTRACTOR

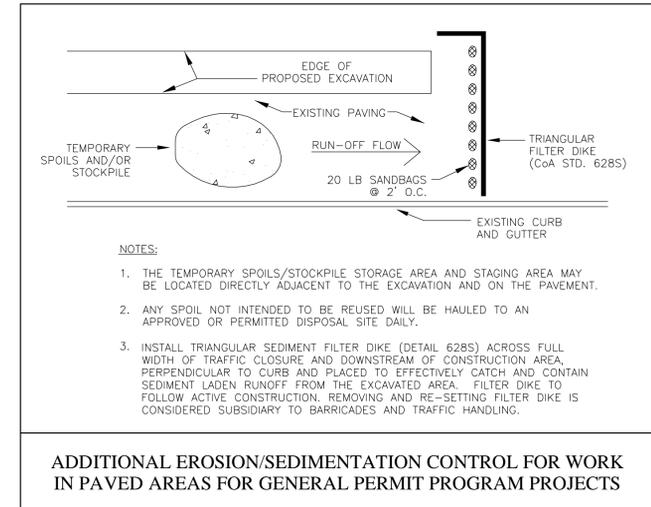
- THE CONTRACTOR SHALL NOT DISPOSE OF SURPLUS EXCAVATED MATERIAL FROM THE SITE WITHOUT NOTIFYING THE GENERAL PERMIT PROGRAM REPRESENTATIVE, AT 974-6330, AT LEAST 48 HOURS PRIOR TO THE SPOILS REMOVAL. THIS NOTIFICATION SHALL INCLUDE THE DISPOSAL LOCATION AND A COPY OF THE PERMIT ISSUED TO RECEIVE THE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



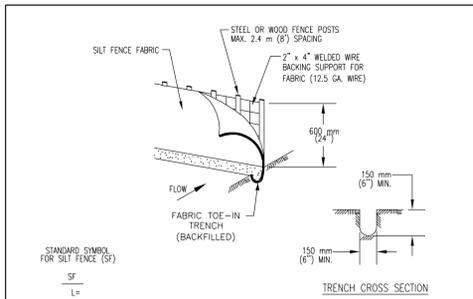
**CITY OF AUSTIN**  
WATERSHED PROTECTION DEPARTMENT  
RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED  
STANDARD NO. 642S-1



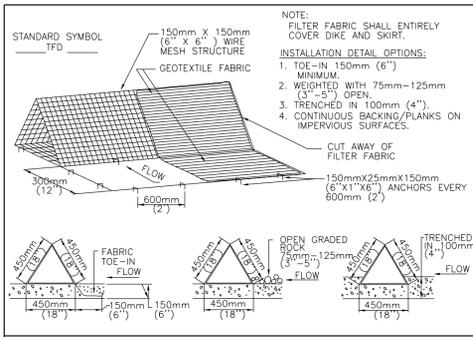
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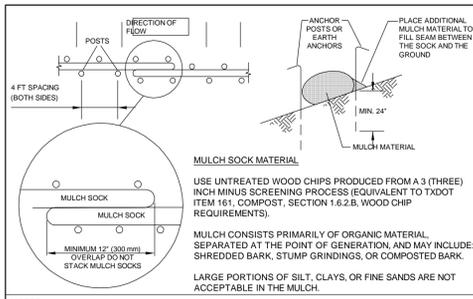
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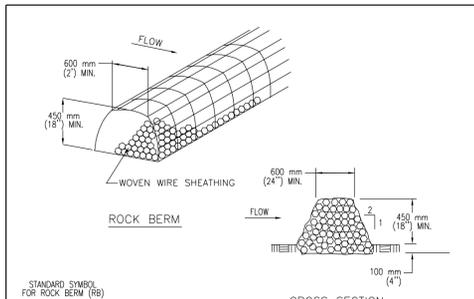
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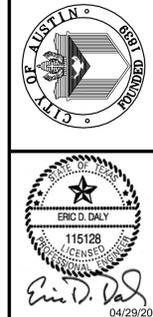
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WATERSHED PROTECTION DEPARTMENT  
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STANDARD NO. 628S



**CITY OF AUSTIN**  
WATERSHED PROTECTION DEPARTMENT  
RECORD COPY SIGNED BY MORGAN BYARS 08/24/2010 ADOPTED  
STANDARD NO. 648S-1



**CITY OF AUSTIN**  
WATERSHED PROTECTION DEPARTMENT  
RECORD COPY SIGNED BY MORGAN BYARS 8/24/2010 ADOPTED  
STANDARD NO. 639S-1



GENERAL PERMIT OFFICE  
CIVIL  
EROSION & SEDIMENTATION CONTROL  
DETAILS

NO. 0  
REVISIONS  
REMARKS  
100% DESIGN SUBMITTAL

NO.	REVISIONS	REMARKS	DATE
0	100% DESIGN SUBMITTAL		04/29/20

NO.	REVISIONS	REMARKS	DATE
0	100% DESIGN SUBMITTAL		04/29/20

NO.	REVISIONS	REMARKS	DATE
0	100% DESIGN SUBMITTAL		04/29/20

NO.	REVISIONS	REMARKS	DATE
0	100% DESIGN SUBMITTAL		04/29/20

AUSTIN ENERGY  
SAN ANTONIO STREET CHILLED WATER  
DISTRIBUTION EXTENSION

6836 Austin Center Blvd, Suite 350, Austin, Texas 78731  
www.stanleyconsultants.com  
Texas Firm Registration No.: F-174

SCALE: NONE

AT FULL SIZE  
0 1 2 3 IN  
0 1 2 3 4 5 6 7 8 cm

GENERAL PERMIT PROGRAM

**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 A 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.

**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 DRIP LINES, 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 FOUR (4) OF SUPPLEMENTAL TREE PROTECTION NOTES FOR ADDITIONAL REQUIREMENTS.

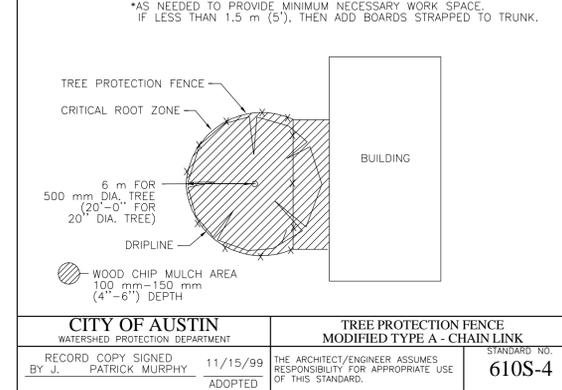
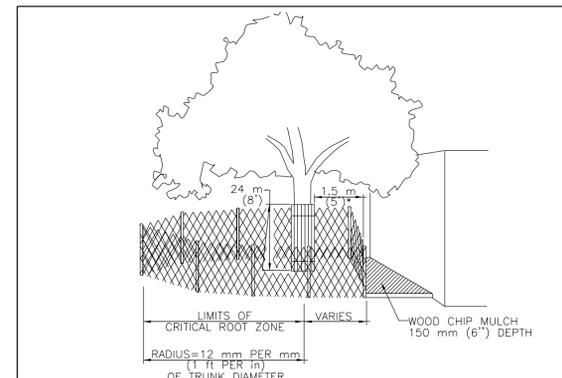
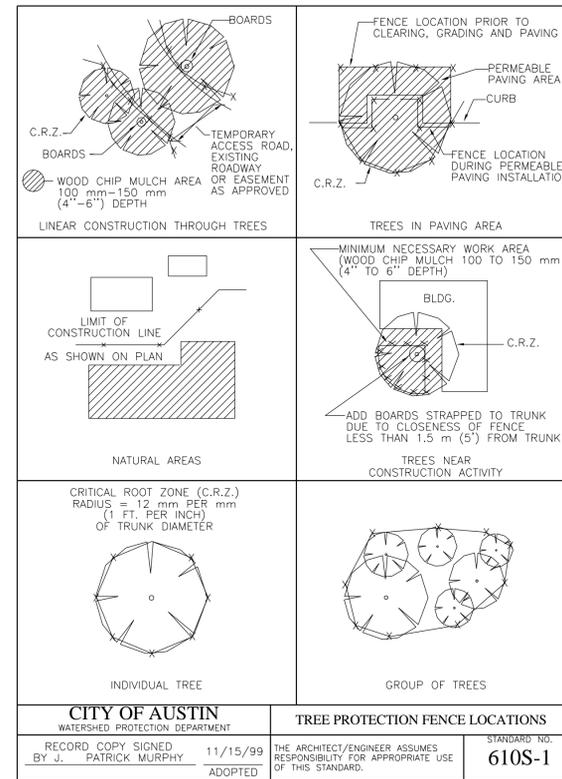
15. ALL FINISHED PRUNING MUST BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES AVAILABLE ON REQUEST FROM THE GENERAL PERMIT PROGRAM OFFICE).

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 PROGRAM.



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

GENERAL PERMIT OFFICE  
 CIVIL  
 TREE PROTECTION &  
 ENVIRONMENTAL NOTES

CITY OF AUSTIN  
 ERIC D. DALY  
 115128  
 LICENSE  
 Eric D. Daly  
 04/29/20

NO.	REVISIONS	DATE
0	100% DESIGN SUBMITTAL	04/29/20

DESIGNED	T. THOMPSON
DRAWN	R. BARTLETT
CHECKED	E. DALY
APPROVED	E. DALY
DATE	APRIL 29, 2020

SCI PROJECT NO. 26560.05.00  
 AUSTIN ENERGY  
 SAN ANTONIO STREET CHILLED WATER  
 DISTRIBUTION EXTENSION

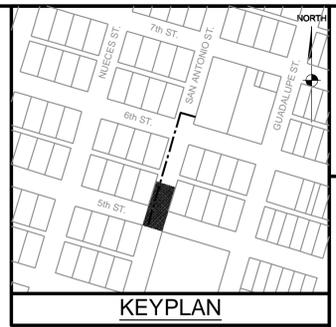
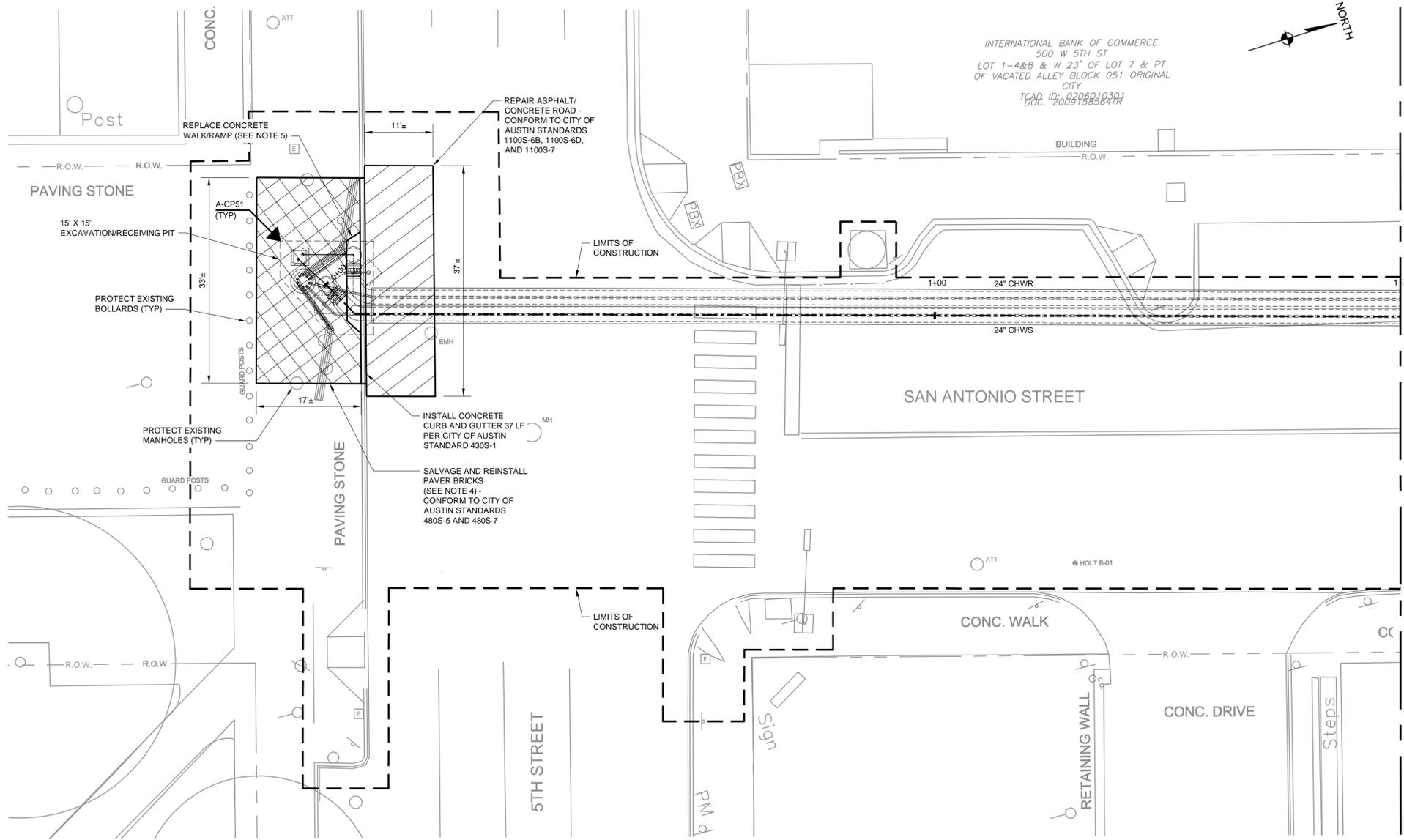
**Stanley Consultants INC.**  
 6836 Austin Center Blvd, Suite 350, Austin, Texas 78731  
 www.stanleyconsultants.com  
 Texas Firm Registration No.: F-174

SCALE: NONE  
 SHEET NO. **CG52**  
 REV. **0**



**GENERAL PERMIT PROGRAM**

FILE INFO: C:\projects\stata\source\1\comm\plan\075617626560.05\_CP10.dwg MODIFIED: Apr 29, 2020 3:17pm PLOTTED: Apr 29, 2020 9:23am BY: 8741 PLOT SCALE: 1=1



- NOTES:**
- SEE GG01 AND MG00 FOR GENERAL PROJECT NOTES THAT APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN KEY NOTES.
  - PERFORM ALL ROAD REPAIR WORK AS SHOWN ON CITY OF AUSTIN STANDARD DETAILS ON CP50.
  - FIELD VERIFY ALL ELEVATIONS BEFORE BEGINNING ANY NEW WORK INCLUDING BUT NOT LIMITED TO: EXISTING CHILLED WATER PIPE ELEVATIONS, AND BUILDING HEAT EXCHANGER CONNECTION FINAL ELEVATIONS. COORDINATE HEAT EXCHANGER ELEVATIONS AND BUILDING WALL PENETRATION LOCATIONS WITH BUILDING CONTRACTOR PRIOR TO BEGINNING NEW WORK.
  - REPLICATE PRE-CONSTRUCTION PAVER BRICK PATTERNS.
  - REPLACE TO PRE-CONSTRUCTION DIMENSIONS AND ELEVATIONS.
  - DO NOT PAVE OVER ANY AW SURFACE FEATURES (MANHOLE COVERS, VALVES, ETC.) WHICH WOULD HINDER LONG-TERM OPERATIONS AND MAINTENANCE OF SAID FACILITIES.

GENERAL PERMIT OFFICE  
CIVIL  
PAVEMENT RESTORATION PLAN  
STA 0+00 THRU 1+75

REVISIONS		NO.	REMARKS	DATE
0	100% DESIGN SUBMITTAL	0	100% DESIGN SUBMITTAL	04/29/20

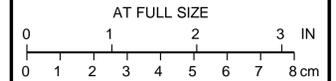
  

DESIGNED	T. THOMPSON	DATE	APRIL 29, 2020
DRAWN	R. BARTLETT	SCALE	1" = 10'-0"
CHECKED	E. DALY		
APPROVED	E. DALY		
SHEET NO.	CP10		



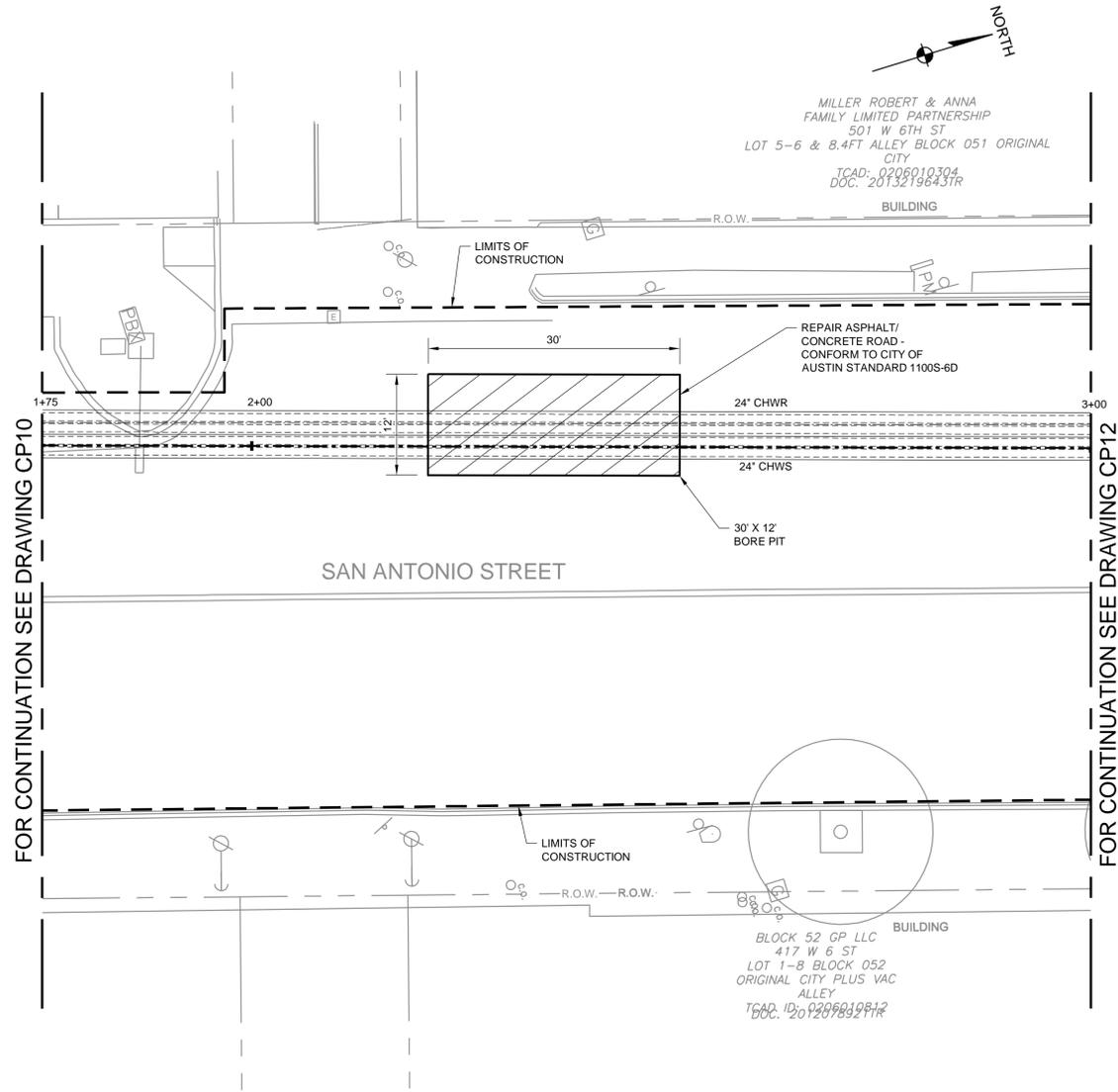
AUSTIN ENERGY  
SAN ANTONIO STREET CHILLED WATER  
DISTRIBUTION EXTENSION

6836 Austin Center Blvd, Suite 350, Austin, Texas 78731  
www.stanleyconsultants.com  
Texas Firm Registration No.: F-174



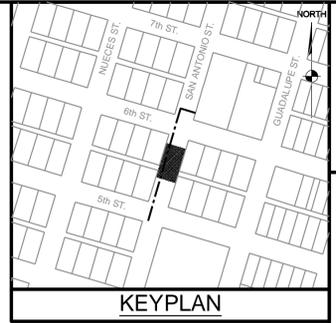
# GENERAL PERMIT PROGRAM

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FOR CONTINUATION SEE DRAWING CP10

FOR CONTINUATION SEE DRAWING CP12



**CITY OF AUSTIN**  
SEAL OF THE CITY OF AUSTIN

**ERIC D. DALY**  
115128  
LICENSE  
04/29/20

**NOTES:**

- SEE GG01 AND MG00 FOR GENERAL PROJECT NOTES THAT APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN KEY NOTES.
- PERFORM ALL ROAD REPAIR WORK AS SHOWN ON CITY OF AUSTIN STANDARD DETAILS ON CP50.
- FIELD VERIFY ALL ELEVATIONS BEFORE BEGINNING ANY NEW WORK INCLUDING BUT NOT LIMITED TO: EXISTING CHILLED WATER PIPE ELEVATIONS, AND BUILDING HEAT EXCHANGER CONNECTION FINAL ELEVATIONS. COORDINATE HEAT EXCHANGER ELEVATIONS AND BUILDING WALL PENETRATION LOCATIONS WITH BUILDING CONTRACTOR PRIOR TO BEGINNING NEW WORK.
- DO NOT PAVE OVER ANY AW SURFACE FEATURES (MANHOLE COVERS, VALVES, ETC.) WHICH WOULD HINDER LONG-TERM OPERATIONS AND MAINTENANCE OF SAID FACILITIES.

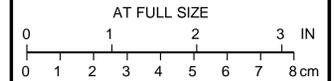
GENERAL PERMIT OFFICE  
CIVIL  
PAVEMENT RESTORATION PLAN  
STA 1+75 THRU 3+00



**Stanley Consultants INC.**

6836 Austin Center Blvd, Suite 350, Austin, Texas 78731  
www.stanleyconsultants.com  
Texas Firm Registration No.: F-174

AUSTIN ENERGY  
SAN ANTONIO STREET CHILLED WATER  
DISTRIBUTION EXTENSION



REVISIONS		NO.		DATE	
REMARKS	DESIGN	TT	ED	ED	04/29/20
0	100% DESIGN SUBMITTAL				

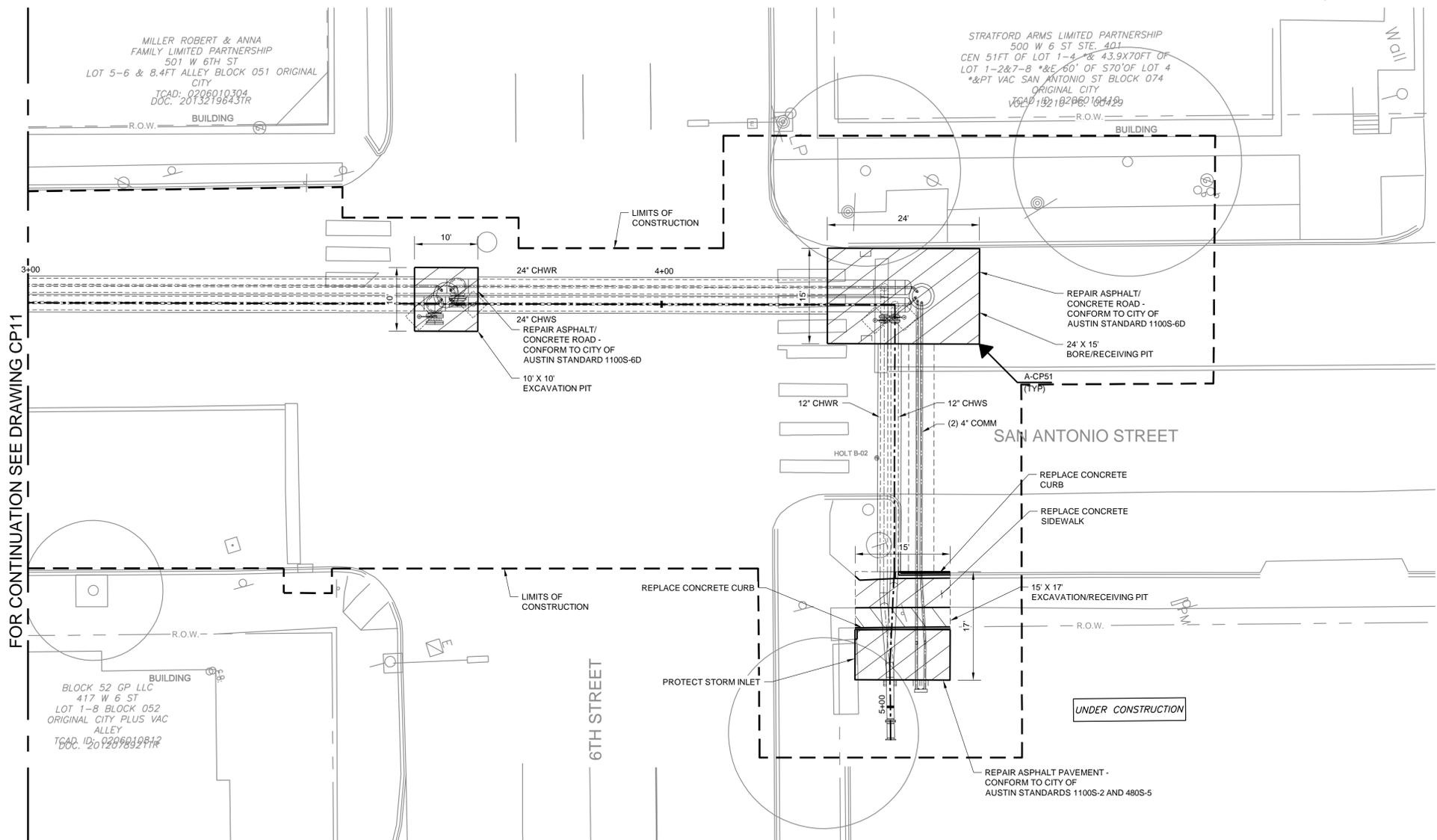
DESIGNED	T. THOMPSON	DATE	APRIL 29, 2020
DRAWN	R. BARTLETT		
CHECKED	E. DALY		
APPROVED	E. DALY		

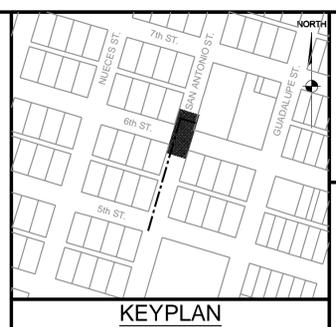
PROJECT NO.	26560.05.00
SHEET NO.	CP11
REV.	0

**GENERAL PERMIT PROGRAM**

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FOR CONTINUATION SEE DRAWING CP11



- NOTES:**
- SEE GG01 AND MG00 FOR GENERAL PROJECT NOTES THAT APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN KEY NOTES.
  - PERFORM ALL ROAD REPAIR WORK AS SHOWN ON CITY OF AUSTIN STANDARD DETAILS ON CP50.
  - FIELD VERIFY ALL ELEVATIONS BEFORE BEGINNING ANY NEW WORK INCLUDING BUT NOT LIMITED TO: EXISTING CHILLED WATER PIPE ELEVATIONS, AND BUILDING HEAT EXCHANGER CONNECTION FINAL ELEVATIONS. COORDINATE HEAT EXCHANGER ELEVATIONS AND BUILDING WALL PENETRATION LOCATIONS WITH BUILDING CONTRACTOR PRIOR TO BEGINNING NEW WORK.
  - DO NOT PAVE OVER ANY AW SURFACE FEATURES (MANHOLE COVERS, VALVES, ETC.) WHICH WOULD HINDER LONG-TERM OPERATIONS AND MAINTENANCE OF SAID FACILITIES.

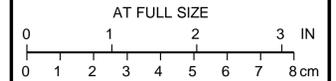
GENERAL PERMIT OFFICE  
**CIVIL**  
 PAVEMENT RESTORATION PLAN  
 STA 3+00 THRU END

# GENERAL PERMIT PROGRAM



AUSTIN ENERGY  
 SAN ANTONIO STREET CHILLED WATER  
 DISTRIBUTION EXTENSION

6836 Austin Center Blvd, Suite 350, Austin, Texas 78731  
 www.stanleyconsultants.com  
 Texas Firm Registration No.: F-174



REVISIONS		NO.	DATE
DESIGN	TT	ED	04/29/20
CHKD	ED	ED	
APP'D	ED	ED	

REMARKS	100% DESIGN SUBMITTAL
NO.	0

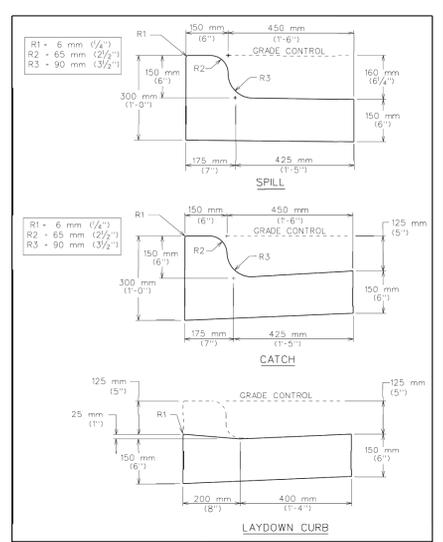
  

DESIGNED	T. THOMPSON
DRAWN	R. BARTLETT
CHECKED	E. DALY
APPROVED	E. DALY
DATE	APRIL 29, 2020

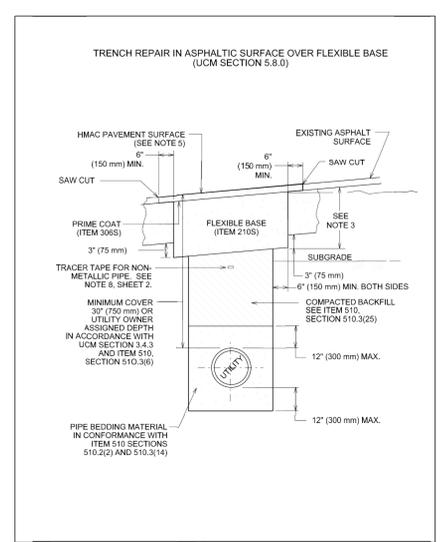
  

PROJECT NO.	26560.05.00
SHEET NO.	CP12
REV.	0

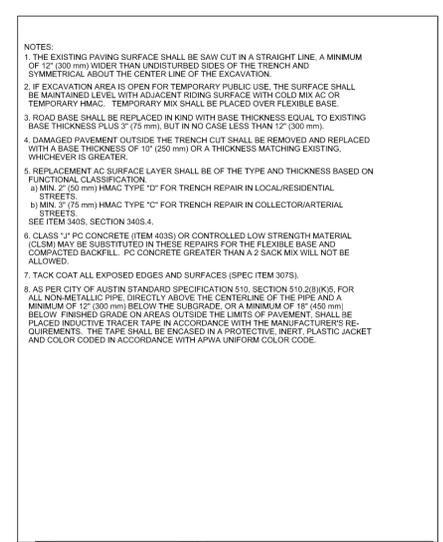
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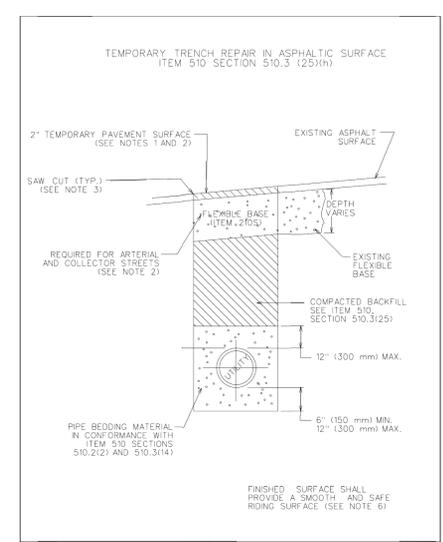
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS CURB AND GUTTER SECTION STANDARD NO. 430S-1



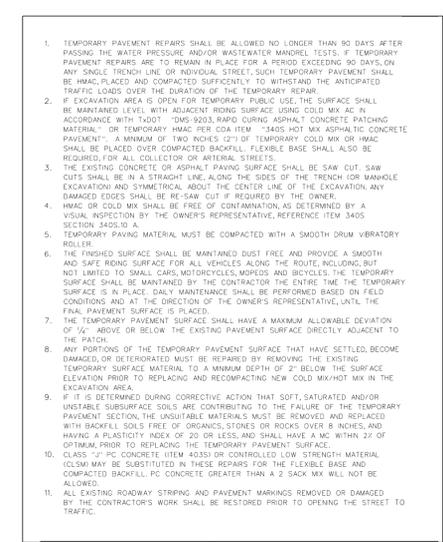
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS FLEXIBLE BASE WITH ASPHALT SURFACE TRENCH REPAIR-EXISTING PAVEMENT STANDARD NO. 1100S-2



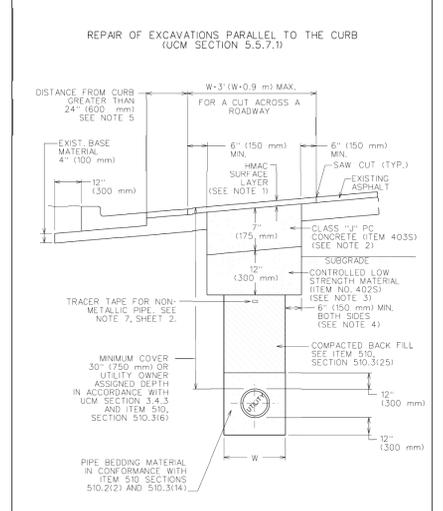
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS FLEXIBLE BASE WITH ASPHALT SURFACE TRENCH REPAIR-EXISTING PAVEMENT STANDARD NO. 1100S-2



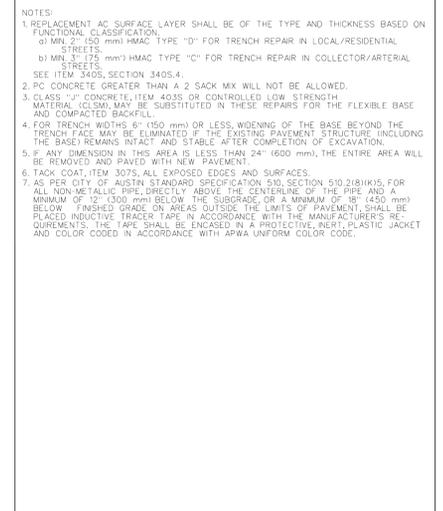
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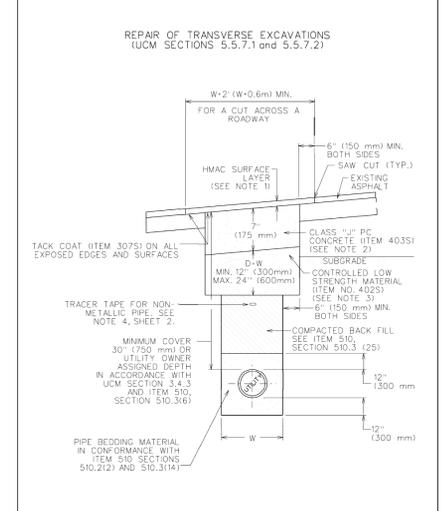
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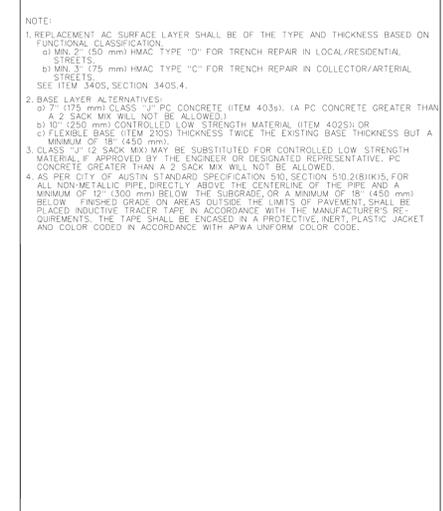
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS EXCAVATIONS PARALLEL TO THE CURB STANDARD NO. 1100S-6B



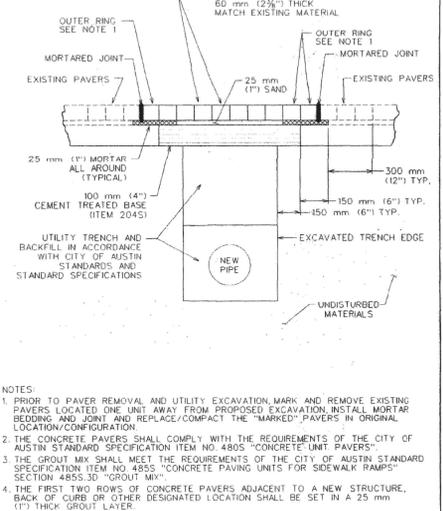
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS EXCAVATIONS PARALLEL TO THE CURB STANDARD NO. 1100S-6B



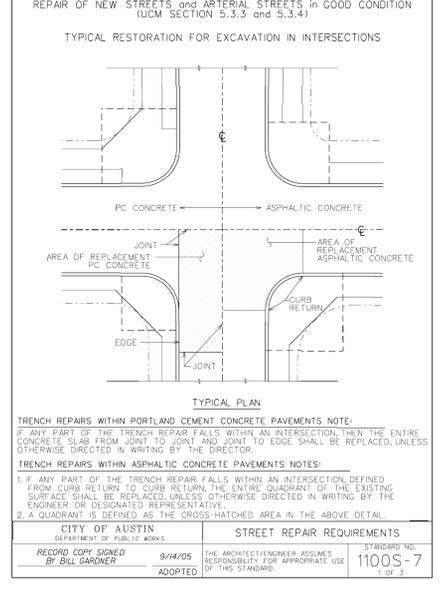
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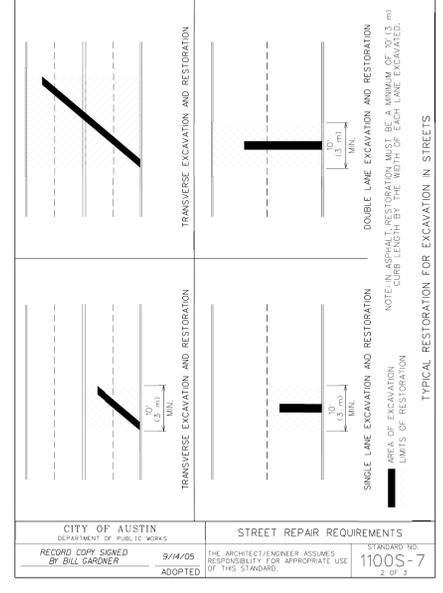
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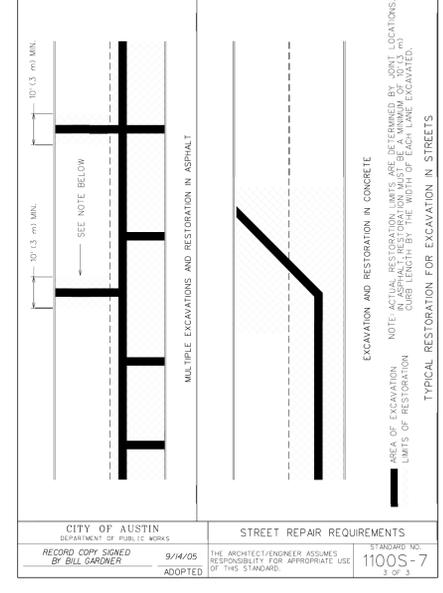
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS CONCRETE PAVEMENT REPLACEMENT AT UTILITY EXCAVATION STANDARD NO. 480S-7



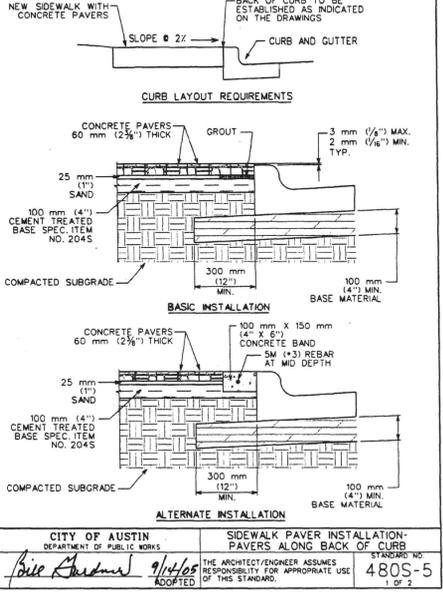
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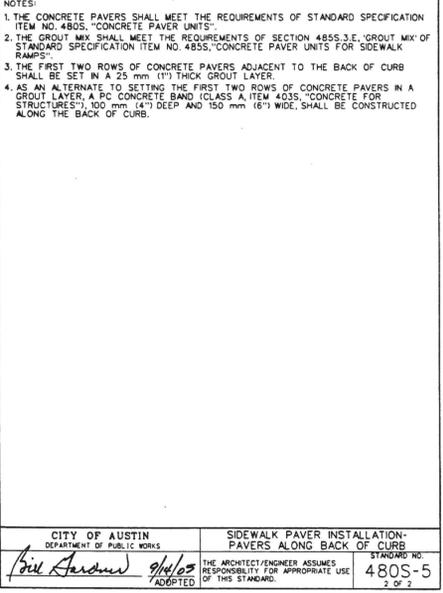
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS STREET REPAIR REQUIREMENTS STANDARD NO. 1100S-7



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS STREET REPAIR REQUIREMENTS STANDARD NO. 1100S-7

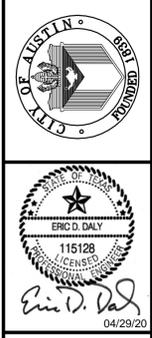


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS SIDEWALK PAVEMENT INSTALLATION-PAVERS ALONG BACK OF CURB STANDARD NO. 480S-5



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS SIDEWALK PAVEMENT INSTALLATION-PAVERS ALONG BACK OF CURB STANDARD NO. 480S-5

STREET REPAIR NOTES: TRENCH REPAIR: USE THE APPROPRIATE 1100S SERIES DETAILS FOR TRENCH REPAIRS: 1100S-2 (FLEXIBLE BASE AND AN ASPHALT SURFACE), 1100S-3 (CONCRETE OR ASPHALT OVERLAD CONCRETE), AND 1100S-5 (FULL DEPTH ASPHALT STREETS).



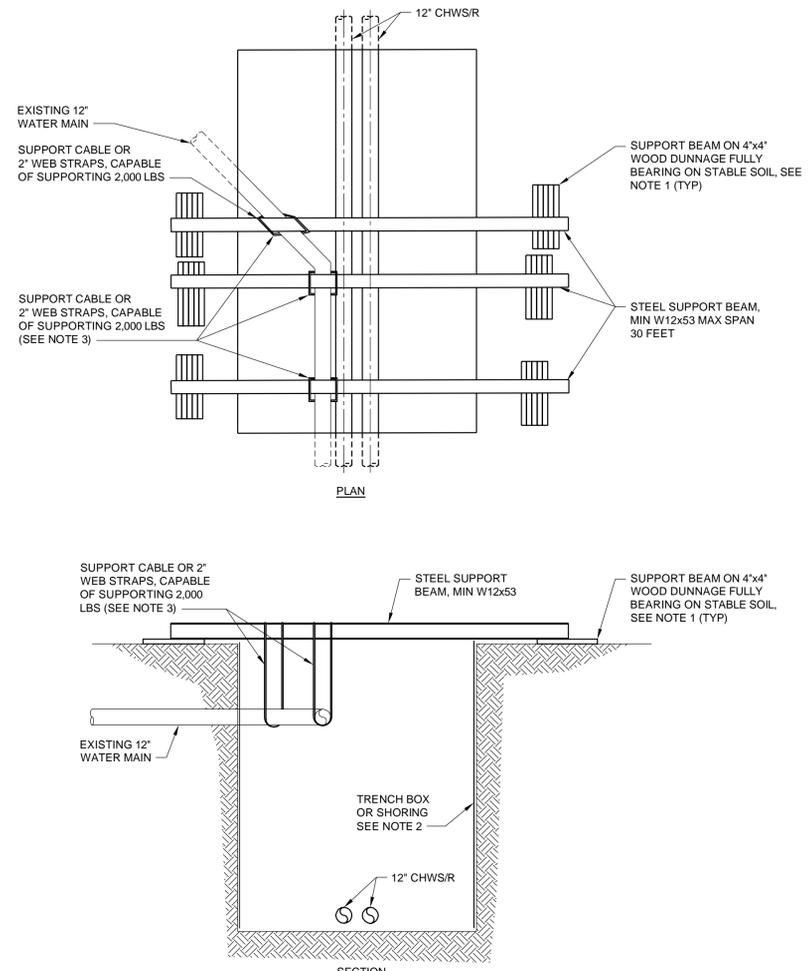
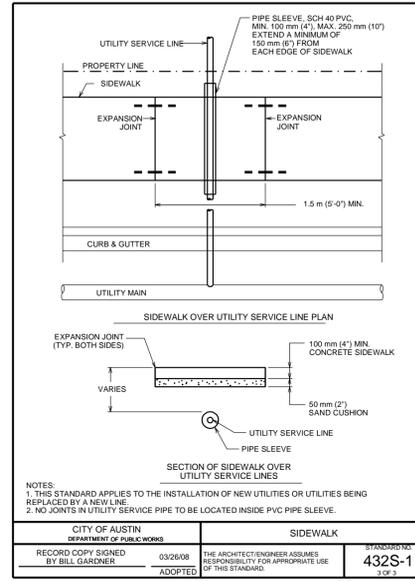
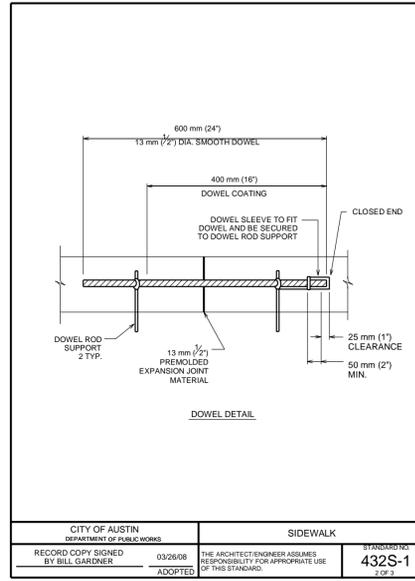
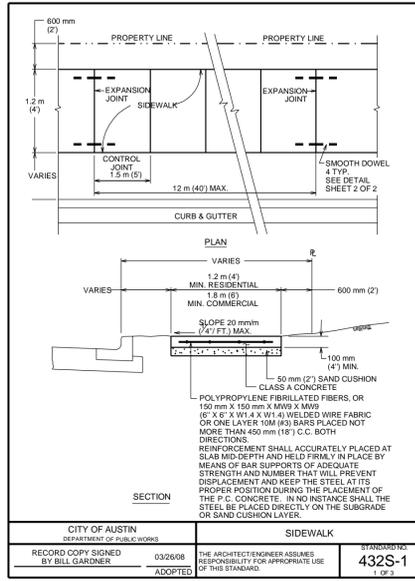
GENERAL PERMIT OFFICE CIVIL PAVEMENT RESTORATION DETAILS - SHEET 1

Project information including Austin Energy logo, Stanley Consultants Inc. logo, project name (SAN ANTONIO STREET CHILLED WATER DISTRIBUTION EXTENSION), address (6836 Austin Center Blvd), and drawing details (DESIGNED BY T. THOMPSON, DRAWN BY E. BARTLETT, etc.).

GENERAL PERMIT OFFICE CIVIL PAVEMENT RESTORATION DETAILS - SHEET 1

SCALE: NONE SHEET NO. CP50

FILE INFO: C:\projects\data\source-1\common\0758176\26560.05\_CP51.dwg MODIFIED: Apr 23, 2020 3:04pm PLOTTED: Apr 29, 2020 9:30am BY: 8741 PLOT SCALE: 1=1



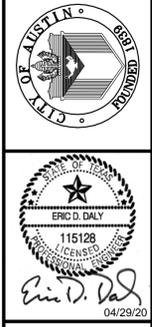
- NOTES:**
- SUPPORT BEAMS ON WOOD DUNNAGE, PROVIDE MINIMUM 2 FEET TO EDGE OF TRENCH.
  - TRENCH BOX AND SUPPORT AS DESIGNED BY CONTRACTOR, MEETING OSHA REQUIREMENTS.
  - PIPE SUPPORTS ON EXISTING 12" DUCTILE IRON WATER MAIN:
    - AT EACH END OF PIPE SECTION
    - WITHIN 2 FEET OF TRENCH SIDES
    - SPACING NOT TO EXCEED 8 FEET
    - WITHIN 1 FOOT OF ANY FITTINGS
  - CONTRACTOR CAN PROPOSE ALTERNATE METHODS/ARRANGEMENTS FOR SUPPORTING THE EXISTING WATER PIPE WITH PRIOR AUSTIN WATER REVIEW AND APPROVAL.
  - USE THIS DETAIL FOR UTILITIES UP TO 12".

DETAIL A-CP51 TEMPORARY PIPE SUPPORT FOR UTILITY CROSSINGS  
SCALE: NONE

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

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

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



GENERAL PERMIT OFFICE  
CIVIL  
PAVEMENT RESTORATION  
DETAILS - SHEET 2

NO.	REVISIONS	DATE
0	100% DESIGN SUBMITTAL	04/29/20
DESIGNED	T. THOMPSON	
DRAWN	E. BARTLETT	
CHECKED	E. DALY	
APPROVED	E. DALY	
DATE	APRIL 29, 2020	

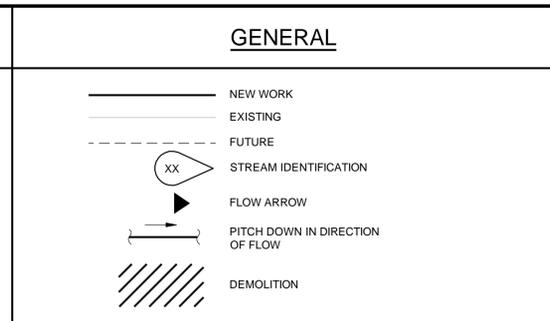
AUSTIN ENERGY  
SAN ANTONIO STREET CHILLED WATER  
DISTRIBUTION EXTENSION

Stanley Consultants INC.  
6836 Austin Center Blvd, Suite 350, Austin, Texas 78731  
www.stanleyconsultants.com  
Texas Firm Registration No.: F-174

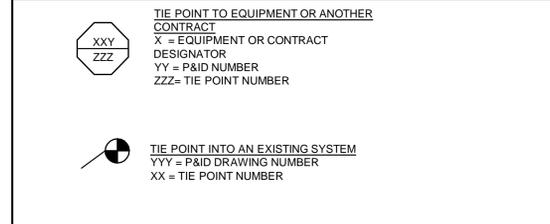
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# GENERAL PERMIT PROGRAM

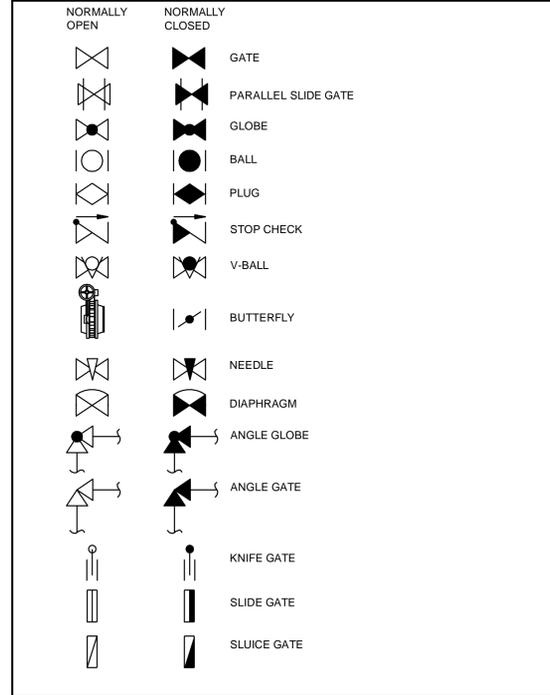
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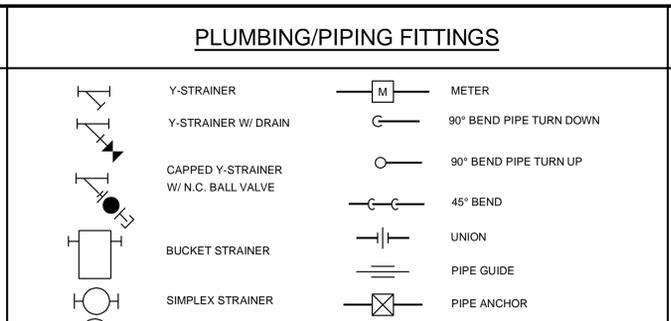
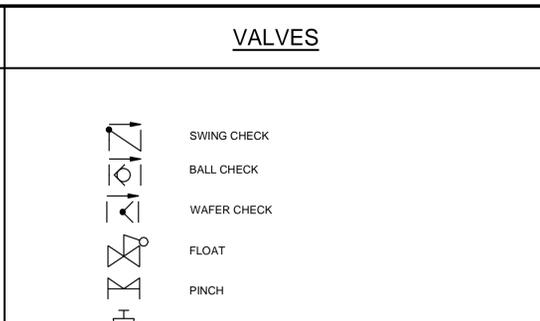
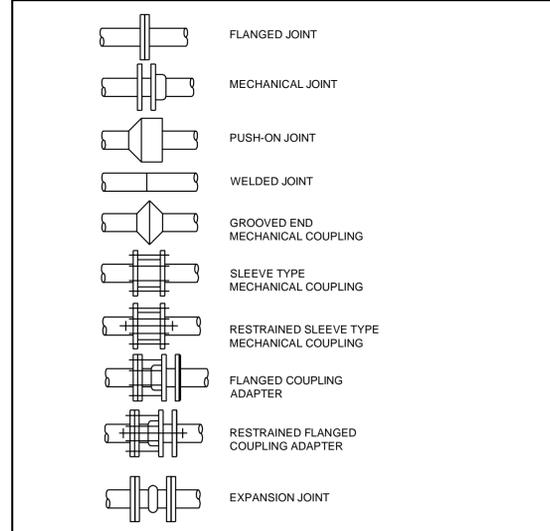
### TIE POINT DESIGNATORS



### VALVE DESIGNATIONS

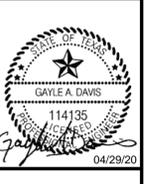
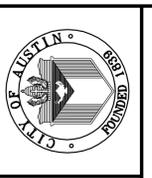


### PIPE AND FITTINGS



### GENERAL NOTES

- ALL SYMBOLS AND ABBREVIATIONS SHOWN ON THIS LEGEND MAY NOT APPEAR ON THIS SET OF DRAWINGS.
- ALL DRAWING ELEMENTS AND TEXT SHOWN IN GRAYSCALE ARE ALL KNOWN / AVAILABLE EXISTING ELEMENTS, EITHER PROVIDED BY OWNER, OR OBTAINED THROUGH FIELD OBSERVATIONS WHERE POSSIBLE, AND ARE USED FOR BACKGROUND AND REFERENCE PURPOSES. FOR CLARITY, NOT ALL EQUIPMENT, DUCTWORK, PIPING, PANELS, CONDUIT, ETC. MAY BE SHOWN IN EACH VIEW.
- NEW EQUIPMENT, PIPING AND DUCT LAYOUT ILLUSTRATES DESIGN INTENT. EXACT LOCATION OF SUCH SHALL BE COORDINATED WITH BUILDING STRUCTURE AND ALL OTHER WORK. ALL EQUIPMENT PLACEMENT AND CONNECTIONS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
- COORDINATE / LOCATE AND INSTALL ALL MANUFACTURED ITEMS, MATERIALS, AND EQUIPMENT WHERE SHOWN, AND IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, EXCEPT WHERE THE DRAWINGS OR SPECIFICATIONS, IF MORE STRINGENT, SHALL GOVERN. IF EQUIPMENT IS NEW, CONTRACTOR SHALL ENSURE THE EXECUTION OF ALL WARRANTIES AND START-UP AS PRESCRIBED BY PROJECT SPECIFICATIONS.
- DUCT, PIPING, AND CONDUIT SHALL BE RUN LEVEL UNLESS NOTED OTHERWISE OR REQUIRED OTHERWISE. DUCT, PIPING, AND CONDUIT TO BE OFFSET INTO ROOF TEE OR JOIST SPACE, OR HAVE ALTERNATE ROUTING WHERE NECESSARY AND AS REQUIRED, FOR PROPER FIT AND FUNCTION AND FOR CLEARANCE WHERE SPACE IS NOT SUFFICIENT FOR DUCTS AND PIPING TO CROSS OTHER CONFLICTS, U.N.O.
- DUE TO THE CRITICAL NATURE OF THE DAY-TO-DAY FUNCTIONING OF THE CHILLED WATER UTILITIES, ALL WORK AND SHUT DOWNS MUST BE THOROUGHLY COORDINATED WITH AUSTIN ENERGY PERSONNEL.
- ALL EQUIPMENT INCLUDING VALVES, INSTRUMENTS, DISCONNECTS, AND ALL OTHER DEVICES IDENTIFIED FOR REMOVAL SHALL BE SALVAGED AND RETURNED TO OWNER, OR PROPERLY DISPOSED OF, AS DIRECTED IN FULL COORDINATION WITH THE OWNER REPRESENTATIVE.
- ALL CONTROL RELATED ITEMS (I.E. VALVES, DAMPERS, ETC.) THAT REQUIRE AN ELECTRONIC ACTUATION PACKAGE WITH ASSOCIATED 120V POWER BY ELECTRICAL CONTRACTOR, AND SIGNAL AND COMMUNICATION WIRING BY CONTROLS CONTRACTOR SHALL BE FULLY COORDINATED WITH THOSE TRADES.
- ELECTRICAL CONTRACTOR SHALL PROVIDE, ROUTE AND INSTALL CONDUIT AND WIRING FROM CONTROL OR ELECTRICAL PANELS FOR ALL 120V POWER TO MECHANICAL ASSEMBLIES, WITH COORDINATION OF CIRCUIT SELECTION WITH OWNER PERSONNEL, AND IN COORDINATION WITH CONTROLS SYSTEM CONTRACTOR. AT A MINIMUM, ELECTRICAL CONTRACTOR SHALL PROVIDE FISH TAPE IN CONDUIT FOR WIRING INSTALLATION AT A LATER DATE AS NECESSARY.



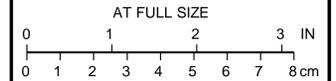
GENERAL PERMIT OFFICE  
MECHANICAL  
LEGEND & GENERAL NOTES

NO.	REVISIONS	REMARKS		DATE	
		CHNG	APVD	GD	DATE
0		100% DESIGN SUBMITTAL			04/29/20

DESIGNED	G. DAVIS
DRAWN	J. ROGERS
CHECKED	N. GRIFFIN
APPROVED	G. DAVIS
DATE	APRIL 29, 2020

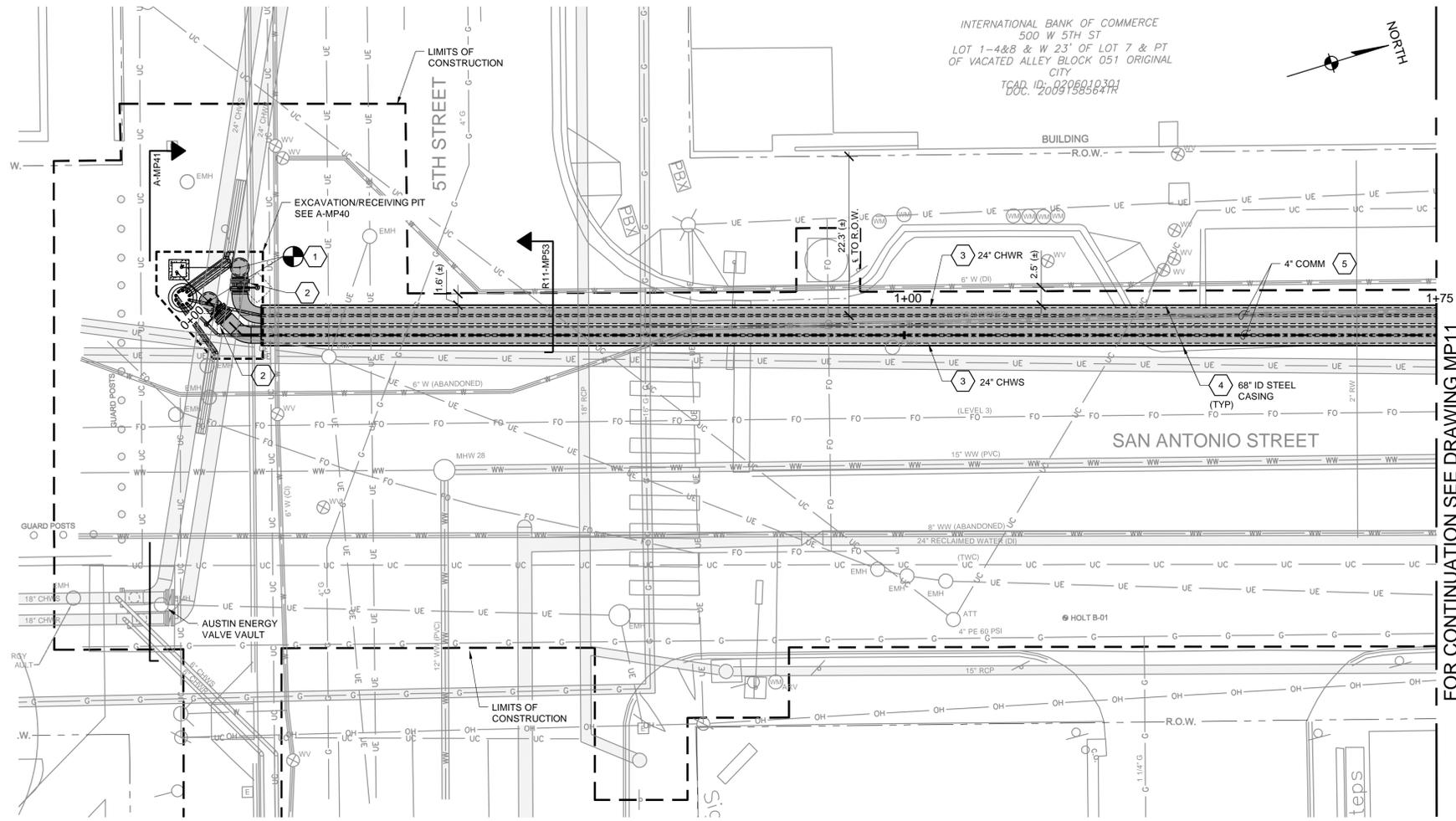
**Stanley Consultants INC.**

6836 Austin Center Blvd, Suite 350, Austin, Texas 78731  
www.stanleyconsultants.com  
Texas Firm Registration No.: F-174

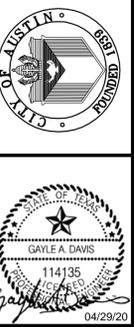
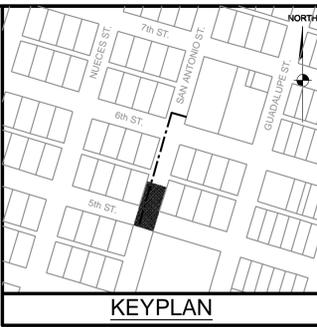


# GENERAL PERMIT PROGRAM

SHEET NO. MG00



INTERNATIONAL BANK OF COMMERCE  
500 W 5TH ST  
LOT 1-4&8 & W 23' OF LOT 7 & PT  
OF VACATED ALLEY BLOCK 051 ORIGINAL  
CITY  
T.C.D. ID. 0016010301  
D.C. 20091885641R



**NOTES:**

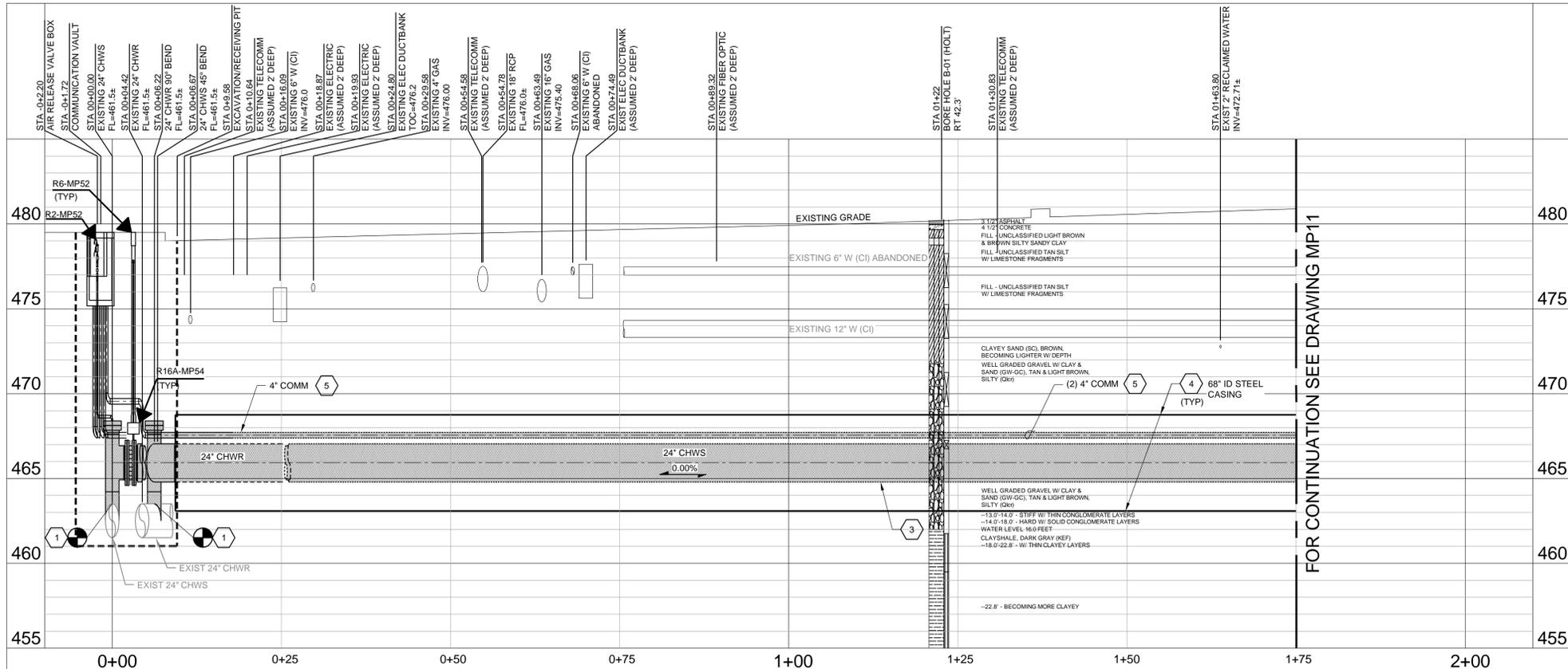
- SEE GG01 AND MG00 FOR GENERAL PROJECTS NOTES THAT APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN KEY NOTES.
- PERFORM ALL ROAD REPAIR WORK AS SHOWN ON THE CIVIL CP DRAWINGS AND CITY OF AUSTIN STANDARD DETAILS.
- PERFORM ALL EROSION CONTROL, ENVIRONMENTAL AND TREE PROTECTION AS SHOWN ON CG DRAWINGS AND CITY OF AUSTIN STANDARD DETAILS.
- LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. FIELD VERIFY THE EXACT LOCATION AND ELEVATIONS BEFORE BEGINNING ANY WORK INCLUDING BUT NOT LIMITED TO: ALL EXISTING UTILITIES WITHIN EXCAVATION AREAS, EXISTING CHILLED WATER PIPE ELEVATIONS, AND BUILDING HEAT EXCHANGER CONNECTION ELEVATIONS. COORDINATE HEAT EXCHANGER CONNECTIONS AND BUILDING WALL PENETRATION LOCATIONS WITH BUILDING CONTRACTOR PRIOR TO BEGINNING WORK. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE WHICH MIGHT OCCUR.

**KEYNOTES:**

- REMOVE OUTER JACKET AND PIPE INSULATION. HOT TAP CHILLED WATER SUPPLY AND RETURN PIPE PER TYPICAL DETAIL A-MP50. PROVIDE AND REPAIR PIPE INSULATION AND COATING PER AUSTIN ENERGY SPECIFICATIONS. REFER TO AUSTIN ENERGY SS 232115.
- PROVIDE 24-INCH BUTTERFLY VALVES PER AUSTIN ENERGY SS 230524. PROVIDE VALVE OPERATORS IN THE HORIZONTAL POSITION. PROVIDE VALVE BOX PER DETAILS R5 AND R6 ON MP52.
- PROVIDE 24-INCH PRE-INSULATED CHILLED WATER PIPING PER AUSTIN ENERGY SS 232114. SEE AUSTIN ENERGY DETAIL R11 ON MP53 FOR STANDARD CASING REQUIREMENTS.
- JACK & BORE CASING BOUNDARY PER AUSTIN ENERGY STANDARD DETAIL R11 ON MP53.
- PROVIDE 4" COMMUNICATION CONDUIT PER AUSTIN ENERGY SS 260533. INSTALL AUSTIN ENERGY FURNISHED INNERDUCTS FROM THE EXISTING VAULT TO THE NEW COMMUNICATION VAULT. INSTALL AUSTIN ENERGY FURNISHED FIBER CABLE FROM THE EXISTING COMMUNICATION VAULT TO THE NEW COMMUNICATION VAULT AND CONTINUE INSTALLATION TO NEW AUSTIN ENERGY MECHANICAL ROOM PLC CABINET. SEE DETAIL R4 ON MP52.

FOR CONTINUATION SEE DRAWING MP11

FOR CONTINUATION SEE DRAWING MP11



- STA. 0+22.00 AIR RELEASE VALVE BOX
- STA. 0+17.25 COMMUNICATION VAULT
- STA. 0+00.00 EXISTING 24" CHWR FL=461.5'
- STA. 0+04.42 EXISTING 24" CHWR FL=461.5'
- STA. 0+06.22 24" CHWR 90° BEND FL=461.5'
- STA. 0+06.67 24" CHWR 45° BEND FL=461.5'
- STA. 0+09.58 EXCAVATION/RECEIVING PIT
- STA. 0+16.09 EXISTING TELECOMM (ASSUMED 2' DEEP)
- STA. 0+16.09 EXISTING 6" W (CI)
- STA. 0+18.87 EXISTING ELECTRIC (ASSUMED 2' DEEP)
- STA. 0+19.83 EXISTING ELECTRIC (ASSUMED 2' DEEP)
- STA. 0+24.89 EXISTING TELECOMM (ASSUMED 2' DEEP)
- STA. 0+24.89 EXISTING TELECOMM (ASSUMED 2' DEEP)
- STA. 0+29.58 EXISTING 4" GAS INV=476.00
- STA. 0+54.58 EXISTING TELECOMM (ASSUMED 2' DEEP)
- STA. 0+54.78 EXISTING 18" RCP FL=476.0'
- STA. 0+63.49 EXISTING 18" GAS INV=475.40
- STA. 0+68.06 EXISTING 6" W (CI) ABANDONED
- STA. 0+74.49 EXISTING TELECOMM (ASSUMED 2' DEEP)
- STA. 0+88.92 EXISTING FIBER OPTIC (ASSUMED 2' DEEP)
- STA. 0+130.83 EXISTING TELECOMM (ASSUMED 2' DEEP)
- STA. 0+163.80 EXIST' 2" RECLAIMED WATER INV=472.71'

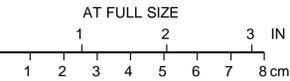
GENERAL PERMIT OFFICE  
MECHANICAL  
PIPING PLAN PROFILE  
STA 0+00 THRU 1+75

NO.	REVISIONS	DATE
0	100% DESIGN SUBMITTAL	04/29/20



AUSTIN ENERGY  
SAN ANTONIO STREET CHILLED WATER  
DISTRIBUTION EXTENSION

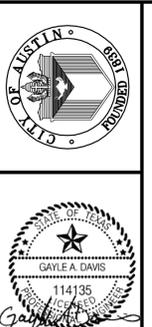
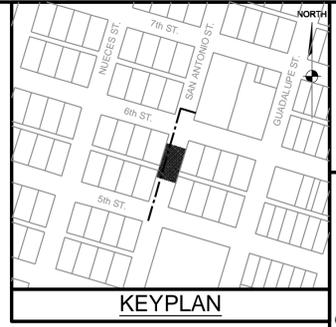
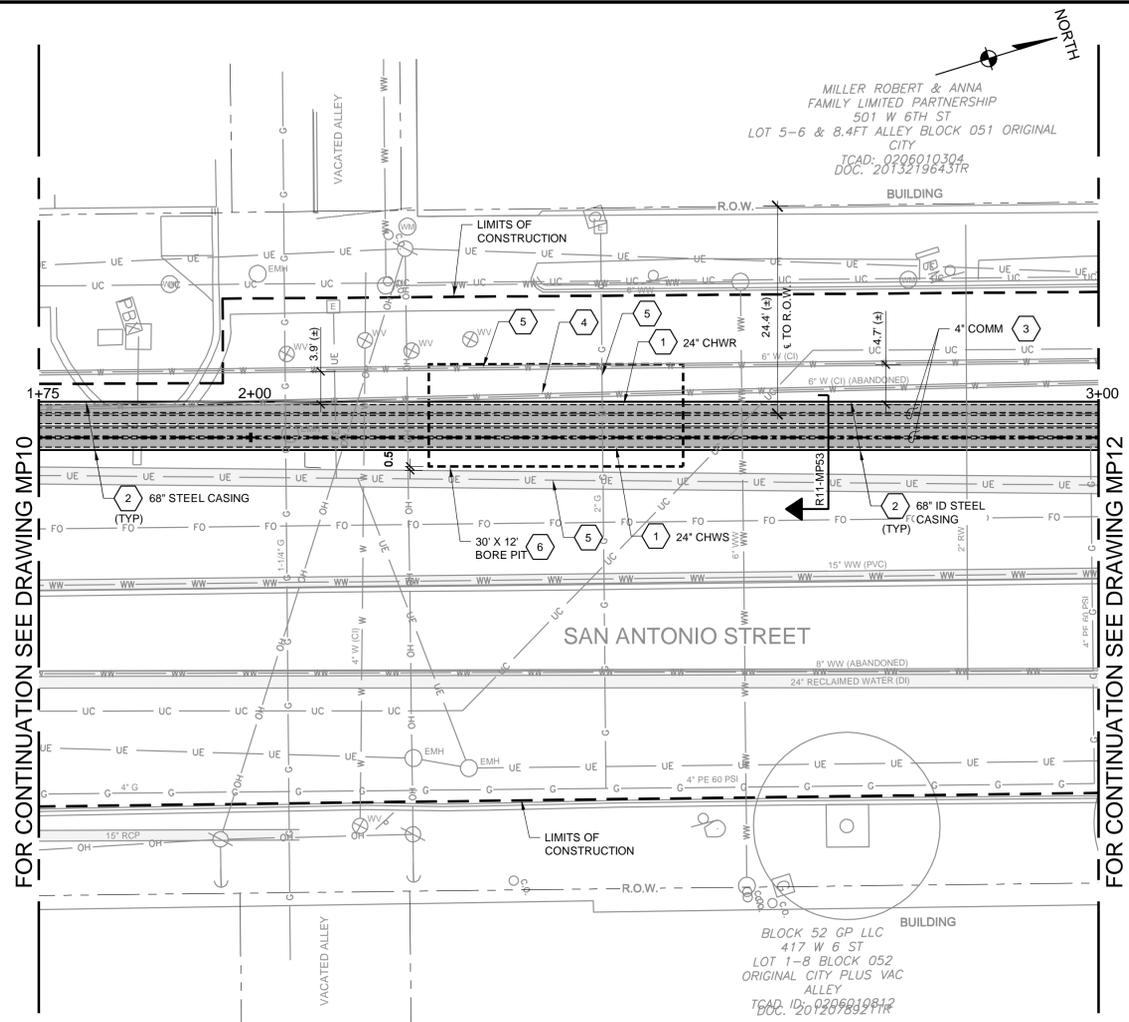
6836 Austin Center Blvd, Suite 350, Austin, Texas 78731  
www.stanleyconsultants.com  
Texas Firm Registration No.: F-174



DESIGNED	G. DAVIS
DRAWN	J. ROGERS
CHECKED	N. GRIFFIN
APPROVED	G. DAVIS
DATE	APRIL 29, 2020

GENERAL PERMIT PROGRAM

FILE INFO: C:\projects\resources-1\comm\0075617626560.05\_MP11.dwg, MODIFIED: Apr 23, 2020 9:10pm, PLOTTED: Apr 29, 2020 9:41pm BY: 6741 PLOT SCALE: 1=1



**NOTES:**

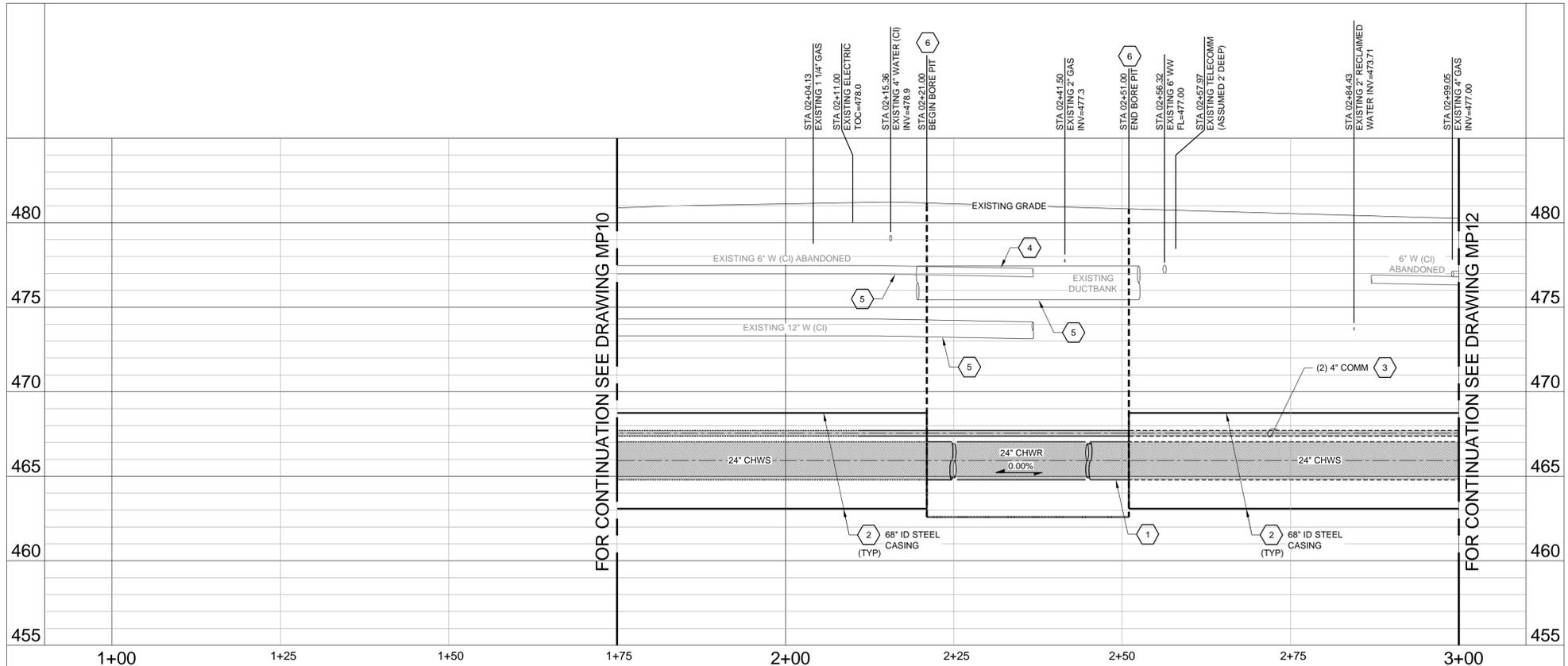
- SEE GG01 AND MG00 FOR GENERAL PROJECTS NOTES THAT APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN KEY NOTES.
- PERFORM ALL ROAD REPAIR WORK AS SHOWN ON THE CIVIL CP DRAWINGS AND CITY OF AUSTIN STANDARD DETAILS.
- PERFORM ALL EROSION CONTROL, ENVIRONMENTAL AND TREE PROTECTION AS SHOWN ON CG DRAWINGS AND CITY OF AUSTIN STANDARD DETAILS.
- LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. FIELD VERIFY THE EXACT LOCATION AND ELEVATIONS BEFORE BEGINNING ANY WORK INCLUDING BUT NOT LIMITED TO: ALL EXISTING UTILITIES WITHIN EXCAVATION AREAS, EXISTING CHILLED WATER PIPE ELEVATIONS, AND BUILDING HEAT EXCHANGER CONNECTION ELEVATIONS. COORDINATE HEAT EXCHANGER ELEVATIONS AND BUILDING WALL PENETRATION LOCATIONS WITH BUILDING CONTRACTOR PRIOR TO BEGINNING WORK. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE WHICH MIGHT OCCUR.

**KEYNOTES:**

- PROVIDE 24-INCH PRE-INSULATED CHILLED WATER PIPING PER AUSTIN ENERGY SS 232114. SEE AUSTIN ENERGY DETAIL R11 ON MP53 FOR STANDARD CASING REQUIREMENTS.
- JACK & BORE CASING BOUNDARY PER AUSTIN ENERGY STANDARD DETAIL R11 ON MP53.
- PROVIDE 4" COMMUNICATION CONDUIT PER AUSTIN ENERGY SS 260533. INSTALL AUSTIN ENERGY FURNISHED INNERDUCTS AND INSTALL AUSTIN ENERGY FURNISHED FIBER CABLE. SEE DETAIL R4 ON MP52.
- REMOVE 6" W (C) ABANDONED PIPE AS NEEDED AND CAP FOR INSTALLATION OF NEW CHILLED WATER PIPES.
- PROVIDE TEMPORARY SUPPORT FOR EXISTING TO REMAIN UTILITIES. REPAIR PIPE BEDDING PER CITY OF AUSTIN STANDARD DETAILS ON CP50.
- BACKFILL EXCAVATION PIT USING THE METHODS SHOWN IN R1 ON MP52.

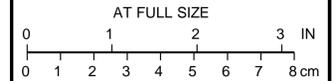
GENERAL PERMIT OFFICE  
**MECHANICAL**  
 PIPING PLAN PROFILE  
 STA 1+75 THRU 3+00

**GENERAL PERMIT PROGRAM**



AUSTIN ENERGY  
 SAN ANTONIO STREET CHILLED WATER  
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 Texas Firm Registration No.: F-174



REVISIONS		NO.	REMARKS	DESIGN	CHKD	DATE
0	100% DESIGN SUBMITTAL	GD	NG	GD	GD	04/29/20

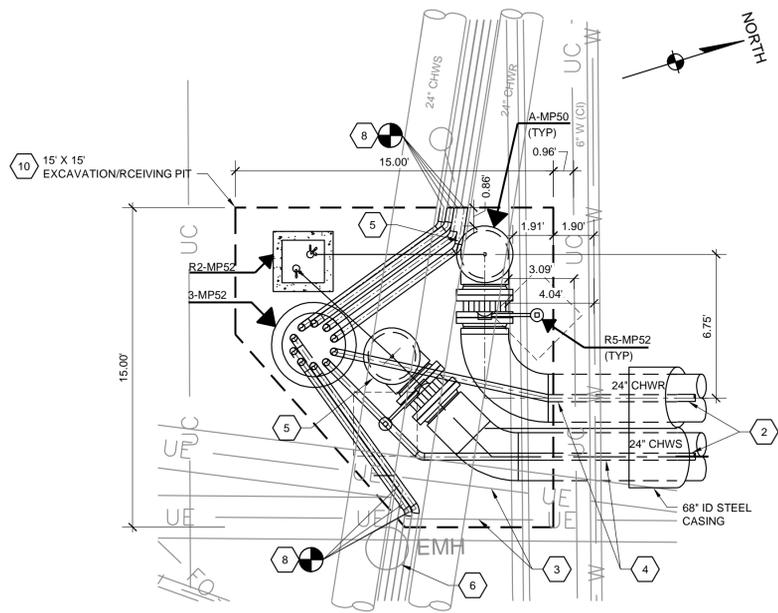
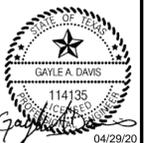
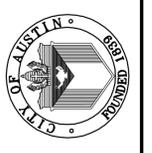
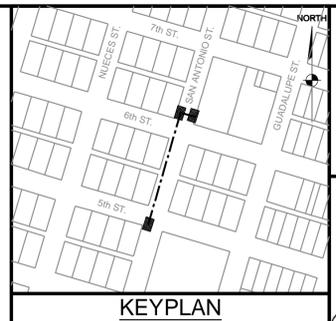
  

DESIGNED	G. DAVIS	DATE	APRIL 29, 2020
DRAWN	J. ROGERS	APPROVED	G. DAVIS
CHECKED	N. GRIFFIN	APPROVED	G. DAVIS
REV.	0	DATE	APRIL 29, 2020

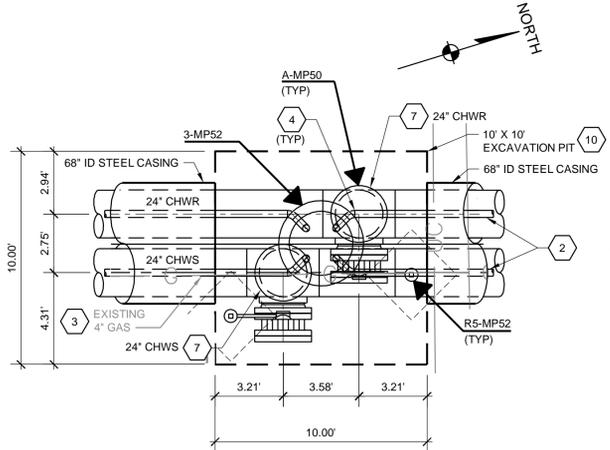
  

PROJECT NO.	26560.05.00
SHEET NO.	MP11

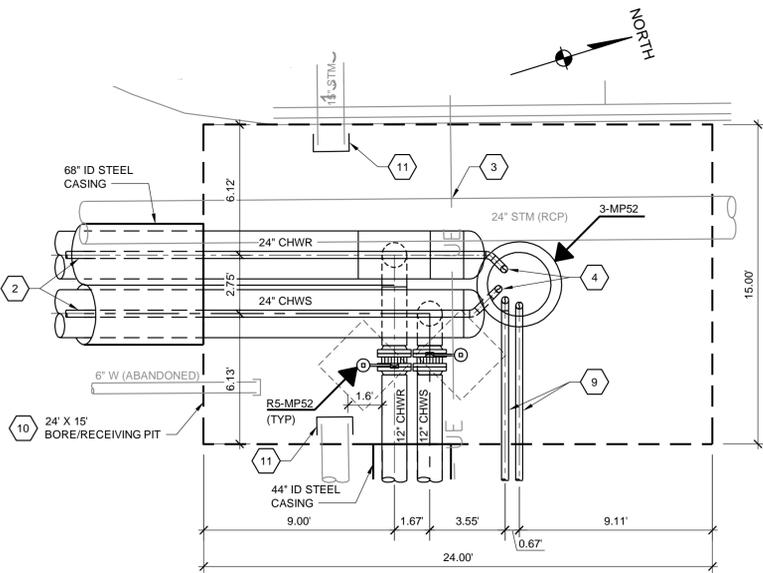




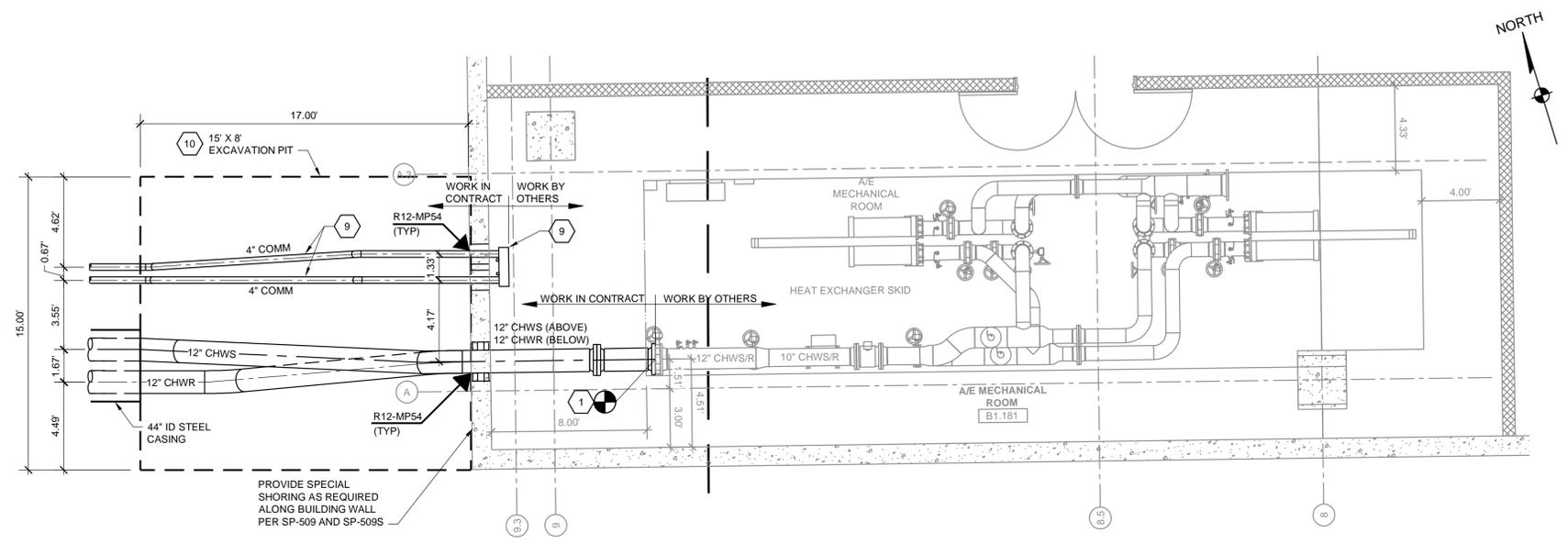
PLAN **A-MP40**  
GA10  
MP10  
EXCAVATION/RECEIVING PIT  
SCALE: 1/4" = 1'-0"



PLAN **B-MP40**  
GA10  
MP12  
EXCAVATION PIT  
SCALE: 1/4" = 1'-0"



PLAN **C-MP40**  
GA10  
MP12  
BORE/RECEIVING PIT  
SCALE: 1/4" = 1'-0"



PLAN **D-MP40**  
GA10  
MP12  
EXCAVATION/RECEIVING PIT  
SCALE: 1/4" = 1'-0"

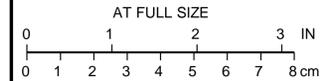
- NOTES:**
- SEE GG01 AND MG00 FOR GENERAL PROJECTS NOTES THAT APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN KEY NOTES.
  - COORDINATE CHILLED WATER LATERAL WORK WITH BUILDING CONTRACTOR.
  - PERFORM ALL ROAD REPAIR WORK AS SHOWN ON THE CIVIL CP DRAWINGS AND CITY OF AUSTIN STANDARD DETAILS.
  - PERFORM ALL EROSION CONTROL, ENVIRONMENTAL AND TREE PROTECTION AS SHOWN ON CG DRAWINGS AND CITY OF AUSTIN STANDARD DETAILS.
  - LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. FIELD VERIFY THE EXACT LOCATION AND ELEVATIONS BEFORE BEGINNING ANY WORK INCLUDING BUT NOT LIMITED TO: ALL EXISTING UTILITIES WITHIN EXCAVATION AREAS, EXISTING CHILLED WATER PIPE ELEVATIONS, AND BUILDING HEAT EXCHANGER CONNECTION ELEVATIONS. COORDINATE HEAT EXCHANGER ELEVATIONS AND BUILDING WALL PENETRATION LOCATIONS WITH BUILDING CONTRACTOR PRIOR TO BEGINNING WORK. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE WHICH MIGHT OCCUR.

- KEYNOTES:**
- CONNECT 12-INCH PRE-INSULATED CHILLED WATER PIPES TO DESIGNATED ISOLATION VALVES. PROVIDE BOLTING HARDWARE AND GASKET SETS PER AUSTIN ENERGY SS 232114. PROVIDE INSULATION AND JACKET PER AUSTIN ENERGY SS 230719.
  - PROVIDE 4" COMMUNICATION CONDUIT PER AUSTIN ENERGY SS 260533. INSTALL AUSTIN ENERGY FURNISHED INNERDUCTS AND INSTALL AUSTIN ENERGY FURNISHED FIBER CABLE. SEE DETAIL R4 ON MP52.
  - PROVIDE TEMPORARY SUPPORT FOR EXISTING TO REMAIN UTILITIES. REPAIR PIPE BEDDING PER CITY OF AUSTIN STANDARD DETAILS ON CP50.
  - ROLL 90 DEGREE ELBOW TO REQUIRED ELEVATION ALIGNMENT PER DETAIL R11-MP53.
  - REMOVE OUTER JACKET AND PIPE INSULATION. HOT TAP CHILLED WATER SUPPLY AND RETURN PIPE PER TYPICAL DETAIL A-MP50. PROVIDE AND REPAIR PIPE INSULATION AND COATING PER AUSTIN ENERGY SPECIFICATIONS. REFER TO AUSTIN ENERGY SS 232115.
  - PROTECT EXISTING MANHOLES (TYP)
  - REMOVE OUTER JACKET AND PIPE INSULATION. HOT TAP CHILLED WATER SUPPLY AND RETURN PIPE PER TYPICAL DETAIL A-MP50. PROVIDE AND REPAIR PIPE INSULATION AND COATING PER AUSTIN ENERGY SPECIFICATIONS. REFER TO AUSTIN ENERGY SS 232115.
  - REMOVE EXISTING 4" COMM CONDUIT AND PROVIDE NEW 4" COMM CONDUIT. ROUTE CONDUIT TO NEW COMM VAULT. COORDINATE WORK WITH AUSTIN ENERGY PRIOR TO BEGINNING ANY COMM WORK IN THIS LOCATION. DISCONNECT EXISTING FIBER CABLE FROM EXISTING COMM VAULT. ROUTE EXISTING FIBER CABLE THRU NEW COMM VAULT TO EXISTING COMM VAULT.
  - PROVIDE 4" COMMUNICATION CONDUIT PER AUSTIN ENERGY SS 260533. ROUTE CONDUIT THROUGH 6" CORED WALL AND TERMINATE WITH FIBER END INTO THE FIBER PANEL. INSTALL AUSTIN ENERGY FURNISHED INNERDUCTS AND INSTALL AUSTIN ENERGY FURNISHED FIBER CABLE. SEE DETAIL R4 ON MP52.
  - BACKFILL EXCAVATION PIT USING THE METHODS SHOWN IN R1 ON MP52.
  - REMOVE 15" STM (ABANDONED) PIPE AS NEEDED AND CAP FOR INSTALLATION OF NEW CHILLED WATER PIPES.



AUSTIN ENERGY  
SAN ANTONIO STREET CHILLED WATER  
DISTRIBUTION EXTENSION

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Texas Firm Registration No.: F-174



GENERAL PERMIT OFFICE  
MECHANICAL  
ENLARGED PLANS

REVISIONS		NO.	DATE
0	100% DESIGN SUBMITTAL	0	04/29/20

DESIGNED	DRAWN	CHECKED	APPROVED	DATE
G. DAVIS	J. ROGERS	N. GRIFFIN	G. DAVIS	APRIL 29, 2020

REMARKS	NO.
26560.05.00	0

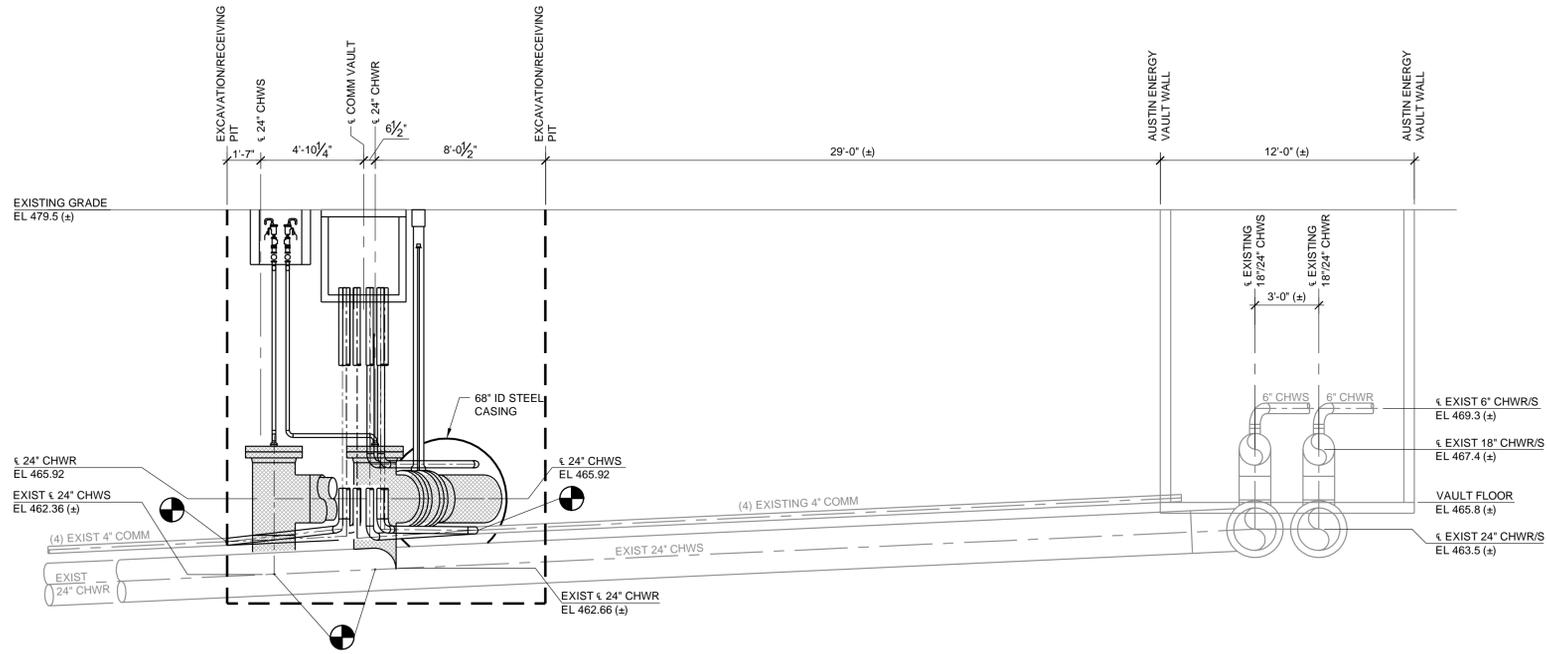
  

SCALE: AS NOTED	SHEET NO.
MP40	0

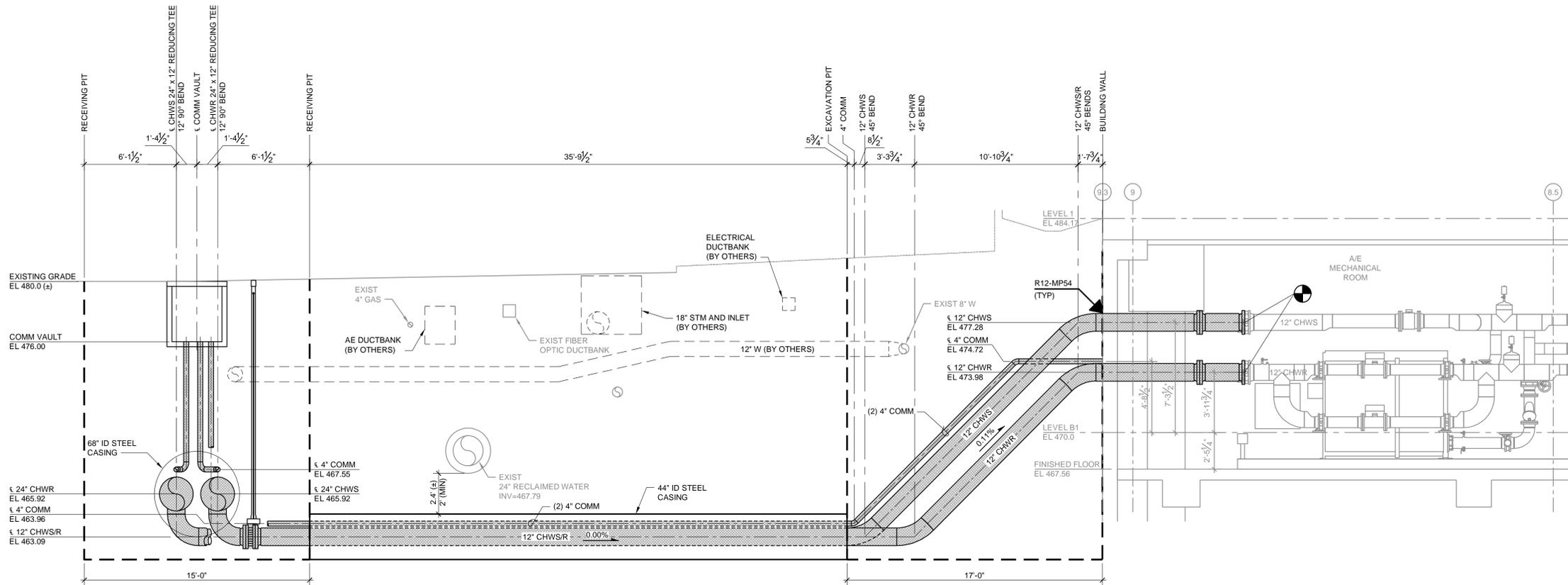
GENERAL PERMIT PROGRAM

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FILE INFO: C:\projects\data\source-1\common\0758176\26560.05\_MP41.dwg MODIFIED: Apr 23, 2020 9:44pm PLOTTED: Apr 23, 2020 9:44pm BY:8741 PLOT SCALE: 1=1'



SECTION **A-MP41**  
MP10 24" X 24" HOT TAP  
SCALE: 1/4" = 1'-0"



SECTION **B-MP41**  
MP12 12" LATERAL TO HEAT EXCHANGER  
SCALE: 1/4" = 1'-0"

**NOTES:**

- SEE GG01 AND MG00 FOR GENERAL PROJECTS NOTES THAT APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN KEY NOTES.



GENERAL PERMIT OFFICE  
MECHANICAL  
SECTIONS

NO.	REVISIONS	DATE
0	100% DESIGN SUBMITTAL	04/29/20

DESIGNED	G. DAVIS	DATE	APRIL 29, 2020
DRAWN	J. ROGERS		
CHECKED	G. GRIFFIN		
APPROVED	G. DAVIS		

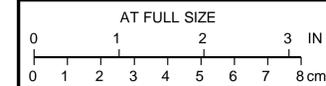


26560.05.00

AUSTIN ENERGY  
SAN ANTONIO STREET CHILLED WATER  
DISTRIBUTION EXTENSION

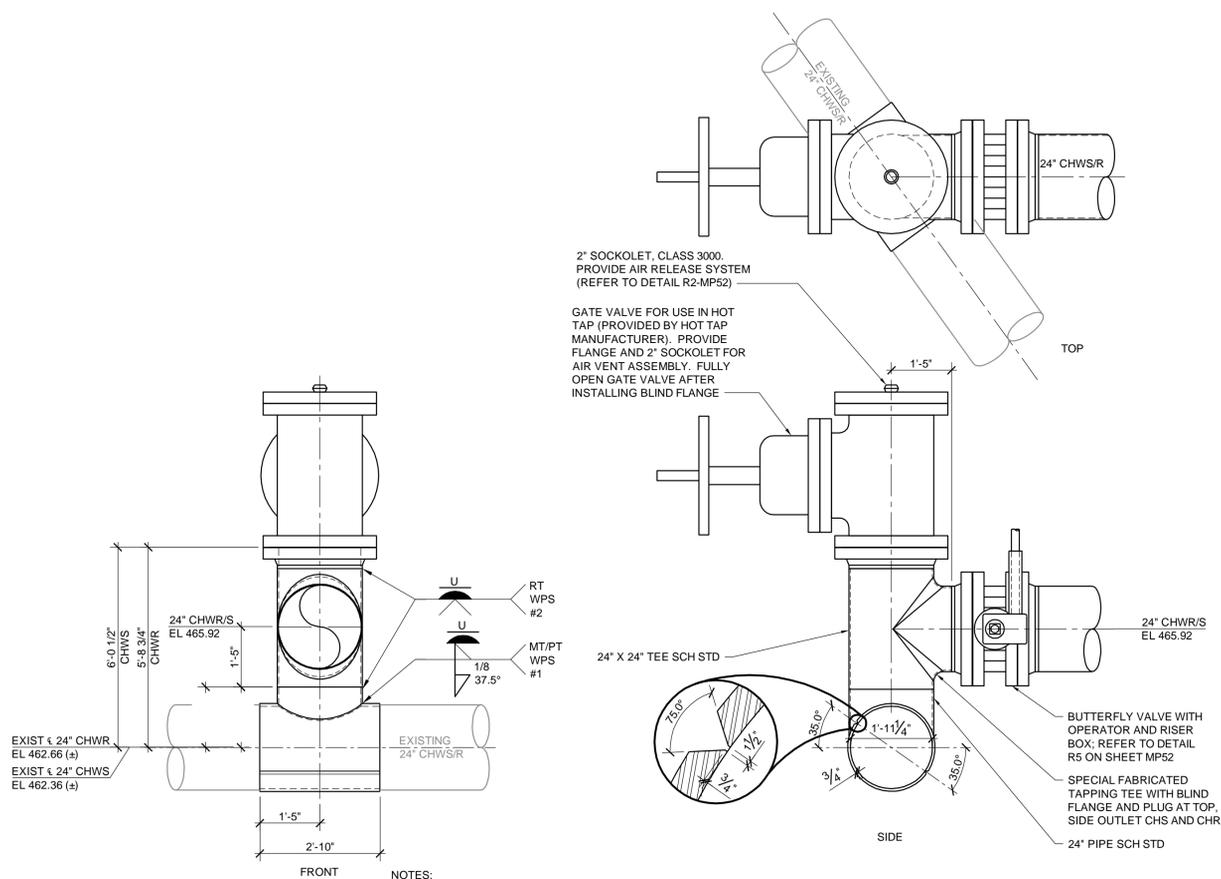
Stanley Consultants INC.

6836 Austin Center Blvd, Suite 350, Austin, Texas 78731  
www.stanleyconsultants.com  
Texas Firm Registration No.: F-174



GENERAL PERMIT PROGRAM

FILE INFO: C:\projects\data\source-1\common\00758176\056560.05\_MF50.dwg MODIFIED: Apr 23, 2020 1:23pm PLOTTED: Apr 23, 2020 9:45pm BY:8741 PLOT SCALE: 1=1



- NOTES:
- HOT TAP DETAIL IS TYPICAL AND DIAGRAMMATIC FOR HOT TAPS 50% OR GREATER THAN MAIN PIPE. DIMENSIONS SHOWN MAY VARY. CONTRACTOR SHALL SUBMIT HOT TAP SHOP DRAWING FOR REVIEW BY AUSTIN ENERGY PRIOR TO FABRICATION.
  - CONTRACTOR SHALL COORDINATE WITH OWNER'S WELDING INSPECTOR WHO SHALL PERFORM A NDE TEST ON PIPE BEFORE HOT TAP WELDING IS STARTED TO VERIFY PIPE WALL THICKNESS. TEST SHALL CONFIRM THICKNESS OF PIPE IS SAME AS SCHEDULE WEIGHT OF PIPE. IF NOT, PRIOR AE APPROVAL SHALL BE GIVEN BEFORE HOT TAP IS PERFORMED.
  - INSULATE WITH PRE-INSULATED PIPE MANUFACTURER'S POLY INSULATION FOAM AND HIGH DENSITY HEAT SHRINK JACKET.

DETAIL **A-MP50** 24" X 24" HOT TAP  
 MP10, MP40 MP52 (TYPICAL)  
 SCALE: 1/2" = 1'-0"

NOTES:

- SEE GG01 AND MG00 FOR GENERAL PROJECTS NOTES THAT APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN KEY NOTES.
- PERFORM ALL ROAD REPAIR WORK AS SHOWN ON THE CIVIL CP DRAWINGS AND CITY OF AUSTIN STANDARD DETAILS.
- PERFORM ALL EROSION CONTROL, ENVIRONMENTAL AND TREE PROTECTION AS SHOWN ON CG DRAWINGS AND CITY OF AUSTIN STANDARD DETAILS.
- FIELD VERIFY ALL ELEVATIONS BEFORE BEGINNING ANY NEW WORK INCLUDING BUT NOT LIMITED TO: EXISTING CHILLED WATER PIPE ELEVATIONS, AND BUILDING HEAT EXCHANGER CONNECTION FINAL ELEVATIONS. COORDINATE HEAT EXCHANGER ELEVATIONS AND BUILDING WALL PENETRATION LOCATIONS WITH BUILDING CONTRACTOR PRIOR TO BEGINNING NEW WORK.



GENERAL PERMIT OFFICE  
 MECHANICAL  
 DETAILS

NO.	REVISIONS	DATE
0	100% DESIGN SUBMITTAL	04/29/20

AUSTIN ENERGY  
 SAN ANTONIO STREET CHILLED WATER  
 DISTRIBUTION EXTENSION

Stanley Consultants INC.  
 6836 Austin Center Blvd, Suite 350, Austin, Texas 78731  
 www.stanleyconsultants.com  
 Texas Firm Registration No.: F-174

SCALE: AS NOTED

AT FULL SIZE

SC1 PROJECT NO. 26560.05.00

DESIGNED	G. DAVIS
DRAWN	J. ROGERS
CHECKED	N. CRIFIN
APPROVED	G. DAVIS
DATE	APRIL 29, 2020

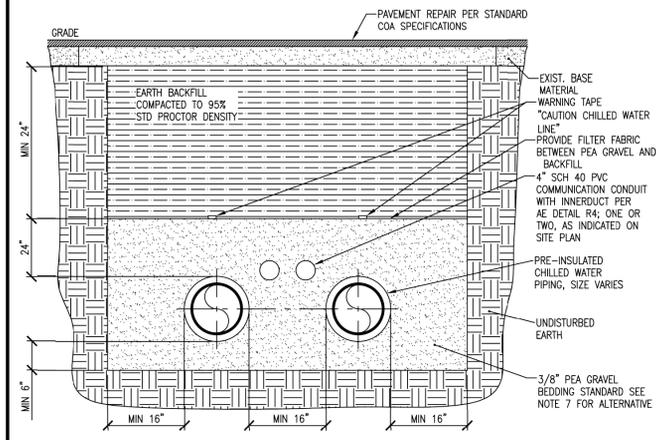
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SHEET NO. **MP50**

REV. **0**

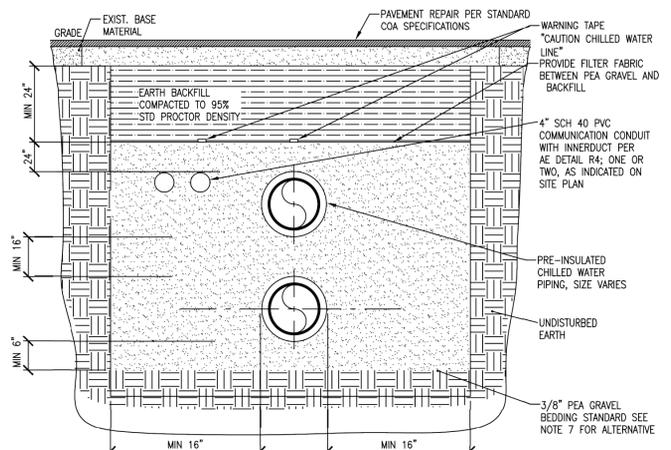
GENERAL PERMIT PROGRAM

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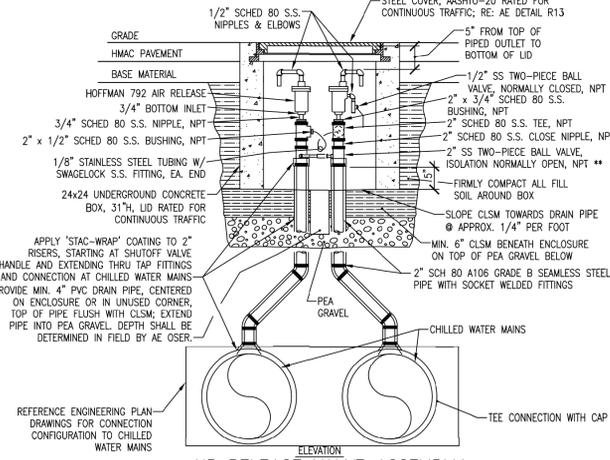
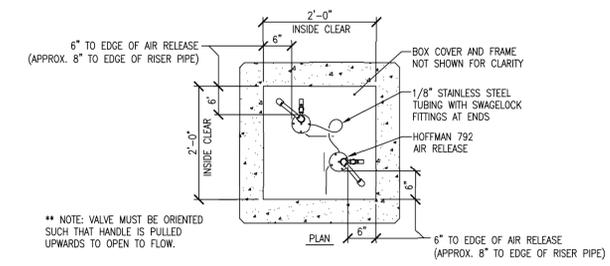
- GENERAL NOTES:**
1. THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE A MINIMUM OF 12" WIDER THAN THE UNDISTURBED SIDES OF THE TRENCH, SYMMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION.
  2. ANY CONCRETE PAVING SHALL BE SAW CUT 6" WIDER THAN UNDISTURBED SIDES OF EXCAVATION.
  3. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX OR TEMPORARY HOT MIX.
  4. ROAD BASE AND SURFACE MATERIALS IN THE TRENCH CUT SHALL BE REPLACED IN KIND OF EQUAL THICKNESS, OR MINIMUM BASE THICKNESS OF 10 INCHES, WHICHEVER IS GREATER.
  5. ALL DAMAGED AREAS OF PAVEMENT OUTSIDE THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH MINIMUM OF 8 INCHES OF BASE OR MATCH EXISTING, WHICHEVER IS GREATER.
  6. SURFACE PAVEMENT SHALL BE OF THE KIND AND THICKNESS AS EXISTING, OR MINIMUM 2 INCHES, WHICHEVER IS GREATER.
  7. CLSM (FLOWABLE FILL) SHALL BE ACCEPTABLE IN LONG RUNS OF PIPE WHERE NO VALVES, AIR RELEASES OR ANY VAULTS ARE LOCATED. AE APPROVAL IS REQUIRED FOR THIS ALTERNATIVE.
  8. THERE SHALL BE 3 FEET OF SEPARATION BETWEEN AE CHILLED WATER LINES AND ANY OTHER UTILITY UNLESS PRIOR APPROVAL BY AE OSER PERSONNEL.

STANDARD TRENCH DETAIL  
SCALE: R1 3/4"=1'-0"

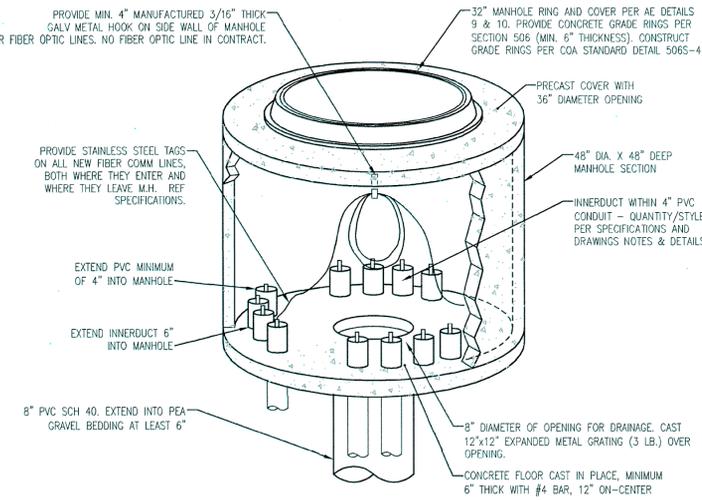


- GENERAL NOTES:**
1. THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE A MINIMUM OF 12" WIDER THAN THE UNDISTURBED SIDES OF THE TRENCH, SYMMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION.
  2. ANY CONCRETE PAVING SHALL BE SAW CUT 6" WIDER THAN UNDISTURBED SIDES OF EXCAVATION.
  3. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX OR TEMPORARY HOT MIX.
  4. ROAD BASE AND SURFACE MATERIALS IN THE TRENCH CUT SHALL BE REPLACED IN KIND OF EQUAL THICKNESS, OR MINIMUM BASE THICKNESS OF 10 INCHES, WHICHEVER IS GREATER.
  5. ALL DAMAGED AREAS OF PAVEMENT OUTSIDE THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH MINIMUM OF 8 INCHES OF BASE OR MATCH EXISTING, WHICHEVER IS GREATER.
  6. SURFACE PAVEMENT SHALL BE OF THE KIND AND THICKNESS AS EXISTING, OR MINIMUM 2 INCHES, WHICHEVER IS GREATER.
  7. CLSM (FLOWABLE FILL) SHALL BE ACCEPTABLE IN LONG RUNS OF PIPE WHERE NO VALVES, AIR RELEASES OR ANY VAULTS ARE LOCATED. AE APPROVAL IS REQUIRED FOR THIS ALTERNATIVE.
  8. THERE SHALL BE 3 FEET OF SEPARATION BETWEEN AE CHILLED WATER LINES AND ANY OTHER UTILITY UNLESS PRIOR APPROVAL BY AE OSER PERSONNEL.

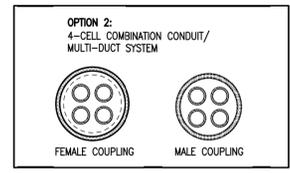
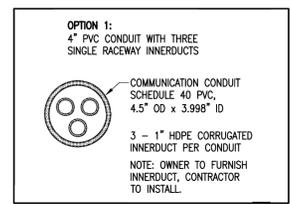
STANDARD TRENCH DETAIL  
SCALE: R1A NTS



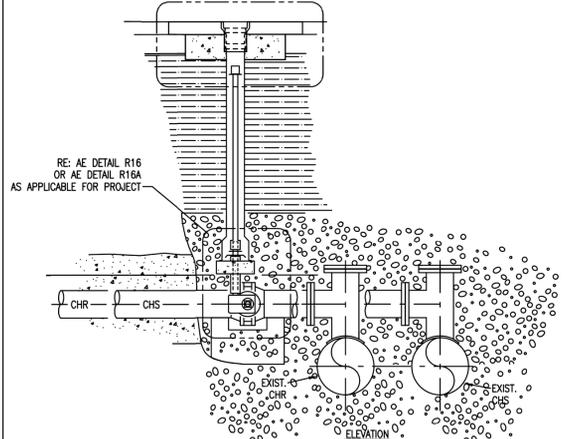
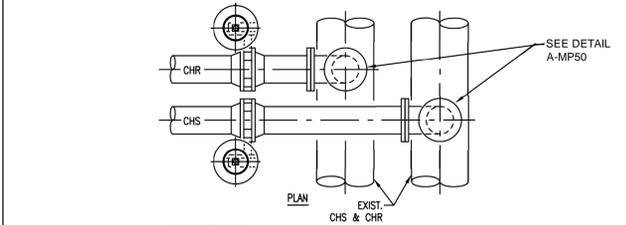
AIR RELEASE VALVE ASSEMBLY  
SCALE: R2 3/4"=1'-0"



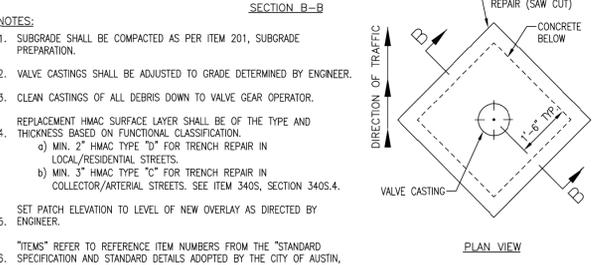
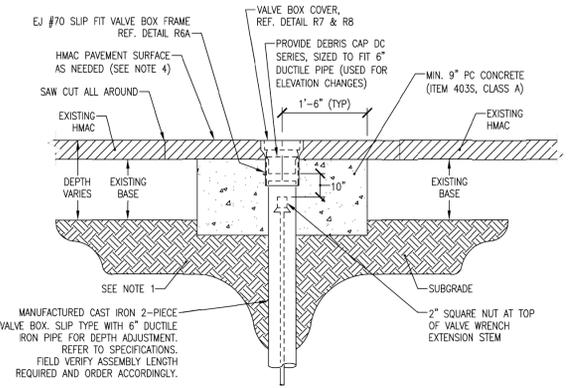
COMMUNICATION VAULT  
SCALE: R3 NONE



COMMUNICATION CONDUIT INNERDUCT  
SCALE: R4 NONE

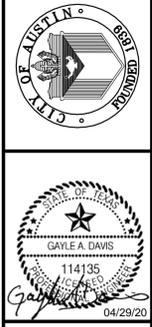


CHILLED WATER CONNECTION  
GENERAL LAYOUT  
SEE AE DETAIL AND ENGR DRAWINGS  
SCALE: R5 NONE



VALVE BOX DETAIL  
SCALE: R6 NONE

- NOTES:**
1. SUBGRADE SHALL BE COMPACTED AS PER ITEM 201, SUBGRADE PREPARATION.
  2. VALVE CASTINGS SHALL BE ADJUSTED TO GRADE DETERMINED BY ENGINEER.
  3. CLEAN CASTINGS OF ALL DEBRIS DOWN TO VALVE GEAR OPERATOR.
  4. REPLACEMENT HMAC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION.
    - a) MIN. 2" HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
    - b) MIN. 3" HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS. SEE ITEM 340S, SECTION 340S.4.
  5. SET PATCH ELEVATION TO LEVEL OF NEW OVERLAY AS DIRECTED BY ENGINEER.
  6. \*ITEMS\* REFER TO REFERENCE ITEM NUMBERS FROM THE "STANDARD SPECIFICATION AND STANDARD DETAILS ADOPTED BY THE CITY OF AUSTIN, DEPARTMENT OF PUBLIC WORKS"



GENERAL PERMIT OFFICE  
MECHANICAL  
AUSTIN ENERGY STANDARD DETAILS  
SHEET 1 OF 3

NO.	REVISIONS	DATE
0	100% DESIGN SUBMITTAL	04/29/20

DESIGNED	G. DAVIS
DRAWN	J. ROGERS
CHECKED	A. CRIFFIN
APPROVED	G. DAVIS
DATE	APRIL 29, 2020

SCALE: AS NOTED

SHEET NO. MP52

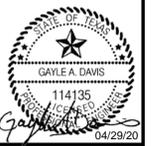
AUSTIN ENERGY  
SAN ANTONIO STREET CHILLED WATER  
DISTRIBUTION EXTENSION

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www.stanleyconsultants.com  
Texas Firm Registration No.: F-174

AT FULL SIZE

GENERAL PERMIT PROGRAM





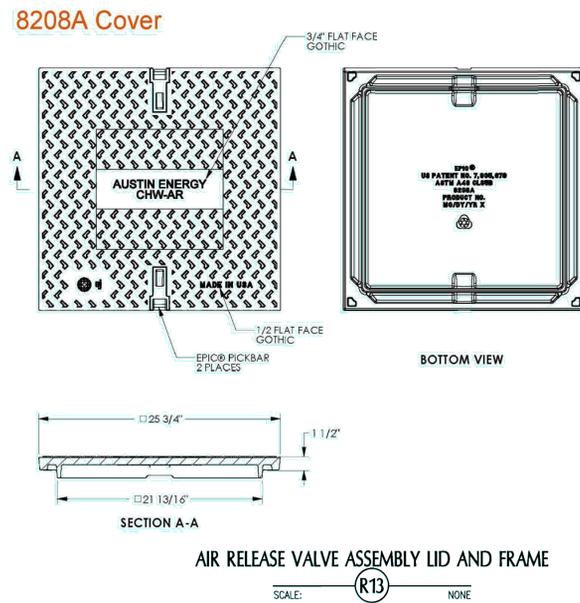
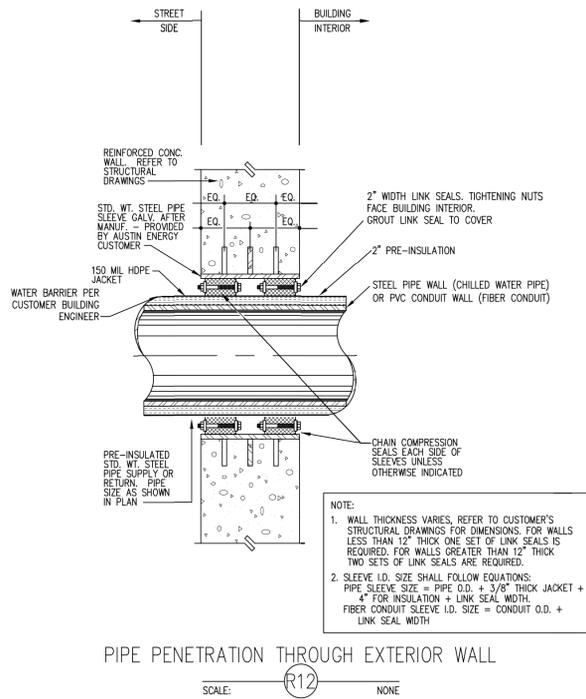
GENERAL PERMIT OFFICE  
**MECHANICAL**  
 AUSTIN ENERGY STANDARD DETAILS  
 SHEET 3 OF 3

NO.	0	100% DESIGN SUBMITTAL	REVISIONS	DATE
NO.				04/29/20
DESIGNED	G. DAVIS			
DRAWN	J. ROGERS			
CHECKED	G. GRIFFIN			
APPROVED	G. DAVIS			
DATE	APRIL 29, 2020			

AUSTIN ENERGY  
 SAN ANTONIO STREET CHILLED WATER  
 DISTRIBUTION EXTENSION

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AT FULL SIZE  
 0 1 2 3 IN  
 0 1 2 3 4 5 6 7 8 cm

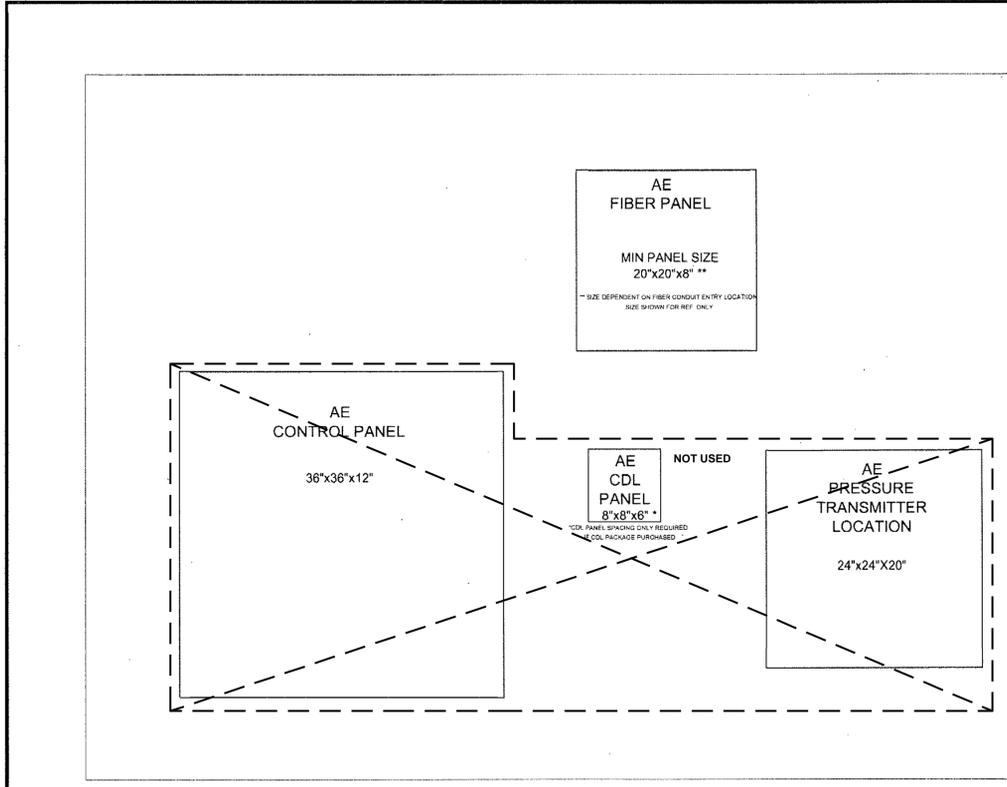
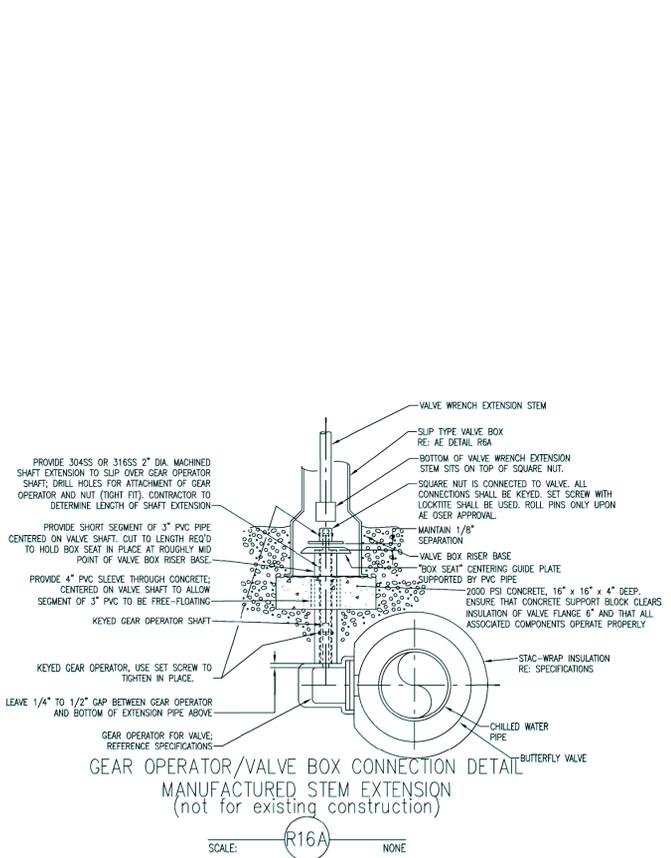
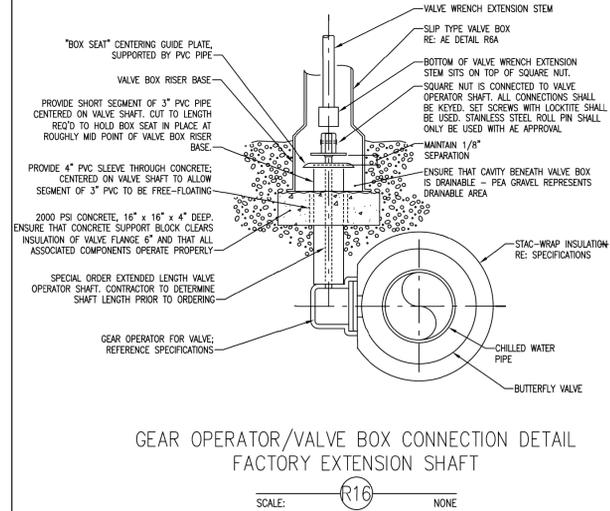


**PRELIMINARY**

Submital Number: NPR13-4022

Design Features:  
 -Materials: Gray Iron (CL35B)  
 -Design Load: Heavy Duty  
 -Open Area: 1/8"  
 -Coating: Dipped  
 -Designates Machined Surface

Or Approved Equal



- NOTES:
- ALL PANELS AND TRANSMITTERS MOUNTED ON THE WALL SHALL HAVE AT LEAST A MINIMUM OF 12" OF CLEARANCE AROUND ALL 4 SIDES OF PANEL/TRANSMITTER LOCATION.
  - THE CONTROL PANEL SHALL HAVE A MINIMUM OF 54" CLEARANCE IN FRONT OF THE CONTROL PANEL INCLUDING THE 12" CLEARANCE ON EITHER SIDE.
  - ALL OTHER PANELS AND TRANSMITTER LOCATION SHALL HAVE A MINIMUM OF 24" CLEARANCE IN FRONT OF PANEL/TRANSMITTER LOCATION INCLUDING THE CLEARANCE ON EITHER SIDE.
  - NO PANEL SHALL BE DESIGNED TO BE MOUNTED BEHIND OR IN FRONT OF HEAT EXCHANGERS OR ANY OTHER PIECE OF EQUIPMENT UNLESS EQUIPMENT IS AT LEAST 54" FROM FRONT PANEL OR TRANSMITTER LOCATION.
  - ALL PANELS SHALL BE MOUNTED ON VERTICAL UNI-STRUCT CONNECTED TO THE WALL.
  - NO CUSTOMER PIPING OR CONDUITS SHALL RUN IN BETWEEN OR WITHIN 12" ON ALL 4 SIDES OF THE PANELS.
  - PANEL AND TRANSMITTER LAYOUT IS FOR REFERENCE OF SIZE ONLY AND DOES NOT INDICATE ACTUAL LOCATION OF PANELS OR TRANSMITTERS. ACTUAL PANEL LAYOUT WILL BE DEPENDENT ON A PER CUSTOMER BASIS.
  - DURING CONSTRUCTION CONTROL PANEL SHALL BE COVERED BY A BLANKET TO PREVENT DUST AND PARTICLES FROM ENTERING THE CONTROL PANEL.

AUSTIN ENERGY ON-SITE ENERGY RESOURCES	CONTROL PANEL & TRANSMITTER CLEARANCES	STANDARD NO. M-29
RECORD COPY SIGNED BY <i>Michelle Bryant 1/15/15</i>	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	

FILE INFO: C:\projects\data\source-1\common\0758176\05660\_05\_MP54.dwg (MODIFIED: Apr 23, 2020 12:41pm) PLOTTED: Apr 29, 2020 10:11pm BY:8741 PLOT SCALE: 1=1

GENERAL PERMIT PROGRAM