CITY OF AUSTIN, TEXAS

SHEET INDEX

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IFB NO. CLMC614

C.I.P. NO. 7265.007

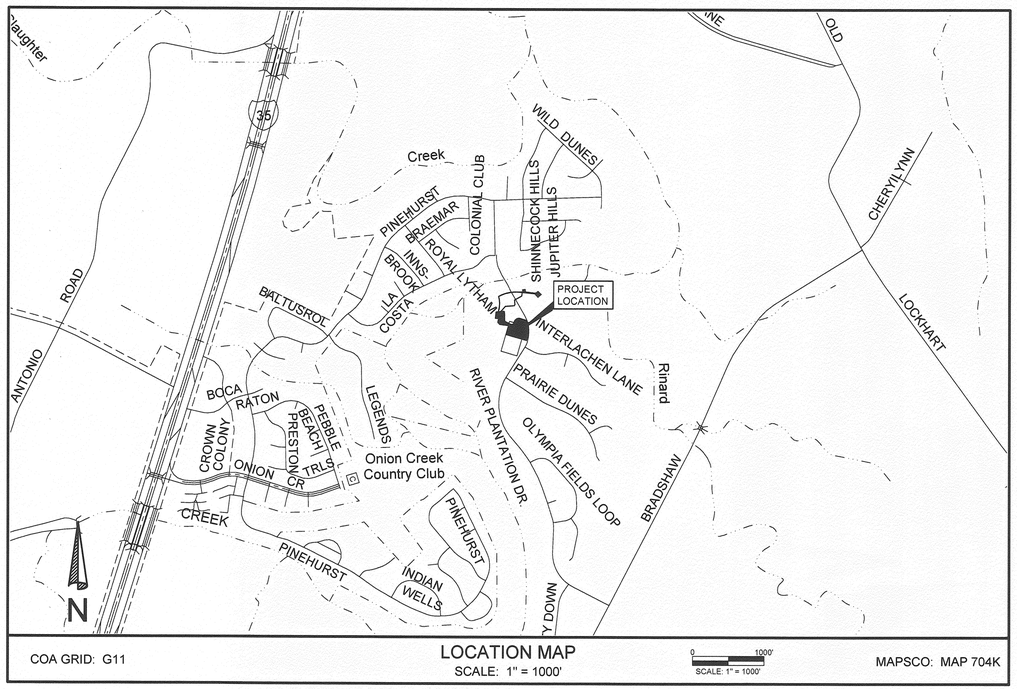
ONION CREEK WASTEWATER TREATMENT PLANT DEMOLITION CITY OF AUSTIN PUBLIC WORKS DEPARTMENT

NOTES:

1. CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT 24 HOURS PRIOR TO STARTING WORK.
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 ONION CREEK WATERSHED, AND IS CLASSIFIED AS WATER SUPPLY SUBURBAN.
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. A PORTION OF THIS SITE IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN, PER CITY OF AUSTIN AND FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP PANEL # 48453C0595H.
6. THIS PROJECT IS NOT WITHIN THE EDWARDS AQUIFER RECHARGE ZONE AS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ).

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



COA GRID: G11

LOCATION MAP
SCALE: 1" = 1000'

0 1000'
SCALE: 1" = 1000'

MAPSCO: MAP 704K

PROJECT INFORMATION:

PROJECT LOCATION:
WEST OF RIVER PLANTATION
DRIVE, SOUTH OF ONION CREEK
AUSTIN, TEXAS 78731

OWNER:
AUSTIN WATER UTILITY

CONTACT:
MS. BRENDA BAKER
PROJECT MANAGER
PUBLIC WORKS DEPARTMENT
CITY OF AUSTIN
505 BARTON SPRINGS RD, SUITE 900
AUSTIN, TX 78704
(512) 974-1175

PRIME PROJECT ENGINEER:
MALONE / WHEELER

SUBCONSULTANTS:
BAER ENGINEERING & ENVIRONMENTAL
CONSULTING INC. - ENVIRONMENTAL
MACIAS & ASSOCIATES - SURVEYING
GARCIA DESIGN, INC. - LANDSCAPE & PERMITTING
CHAN & PARTNERS, LLC - COST ESTIMATING
P.E. STRUCTURAL CONSULTANTS, INC - STRUCTURAL

SUBMITTAL PREPARED BY:

MALONE ★ WHEELER
SINCE INC. 1995
CIVIL ENGINEERING ★ DEVELOPMENT CONSULTING ★ PROJECT MANAGEMENT
5113 Southwest Parkway, Suite 260
Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-0655
Firm Registration No. F-786
CONTACT: MR. DANIEL J. BROWN, P.E.
PHONE: (512) 899-0601
STATE OF TEXAS ★ DANIEL J. BROWN 98337 LICENSED PROFESSIONAL ENGINEER

SUBMITTED FOR APPROVAL BY:

ENGINEER OF RECORD — DATE 6.7.16

APPROVED BY GENERAL PERMIT HOLDER:

FOR GENERAL PERMIT HOLDER — DATE 6/16/16

ANNUAL GENERAL PERMIT NUMBER

APPROVALS:

FOR AUSTIN WATER UTILITY FACILITIES ENGINEERING — DATE 6-7-2016

FOR AUSTIN WATER UTILITY — DATE

APPROVAL FOR GENERAL PERMIT:

GENERAL PERMIT PROGRAM COORDINATOR — DATE 06/23/2016
PLANNING AND DEVELOPMENT REVIEW DEPARTMENT

DEVELOPMENT PERMIT NUMBER SP-2015-0280.AWU

SUBMITTAL DATE: 10/22/2015

NOTES:

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

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

PROJECT NO. 15-005 (SP-2015-0280.AWU)

GENERAL PERMIT PROGRAM

F:\Onion Creek WWTP Demo\Projects\15-005 WWTP Demo\Drawings\Planset\1 COVER SHEET.dwg, 6/6/2016 4:37:19 PM, BRYAN

GENERAL PERMIT PROGRAM (GPP)
STANDARD ENVIRONMENTAL NOTES:

ADDITIONAL AREAS:

1. ANY ADDITIONAL AREAS REQUIRED FOR CONSTRUCTION OF THIS PROJECT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR MUST SECURE CITY OF AUSTIN APPROVAL OF PROPOSED ADDITIONAL AREAS PRIOR TO USE. APPROVAL OF "CORRECTION REQUEST" MUST BE SECURED FROM THE GENERAL PERMIT PROGRAM OFFICE OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT.

2. ALL ASSOCIATED PERMITS AND FEES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

3. IN ORDER TO SECURE APPROVAL FOR USE OF ADDITIONAL AREAS, CONTRACTOR MUST PROVIDE COMPLETE "CORRECTION REQUEST" SUBMITTAL TO GENERAL PERMIT PROGRAM OFFICE AND ALLOW A ONE WEEK COMMENT PERIOD FOR EACH REVIEW. CONTRACTOR SHOULD REQUEST INFORMATION ON THE ELEMENTS REQUIRED TO BE INCLUDED IN THE SUBMITTAL FROM THE OWNER'S REPRESENTATIVE OR THE GENERAL PERMIT PROGRAM OFFICE.

4. CONTRACTOR MUST INSTALL AND MAINTAIN EROSION/SEDIMENTATION CONTROLS AND TREE PROTECTION FOR ALL SUCH AREAS IN ACCORDANCE WITH THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL AND AS INCLUDED IN THE APPROVED SUBMITTAL OR DIRECTED IN THE FIELD BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE.

5. A SIGNED COPY OF THE PLANS PERMITTED THROUGH THE GENERAL PERMIT PROGRAM MUST BE KEPT ON SITE AND ACCESSIBLE AT ALL TIMES DURING PROJECT CONSTRUCTION.

DEWATERING:

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

FUEL STORAGE:

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

FUGITIVE DUST CONTROL:

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

SPOILS STORAGE:

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

E/S CONTROLS FOR BORE / RECEIVING PIT LOCATIONS:

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

SOIL RETENTION BLANKET:

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

SOD INSTALLATION:

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

TxDOT RIGHTS-OF-WAY:

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

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

PRIOR TO CONSTRUCTION:

1. SECURE APPLICABLE COA PERMITS, INCLUDING APPROVAL UNDER GENERAL PERMIT PROGRAM AND RIGHT-OF-WAY EXCAVATION PERMIT.

2. NOTIFY GENERAL PERMIT PROGRAM REPRESENTATIVE PRIOR TO PLACEMENT OF E/S CONTROLS AND TREE PROTECTION FENCING. ALL PROPOSED PHASING OF CONTROLS MUST BE SUBMITTED TO AND APPROVED BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE PRIOR TO THE FIELD PRE-CONSTRUCTION CONFERENCE.

3. NOTIFY COA TEMPORARY TRAFFIC CONTROL REPRESENTATIVE PRIOR TO PLACEMENT OF TEMPORARY TRAFFIC CONTROLS. ALL PROPOSED PHASING OF CONTROLS MUST BE INDICATED ON APPROVED TEMPORARY TRAFFIC CONTROL PLAN AND SEALED BY PROFESSIONAL ENGINEER.

4. PLACE TEMPORARY E/S CONTROLS AND TREE PROTECTION FENCING PRIOR TO BEGINNING ANY EXCAVATION. INSTALL C.I.P. SIGN, IF APPLICABLE.

5. HOLD ENVIRONMENTAL PRE-CONSTRUCTION CONFERENCE ON SITE WITH THE CONTRACTOR, OWNER'S REPRESENTATIVE, AND GENERAL PERMIT PROGRAM REPRESENTATIVE AFTER INSTALLATION OF E/S CONTROLS AND TREE PROTECTION FENCING AND PRIOR TO ANY TRENCHING OPERATIONS.

6. PLACE TEMPORARY TRAFFIC CONTROL DEVICES.

7. TAKE PRE-CONSTRUCTION PHOTOS AND VIDEO AS REQUIRED PER PROJECT MANUAL.

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, AND, 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 DRIPLINES, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE DAMAGE TO REMAINING ROOTS.

11. TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES SHOULD BE WATERED DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. TREE CROWNS SHOULD BE SPRAYED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.

12. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.

13. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITHIN THE DRIPLINE OF TREES. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.

14. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS. SEE NOTE THREE (3) OF SUPPLEMENTAL TREE PROTECTION NOTES FOR ADDITIONAL REQUIREMENTS.

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

16. DEVIATIONS FROM THE ABOVE NOTES MAY BE CONSIDERED ORDINANCE VIOLATIONS IF THERE IS SUBSTANTIAL NONCOMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT.

17. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.

SUPPLEMENTAL TREE PROTECTION NOTES

1. ALL TREE PROTECTION MUST COMPLY WITH CITY OF AUSTIN REQUIREMENTS AS OUTLINED IN THE ENVIRONMENTAL CRITERIA MANUAL AND AS INDICATED BY STANDARD COA NOTES AND DETAILS INCLUDED WITHIN THIS DOCUMENT SET. CONTRACTOR SHALL INSTALL PROTECTION PRIOR TO PRE-CONSTRUCTION CONFERENCE, MAKE ADJUSTMENTS TO PROTECTION AS DIRECTED BY THE GPP REPRESENTATIVE, AND MAINTAIN PROTECTION UNTIL PROJECT IS COMPLETE.

2. TYPE AND LOCATION OF ALL TREE PROTECTION MUST BE APPROVED IN THE FIELD BY THE GENERAL PERMIT PROGRAM (GPP) REPRESENTATIVE PRIOR TO CONSTRUCTION.

3. WALK-THROUGH: CONTRACTOR SHALL CONDUCT WALK-THROUGH MEETING WITH GENERAL PERMIT PROGRAM REPRESENTATIVE PRIOR TO PERFORMING ANY PRUNING ACTIVITIES ON TREES IN PROJECT AREA. PURPOSE OF WALK-THROUGH WILL BE TWOFOLD. ONE PURPOSE WILL BE TO DETERMINE THE MINIMUM AMOUNT OF PRUNING NECESSARY TO ALLOW CONSTRUCTION WORK TO BE COMPLETED. SECOND PURPOSE WILL BE TO DETERMINE AREAS OF PROJECT IN WHICH EXHAUST DIVERTERS WILL BE REQUIRED ON CONSTRUCTION EQUIPMENT TO PREVENT SCORCHING OF EXISTING TREES.

4. ALL PRUNING MUST BE PERFORMED IN ACCORDANCE WITH ANSI A300 (PART 1) - 2001 AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS (PRUNING), OR LATEST APPROVED VERSION. THIS DOCUMENT MAY BE OBTAINED ONLINE FOR A FEE AT WWW.ANSI.ORG.

5. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS. TO PREVENT BARK TEARS, THE WEIGHT OF THE BRANCH SHALL BE REMOVED BEFORE MAKING FINAL PRUNING CUT.

6. ALL PRUNING SHALL PRESERVE THE NATURAL CHARACTER OF THE TREE.

7. ONLY COLLAR CUTS ARE ACCEPTABLE. NO FLUSH CUTS OR STUB CUTS WILL BE ALLOWED.

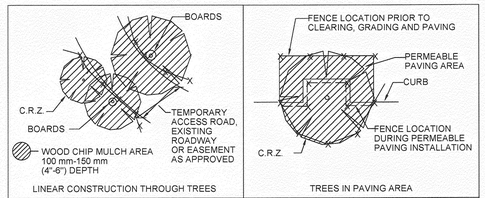
8. ALL BRANCHES THAT ARE BROKEN OR DAMAGED DURING CONSTRUCTION SHALL BE REMOVED.

9. PRUNING CUTS OR DAMAGED AREAS ON AN OAK TREE SHALL BE PAINTED WITHIN FIVE MINUTES WITH A STANDARD TREE WOUND DRESSING. TREE WOUND DRESSING SHALL BE EITHER TREEKOTE AEROSOL OR TANGLEFOOT PRUNING SEALER (OR APPROVED EQUAL). THIS ALSO APPLIES TO WOUNDS CREATED BY CONSTRUCTION VEHICLES OR EQUIPMENT. ALL PRUNING MUST BE IN ACCORDANCE WITH COA OAK WILT PREVENTION POLICY.

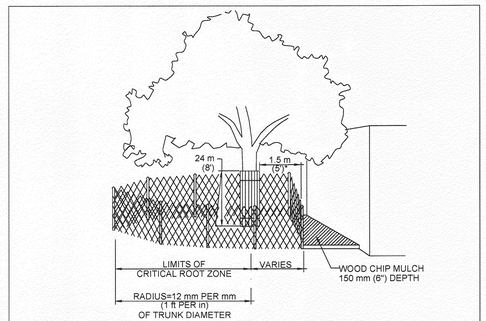
10. ANY TREE ROOTS THAT ARE EXPOSED, CUT, OR TORN DURING CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SURROUNDING SOIL. (REFER ALSO TO NUMBER 9 OF THE TREE AND NATURAL AREA PROTECTION NOTES INCLUDED IN THIS PLAN SET.)

11. ALL TRENCHING WITHIN THE CRITICAL ROOT ZONE OF A TREE TO BE PRESERVED WILL BE SAW CUT OR EXCAVATED BY HAND, AS APPROVED BY THE GENERAL PERMIT PROGRAM ARBORIST.

12. REFER TO ENVIRONMENTAL CRITERIA MANUAL APPENDIX P-6 FOR FURTHER REMEDIAL TREE CARE REQUIREMENTS. P-6 REMEDIAL TREE CARE WILL BE COORDINATED WITH AND APPROVED BY THE GENERAL PERMIT PROGRAM ARBORIST FOR PROJECTS PERMITTED THROUGH THE GENERAL PERMIT PROGRAM.



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



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

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

STATE OF TEXAS
DANIEL J. BROWN
98337
LICENSED PROFESSIONAL ENGINEER
6-7-16

CITY OF AUSTIN
FOUNDED 1839

MALONE★WHEELER INC.
Civil Engineering ★ Environmental Consultants ★ Project Management
5113 Southwest Parkway, Suite 240
Austin, Texas 78735
Phone: (512) 899-3200 Fax: (512) 899-0655
Firm Registration No. F-786

GENERAL PERMIT PROGRAM

GENERAL PERMIT OFFICE

NOTES AND DETAILS

CITY OF AUSTIN STANDARD NOTES AND DETAILS

NO.	BY	DATE	REVISIONS REMARKS

SHEET INFORMATION
DATE 9/18/15
SHEET 02 OF 23
CAD REF. NO. 02 NOTES AND DETAILS.DWG
GP NO.: GP-2015-0288.AWU

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

1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR EXCAVATION).

2. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE ENVIRONMENTAL CRITERIA MANUAL AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.

3. THE PLACEMENT OF TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION AND THE APPROVED GRADING/TREE AND NATURAL AREA PLAN.

4. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD ON-SITE WITH THE CONTRACTOR, DESIGN ENGINEER, PERMIT APPLICANT, AND GENERAL PERMIT PROGRAM REPRESENTATIVE AFTER INSTALLATION OF THE EROSION/SEDIMENTATION CONTROLS AND THE TREE/NATURAL AREA PROTECTION MEASURES AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE CONTRACTOR SHALL NOTIFY THE GENERAL PERMIT PROGRAM OFFICE AT 512/974-6330, AT LEAST 3 DAYS PRIOR TO THE MEETING DATE.

5. ANY SIGNIFICANT VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS MUST BE APPROVED BY THE REVIEWING ENGINEER AND THE GENERAL PERMIT PROGRAM REPRESENTATIVE.

6. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT DAILY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO INSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES. SILT ACCUMULATION AT INLET DEVICES SHOULD BE REMOVED WHEN THE DEPTH REACHES TWO (2) INCHES.

7. PRIOR TO FINAL ACCEPTANCE BY THE CITY, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING DEBRIS SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.

8. ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS ONE SQUARE FOOT OR LARGER IN TOTAL AREA, BLOWS AIR FROM WITHIN THE SUBSTRATE, AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME, IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO IMMEDIATELY CONTACT THE GENERAL PERMIT PROGRAM REPRESENTATIVE FOR FURTHER INVESTIGATION.

9. FIELD REVISIONS TO THE EROSION/SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES. ANY REVISIONS TO THE PERMITTED PLAN MUST BE APPROVED BY THE GENERAL PERMIT PROGRAM OFFICE OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT.

10. PERMANENT EROSION/SEDIMENTATION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. WHERE THE CRITERIA MANUAL AND CONTRACT DOCUMENTS DIFFER THE MOST ENVIRONMENTALLY BENEFICIAL MATERIALS/METHOD SHALL BE REQUIRED UNLESS OTHERWISE APPROVED BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE.

11. DEVELOPER INFORMATION:

OWNER:

COMPANY:	CITY OF AUSTIN / PUBLIC WORKS DEPARTMENT
CONTACT:	BRENDA BAKER
ADDRESS:	505 BARTON SPRINGS RD, SUITE 900
	AUSTIN, TX 78704
PHONE:	(512) 974-1175
E-MAIL:	BRENDA.BAKER@AUSTINTEXAS.GOV

OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:

COMPANY:	MALONE/WHEELER, INC.
CONTACT:	DANIEL J. BROWN, P.E. (DESIGN ENGINEER)
ADDRESS:	5113 SOUTHWEST PARKWAY, SUITE 260
	AUSTIN, TX 78735
PHONE:	(512) 899-0601
E-MAIL:	DANB@MALONEWHEELER.COM

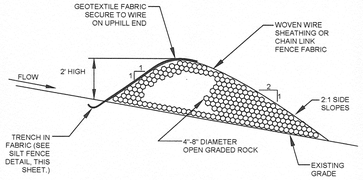
PARTY RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE:
COMPANY: CONTRACTOR

PARTY RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE:
COMPANY: CONTRACTOR

12. 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.

13. 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.

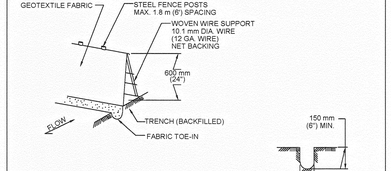
REV. DATE: DESCRIPTION: APPROVED BY WATERSHED PROTECTION AND DEVELOPMENT REVIEW DEPARTMENT



NOTES:
1. USE ONLY OPEN GRADED ROCK, 4-8 INCH DIAMETER, FOR STREAM FLOW CONDITION. USE OPEN GRADED ROCK, 3-5 INCH DIAMETER, FOR OTHER CONDITIONS.
2. ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 1 INCH OPENING AND MINIMUM WIRE DIAMETER OF 20 GAUGE.
3. ROCK BERM SHALL BE INSPECTED WEEKLY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN WIRE SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED SITE AND IN A MANNER AS TO NOT CREATE A SILTATION PROBLEM.
5. DAILY INSPECTION SHALL BE MADE ON SEVERE SERVICE ROCK BERMS. SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES 6 INCHES.
6. WHEN SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

FABRIC COVERED (SEVERE SERVICE) ROCK BERM

CITY OF AUSTIN		
GENERAL PERMIT PROGRAM	ADOPTED: SCALE: N.T.S.	STANDARD NO.
APPROVED	INITIAL:	N/A



NOTES:
1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (11").
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CAN NOT BE TRENCHED INTO THE SURFACE (E.G. PAVEMENT), THE FABRIC FLAP SHALL BE WEIGHTED DOWN WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

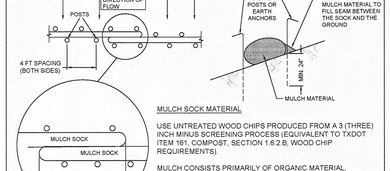
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		SILT FENCE
RECORD COPY SIGNED BY J. PATRICK MURPHY	5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1

NOTES:
1. MATERIAL ˜ THE FPBRIC MUST CORRESPOND TO THE FOLLWNG REQUIREMENTS:

PROPERTY	ASTM TEST METHOD	REQUIREMENTS
FABRIC WEIGHT	D 3776	≥3.0 OUNCES/SQUARE YPAD
ULTRAVIOLET (UV) RADIATION STABILITY	D 4355	70% STRENGTH RETAINED) MIN., AFTER 500 HOURS IN XENON ARC DEVICE
MUUEN BURST STRENGTH	D 3786	≥120 POUND PER SQUPRE INCH
WATER FLOW RATE	D 4491	≥.275 GALLONS/MINUTE/SQUARE FEET

2. THIS MATERIAL SHOULD HAVE A MAXIMUM EXPECTED USEFULLIFE OF APPROXIMATELY EIGHTEEN (18) MONTHS. THE INLET PROTECTION DEVICES SHOULD BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN OUT AND DISPOSAL OF TRAPPED SEDIMENT WILE MINIMIZING INTERFERENCE WITH CONSTRUCTION ACT IVITIES. THEY SHOU LD ALSO BE CONSTRUCTED SUCH THAT ANY PONDING OF STORM WATER WILL NOT CAUSE EXCESSIVE R.O.W. FLOODING (I.E. ˜4 INCHES OF STANDING WATER) OR DPMAGETO THESTRUCTURE OR ADJACENT ˜REAS.
3' COVERAGE ˜ THE FABRIC/WRE SHOULD COMPLETELY COVER THE OPENING OF THE INLET AND DEVICES SHOULD BE INSTALLED WITHOUT PROTRUDING PARTS THAT COULD BE A TRAFFIC, WORKER, OR PEDESTRIAN HAZARD. WHERE SECTIONS OF THE FABRIC OVERLAP, THEY SHALL OVERLAP AT LEASTTHREE (3) INCHES.
4. THE INLET FILTER SHALL BE ATTACHED IN A WAY THAT THEY CAN EASILY BE REMOVED AND ARE NOT SECURED OR ATTACHED BY THE USE OF SAND BAGS. THE INLET FILTER MUST BE REMOMD UPON COMPLETION OF WORK˜ IF REMOVAL DAMAGES THE CONCREE CURB, THE CURB MUST ˜BE REPAIRED IMMEDIATELY˜
5. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN THE DEPTH REACHES 50 MM (2 INCHES) INCHES OR ONE˜THIRD THE HEIGHT˜ OF THE INLET THROAT˜AND DISPOSED OF IN A MANNER WHICH WILL˜ NOT˜CWSE ADDITIONAL SILTATION.
6. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL E˜VENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORMWATER BEGINS TO OVERTOP˜ THE CURB.
7. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT˜HAS ACHIEVED˜ FINAL STABILIZATION CONDITIONS.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		FILTER DIKE CURB INLET PROTECTION
RECORD COPY SIGNED BY MAPI VIGIL	10/30/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 628S-2



MULCH SOCK MATERIAL

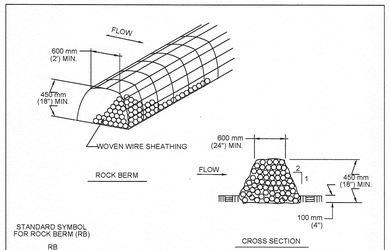
USE UNTREATED WOOD CHIPS PRODUCED FROM A 3 (THREE) INCH MINUS SCREENING PROCESS (EQUIVALENT TO TXDOT ITEM 161, COMPOST, SECTION 1.6.2.B, WOOD CHIP REQUIREMENTS).

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

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

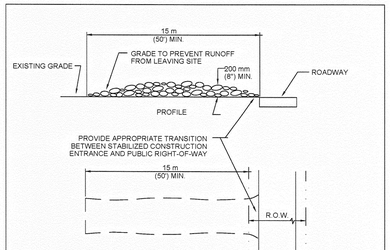
NOTES:
1. STEEL OR WOOD POSTS WHICH SUPPORT THE MULCH SOCK SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 600mm (24 inches). IF WOOD POSTS CANNOT ACHIEVE 600mm (24 inches) DEPTH, USE STEEL POSTS. EARTH ANCHORS ARE ALSO ACCEPTABLE.
2. THE TOE OF THE MULCH SOCK SHALL BE PLACED SO THAT THE MULCH SOCK IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. IN ORDER TO PREVENT WATER FROM FLOWING BETWEEN THE JOINTS OF ADJACENT ENDS OFMULCH SOCKS, LAP THE ENDS OF ADJACENT MULCH SOCKS A MINIMUM OF 300mm (12 inches).
3. MULCH MATERIAL MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. IT IS NOT ACCEPTABLE FOR THE MULCH MATERIAL TO CONTAIN GROUND CONSTRUCTION DEBRIS, BIOSOLIDS, OR MANURE.
4. SOCK MATERIAL WILL BE 100% BIODEGRADABLE, PHOTODEGRADABLE, OR RECYCLABLE SUCH AS BURLAP, TWINE, UV PHOTOBIODEGRADABLE PLASTIC, POLYESTER, OR ANY OTHER ACCEPTABLE MATERIAL.
5. MULCH SOCKS SHOULD BE USED AT THE BASE OF SLOPES NO STEEPER THAN 2:1 AND SHOULD NOT EXCEED THE MAXIMUM SPACING CRITERIA PROVIDED IN CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL TABLE 1.4.5.F.1 FOR A GIVEN SLOPE CATEGORY.
6. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

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



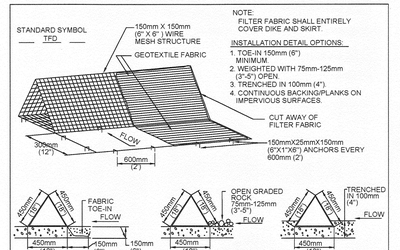
NOTES:
1. USE ONLY OPEN GRADED ROCK 100 to 200 mm (4 to 8") DIAMETER FOR STREAM FLOW CONDITIONS. USE OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR OTHER CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE). ROCK BERMS IN CHANNEL APPLICATIONS SHALL BE ANCHORED FIRMLY INTO THE SUBSTRATE A MINIMUM OF 150 mm (6 ") WITH T-POSTS OR WITH 15M OR 20M (#5 OR #6) REBAR, WITH MAXIMUM SPACING APART OF 1.2 m (48") ON CENTER.
3. THE ROCK BERM SHALL BE INSPECTED WEEKLY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SILTATION PROBLEM.
5. DAILY INSPECTION SHALL BE MADE ON SEVERE-SERVICE ROCK BERMS; SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES 150 mm (6").
6. WHEN THE SITE IS COMPLETELY STABILIZED,THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		ROCK BERM
RECORD COPY SIGNED BY J. PATRICK MURPHY	5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S-1



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

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



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

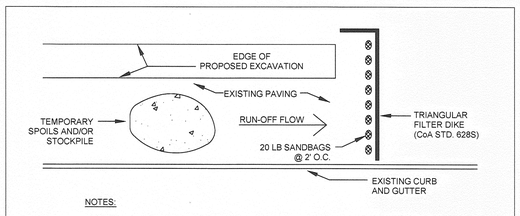
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TRIANGULAR SEDIMENT FILTER DIKE
RECORD COPY SIGNED BY J. PATRICK MURPHY	3/27/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 628S

NOTES:
1. MATERIAL ˜ THE FPBRIC MUST CORRESPOND TO THE FOLLWNG REQUIREMENTS:

PROPERTY	ASTM TEST METHOD	REQUIREMENTS
FABRIC WEIGHT	D 3776	≥3.0 OUNCES/SQUARE YPAD
ULTRAVIOLET (UV) RADIATION STABILITY	D 4355	70% STRENGTH RETAINED) MIN., AFTER 500 HOURS IN XENON ARC DEVICE
MUUEN BURST STRENGTH	D 3786	≥120 POUND PER SQUPRE INCH
WATER FLOW RATE	D 4491	≥.275 GALLONS/MINUTE/SQUARE FEET

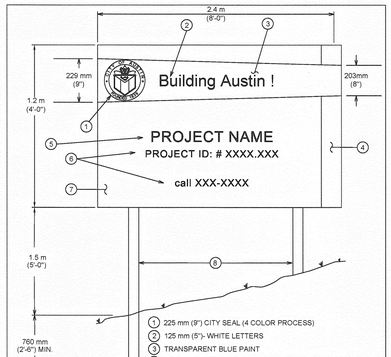
2. THIS MATERIAL SHOULD HAVE A MAXIMUM EXPECTED USEFULLIFE OF APPROXIMATELY EIGHTEEN (18) MONTHS. THE INLET PROTECTION DEVICES SHOULD BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN OUT AND DISPOSAL OF TRAPPED SEDIMENT WILE MINIMIZING INTERFERENCE WITH CONSTRUCTION ACT IVITIES. THEY SHOU LD ALSO BE CONSTRUCTED SUCH THAT ANY PONDING OF STORM WATER WILL NOT CAUSE EXCESSIVE R.O.W. FLOODING (I.E. ˜4 INCHES OF STANDING WATER) OR DPMAGETO THESTRUCTURE OR ADJACENT ˜REAS.
3' COVERAGE ˜ THE FABRIC/WRE SHOULD COMPLETELY COVER THE OPENING OF THE INLET AND DEVICES SHOULD BE INSTALLED WITHOUT PROTRUDING PARTS THAT COULD BE A TRAFFIC, WORKER, OR PEDESTRIAN HAZARD. WHERE SECTIONS OF THE FABRIC OVERLAP, THEY SHALL OVERLAP AT LEASTTHREE (3) INCHES.
4. THE INLET FILTER SHALL BE ATTACHED IN A WAY THAT THEY CAN EASILY BE REMOVED AND ARE NOT SECURED OR ATTACHED BY THE USE OF SAND BAGS. THE INLET FILTER MUST BE REMOMD UPON COMPLETION OF WORK˜ IF REMOVAL DAMAGES THE CONCREE CURB, THE CURB MUST ˜BE REPAIRED IMMEDIATELY˜
5. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN THE DEPTH REACHES 50 MM (2 INCHES) INCHES OR ONE˜THIRD THE HEIGHT˜ OF THE INLET THROAT˜AND DISPOSED OF IN A MANNER WHICH WILL˜ NOT˜CWSE ADDITIONAL SILTATION.
6. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL E˜VENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORMWATER BEGINS TO OVERTOP˜ THE CURB.
7. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT˜HAS ACHIEVED˜ FINAL STABILIZATION CONDITIONS.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		FILTER DIKE CURB INLET PROTECTION
RECORD COPY SIGNED BY MAPI VIGIL	10/30/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 628S-2



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

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



NOTES:
1. ALL MATERIALS SHALL BE FURNISHED BY THE CONTRACTOR.
2. IF SIGN IS USED IN PHASED CONSTRUCTION, POSTS SHALL BE MOUNTED ON SKIDS. SEE STANDARD 604S-5, SHEET 5 OF 13.
3. SIGN MUST BE IN COLOR.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		2.4mx1.2m (8'x4') C.I.P. BUILDING PROJECT SIGN
RECORD COPY SIGNED BY KERI JUAREZ	01/04/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 802S-1

CITY OF AUSTIN
FOUNDED 1839

MALONE WHEELER INC.
CIVIL ENGINEERING ■ DEVELOPMENT CONSULTANTS ■ PROJECT MANAGEMENT
5113 Southwest Parkway, Suite 260
Austin, Texas 78735 (512) 899-0655
Phone: (512) 899-0601
Firm Registration No. F-786

GENERAL PERMIT PROGRAM

GENERAL PERMIT OFFICE

NOTES AND DETAILS

CITY OF AUSTIN STANDARD NOTES AND DETAILS

REVISIONS

NO.	BY	DATE	REMARKS

SHEET INFORMATION
DATE 9/18/15
SHEET 03 OF 23
CAD REF. NO. 02 NOTES AND DETAILS.DWG
GP NO. GP-2015-0280.AWU

STATE OF TEXAS
DANIEL J. BROWN
98387
LICENSED
PROFESSIONAL ENGINEER
6-7-16

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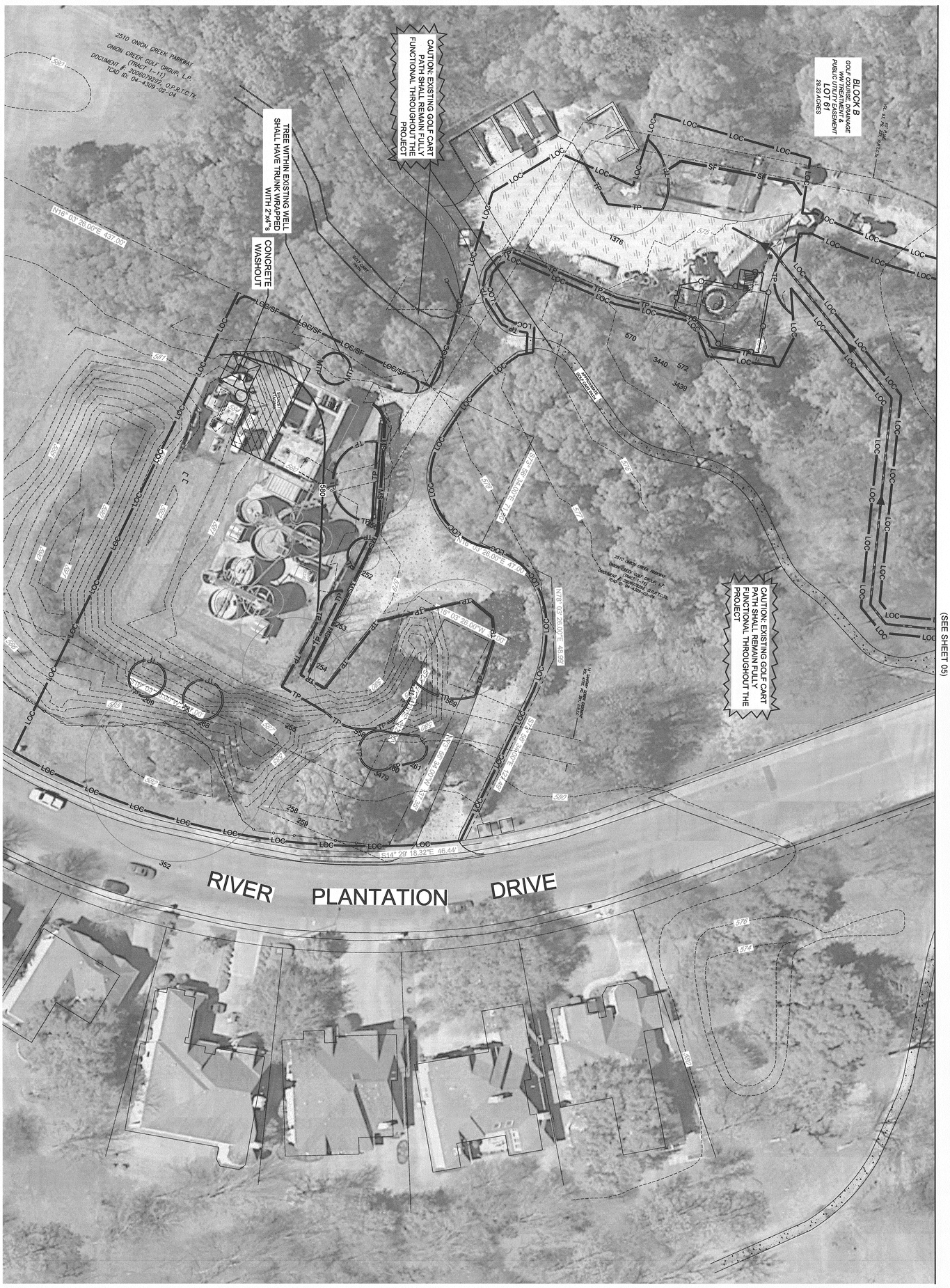


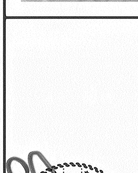
NOTES:

1. CONTRACTOR SHALL SWEEP INTERNAL CONSTRUCTION ROADWAYS AND DRIVE DAILY OR AS DIRECTED BY THE CITY INSPECTOR
2. SEE LANDSCAPE RESTORATION PLAN (SHEET 13) FOR TREE LIST

LEGEND

- R.O.W. / PROPERTY BOUNDARIES
- FEMA 100 YR FLOOD PLAIN
- LOC — LIMITS OF CONSTRUCTION
- SF — SILT FENCE
- JH — SILT FENCE W./ HOOKS
- IP — INLET PROTECTION
- TP — TREE PROTECTION
- MTP — MODIFIED TREE PROTECTION
- SECURITY/CONSTRUCTION FENCING
- CONTRACTOR'S STAGING/ LAYDOWN AREA
- EXISTING TREE (TO REMAIN)
- MS — MULCH SOCK

SCALE 1" = 30'



SHEET INFORMATION

DATE 6/6/16

SHEET 04 OF 23

05 EROSION-SEDIMENTATION CONTROL.DWG

CAD REF. NO.

GP NO.: GP-2015-0280.AWU

REVISIONS			
NO.	BY	DATE	REMARKS

GENERAL PERMIT OFFICE

EROSION-SEDIMENTATION CONTROL

MALONE★WHEELER INC.
CIVIL ENGINEERING ● DEVELOPMENT CONSULTING ● PROJECT MANAGEMENT
5113 Southwest Parkway, Suite 260
Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-0655
Firm Registration No. F-786

CITY OF AUSTIN — GREEN BUILDING

GENERAL PERMIT PROGRAM

MATCH LINE "A"
(SEE SHEET 04)

N

0 30'
SCALE: 1" = 30'

LEGEND

- R.O.W. / PROPERTY BOUNDARIES
- FEMA 100 YR FLOOD PLAIN
- LOC — LIMITS OF CONSTRUCTION
- SF — SILT FENCE
- JH — SILT FENCE W/ J HOOKS
- IP — INLET PROTECTION
- TP — TREE PROTECTION
- MTP — MODIFIED TREE PROTECTION
- SECURITY/CONSTRUCTION FENCING
- CONTRACTOR'S STAGING/ SPOILS AREA
- 10" — EXISTING TREE (TO REMAIN)
- MS — MULCH SOCK

NOTES:

1. CONTRACTOR SHALL SWEEP INTERNAL DRIVEWAY AND RIVER PLANTATION DRIVE DAILY, OR AS DIRECTED BY THE CITY INSPECTOR
2. SEE LANDSCAPE RESTORATION PLAN (SHEET 13) FOR TREE LIST

STATE OF TEXAS
DANIEL J. BROWN
98337
PROFESSIONAL ENGINEER
6.7.16

CITY OF AUSTIN
FOUNDED 1839

MALONE+WHEELER INC.
CIVIL ENGINEERING & ENVIRONMENTAL CONSULTING & PROJECT MANAGEMENT
5113 Southwest Parkway, Suite 260
Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-0655
Firm Registration No.: F-786

GENERAL PERMIT OFFICE

EROSION-SEDIMENTATION CONTROL

REVISIONS

NO.	BY	DATE	REMARKS

SHEET INFORMATION
DATE 6/6/16
SHEET 05 OF 23
CAD REF. NO. EROSION-SEDIMENTATION CONTROL.DWG
GP NO.: GP-2015-0080 AWU

GENERAL PERMIT PROGRAM

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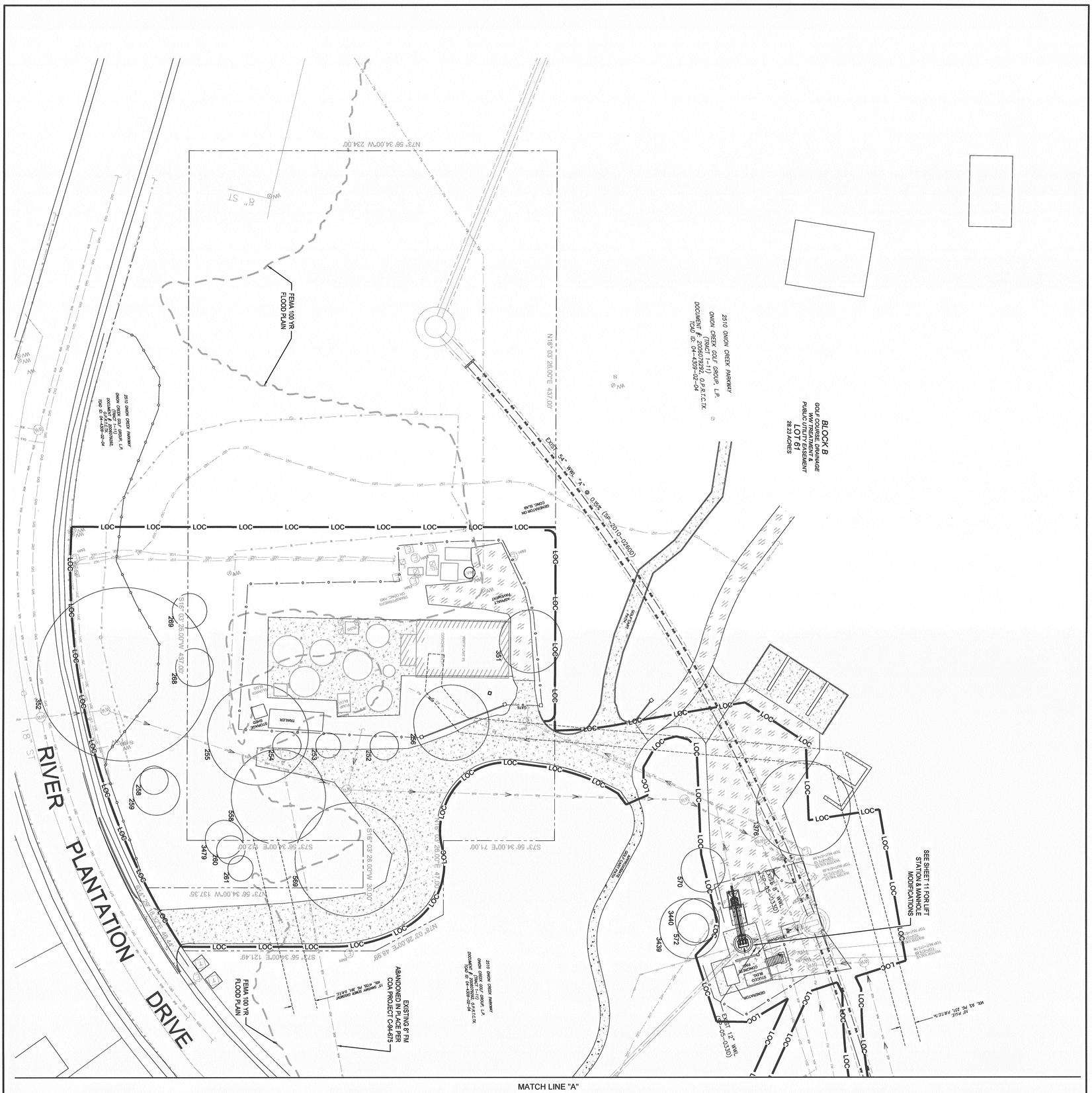

LEGEND

- SIGN
- LIGHT POLE
- GUY WIRE
- POWER POLE
- IRRIG CV — IRRIGATION CONTROL VALVE
- SPRINKLER HEAD
- WM — WATER METER
- WV — WATER VALVE
- FH — FIRE HYDRANT
- GV — GAS VALVE
- ELECTRIC METER
- ELECTRIC JUNCTION BOX
- ELECTRIC PULL BOX
- TELEPHONE PEDESTAL
- MAIL BOX
- FEMA 100 YR FLOOD PLAIN
- OHP — OVERHEAD ELECTRIC LINE
- UGE — UNDERGROUND ELECTRIC LINE
- WW — WASTEWATER LINE
- W — WATER LINE
- GAS LINE
- 351 — TREE WITH TAG NO.
- EMH — ELECTRIC MANHOLE
- WWMH — WASTEWATER MANHOLE
- STORM MANHOLE
- WMH — WATER MANHOLE
- EXIST. FENCE
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT

SCALE: 1" = 30'

DANIEL J. BROWN, 83337, LICENSED PROFESSIONAL ENGINEER, STATE OF TEXAS

SHEET INFORMATION	REVISIONS			
DATE 9/18/15	NO.	BY	DATE	REMARKS
SHEET 06 OF 23				
CAD REF. NO. 07 EXISTING CONDITIONS 2 OF 2.DWG				
GP NO.: GP-2015-0280.AWU				

GENERAL PERMIT OFFICE

EXISTING CONDITIONS 1 OF 2

MALONE★WHEELER INC.
CIVIL ENGINEERING ▲ DEVELOPMENT CONSULTING ▲ PROJECT MANAGEMENT
5113 Southwest Parkway, Suite 260
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Phone: (512) 899-0601 Fax: (512) 899-0655
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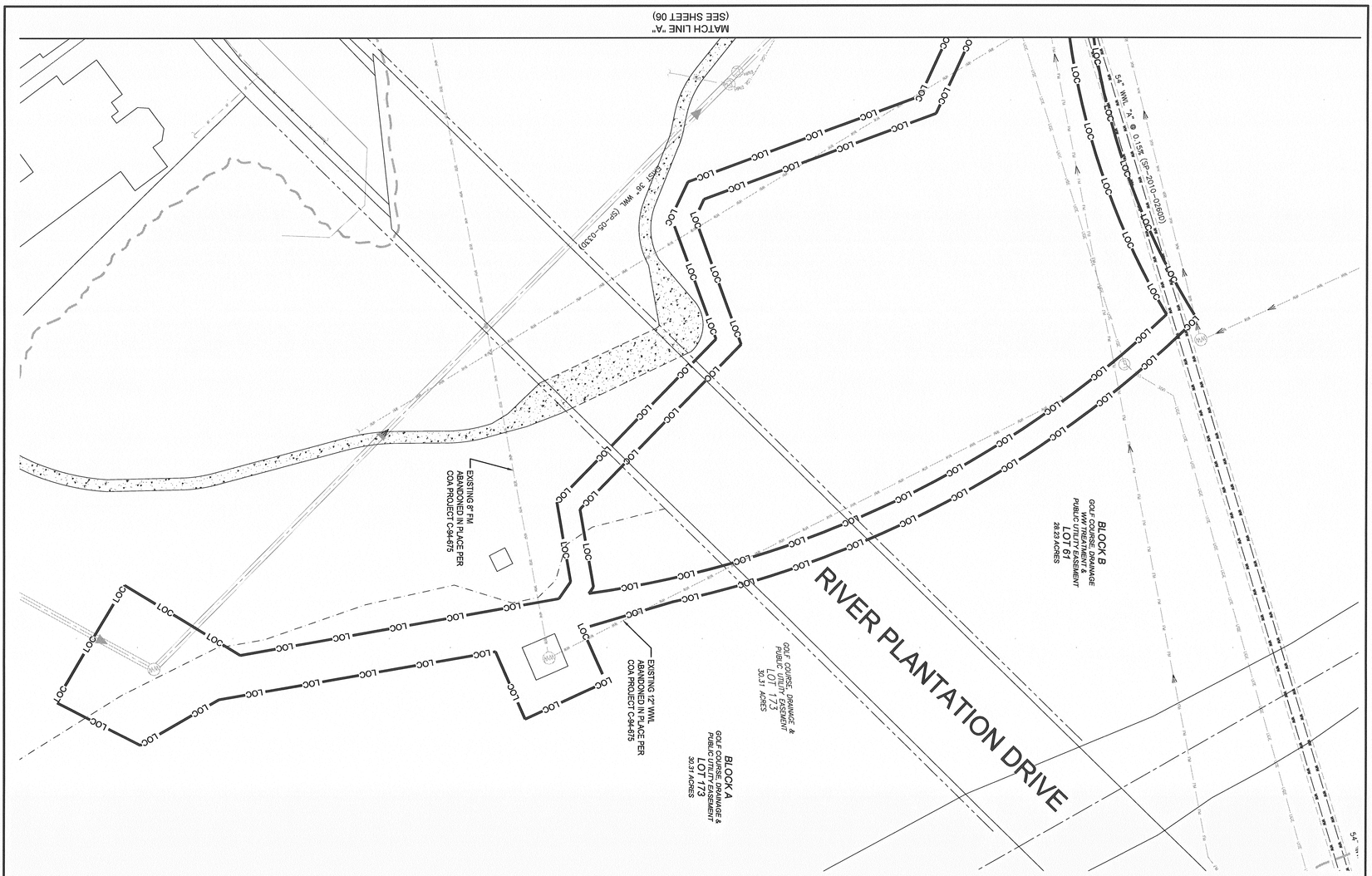
CITY OF AUSTIN TEXAS 1839

GENERAL PERMIT PROGRAM



LEGEND

- SIGN
- LIGHT POLE
- GUY WIRE
- POWER POLE
- IRRIGATION CONTROL VALVE
- SPRINKLER HEAD
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- GAS VALVE
- ELECTRIC METER
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- WATER LINE
- GAS LINE
- TREE WITH TAG NO.
- ELECTRIC MANHOLE
- WASTEWATER MANHOLE
- STORM MANHOLE
- WATER MANHOLE
- EXIST. FENCE
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT

SCALE 1" = 30'

STATE OF TEXAS
DANIELL L. BROWN
98537
LICENSED PROFESSIONAL ENGINEER
9.19.16

SHEET INFORMATION

DATE 9/18/15

SHEET 07 OF 23

CAD REF. NO. 07 EXISTING CONDITIONS 2 OF 2.DWG

GP NO.: GP-2015-0280.AWU

REVISIONS			
NO.	BY	DATE	REMARKS

GENERAL PERMIT OFFICE

EXISTING CONDITIONS 2 OF 2

MALONE★WHEELER INC.
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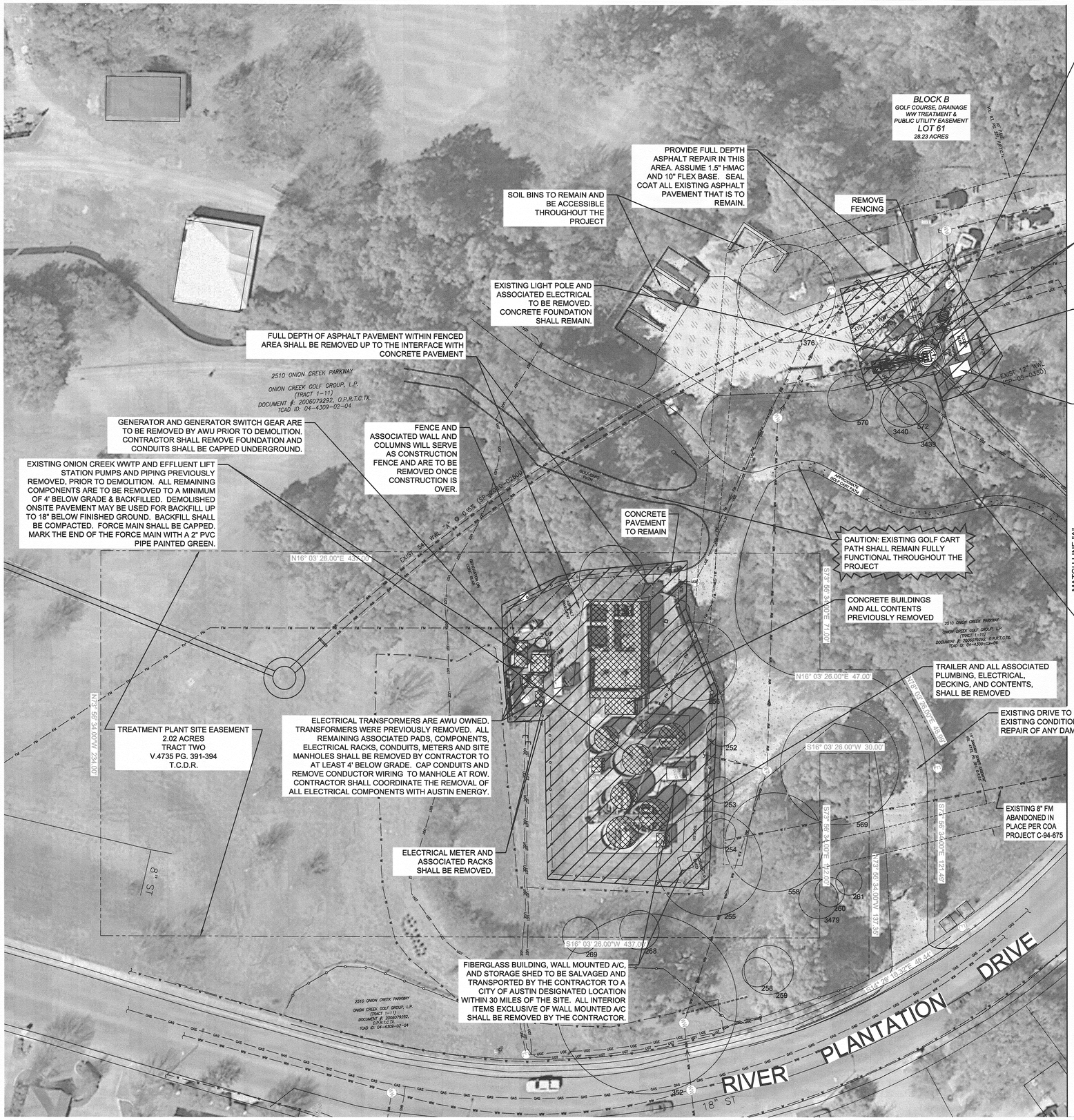
Firm Registration No. F-786

CITY OF AUSTIN TEXAS 1839

GENERAL PERMIT PROGRAM



0 30'
SCALE: 1" = 30'

LEGEND

- SIGN
- LIGHT POLE
- GUY WIRE
- POWER POLE
- IRRIG CV — IRRIGATION CONTROL VALVE
- SPRINKLER HEAD
- WATER METER
- WV — WATER VALVE
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- FEMA 100 YR FLOOD PLAIN
- E O/H — OVERHEAD ELECTRIC LINE
- UGE — UNDERGROUND ELECTRIC LINE
- WW — WASTEWATER LINE
- WATER LINE
- GAS LINE
- 351 — TREE WITH TAG NO.
- EMH — ELECTRIC MANHOLE
- WW — WASTEWATER MANHOLE
- STMH — STORM MANHOLE
- WMH — WATER MANHOLE
- EXIST. FENCE
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- PREVIOUSLY REMOVED BY COA

NOTES:

1. NOTES AND CALLOUTS WITHIN THESE PLANS ARE INTENDED TO PROVIDE CONTRACTOR WITH ADDITIONAL DETAIL. HOWEVER, ALL WWTP IMPROVEMENTS SHALL BE ASSUMED TO BE REMOVED TO 4' BELOW GRADE. UNDERGROUND FORCE MAINS, CONDUITS, AND WATER LINES MAY BE CAPPED AND ABANDONED IN PLACE.
2. ONSITE ITEMS CONTAINING LEAD AND ASBESTOS HAVE PREVIOUSLY BEEN ABATED AND REMOVED BY THE CITY OF AUSTIN. THESE ITEMS ARE SHOWN AS 'PREVIOUSLY REMOVED' IN THIS PLAN SET. SEE "SCOPE OF WORK FOR ASBESTOS ABATEMENT AND LEAD REMEDIATION IN SUPPORT OF SITE DEMOLITION AT ONION CREEK WASTEWATER TREATMENT PLANT, 10600 RIVER PLANTATION ROAD, AUSTIN, TEXAS 78747" FOR ADDITIONAL INFORMATION.

EXISTING UTILITIES NOTE:

EXISTING UNDERGROUND UTILITIES ARE BASED ON A COMBINATION OF RECORD INFORMATION PROVIDED BY THE UTILITY OWNERS AND SURVEY OF EXISTING FEATURES. CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

STATE OF TEXAS
DANIEL J. BROWN
98337
LICENSED
PROFESSIONAL ENGINEER
6.7.16

CITY OF AUSTIN
FOUNDED 1839

MALONE WHEELER INC.
CIVIL ENGINEERING ● SURVEYING ● CONSTRUCTION MANAGEMENT ● PROJECT MANAGEMENT
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Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-0655
Firm Registration No. F-786

GENERAL PERMIT PROGRAM

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DEMOLITION PLAN

NO.	BY	DATE	REMARKS

SHEET INFORMATION
DATE 9/18/15
SHEET 08 OF 23
09 DEMOLITION PLAN & TRAFFIC CONTROL DETAILS.DWG
CAD REF: NO.
GP NO. GP-2015-0280.AWU

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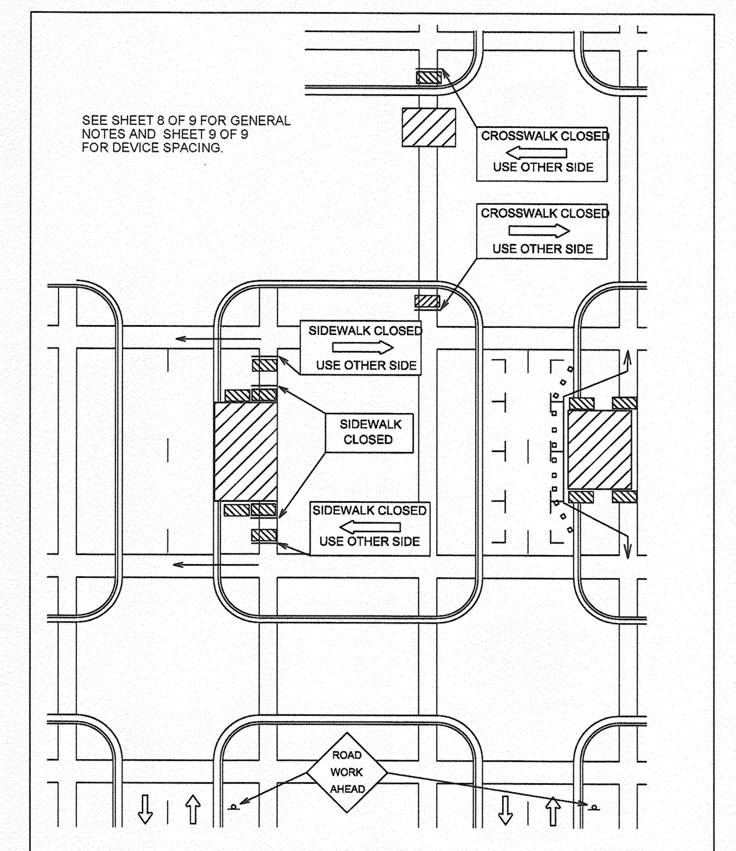


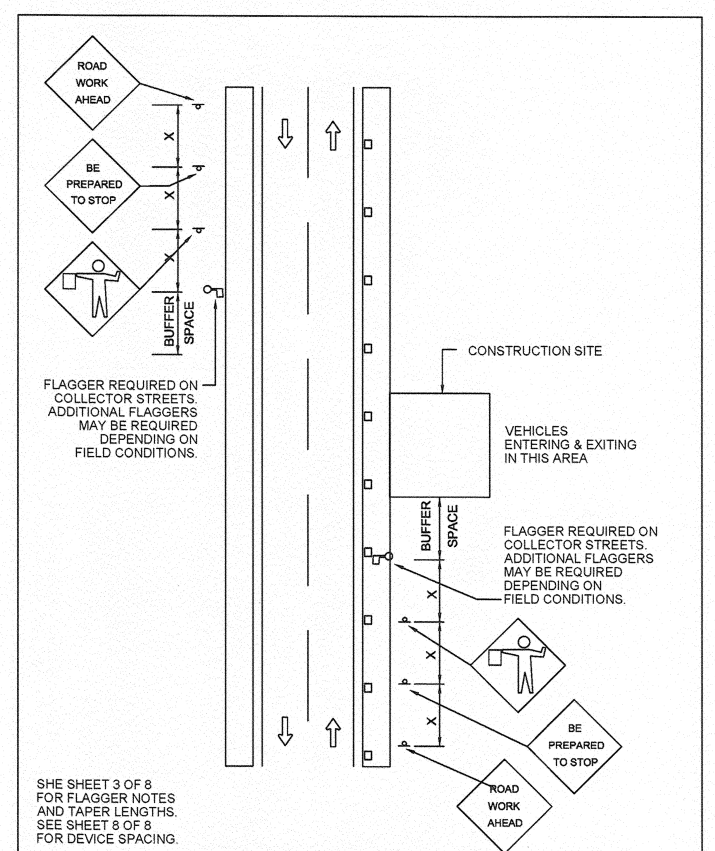
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

BYPASS WALKWAY, SIDEWALK AND CROSSWALK CLOSURES

RECORD COPY SIGNED BY KERI JUAREZ — 01/04/11 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 804S-1 (4 OF 9)



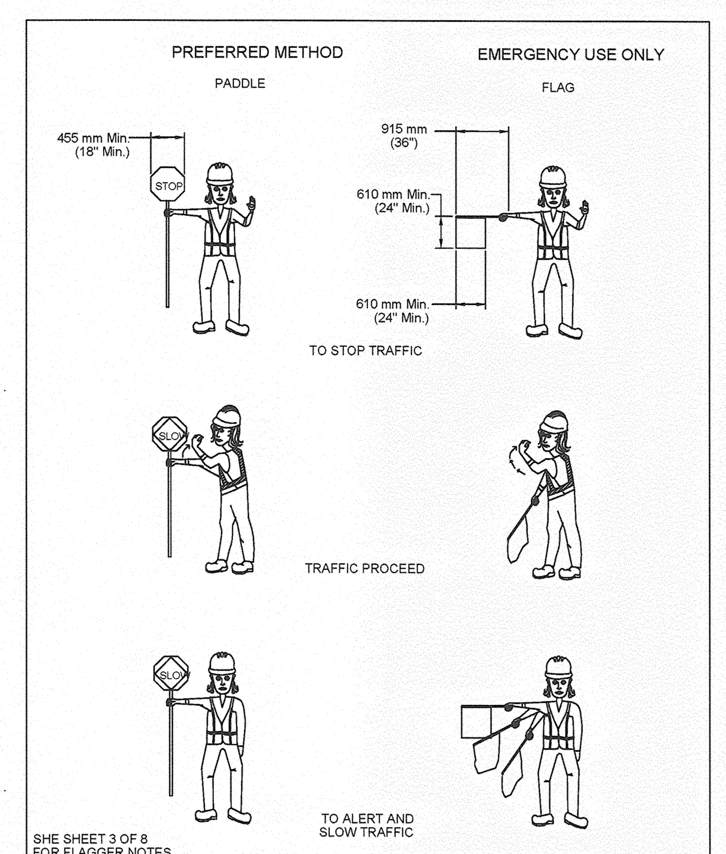
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

FLAGGER SETUP FOR VEHICLES ENTERING AND EXITING WORK SITE

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 (4 OF 8)



CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

USE OF HAND SIGNALING DEVICES

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 (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): 3.0(10) Offset Meters (feet)	3.3(11) Offset Meters (feet)	3.6(12) Offset Meters (feet)	Suggested Max. Device Spacing: On a taper Meters (feet)	On a tangent Meters (feet)	Suggested Sign Spacing Meters (Feet): "X" Dimension
50	30	$L=\frac{WS^2}{60}$	45 (150)	50 (165)	55 (180)	9 (30)	15-20 (60-75)	40 (120)
55	35		65 (205)	70 (225)	75 (245)	10 (35)	25-25 (70-90)	50 (160)
65	40		80 (265)	90 (295)	100 (320)	12 (40)	25-30 (80-100)	75 (240)
70	45	L=WS	135 (450)	150 (495)	165 (540)	13 (45)	25-30 (90-110)	100 (320)
80	50		150 (500)	165 (550)	180 (600)	15 (50)	30-35 (100-125)	120 (400)
90	55		165 (550)	185 (605)	200 (660)	16 (55)	35-40 (110-140)	150 (500)
95	60		180 (600)	200 (660)	220 (720)	18 (60)	40-45 (120-150)	180 (600)
105	65		195 (650)	215 (715)	235 (780)	19 (65)	40-50 (130-165)	210 (700)
115	70		215 (700)	235 (770)	255 (840)	21 (70)	45-55 (140-175)	240 (800)

LEGEND
- Channelizing devices
- Trailer mounted flashing arrow board
- Flagger

TRAFFIC DETOUR NOTES:

1. "STREET CLOSED" AND "STREET CLOSED TO THRU TRAFFIC" MAY BE USED IN PLACE OF "ROAD CLOSED" AND "ROAD CLOSED TO THRU TRAFFIC".
2. THE USE OF A STREET SIGN NAME NAME MOUNTED WITH THE M4-9 DETOUR SIGN** IS REQUIRED. THE STREET NAME PLATE SHOULD BE PLACED ABOVE THE DETOUR SIGN. THE PLATE MAY HAVE EITHER A WHITE-ON-GREEN OR A BLACK-ON-ORANGE LEGEND.
3. ADDITIONAL "DO NOT ENTER SIGNS" MAY BE DESIRABLE AT INTERSECTIONS WITH INTERVENING STREETS.
4. A M4-9 DETOUR SIGN** WITH AN ADVANCE TURN ARROW MAY BE USED IN ADVANCE OF A TURN. ON MULTI-LANE STREETS, SUCH SIGNS SHOULD BE USED.
5. M4-9 DETOUR SIGNS** MAY BE LOCATED ON THE FAR SIDE OF INTERSECTIONS.

** TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

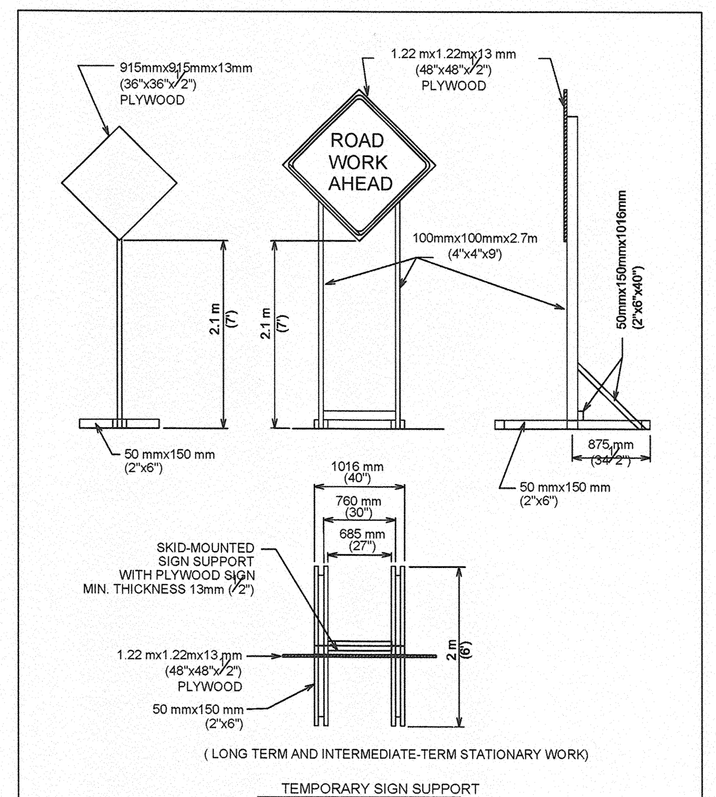
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

TYPICAL LENGTHS & SPACING OF DEVICES, LEGEND and GENERAL NOTES

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)



SEE STANDARD 804S-5 SHEET 12 OF 13 AND SHEET 13 OF 13 FOR GENERAL NOTES AND DEVICE SPACING.

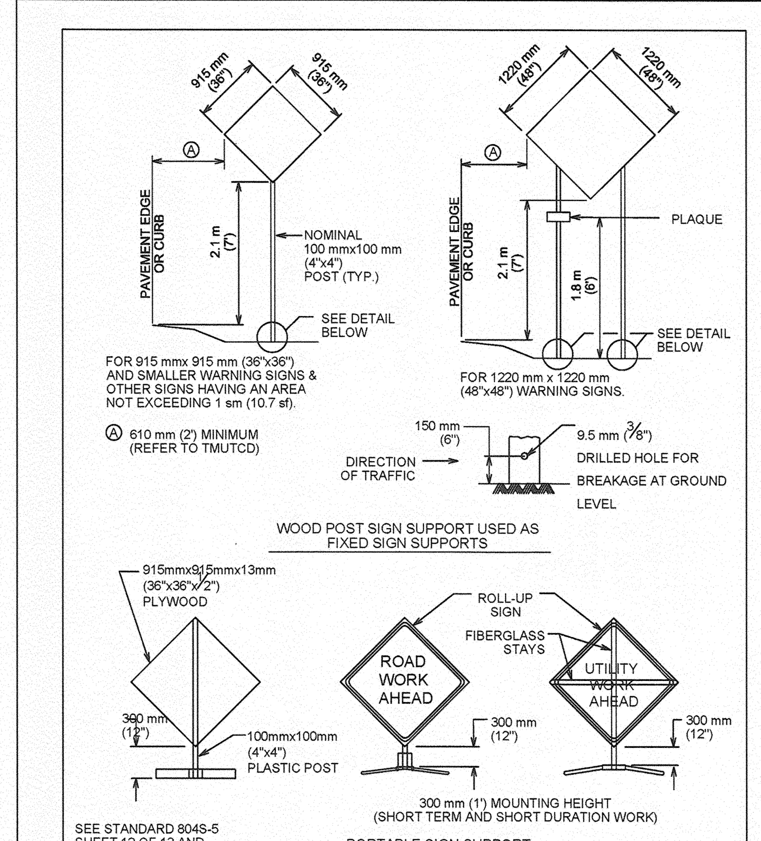
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

TRAFFIC CONTROL SIGNS

RECORD COPY SIGNED BY SAM ANGOORI — 01/04/10 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 804S-5 (5 OF 13)



SEE STANDARD 804S-5 SHEET 12 OF 13 AND SHEET 13 OF 13 FOR GENERAL NOTES AND DEVICE SPACING.

CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

TRAFFIC CONTROL SIGNS

RECORD COPY SIGNED BY SAM ANGOORI — 01/04/10 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 804S-5 (6 OF 13)

1. WARNING SIGNS SHALL BE ORANGE, FLUORESCENT RED-ORANGE OR FLUORESCENT YELLOW-ORANGE IN COLOR. THE FLUORESCENT VERSIONS OF ORANGE PROVIDE HIGHER CONSPICUITY THAN STANDARD ORANGE, ESPECIALLY DURING TWILGHT. ALL SIGNS USED AT NIGHT SHALL BE EITHER RETRORE-FLECTIVE, WITH A MATERIAL THAT HAS A SMOOTH, SEALED OUTER SURFACE, OR ILLUMINATED TO SHOW SIMILAR SHAPE AND COLOR BOTH DAY AND NIGHT. SIGN ILLUMINATION MAY BE EITHER IN-TERNAL OR EXTERNAL. ROADWAY LIGHTING DOES NOT MEET THE REQUIREMENTS FOR SIGN ILLUMINATION.
2. TYPE A FLASHING WARNING LIGHTS MAY BE USED IN CONJUNCTION WITH SIGNS AT NIGHT. STANDARD ORANGE FLAGS MAY BE USED FOR DAY TIME OPERATIONS. HOWEVER, NEITHER LIGHTS NOR FLAGS MAY BLOCK THE SIGN LEGEND.
3. SIGNS SHOULD BE LOCATED ON THE RIGHT-HAND SIDE OF THE ROADWAY. WHEN SPECIAL EMPHASIS IS NEEDED, SIGNS MAY BE PLACE ON BOTH THE LEFT AND RIGHT SIDES OF ROADWAY. SIGNS SHALL BE PLACED ON BOTH THE LEFT AND RIGHT SIDES OF ONE-WAY OR DIVIDED ROADWAYS. SIGNS USED FOR LONG-TERM STATIONARY AND INTERMEDIATE-TERM STATIONARY WORK SHALL BE MOUNTED AT A HEIGHT OF AT LEAST 2.1 m (7'), MEASURED FROM THE BOTTOM OF THE SIGN. THE HEIGHT TO THE BOTTOM OF A SECONDARY SIGN MOUNTED BELOW ANOTHER SIGN MAY BE 0.3 m (1') LESS THAN THE APPROPRIATE HEIGHT ABOVE.
4. SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, MOBILE CON-DITIONS AND EMERGENCIES. SIGNS MOUNTED ON PORTABLE SUPPORTS SHALL BE AT A HEIGHT OF AT LEAST 0.3 m (1'), MEASURED FROM THE BOTTOM OF THE SIGN.
5. ALL SIGN SYSTEMS SHOULD BE CRASHWORTHY. NO SIGN MOUNTS SHALL BLOCK OR IMPEDE SIDEALKS UNLESS NO OTHER OPTION IS AVAILABLE. ONLY SANDBAGS SHOULD BE USED FOR BALLASTING SIGN MOUNTS.

TABLE VI-3 TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING

Roadway Classification	Posted Speed	Sign Spacing ★	Long-term Stationary Or Intermediate-term Stationary Approaching Warning Signs CW20 Series And CW22-1 Sign: Standard	Long-term ...: Minimum[4]	Short-term Stationary Or Short Duration Approach Warning Signs CW22 Series: Standard	Short-term ...: Minimum[4]	Other Warning Signs: Standard
Conven.	KPH (MPH)	meter (feet)	mm (inches)	mm (inches)	mm (inches)	mm (inches)	mm (inches)
	50 (30)	40 (120)	1220x1220 (48x48)	915x915 (36x36)			
	55 (35)	50 (160)		↓	915x915 (36x36)		915x915 (36x36)
	65 (40)	75 (240)					
	70 (45)	100 (320)		Use Standard Size		Use Standard Size	
	80 (50)	120 (400)					
	90 (55)	150 (500) 2			↓		↓
	100 (60)	180 (600) 2			1220x1220 (48x48)		1220x1220 (48x48)
	105 (65)	210 (700) 2					
	115 (70)	240 (800) 2			↓	↓	↓
Exp. or Fwy	★★	★★ 3	↓	↓	★★★	★★★	★★★

★ MINIMUM DISTANCE FROM WORK TO 1st ADVANCE WARNING SIGN AND/OR DISTANCE BETWEEN EACH ADDITIONAL SIGN.
★★ FOR TYPICAL SIGN SPACINGS ON EXPRESSWAYS AND FREEWAYS, REFER TO THE CURRENT ADDITION OF TMUTCD.
★★★ SMALLER SIGN SIZES MAY BE USED WHERE SIGN DESIGNS HAVE NOT BEEN INCLUDED IN THE "STANDARD HIGHWAY SIGNS DESIGN MANUAL".

1. SPECIAL OR LARGER SIZE SIGNS MAY BE USED AS NECESSARY.
2. DISTANCE BETWEEN SIGNS SHOULD BE INCREASED AS REQUIRED TO HAVE 450 m (1500') OR MORE ADVANCE WARNING.
3. DISTANCE BETWEEN SIGNS SHOULD BE INCREASED AS REQUIRED TO HAVE A 0.8 km (½ MILE) OR MORE ADVANCE WARNING.
4. FOR USE ONLY ON SECONDARY ROADS OR CITY STREETS WHERE SPEEDS ARE LOW.

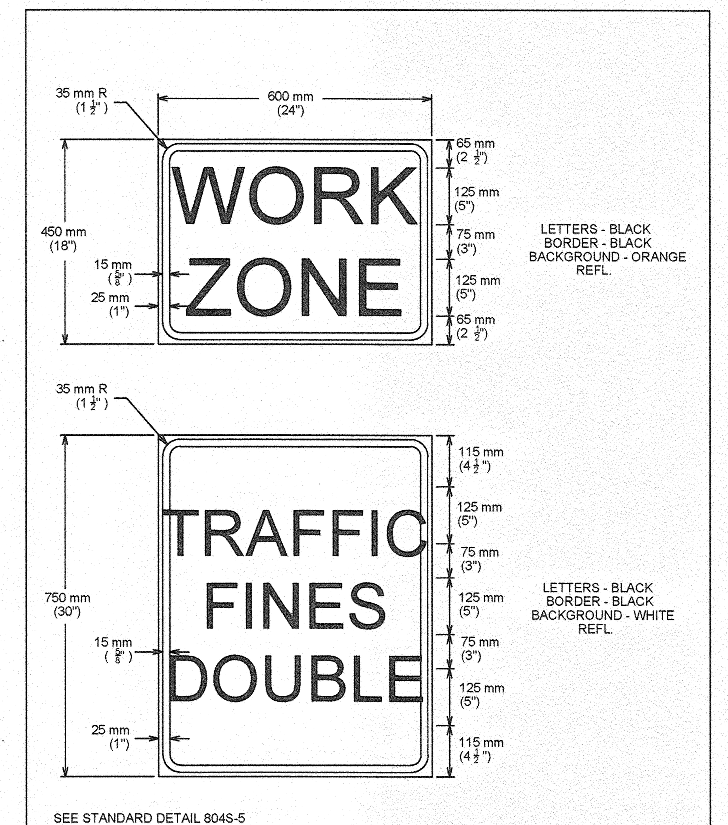
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

TRAFFIC CONTROL SIGNS

RECORD COPY SIGNED BY SAM ANGOORI — 01/04/10 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 804S-5 (7 OF 13)



SEE STANDARD DETAIL 804S-5 SHEET 5 OF 13 FOR SKID-MOUNTED SIGN SUPPORT.

CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

SPECIAL WORK ZONE SIGNS

RECORD COPY SIGNED BY SAM ANGOORI — 01/04/10 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 804S-5 (9 OF 13)

MATCH LINE "A" (SEE SHEET 08)

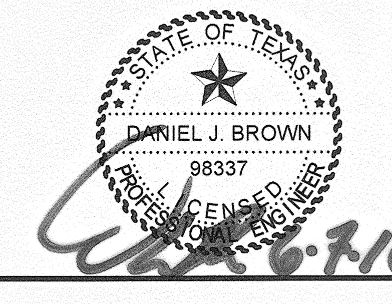
N

SCALE: 1" = 30'

LEGEND
- SIGN
- LIGHT POLE
- GUY WIRE
- POWER POLE
- IRRIGATION CONTROL VALVE
- SPRINKLER HEAD
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- GAS VALVE
- ELECTRIC METER
- ELECTRIC JUNCTION BOX
- ELECTRIC PULL BOX
- TELEPHONE PEDISTAL
- MAIL BOX
- FEMA 100 YR FLOOD PLAIN
- OVERHEAD ELECTRIC LINE
- UNDERGROUND ELECTRIC LINE
- WASTEWATER LINE
- WATER LINE
- GAS LINE
- TREE WITH TAG NO.
- ELECTRIC MANHOLE
- WASTEWATER MANHOLE
- STORM MANHOLE
- WATER MANHOLE
- EXIST. FENCE
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- PREVIOUSLY REMOVED BY COA

EXISTING UTILITIES NOTE:

EXISTING UNDERGROUND UTILITIES ARE BASED ON A COMBINATION OF RECORD INFORMATION PROVIDED BY THE UTILITY OWNERS AND SURVEY OF EXISTING FEATURES. CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.



CITY OF AUSTIN — FOUNDED 1839

MALONE ★ WHEELER INC.
CIVIL ENGINEERING ★ DEVELOPMENT CONSULTING ★ PROJECT MANAGEMENT
5113 Southwest Parkway, Suite 260
Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-0655
Firm Registration No. F-786

GENERAL PERMIT OFFICE

DEMOLITION PLAN & TRAFFIC CONTROL DETAILS

REVISIONS			
NO.	BY	DATE	REMARKS

SHEET INFORMATION
DATE 9/18/15
SHEET 09 OF 23
09 DEMOLITION PLAN & TRAFFIC CONTROL DETAILS.DWG
CAD REF. NO.
GP NO.: GP-2015-0280.AWU

GENERAL PERMIT PROGRAM

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NOTE:
CONTRACTOR SHALL BYPASS WASTE WATER PUMP PER COA SPECIFICATION.

LEGEND	
	EXIST. ROW
	EXIST. WASTEWATER
	EXIST. ASPHALT PAVEMENT
	EXIST. CONCRETE PAVEMENT / GOLF CART PATH
	EXIST. CRITICAL WATER QUALITY ZONE
	PROP. BYPASS LINE
	FLOW DIRECTION ARROW

EXISTING UTILITIES NOTE:

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STATE OF TEXAS
DANIEL J. BROWN
98337
LICENSED PROFESSIONAL ENGINEER
6-7-16

CITY OF AUSTIN
FOUNDED 1839

MALONE★WHEELER INC.
civil engineering ● land development consultants ● project management
5113 Southwest Parkway, Suite 260
Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-0655
Firm Registration No. F-786

GENERAL PERMIT OFFICE

BYPASS PUMPING

REVISIONS			
NO.	BY	DATE	REMARKS

SHEET INFORMATION
DATE 9/18/15
SHEET 10 OF 23
CAD REF. NO. 10 BYPASS PUMPING.DWG
GP NO. GP-2015-0280 (AWL)

GENERAL PERMIT PROGRAM

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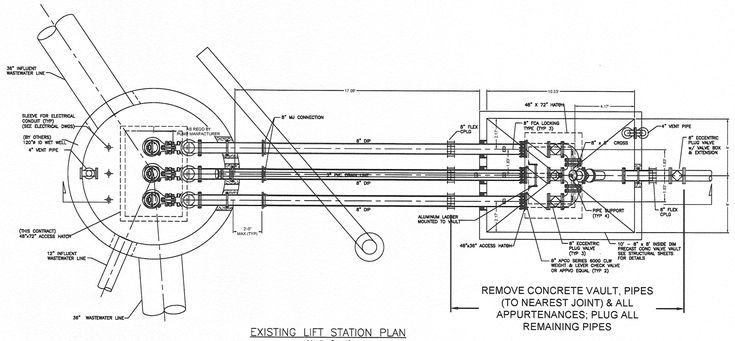
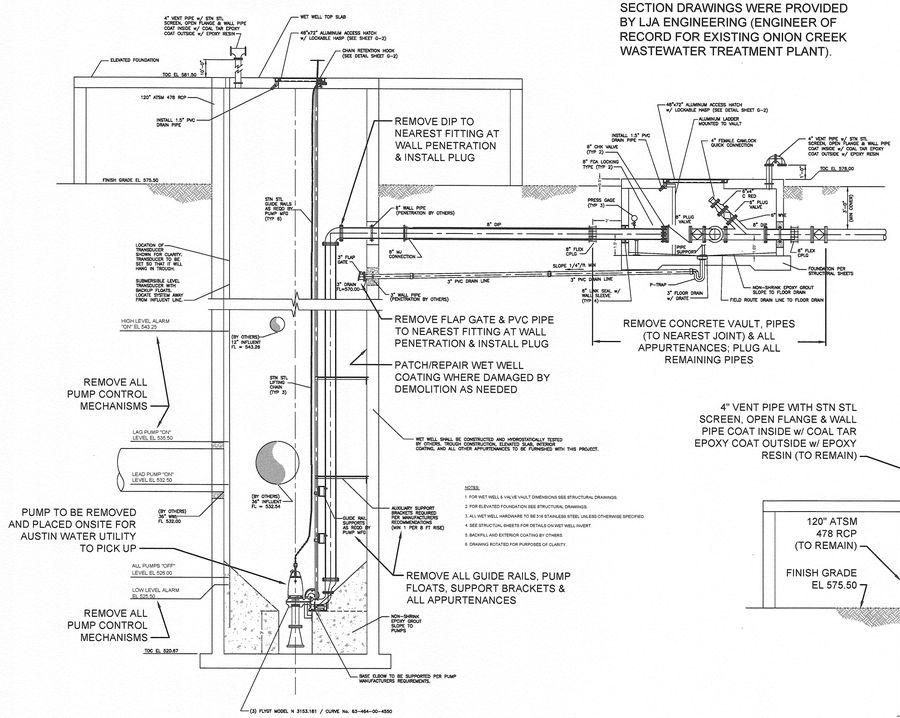
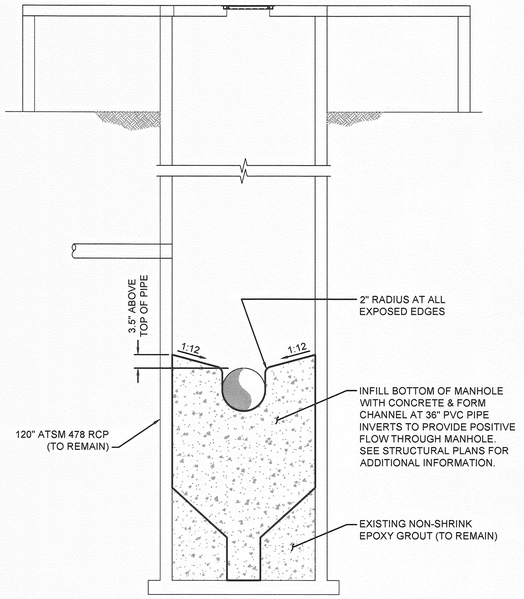


EXISTING LIFT STATION PLAN
SCALE: 1" = 5'

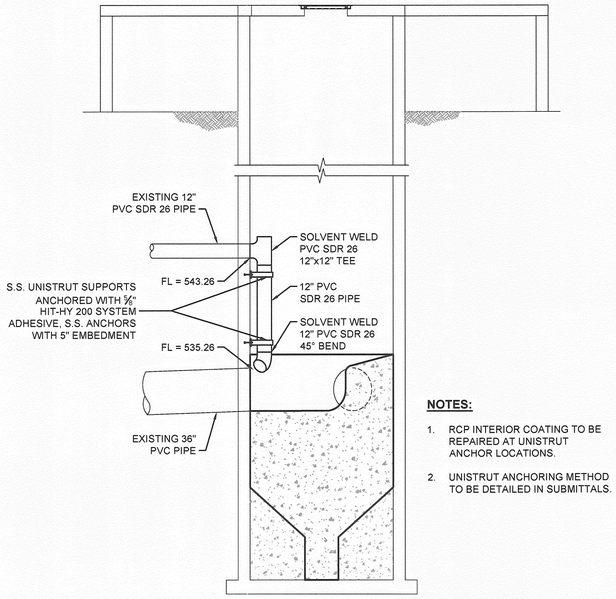
NOTE:
EXISTING LIFT STATION PLAN & SECTION DRAWINGS WERE PROVIDED BY LJA ENGINEERING (ENGINEER OF RECORD FOR EXISTING ONION CREEK WASTEWATER TREATMENT PLANT).



EXISTING LIFT STATION SECTION
SCALE: 1" = 5'



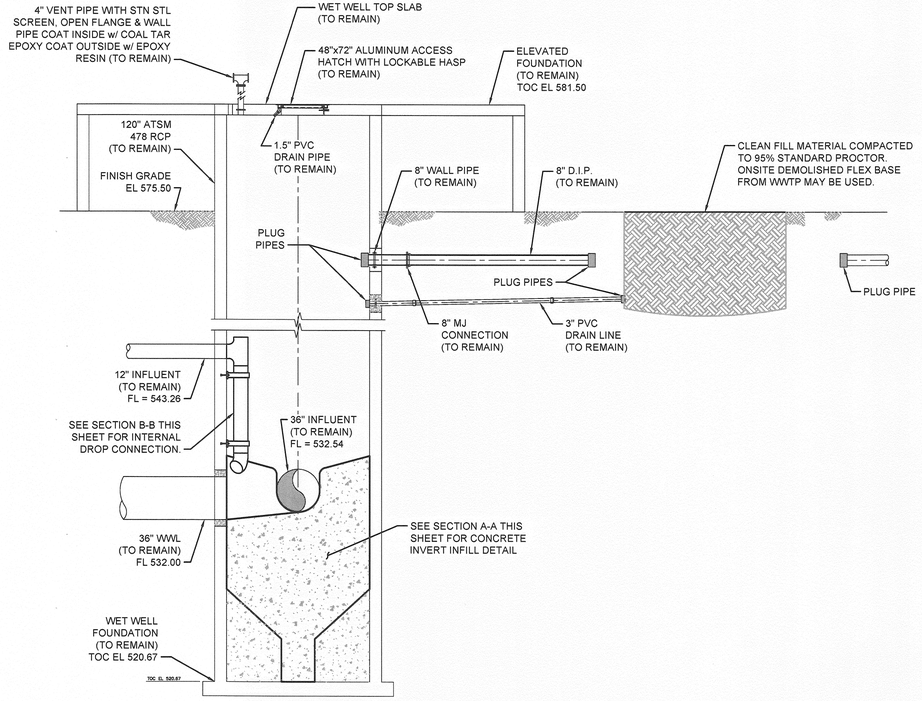
SECTION A-A AT LIFT STATION & MODIFIED MANHOLE
SCALE: 1" = 5'



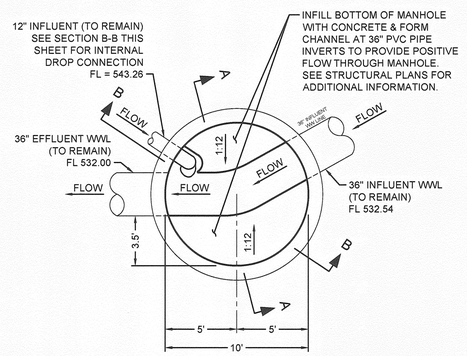
NOTES:

1. RCP INTERIOR COATING TO BE REPAIRED AT UNISTRUT ANCHOR LOCATIONS.
2. UNISTRUT ANCHORING METHOD TO BE DETAILED IN SUBMITTALS.

SECTION B-B AT LIFT STATION & MODIFIED MANHOLE
SCALE: 1" = 5'



PROPOSED LIFT STATION & MODIFIED MANHOLE SECTION
SCALE: 1" = 5'



PLAN VIEW AT LIFT STATION & MODIFIED MANHOLE
SCALE: 1" = 5'

0 5'
SCALE: 1" = 5'

STATE OF TEXAS
DANIEL J. BROWN
98337
LICENSED PROFESSIONAL ENGINEER
6.7.16

CITY OF AUSTIN
FOUNDED 1839

MALONE WHEELER INC.
CIVIL ENGINEERS ● SURVEYORS ● CONSULTANTS ● PROJECT MANAGEMENT
5113 Southwest Parkway, Suite 260
Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-3655
Firm Registration No. F-786

GENERAL PERMIT OFFICE

WASTEWATER LIFT STATION & MODIFIED MANHOLE

GENERAL PERMIT PROGRAM

REVISIONS			
NO.	BY	DATE	REMARKS

SHEET INFORMATION
DATE 6/6/16
SHEET 11 OF 23
1:\WASTEWATER LIFT STATION & MODIFIED MANHOLE.DWG
CAD REF. NO.

GP NO. GP-2015-0280.AWW

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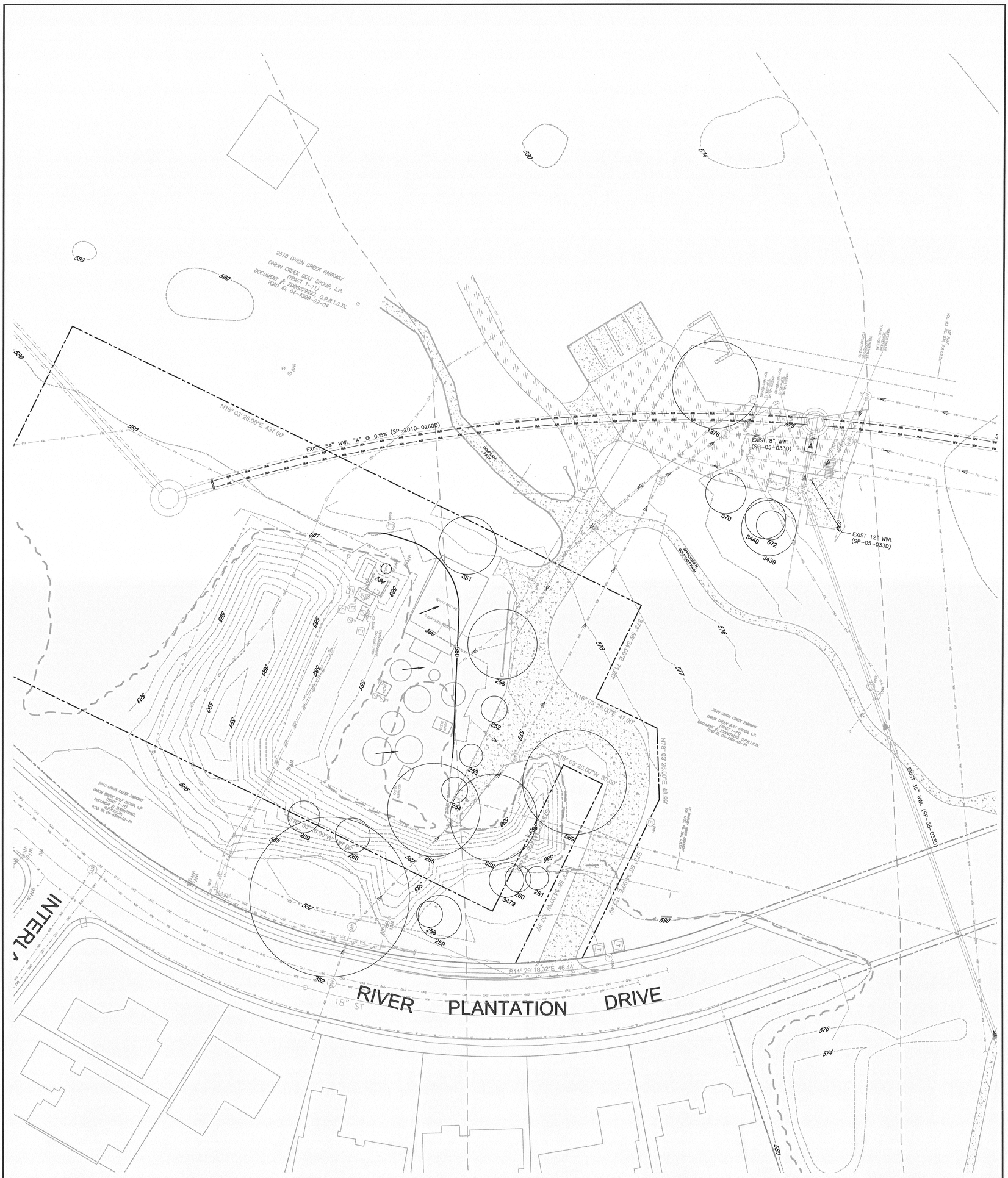


EXISTING UTILITIES NOTE:

SHOWN HEREON APPROXIMATE UTILITIES ARE BASED ON A COMBINATION OF RECORD INFORMATION PROVIDED BY THE UTILITY OWNERS AND SURFACE OBSERVATIONS. CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

LEGEND

PROP. ROW

EXIST. GROUND CONTOUR

PROP. FINISHED CONTOUR

SCALE 1" = 30'

N

STATE OF TEXAS
DANIEL L. BROWN
98937
LICENSED PROFESSIONAL ENGINEER

SHEET INFORMATION

DATE 6/6/16

SHEET 12 OF 23

CAD REF. NO. 12 GRADING PLAN DWG

GP NO.: GP-2015-0280 AWU

REVISIONS			
NO.	BY	DATE	REMARKS

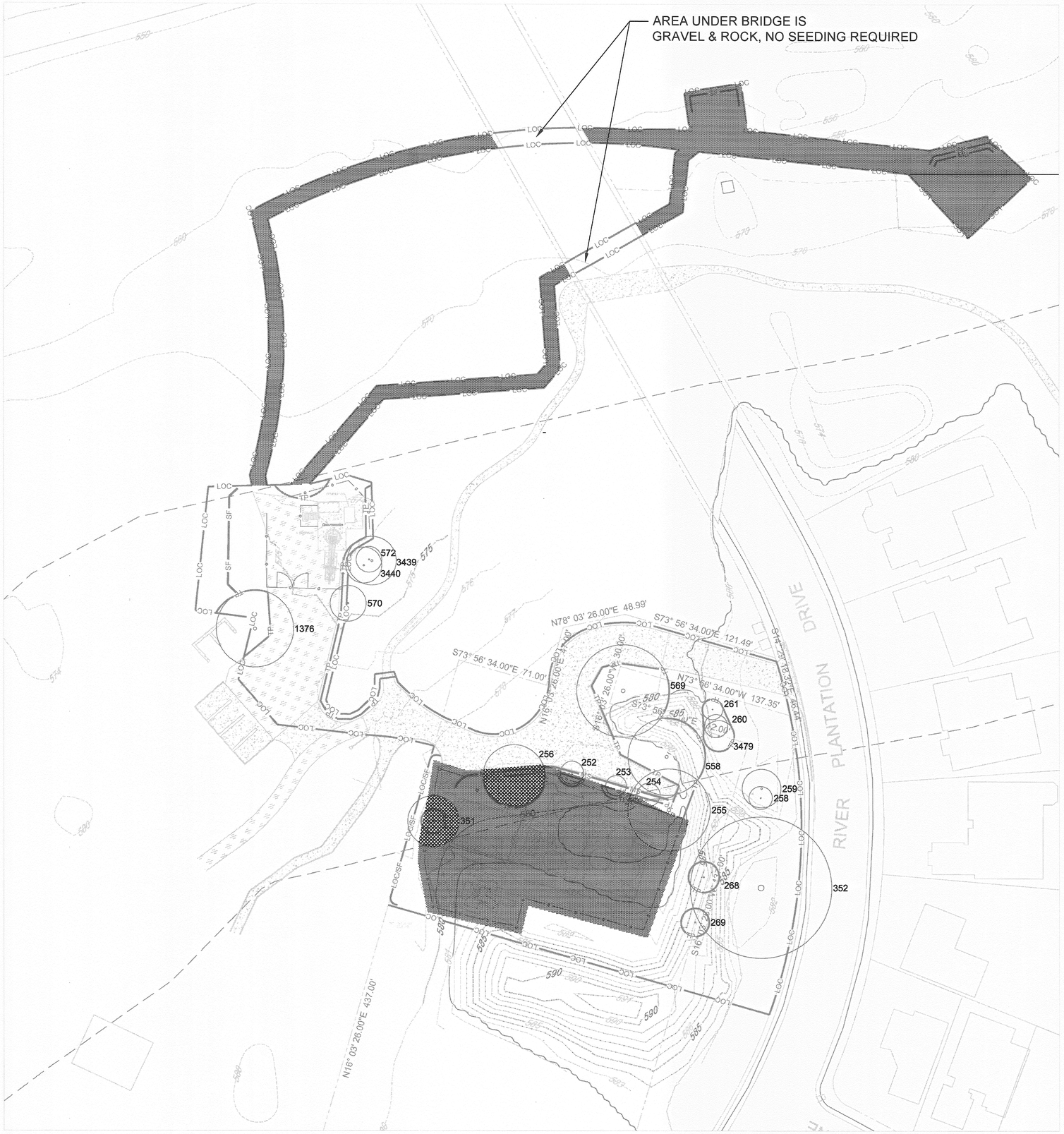
GENERAL PERMIT OFFICE

GRADING PLAN

MALONE★WHEELER INC.
CIVIL ENGINEERING ● DEVELOPMENT CONSULTING ● PROJECT MANAGEMENT
7500 Rialto Blvd, Bldg 1, Suite 240
Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-0655
Firm Registration No. F-786

CITY OF AUSTIN

GENERAL PERMIT PROGRAM



TREE LIST

TAG NO.	SIZE/TYPE
252	9" HACKBERRY
253	8" HACKBERRY
254	9" HACKBERRY
255	32" LIGUSTRUM
256	24" LIVE OAK
258	9" HACKBERRY
259	15" HACKBERRY
260	9" HACKBERRY
261	8" AMERICAN ELM
268	12" LIGUSTRUM
269	11" LIGUSTRUM
351	20" LIVE OAK
352	55" LIVE OAK
558	30" LIVE OAK
569	36" LIVE OAK
570	14" HACKBERRY
572	10" HACKBERRY
1376	30" PECAN
3439	19" LIVE OAK
3440	14" LIGUSTRUM
3479	12" LIGUSTRUM

LANDSCAPE LEGEND

NATIVE GRASSLAND SEEDING AND PLANTING BOUNDARY.
SEED MIX: UPLAND SPECIES, FULL SUN AREAS PER SPEC 609S
TOPSOIL PER SPEC 609S REQUIREMENTS

MULCH, SHREDDED HARDWOOD 4" DEPTH, REFER TO
SUPPLEMENTAL PROVISIONS SPEC SP-610S

REFER TO SHEETS 4 & 5: EROSION-SEDIMENTATION
CONTROL PLAN FOR THE TREE PROTECTION
REQUIREMENTS

N

0 40 80
20 60
GRAPHIC SCALE: 1" = 40'

REGISTERED LANDSCAPE ARCHITECT
ROBERTO C. GARCIA
1292
STATE OF TEXAS

March 30, 2016

GARCIA DESIGN INC.
LANDSCAPE ARCHITECTURE
PLANNING-URBAN DESIGN
11500 Metric Blvd., Building. 1
SUITE # 150
AUSTIN, TEXAS 78758
PHONE: (512)892-0353 FAX: (512) 821-2085
email - rgarcia@garciadesigninc.net
http://www.garciadesigninc.net

CITY OF AUSTIN FOUNDED 1839

MALONE+WHEELER INC.
CIVIL ENGINEERING ◆ DEVELOPMENT CONSULTING ◆ PROJECT MANAGEMENT
5113 Southwest Parkway, Suite 260
Austin, Texas 78735
Phone: (512)892-2110 Fax: (512) 892-2116
Firm Registration No. F-786

GENERAL PERMIT OFFICE

LANDSCAPE RESTORATION PLAN

NO.	BY	DATE	REMARKS

SHEET INFORMATION
DATE 6/6/16
SHEET 13 OF 23
CAD REF. NO. 13 LANDSCAPE RESTORATION PLAN.DWG
GP NO. GP-2015-0289.AWJ

GENERAL PERMIT PROGRAM

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STANDARD NOTES

CITY OF AUSTIN - LANDSCAPE/IRRIGATION NOTES, ECM APPENDIX O
Automatic irrigation systems shall comply with the following requirements. These requirements shall be noted on the Site Development Permit and shall be implemented as part of the landscape inspection:
1. A new commercial and multi-family irrigation system must be designed and installed so that:
(a) there is not direct overspray onto non-irrigated areas;
(b) the system does not include spray irrigation on areas less than six (6) feet wide (such as medians, buffer strips, and parking lot islands)
(c) above-ground irrigation emission devices are set back at least six (6) inches from impervious surfaces;
(d) the irrigation system has a master valve;
(e) circuit remote control valves have adjustable flow controls;
(f) serviceable in-head check valves are adjacent to paved areas where elevation differences may cause low head drainage;
(g) the irrigation system has a City- approved weather based controller;
(h) an automatic rain shut-off device shuts off the irrigation system automatically after not more than a one-half inch (1/2") rainfall;
(i) zone valves and circuits are separated based on plant water requirements;
(j) an irrigation emission device (such as spray, rotor, or drip emitter) does not exceed the manufacturer's recommended operating pressure; and
(k) no component of the irrigation system deviates from the manufacturer's recommended use of the product.
2. The maximum spacing between spray or rotary sprinkler heads must not exceed the radius of throw of the head unless manufacturer of the sprinkler head specifically recommends a greater spacing. The radius of throw is determined by reference to the manufacturer's specifications for a specific nozzle at a specific operating pressure.
3. The irrigation installer shall develop and provide an as-built design plan and water budget to the City at the time the final plumbing inspection is performed. The water budget shall include:
(a) a chart containing zone numbers, precipitation rate, and gallons per minute; and
(b) the location of the emergency irrigation system shut-off valve. A laminated copy of the water budget shall be permanently installed inside the irrigation controller door.
4. The irrigation installer shall provide a report to the City on a form provided by the Austin Water Utility Department certifying compliance with Subsection 1 when the final plumbing inspection is performed by the City.

CITY OF AUSTIN - LANDSCAPE MAINTENANCE REQUIREMENTS, LDC 25-2-984
1. This section applies to an owner who is responsible for property for which a site plan has been approved by the City.
2. An owner shall maintain required landscaped areas in accordance with the site plan and in healthy condition, free from diseases, pests, weeds, and litter, in accordance with generally accepted horticultural practice.
3. An owner who receives notification from the Watershed Protection and Development Review Department that plants on a site are dead, diseased, or severely damaged:
(a) shall remove the plants not later than the 60th day after notification; and
(b) replace the plants within six months after notification, or by the next planting season, whichever comes first.
4. An owner required to replace plants under Subsection (B) must use replacement plants that are the same size and species as shown on the approved site plan or must be of equivalent quality and size. The replacement of plants under this section is not an amendment to the approved plan.

CITY OF AUSTIN - IRRIGATION OF LANDSCAPE AREAS, ECM 2.4.6
(A) An area equal to at least 50% of the total required landscaped area on a project must:
(1) be undisturbed natural area(s) or undisturbed existing trees with no potable irrigation; or
(2) be irrigated by stormwater runoff conveyed from impervious surfaces on the site using one or more of the following methods:
(a) overland flow;
(b) storm drains;
(c) downspouts;
(d) rainwater harvesting;
(e) retention-irrigation; or
(f) other methods of conveyance as prescribed by rule.
(B) The drainage area used to irrigate under Subsection (A) must be calculated to provide sufficient water for the landscaped area, as prescribed by rule.
(C) Unless the landscaped area under Subsection (A) is being designed as a water quality control under Section , the drainage area used to irrigate the landscaped area:
(1) may not include impervious areas on which the land use or activities may generate highly contaminated runoff, as prescribed by rule; and
(2) may not include impervious areas used for parking or driving of vehicles if located within the Edwards Aquifer Recharge Zone as defined in Section .
(D) No permanent irrigation is required for all or a portion of a required landscaped area that consists of:
(1) undisturbed natural area; or
(2) undisturbed existing trees;
(E) In addition to irrigation meeting the requirements of Subsection (A), supplemental irrigation using irrigation methods described in Subsection (F) is required:
(1) for the first two growing seasons for all or a portion of a newly planted required landscaped area without permanent irrigation;
(2) permanently for all newly planted trees in a required landscape area; and
(3) as prescribed by rule for all newly planted required landscaping located in medians, islands, or peninsulas.
(F) Irrigation required under subsection (E) may be provided only by one or more of the methods described below:
(1) an automatic irrigation system;
(2) a hose attachment, if:
(a) the hose attachment is within 100 feet of the landscaped area or plant; and
(b) there is not a road or parking pavement between the hose attachment and the landscaped area or plan; or
(3) a temporary, above ground automatic irrigation system, if the system complies with the water conservation requirements in the Environmental Criteria Manual.
(G) An irrigation method must:
(1) provide a moisture level adequate to sustain growth of the plant materials on a permanent basis;
(2) unless fiscal security is provided to the City for the installation of the system, be operational at the time of the final landscape inspection; and
(3) be maintained and kept operational.
(H) A site plan must show:
(1) the drainage area(s) used to irrigate under Subsection (A), including notation of the land uses on impervious areas within the drainage area(s);
(2) the nature and location of an irrigation system; and
(3) that there is no disturbance to the critical root zone of an existing tree.
(I) The director may grant an administrative variance to the requirements in this Section. An applicant for a variance must demonstrate that:
(1) strict compliance with this Section is infeasible due to unique site conditions including but not limited to topography, size, shape, and location of existing features such as trees or previous development; and
(2) the proposed irrigation plan is the minimal departure from the requirements of this Section.

ADDITIONAL NOTES & REQUIREMENTS

ALTERNATIVE COMPLIANCE

CITY OF AUSTIN – IRRIGATION NOTES (MODIFIED)

Landscape areas shall use a temporary and above ground irrigation system and shall be required to provide irrigation only for the first two (2) growing seasons.

The irrigation method used shall:
A. Provide a moisture level in an amount and frequency adequate to sustain growth of the plant materials.
B. Be in place and operational at the time of the landscape inspection unless an alternative method is approved under Section 25–2–1008 of the LDC; and
C. Be maintained and kept operational at all times to provide for efficient water distribution.

GENERAL NOTES:

1. SEE PLANT LIST FOR HEIGHT & WIDTH REQUIREMENTS, IF ANY, FOR EACH PLANT.
2. ALL TREES WILL BE A MINIMUM OF 6' IN HEIGHT AT TIME OF PLANTING
3. IF ESTABLISHING VEGETATION DURING ANY STAGE OF A DROUGHT, SECTION 6–4–30 MAY REQUIRE A VARIANCE. CONTACT AUSTIN WATER UTILITY WATER CONSERVATION STAFF AT WATERUSECOMPVAR@AUSTINTEXAS.GOV.
4. THE OWNER WILL CONTINUOUSLY MAINTAIN THE REQUIRED LANDSCAPING IN ACCORDANCE WITH LDC 25–2–984.
5. ALL LANDSCAPE AREAS ARE TO BE PROTECTED BY 6 INCH WHEEL CURBS, WHEELSTOPS OR OTHER APPROVED BARRIERS AS PER ECM 2.4.7(LDC 25–2–1004(A), ECM 2.4.7(A)

REMEDIAL TREE CARE NOTES

1. Treat tree indicated on drawing with CoRoN and Plant Health Care Mycor - Injectable
2. Products applied via subsurface high pressure soil injection at a rate less than or equal to 100-150 PSI using a soil probe.
3. Application rate is two (2) liters per injection site on a three (3) foot grid beneath the drip line of the tree.

REVEGETATION NOTES

1. All disturbed areas shall be revegetated with native plants per Spec. No. 609S

"ALL RESPONSIBILITY FOR ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER/LANDSCAPE ARCHITECT (AS APPLIES) WHO PREPARED THEM. IN APPROVING THESE PLANS, THE CITY OF AUSTIN MUST RELY ON THE ADEQUACY OF THE DESIGN ENGINEER."

REVIEWED BY:
FOR DIRECTOR OF PLANNING AND DEVELOPEMENT REVIEW DEPARTMENT DATE

REGISTERED LANDSCAPE ARCHITECT
ROBERTO C. GARCIA
1292
STATE OF TEXAS
March 30, 2016

GARCIA DESIGN INC.
LANDSCAPE ARCHITECTURE
PLANNING–URBAN DESIGN
11500 Metric Blvd., Building. 1
SUITE # 150
AUSTIN, TEXAS 78758
PHONE: (512)892–0353 FAX: (512) 821–2085
email – rgarcia@garciadesigninc.net
http: //www.garciadesigninc.net

CITY OF AUSTIN
FOUNDED 1839

MALONE+WHEELER INC.
CIVIL ENGINEERING ■ DEVELOPMENT CONSULTING ■ PROJECT MANAGEMENT
5113 Southwest Parkway, Suite 260
Austin, Texas 78735
Phone (512) 899-3600 Fax: (512) 899-3655
Firm Registration No. F-754

GENERAL PERMIT OFFICE
LANDSCAPE RESTORATION NOTES

NO.	BY	DATE	REVISIONS	REMARKS

SHEET INFORMATION
DATE 6/6/16
SHEET 14 OF 23
CAD REF. NO. 13 LANDSCAPE RESTORATION PLAN.DWG
GP NO. GP-2015-0280.AMU

GENERAL PERMIT PROGRAM

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F:\Onion Creek WWTP Demo\Projects\15-006 WWTP Demo\Drawings\Planset\13 LANDSCAPE RESTORATION PLAN.dwg, 6/6/2016 4:45:58 PM, BRYAN

PROP. DIVERSION MH (THIS CONTRACT)
PHASE 1 - INSTALL NEW LINES & PLUG (THIS CONTRACT)
PHASE 2 - CUT & PLUG OLD LINE, REMOVE
PLUG ON NEW LINE (BY OTHERS)

TIE INTO EXISTING 8" FORCE MAIN
(PLUG 12" EYE TO NORTH)

2" PVC LINE FOR
FUTURE CHEMICAL FEED
(BY OTHERS)

(BY OTHERS)
FUTURE ODOR
CONTROL

(THIS CONTRACT WWL 'B')
PROP. 12" SDR-26 ASTM
D3034 PVC GRAVITY WWL
(SEE SHEET 5)

(BY OTHERS)
PROPOSED ELEVATED SLAB
APPROX. 1,065' SURFACE AREA
FF = 581.50

(BY OTHERS)
STAINLESS STEEL GRATED
STAIRS WITH NON-SKID TREAD
AND CONCRETE LANDING

(BY OTHERS)
ELECTRICAL BUILDING
(8' x 16')

(BY OTHERS)
GENERATOR
(8' x 12')

(ABANDONED)

PROP. 6' MH
(SEE INVERT DETAIL THIS SHEET)

(BY OTHERS)
EXISTING LIFT STATION
TO BE ABANDONED IN PLACE
CUT AND PLUG 5' BELOW
PROPOSED GRADE.

(THIS CONTRACT WWL 'B')
PROP. 12" SDR-26 ASTM
D3034 PVC GRAVITY WWL
(SEE SHEET 5)

(THIS CONTRACT)
PROP. 36" GRAVITY WW
(SEE SHEET 5)

(THIS CONTRACT)
PROPOSED 10' DIA.
WET WELL SEE
MECHANICAL
SHEETS FOR DETAIL

FOR INFORMATION ONLY:
THIS IS A RECORD DRAWING FROM THE CITY OF AUSTIN FOR THE ORIGINAL CONSTRUCTION OF THE LIFT STATION AS DESIGNED BY LJA ENGINEERING (ENGINEER OF RECORD).

(BY OTHERS)
PROPOSED 2000 LB CRANE
MOUNTED ON ELEVATED SLAB
18' BOOM

(THIS CONTRACT)
PROP. 40 LF 36" HOBAS
CAP & PLUG AT END

(THIS CONTRACT WWL 'C')
PROP. 8" SDR-26 ASTM D3834 PVC GRAVITY WWL
(SEE SHEET 5)

(BY OTHERS)
PROPOSED 10'6" x 8'0" VALVE VAULT
SEE MECHANICAL SHEET FOR DETAIL

(BY OTHERS)
8" CL 350 DIP FORCE MAIN

(BY OTHERS)
6" SLUDGE BYPASS
LINE

DOUBLE 12' GATES
(BY OTHERS)

EXISTING 8" WWL
(ABANDONED)

PROP. DIVERSION MH (THIS CONTRACT)
PHASE 1 - INSTALL NEW LINES & PLUG (THIS CONTRACT)
PHASE 2 - CUT & PLUG OLD LINE, REMOVE
PLUG ON NEW LINE (BY OTHERS)

MATCH LINE
SEE INSET THIS SHEET

MATCH LINE
SEE THIS SHEET

(BY OTHERS)
PROP. 8" CL 350 DIP
FORCE MAIN

6" SLUDGE BYPASS LINE

EXISTING 8" PVC WWL

EXISTING 10" DIP F.M.

(BY OTHERS)
TIE PROP. 8" DIP F.M. TO
EXIST. 10" DIP F.M.
INSTALL: 1 - 10" x 8"
REDUCING ELBOW

(BY OTHERS)
CUT & PLUG F.M.
AFTER NEW F.M. IS
CONSTRUCTED

F.M. CONNECTION DETAIL
SCALE: 1"=5'

RD- REPLACEMENT SHEET

LEGEND
PROPOSED WWL (THIS CONTRACT)
FUTURE WWL (BY OTHERS)

SCALE: 1" = 5'

SCALE: 1:= 2'

FL = 565.0 (TOP)
FL = 544.57 (BOTTOM)
FL = 543.57
FL = 543.55
FL = 544.50
FL = 543.53
FL = 563.22 (TOP)
FL = 544.57 (BOTTOM)
WWL B
WWL C
EDGE OF
INVERT CHANNEL

574
576

COORDINATE TABLE		
PT #	EASTING	NORTHING
1	3102994.7941	10024982.9182
2	3103007.3652	10025020.6451
3	3102973.1380	10025020.0431
4	3102973.7974	10024982.5489
5	3102978.5021	10024979.0787
6	3102977.6282	10024967.7792
7	3102987.4753	10024978.3848
8	3102986.6014	10024967.0852
9	3102993.6550	10024956.5289
10	3102993.9961	10024979.3701
11	3103012.7513	10024998.7364
12	3103012.3644	10025020.7330
13	3102997.8701	10025037.4330
14	3102942.3596	10025021.8024
15	3102946.4029	10024957.6664
16	3102946.0183	10025018.6771
17	3102914.5353	10025025.4761
18	3102953.4157	10024940.2693
19	3102977.2012	10025002.2676
20	3102984.1102	10024993.2319
21	3102994.1964	10025015.9128
22	3102961.2805	10025011.8333
23	3102961.4212	10025003.8346

REPLACEMENT SHEET
REVIEWED
MAR 2 5 2010
Austin Water Utility
ACCEPTED AS-BUILT
RECORD INFORMATION

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF AUSTIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
REVIEWED BY:
WATERSHED PROTECTION DEVELOPMENT REVIEW DEPARTMENT DATE

S-2008-0031

CITY OF AUSTIN
WATER AND WASTEWATER UTILITY
10300 BLOCK OF RIVER PLANTATION DRIVE
ZACHARY SCOTT SUBDIVISION
WASTEWATER IMPROVEMENTS
LIFT STATION SITE PLAN

REVISIONS			
NO.	DESCRIPTION	BY	DATE
1C, 2C	CHANGED 36" WW to 10" WW, ADDED 8" SLUDGE BYPASS.		
2C	ADDED SLUDGE BY PASS LINE		
3C	DELETED BYPASS LINE, ADDED 36" WWL A. CHANGED 10" FM TO 8" FM. AS-BUILT; RECORD DRAWING		
RD	RECORD DRAWING CHANGES. AC		

DATE: 08/14/2009
DESIGNED BY: DR
DRAWN BY: JF, JBR
CHECKED BY: DR
DRAWING NAME: Lift Station Site Plan.dwg

STATE OF TEXAS
DANIEL RYAN
89458
LICENSED PROFESSIONAL ENGINEER
3/25/2010

LJA Engineering & Surveying, Inc.
5316 Highway 290 West
Suite 150
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716

JOB NUMBER: A135-401-426

SHEET NO. 13 OF 22 SHEETS

GP NO.: GP-2015-0280 AWU

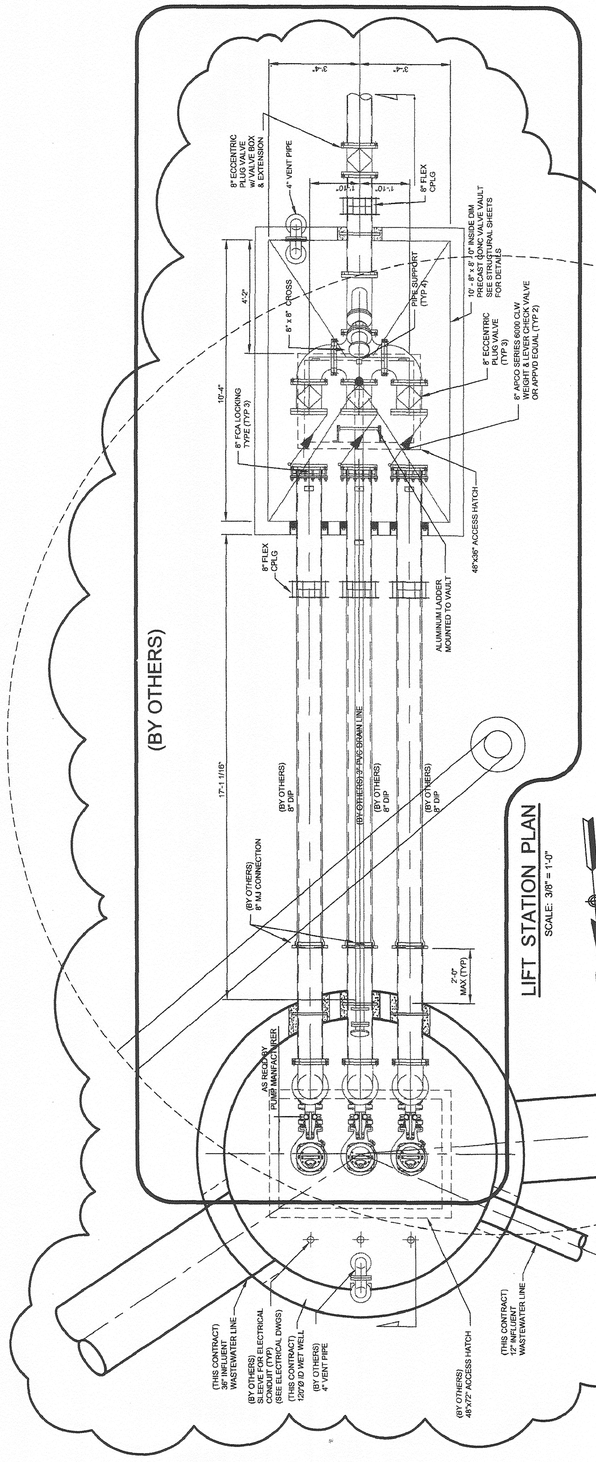
RECORD DRAWING

SP-05-0033D

93526

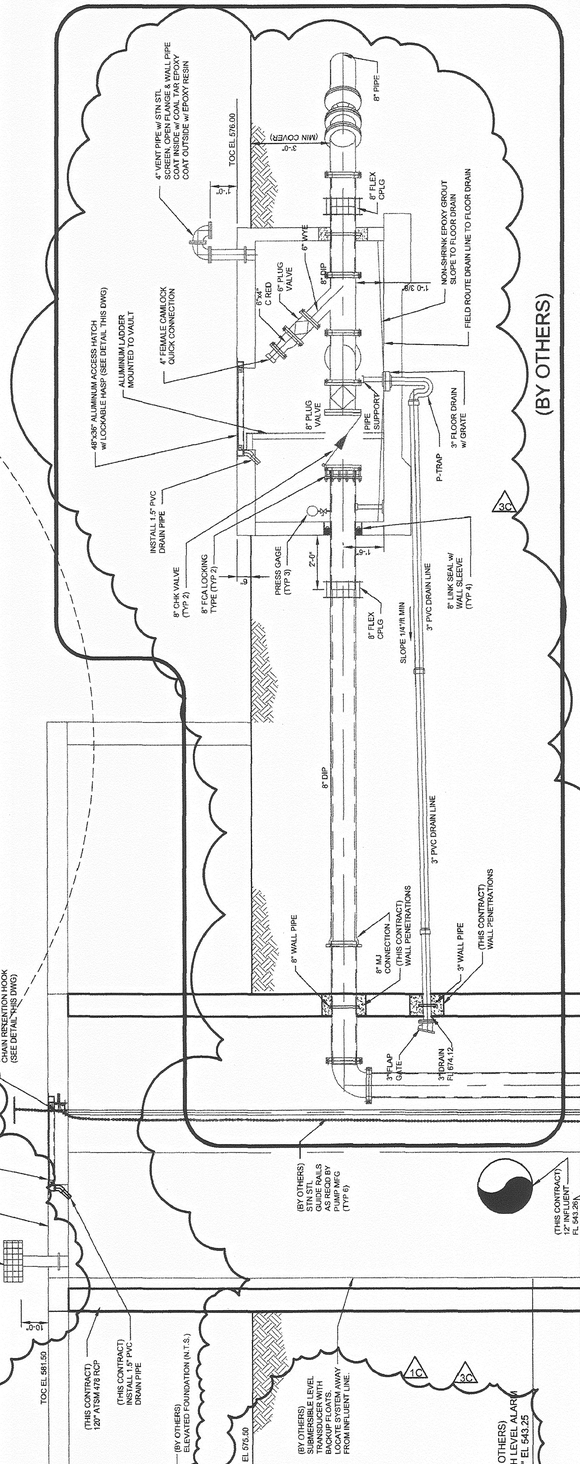
15 OF 23

P:\Onion Creek WWTP Demo\Projects\15-006 WWTP Demo\Drawings\Plansheet\15 LIFT STATION SITE PLAN (RECORD DRAWING).dwg, 6/5/2018 4:44:18 PM, BRYAN



LIFT STATION PLAN

SCALE: 3/8" = 1'-0"



LIFT STATION SECTION

SCALE: 3/8" = 1'-0"

S-2008-0031

NOTES:

1. FOR WET WELL & VALVE VAULT DIMENSIONS SEE STRUCTURAL DRAWINGS.
2. FOR ELEVATED FOUNDATION SEE STRUCTURAL DRAWINGS.
3. ALL WET WELL HARDWARE TO BE 316 STAINLESS STEEL UNLESS OTHERWISE SPECIFIED.
4. SEE STRUCTURAL SHEETS FOR DETAILS ON WET WELL INVERT.

Replacement Sheet
REVIEWED
SEP 08 2009
Austin Water Utility

1C APPROVED
SEP 15 2009
CITY OF AUSTIN
WPDR
DEVELOPMENT SERVICES

3C – REPLACEMENT SHEET

FOR INFORMATION ONLY:
THIS IS A RECORD DRAWING FROM THE CITY OF AUSTIN FOR THE ORIGINAL CONSTRUCTION OF THE LIFT STATION AS DESIGNED BY LJA ENGINEERING (ENGINEER OF RECORD).

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF AUSTIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

REVIEWED BY:

WATERSHED PROTECTION DEVELOPMENT REVIEW DEPARTMENT DATE

GP NO.: GP-2015-0280.AWU

RECORD DRAWING

SP-05-0033D

95527

16 OF 23

REVISIONS			
NO.	DESCRIPTION	BY	DATE
1C	CHANGED 36" WW to 10" WW, ADDED 6" SLUDGE BYPASS		
3C	CHANGED 10" FM to 6" FM, DELETED 6" SLUDGE BYPASS CHANGED 10" WW to 36" WW. AS-BUILT, RECORD DWG		

DATE: 08/14/2009
DESIGNED BY: DR
DRAWN BY: JF
CHECKED BY: DR
DRAWING NAME: LS-mech M1.dwg3

DANIEL RYAN 89458 LICENSED PROFESSIONAL ENGINEER

LJA Engineering & Surveying, Inc.
5316 Highway 290 West
Suite 150
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716

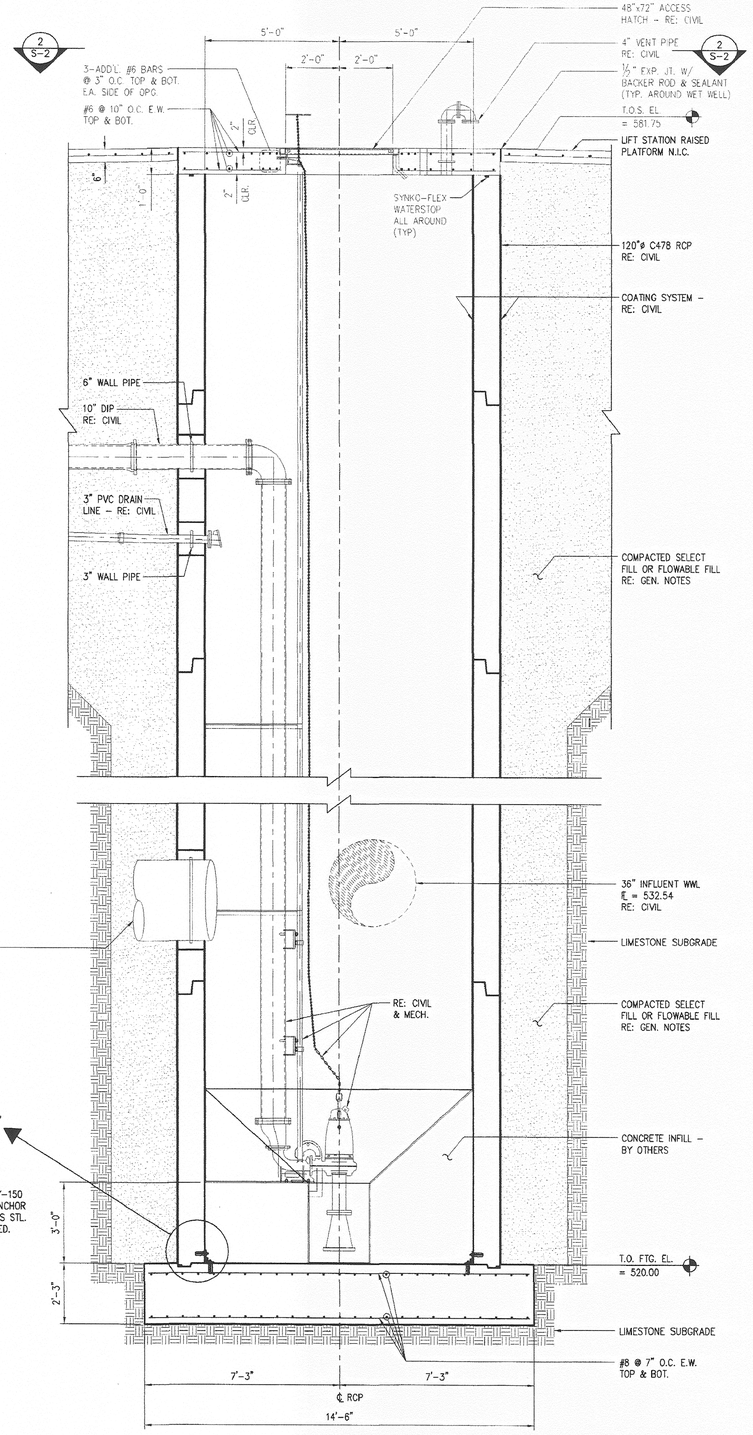
JOB NUMBER: A135-401-426

SHEET NO. 14 OF 22 SHEETS

CITY OF AUSTIN
WATER AND WASTEWATER UTILITY
10300 BLOCK OF RIVER PLANTATION DRIVE
ZACHARY SCOTT SUBDIVISION
WASTEWATER IMPROVEMENTS
LIFT STATION MECHANICAL

F:\Onion Creek WW Pumps\projects\10-08 WW Pumps\drawings\mech\LIFT STATION SITE PLAN (RECORD DRAWING).dwg, 08/20/09 4:43:25 PM, BRYAN

NOTE:
WET WELL TOP SLAB AND CONCRETE INFILL AT BASE SLAB N.I.C.

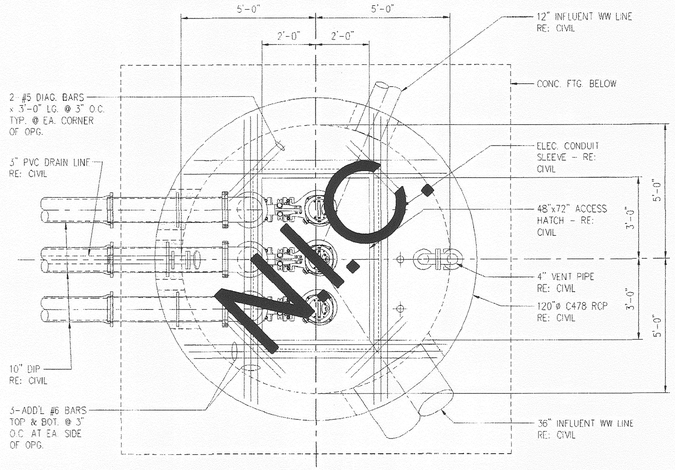


1 WELL & VALVE VAULT SECTION
SCALE: 3/8" = 1'-0"

NOTE:
REFER TO GEOTECHNICAL INVESTIGATION REPORT FOR REQUIREMENTS OF TEMPORARY CONSTRUCTION SLOPES.

NOTES:

1. REFER TO CIVIL FOR COATING SYSTEM TO BE APPLIED TO INTERIOR AND EXTERIOR SURFACES OF WET WELL.
2. REFER TO CIVIL FOR DETAILS OF SEALANT AND GASKET BETWEEN THE RCP JOINTS.
3. CONTRACTOR SHALL TAKE CARE WHEN INSTALLING WWL THROUGH RCP WALLS. HOLES SHALL BE NEAT AND CLEAN. INSTALL SYNKO FLEX WATERSTOP ALL AROUND THE PERIMETER OF THE CUT-OUT AND INSTALL STEEL RING AROUND PIPE PRIOR TO INSTALLING GROUT IN THE VOID AROUND THE WWL. USE BONDING AGENT BETWEEN CUT-OUT AND GROUT.
4. AT THE CONTRACTOR'S OPTION, BOTTOM SLAB OF WET WELL MAY BE PRECAST. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER APPROVAL FOR PRECAST BOTTOM SLAB. PRECAST BOTTOM SLAB SHALL BE MIN. 27" THICK AND MIN. 14'-6" IN DIAMETER. BOTTOM SLAB REINF. SHALL BE AS SHOWN.
5. MINIMUM AREA OF REINFORCING STEEL FOR HORIZONTAL HOOP REINFORCING OF THE WET WELL RCP SHALL MEET THE FOLLOWING REQUIREMENTS:
   FROM EL. 520.00 TO 540.00: 0.65 IN^2/FT
   FROM EL. 540.00 TO 560.00: 0.45 IN^2/FT
   FROM EL. 560.00 TO 581.00: 0.22 IN^2/FT



2 LIFT STATION WET WELL TOP SLAB
PLAN VIEW
3/8" = 1'-0"

S-2008-0031

FOR INFORMATION ONLY:
THIS IS A RECORD DRAWING FROM THE CITY OF AUSTIN FOR THE ORIGINAL CONSTRUCTION OF THE LIFT STATION AS DESIGNED BY LJA ENGINEERING (ENGINEER OF RECORD).

PKA PROJECT NO. 011-2583

Pickett, Kelm & Associates, Inc.
Consulting Structural Engineers
4100 Duval Road, Bldg. 4, Suite 103
Austin, Texas 78759 • Phone 512-345-5538

S-2

GP NO.: GP-2015-0280.AWU

RECORD DRAWING

CITY OF AUSTIN
WATER AND WASTEWATER UTILITY
10300 BLOCK OF RIVER PLANTATION DRIVE
ZACHARY SCOTT SUBDIVISION
WASTEWATER IMPROVEMENTS
WET WELL - PLANS & SECTION

NO.	DESCRIPTION	BY	DATE

DATE: 09/12/2008
DESIGNED BY: LSW
DRAWN BY: LSW
CHECKED BY: LSW
DRAWING NAME: 2583-15.dwg

STATE OF TEXAS * LARRY S. T. WU * 89530 * LICENSED PROFESSIONAL ENGINEER * 09/12/2008

LJA Engineering & Surveying, Inc.
5316 Highway 290 West
Suite 150
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716

JOB NUMBER: A135-401-426

SHEET NO. 16
OF 22 SHEETS

95529
17 OF 23

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PROPOSED 54" WWL "A" & TUNNEL REFERENCE PLAN & PROFILE SHEETS

12" DI WW LINE (94-0675)

WW MANHOLE (#237806) RIM=±575.83
FL 8" PVC IN (S)=563.41
FL 12" PVC IN (W)=543.88
FL 8" PVC IN (N)=543.87
FL 12" PVC OUT (SE)=543.85
AFTER PINEHURST LIFT STATION IS DECOMMISSIONED AND ABANDONED, CONTRACTOR SHALL GROUT ENDS OF 8" FORCE MAIN WITH 12" OF NON-SHRINK GROUT. CONTRACTOR SHALL REHABILITATE MANHOLE BY APPLICATION OF CEMENTITIOUS LINING PER SPECIFICATION SS560.

WW MANHOLE (#237800)
RIM=±575.67
FL 12" PVC IN (SE)=544.82
FL OUT PLUG

8" PVC FORCE MAIN TO BE ABANDONED AS PART OF THIS CONTRACT

8" PVC TO BE ABANDONED (BY OTHERS)

LIMITS OF TUNNEL (TYP.) REFERENCE PLAN & PROFILE SHEETS

5 YEAR FLOOD PLAIN

COA WATER & WASTEWATER GRID G11

EXISTING RIVER PLANTATION LIFT STATION TO REMAIN (COA PROJECT #S-2008-0031). CONTRACTOR SHALL PROTECT & SUPPORT DURING CONSTRUCTION AND MAINTAIN ACCESS FOR AWU STAFF AT ALL TIMES. REFER TO NOTE #2 ON THIS SHEET

PROPOSED WWL "D" DROP CONNECTION IN THIS AREA. REFERENCE SHEET C-19 FOR MORE INFORMATION

EXISTING 36" STUB-OUT

REF. NOTE #2 ON THIS SHEET

EXISTING 36" WASTEWATER LINE "ZACHARY SCOTT SUBDIVISION WASTEWATER IMPROVEMENTS" DESIGNED BY LJA ENGINEERING & SURVEYING, INC. (WWID #S-2008-0031)

RESTORE TO ORIGINAL GRADE WHEN CONSTRUCTION OF MANHOLE IS COMPLETE. REFER TO NOTE #4 FOR BACKFILL REQUIREMENTS.

STA: 46+18.30 O/S=0.00
CENTER OF SHAFT AND MANHOLE.
INSTALL 12' DIA. MANHOLE
NORTHING=10024993.2319
EASTING=3102937.4102

GIS ID # 242738

PROPOSED ZACHARY SCOTT WORK SHAFT. REF. SHEETS T-6 & T-7

REF. NOTE #2 ON THIS SHEET

FUGRO B-1

ZACH SCOTT CONNECTION
END OF ADIT
APPROXIMATE LOCATION
NORTHING=10024993.2319
EASTING=3102955.6301

WW MANHOLE (#237810)
RIM=±575.28
FL 8" PVC (N)=563.93
TOP 8" PVC (SE)=564.88
TOP 8" PVC (NW)=564.83

EXISTING ASPHALT PAVEMENT TO REMAIN (TYP)

ONION CREEK GOLF COURSE
PUBLIC UTILITY EASEMENT
LOT 61, BLOCK B, ONION CREEK ADDITION
BK.16, PG.55, P.R.T.C.T.

CONCRETE WALL

MATERIAL STORAGE AREA FOR ONION CREEK GOLF COURSE. REFER TO NOTE #1 ON THIS SHEET

PROPOSED 54" WWL "A" & TUNNEL REFERENCE PLAN & PROFILE SHEETS

ASPHALT PAVEMENT

WW MANHOLE (#123810)
RIM=±576.22
FL 8" PVC IN (SE)=564.72
FL 8" PVC OUT (W)=564.59

Permitting Note: The Zachary Scott Shaft at Station 46+18 and the Tunnel Excavation from stations 46+18 to 50+38 is permitted under General Permit # S-2010-0027 issued for the adjacent Onion Creek Golf Course Wastewater Interceptor - I-35 to Rinard (South Tunnel). This work is represented on sheets E-5, C-6, C-7, C-19, C-20, and TC-2 of this project, the Onion Creek Interceptor - Rinard to Slaughter (North Tunnel), which is permitted as Site Plan #SP-2010-0260D. These sheets also appear as C-22, C-23, C-24, C-25 C-26 and G-17 of the South Tunnel plans. All activities other than excavation, i.e. pipe installation, manhole construction, restoration, etc., is permitted under Site Plan #SP-2010-0260D.

FOR INFORMATION ONLY:
THIS IS A RECORD DRAWING FROM THE CITY OF AUSTIN FOR THE ORIGINAL CONSTRUCTION OF THE LIFT STATION AS DESIGNED BY JACOBS ENGINEERING (ENGINEER OF RECORD).

City of Austin
Reviewed for General Compliance
MAR 31 2011

REVIEWED
FEB 23 2011
Austin Water Utility

N
0 5' 10' 20'
SCALE: 1" = 10'

TREE LIST

NO.	SIZE	TYPE
561	41"	LIVE OAK
562	26"	LIVE OAK
563	11"	CHINA BERRY MULTI-TRUNK
564	8"	CHINA BERRY
565	9"	HACK BERRY
566	19"	LIVE OAK
567	9"	LIVE OAK
568	12"	HACK BERRY
569	16"	LIVE OAK
570	9"	BOX ELDER
571	9"	HACK BERRY
572	9"	LIVE OAK
573	11"	CHINA BERRY
574	22"	CEDAR
575	10"	CEDAR

NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO MATERIAL STORAGE PITS FOR ONION CREEK GOLF COURSE STAFF AT ALL TIMES.
2. FENCE LOCATION IS APPROXIMATE. CONTRACTOR TO TEMPORARILY RELOCATE CHAIN LINK AND BARBED WIRE FENCE FOR DURATION OF CONSTRUCTION. CONTRACTOR SHALL MAINTAIN SECURITY OF LIFT STATION SITE FOR DURATION BY USE OF TEMPORARY FENCE (6' TALL WITH BARBED WIRE OUTRIGGER). FENCE REQUIRED TO SECURE AREA SHALL BE SUBSIDIARY TO PAY ITEM 02312-C.
3. REFER TO SHEET G-2 FOR LEGEND.
4. SHAFTS SHALL BE BACKFILLED TO WITHIN 3 FEET OF FINISHED GRADE AS SPECIFIED IN THE STRUCTURAL DRAWINGS (REFER TO SHEET S-2). THE FINAL 30 INCHES SHALL BE BACKFILLED WITH NATIVE MATERIAL FREE OF STONES LARGER THAN 3 INCHES. COMPACT TO 95% DENSITY (TEX-113-E). THE CONTRACTOR SHALL PLACE FOUR INCHES OF ASPHALT STABILIZED BASE (COA NO. 208S) AND 2" OF HMAC, TYPE C. EXISTING PAVEMENT EDGES SHALL BE SAWCUT NEATLY AND TACKED PRIOR TO LAYING ASPHALT. ASPHALT REPAIRS CALLED FOR ON THIS SHEET SHALL BE SUBSIDIARY TO PAY ITEM 02312-C.
5. NO EXCAVATED SPOIL OR BACKFILL MATERIAL MAY BE STOCKPILED WITHIN THE 100 YEAR FLOODPLAIN. ALL MATERIAL EXCAVATED FROM THE FIGER SHAFT, ZACHARY SCOTT SHAFT, SLAUGHTER SHAFT, AND PINEHURST LIFT STATION ABANDONMENT AREA SHALL BE REMOVED DAILY FROM THE 100 YEAR FLOODPLAIN.

CENTERLINE CURVE DATA

CURVE NO.	DELTA	RADIUS	LENGTH	CHORD	CHORD LENGTH
C4	25°19'49"	1150.00'	508.41'	S13°40'57"E	504.28'

SHEET KEY
NOT TO SCALE

GP NO.: GP-2015-0280.AWU

NO.	DESCRIPTION	DATE	CK	DR

REVISIONS

JACOBS
2705 BEE CAVE ROAD, SUITE 300
AUSTIN TEXAS 78746
PH 512.314.3100 FAX 512.314.3135
TEXAS REG. NO. 2966

STATE OF TEXAS
MICHAEL PERSYN
96583
LICENSED
PROFESSIONAL ENGINEER
4/20/10

Austin Water
South I-35 Water/ Wastewater Program
ONION CREEK INTERCEPTOR - RINARD TO SLAUGHTER
ZACHARY SCOTT WORK SHAFT SITE PLAN

DESIGNED BY:	MP
DRAWN BY:	CT
REVIEWED BY:	MP
APPROVED BY:	RG
PROJECT NO.:	WJXJ2301
DATE:	04/07/2010
SCALE:	1"=10'
REVISION:	-
DWG. NO.	C-7
SHEET	19 OF 92

18 OF 23

Drawing: K:\WJXJ2301 COA Onion Creek Tunnel\CADD\Final\Sheets\C-7 ZACHARY SCOTT WORK SHAFT SITE PLAN.dwg
User Name: mpersyn
Last Modified: Apr. 20, 10 - 08:33
Plot Date/Time: Apr. 21, 10 - 10:43:59

P:\Onion Creek WWTP Demo\Projects\15-006 WWTP Demo\Drawings\Planset\15 LIFT STATION SITE PLAN (RECORD DRAWING).dwg, 6/6/2016 4:44:33 PM, BRYAN

CITY OF AUSTIN
WATER AND WASTEWATER UTILITY
10300 BLOCK OF RIVER PLANTATION DRIVE
ZACHARY SCOTT SUBDIVISION
WASTEWATER IMPROVEMENTS
PLAN VIEW STA. 1+00 TO 14+00

S-2008-0031

SCALE: 1" = 40'

APPROX. CL ONION CREEK

RIVER PLANTATION DRIVE

SEE EXISTING LIFT STATION #1
NOTE, THIS SHEET

STA. 7+36.16 36" WWL 'A'
P.I. DEF < 74°07'31" (RT)
JUNCTION BOX # 1
FL = 533.39
N: 10025273.8688
E: 3103479.2567

STA. 7+25.39 (LT) 25.31'
BORE # 3

STA. 7+36.16 36" WWL 'A'
INSTALL: (1)- 36" PLUG

STA. 7+36.16 (LT) 43.98'

STA. 7+16.30 (LT) 38.80'

STA. 1+52.81 (LT) 34.01'

2 YEAR FLOODPLAIN

STA. 6+19.16 (LT) 104.42'

STA. 6+12.55 (LT) 80.00'

STA. 6+15.29 (LT) 59.35'

STA. 6+70.77 (RT) 8.04'

STA. 7+85.88 (RT) 31.84'

STA. 6+57.96 (LT) 2.50'

STA. 6+48.57 (LT) 80.76'

STA. 5+14.42 (LT) 91.20'

STA. 6+10.83 (LT) 23.42'

STA. 5+85.85 (LT) 62.27'

TBM-103:
TRIANGLE IN CONCRETE
NORTHING: 10025258.6873
EASTING: 3102963.5109
ELEVATION: 560.59

STA. 4+89.25 36" WWL 'A'
CROSSING W/ EXISTING
8" P.V.C. WWL (ABANDONED)
82-0819
0619

STA. 4+21.12(LT) 19.28'
BORE # 2

STA. 11+93.52 36" WWL 'A'
CROSSING W/ EXISTING
STORM SEWER

STA. 12+36.93 (RT) 105.14'
BORE # 4

APPROXIMATE EDGE OF FAIRWAY

100 YEAR FLOODPLAIN

FLOW
(WWL TO BE TUNNELED)

MATCH LINE STA. 14+00.00
SEE SHEET 6

GREEN

SAND

SAND

INSIDE FENCE

STA. 1+55.62 12" WWL 'B' =
STA. 1+00.00 8" WWL 'C'
12" SDR-26 P.V.C.
P.I. DEF < 26°57'07" (LT)
BOLTED 6' DIA. MANHOLE # 4
TOP MH = 575.41
N: 10025018.6771
E: 3102946.0183
8" FL IN (S) = 563.41
12" FL IN (W)= 543.88
12" FL IN (N) = 543.87
12" FL OUT (SE) = 543.85
WWL 'C' P.I. DEF < 135°05'37" (LT)
TIE TO EX. 8" FM FL = 565.0

31.1' DEEP

STA. 1+60.97 (LT) 140.75'

STA. 1+56.02 (LT) 160.86'

STA. 1+57.91 (LT) 62.79'

STA. 1+49.20 (LT) 118.10'

STA. 1+47.86 (LT) 53.24'

STA. 2+05.66 (LT) 47.07'

STA. 1+14.60 (LT) 116.62'

STA. 1+77.26 12" WWL 'B'
12" SDR-26 P.V.C.
BOLTED 4' DIA MANHOLE #5
FL IN 12" (SE) = 544.82
TOP MH = 575.67
N: 10025025.7126
E: 3102913.4403

CONTRACTOR SHALL INSTALL 12" TEMPORARY PLUG IN WWL 'B' TO PREVENT FLOW FROM ENTERING WWL 'B'.

STA. 1+93.38 (LT) 86.54'

36' DEEP

STA. 0+76.41 (LT) 67.17'

STA. 1+29.63 36" WWL 'A'
INSTALL: (1)- 36" PLUG

STA. 1+30.47 (LT) 23.97'
BORE # 1
EXISTING
LIFT STATION #147

TEMPORARY
ACCESS DRIVE

11.25' DEEP

STA. 1+80.21 8" WWL 'C'
8" SDR-26 P.V.C.
BOLTED 4' DIA. MANHOLE
FL = 564.04
N: 10024944.7386
E: 3102954.8413

CONTRACTOR SHALL INSTALL 8" TEMPORARY PLUG IN WWL 'C' TO PREVENT FLOW FROM ENTERING WWL 'C'.

WWL 'B'

WWL 'C'

EX. 12" WWL

EX. 8" WWL

EX. 10" FM

CWOZ

WOTZ

60' DEEP

STA. 1+67.01 36" WWL 'A' =
STA. 1+00.00 12" WWL 'B'
N: 10024993.2319
E: 3102984.1102

10' DIA. WET WELL TO BE CONSTRUCTED UNDER THIS CONTRACT. EXTERNAL COATING OF WET WELL IS ALSO A PART OF THIS CONTRACT. INTERNAL COATING OF WET WELL, PUMPS, SLAB, CONTROLS AND OTHER APPURTENANCES TO BE CONSTRUCTED UNDER SEPERATE CONTRACT WITH CITY OF AUSTIN UNDER CIP # 3168.051

STA. 2+01.70 (RT) 0.06'

CONSTRUCTION ACCESS
SEE NOTE 1
THIS SHEET

64' R.O.W.

44' F-F

NOTE:
ACCESS IS PROHIBITED NORTH ON RIVER PLANTATION. ALL ACCESS SHALL BE RIVER PLANTATION TO BRADSHAW ROAD.

EXISTING DRIVE

THIS AREA SHALL BE RESERVED FOR GOLF COURSE USE! APPROX. 2,620 S.F.

WARNING !!!
GOLF CART CROSSING !!!
CONTRACTOR TO TAKE EXTRA PRECAUTION TO INSURE SAFETY WITH CONSTRUCTION TRAFFIC

EXISTING GOLF COURSE TENTS AND SOIL BINS

CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE RELOCATION AND REPLACEMENT OF GOLF COURSE TENTS AND SOIL BINS WITH ONION CREEK GOLF COURSE SUPERINTENDENT, JEREMY LAAK AT 512-282-2154.

REPLACEMENT SHEET
REVIEWED
MAR 25 2010
Austin Water Utility
ACCEPTED AS AS-BUILT
RECORD INFORMATION
RELOCATE SLUDGE LINE!

FOR INFORMATION ONLY:
THIS IS A RECORD DRAWING FROM THE CITY OF AUSTIN FOR THE ORIGINAL CONSTRUCTION OF THE LIFT STATION AS DESIGNED BY LJA ENGINEERING (ENGINEER OF RECORD).

NOTE:
1. LIMITS OF CONSTRUCTION FROM PROPOSED LIFT STATION TO JUNCTION BOX No. 1 SHALL HAVE A TYPE 'A' CHAIN LINK PROTECTIVE FENCE WHERE THERE IS NO SILT FENCE OR SECURITY CHAIN LINK FENCE.
2. SECURITY FENCED AREAS SHALL BE GATED (2-12' GATES) AND LOCKED WHEN UNSUPERVISED BY CONTRACTOR TO PREVENT UNAUTHORIZED ACCESS TO WORKING AREA.

NOTE:
CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES HORIZONTALLY AND VERTICALLY PRIOR TO CONSTRUCTION.

LEGEND:
- SILT FENCE
- LIMITS OF CONSTRUCTION
- TREE FENCING
- SECURITY CHAIN LINK FENCE
- TREES TO BE REMOVED
- STABILIZED CONSTRUCTION ENTRANCE

EXISTING LIFT STATION #1 NOTES:
1. EXISTING LIFT STATION TO BE ABANDONED IN PLACE.
2. CONTRACTOR SHALL BACKFILL EXISTING LIFT STATION W/ CEMENT STABILIZED BACKFILL.
3. CONTRACTOR SHALL RE-GRADE LIFT STATION PER PROPOSED CONTOURS.
4. EXISTING MANWAY TO BE REMOVED TO 5 FEET BELOW PROPOSED GROUND.

GENERAL NOTES:
1. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL IN CONFORMANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVISES. SEE THIS SHEET FOR CITY OF AUSTIN TRAFFIC CONTROL DETAILS 804S2, sht's 4, 7 && of 8,AND 804S5, sht's 5 & 6 of 13.
2. ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD / OR MODIFY EROSION / SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS.
3. SILT FENCE TYPE AND INSTALLATION SHALL COMPLY WITH ECM 1.4.2(G)
4. FOR SOILS INFORMATION SEE PROFILE SHEETS.
5. NO SPOILS SHALL BE LEFT WITHIN THE 100-YEAR FLOODPLAIN OVERNIGHT IF RAIN HAS BEEN FORECASTED FOR THE FOLLOWING WORKDAY OR THE CONTRACTOR DOES NOT PLAN TO WORK THE FOLLOWING DAY.
6. CONTRACTOR SHALL TAKE A PRECONSTRUCTION VIDEO IN ACCORDANCE WITH SECTION 01386 OF THE SPECIFICATIONS.
7. CONTRACTOR SHALL TAKE CONSTRUCTION PHOTOS IN ACCORDANCE WITH SECTION 01380 OF THE SPECIFICATIONS.
8. NOISE MONITORING AND ABATEMENT SHALL BE IN ACCORDANCE WITH SECTION 01540 OF THE SPECIFICATIONS.

AS-BUILT SURVEYED ALIGNMENT: RECORD DRAWING.	
CHANGED LAYOUT PLAN, ADDED MULCH LOG DETAIL.	
SAVED TREE NOS. 6249, 6251, 6252, 6254 & 6257	

REVISIONS

NO.	DESCRIPTION	BY	DATE
1	CHANGED 36" WW to 10" WW, ADDED 6' SLUDGE BYPASS.	JGF	8/13/2009
2	ADDED SLUDGE BY PASS LINE, ADJUSTED LOC		
3	CHANGED 10" WWL TO 36" WWL, DELETED SLUDGE BYPASS, DELETED 36" STUB, REPLACED JUNCTION BOX #1 WITH MH #.	JGF, JBR	
4	RECORD DRAWING CHANGES, AS-BUILT	JAC	

DATE: 8/13/2009
DESIGNED BY: JGF
DRAWN BY: JBR
CHECKED BY: JAC
DRAWING NAME: Site Plan Sta. 1+00 to 14+00

STATE OF TEXAS — DANIEL RYAN — 89458 — LICENSED PROFESSIONAL ENGINEER — 3/25/2010

LJA Engineering & Surveying, Inc.
5316 Highway 290 West
Suite 150
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716

JOB NUMBER: A135-0401

SHEET NO. 5 OF 22 SHEETS

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLAN, THE CITY OF AUSTIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

REVIEWED BY:

WATERSHED PROTECTION DEVELOPMENT REVIEW DEPARTMENT DATE

RD- REPLACEMENT SHEET

GP NO.: GP-2015-0280.AWU

RECORD DRAWING **SP-05-0033D**

F:\Onion Creek WWTP Demo\Projects\15-006 WWTP Demo\Drawings\Plansets\15 LIFT STATION SITE PLAN (RECORD DRAWING).dwg, 6/6/2016 4:44:38 PM, BRYAN

40.83 LF 36" HOBAS @ 0.15%

STA. 1+67.01
RIM EL=581.50

BORING 'B-1'
CL STA. 1+34.90 (LT) 15.90'
EL = 574.7

1.75" HMAC ABOVE 6.5" TAN CRUSHED LIMESTONE BASE (FILL)

DARK BROWN TO BROWN CLAYEY SAND W/ GRAVEL LOOSE TO MEDIUM DENSE W/ SCATTERED SAND (SC)

BROWN CLAYEY GRAVEL W/ SAND LOOSE TO MEDIUM DENSE (GC)

LIGHT BROWN TO TAN WELL GRADED SAND W/ CLAY & GRAVEL LOOSE TO DENSE ROUNDED TO SUBROUNDED GRAVEL (SW-SC)

GRAY TO LIGHT GRAY LIMESTONE MODERATELY TO HIGHLY WEATHERED; SOFT TO MODERATELY HARD, MODERATELY TO HIGHLY FRACTURED; W/ SCATTERED TO ABUNDANT SHELL FRAGMENTS AND FREQUENT MARLY ZONES. (AUSTIN)

GRAY LIMESTONE MODERATELY TO SLIGHTLY WEATHERED, MODERATELY HARD TO HARD, MODERATELY FRACTURED, W/OCCASIONAL SHELL FRAGMENTS AND MARLY ZONES. (AUSTIN)

TO 60'

STA. 1+00.00 12" WWL 'B'
BEGIN 12" WWL 'B'
12" FL = 543.26
(SEE SHEET 10 FOR PROFILE)

STA. 4+06.16 36" WWL 'A'
BEGIN 36" WWL 'A' BY TYING
INSTALL: (1) - 36" CAP & PLUG
GROUT TUNNEL PER SPECIFICATIONS
36" FL = 531.95

STA. 1+67.01 36" WWL 'A'
BEGIN 36" WWL 'A' BY TYING
INTO 10' DIA LIFT STATION
36" FL = 532.58(IN), 532.00(OUT)
BOTTOM OF WET WELL EL = 520.00

569.15 LF 36" HOBAS @ 0.15%
Q_{PWWF} = 26.62 cfs / 11,950 gpm V= 4.16 fps / d = 2.55'
Q_{min} = 2.17 cfs / 975 gpm V= 2.22 fps / d = 0.59'
Q_{PDWF} = 21.62 cfs / 9,700 gpm V= 4.09 fps / d = 2.10'

BORING 'B-2'
CL STA. 4+21.03 (LT) 17.80'
EL = 573.7

EXISTING NATURAL GROUND

BROWN GRAVELLY FAT CLAY W/ SAND, HARD, W/SCATTERED CALCAREOUS PARTICLES (CH)

BROWN CLAYEY GRAVEL W/ SAND LOOSE TO MEDIUM DENSE, ANGULAR TO SUBROUNDED (GC)

STA. 4+51.47
8" WWL X-ING
8" FL. = 566.6 (±)

BROWN SANDY LEAN CLAY SOFT TO FIRM W/ SCATTERED SHELL FRAGMENTS & TRACE ROUNDED GRAVEL (CL)

TAN CLAYEY GRAVEL W/ SAND MEDIUM DENSE, ANGULAR TO ROUNDED (GC)

GRAY TO LIGHT GRAY LIMESTONE MODERATELY TO HIGHLY WEATHERED, SOFT TO MODERATELY HARD, MODERATELY TO HIGHLY FRACTURED, W/ SCATTERED TO ABUNDANT SHELL FRAGMENTS AND FREQUENT MARLY ZONES. (AUSTIN)

GRAY LIMESTONE MODERATELY TO SLIGHTLY WEATHERED, MODERATELY HARD TO HARD, MODERATELY FRACTURED, W/OCCASIONAL SHELL FRAGMENTS AND MARLY ZONES. (AUSTIN)

TO 89.5'

1,090.00 L.F. OF TUNNEL

463.84 LF 36" HOBAS @ 0.315%
Q_{PWWF} = 31.82 cfs / 14,280 gpm V= 5.94 fps / d = 2.12'
Q_{min} = 2.60 cfs / 1167 gpm V= 3.04 fps / d = 0.54'
Q_{PDWF} = 25.85 cfs / 11,600 gpm V= 5.71 fps / d = 1.83'

STA. 11+92.76
30" SSL X-ING
30" FL. = 567.4 (±)

BORING 'B-3'
CL STA. 7+25.27 (LT) 25.26'
EL = 562.1

BROWN FAT CLAY, VERY STIFF TO HARD, W/ TRACE SAND & GRAVEL & SCATTERED ROOTS (CH)

BROWN TO LIGHT BROWN CLAYEY SAND W/ GRAVEL (SC)

LIGHT BROWN SILTY GRAVEL LOOSE (GM)

TAN SILTY SAND, LOOSE W/ TRACE GRAVEL (SM)

GRAY TO LIGHT GRAY LIMESTONE MODERATELY TO HIGHLY WEATHERED, SOFT TO MODERATELY HARD, MODERATELY TO HIGHLY FRACTURED, W/ SCATTERED TO ABUNDANT SHELL FRAGMENTS AND FREQUENT MARLY ZONES. (AUSTIN)

GRAY LIMESTONE MODERATELY TO SLIGHTLY WEATHERED, MODERATELY HARD TO HARD, MODERATELY FRACTURED, W/OCCASIONAL SHELL FRAGMENTS AND MARLY ZONES. (AUSTIN)

TO 89.5'

± 31.6'

STA. 7+06.16 36" WWL 'A'
W/ RAINSTOPPER (SPL WW-701)
FL = 533.89

MATCH LINE STA. 12+00.00 SEE SHEET 8

S-2008-0031

W.W.L. 'A'

FL = 532.58 | 532.66 | 532.73 | 532.81 | 532.88 | 532.96 | 533.03 | 533.11 | 533.18 | 533.26 | 533.33 | 533.42 | 533.89 | 533.75 | 533.91 | 534.06 | 534.22 | 534.38 | 534.54 | 534.69 | 534.85

1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00

584 580 576 572 568 564 560 556 552 548 544 540 536 532 528 524 520 516 512 508 504

Replacement Sheet
REVIEWED
SEP 08 2009
Austin Water Utility
As-Built Information

FOR INFORMATION ONLY:
THIS IS A RECORD DRAWING FROM THE CITY OF AUSTIN FOR THE ORIGINAL CONSTRUCTION OF THE LIFT STATION AS DESIGNED BY LJA ENGINEERING (ENGINEER OF RECORD).

APPROVED
SEP 15 2009
CITY OF AUSTIN
WPDR
DEVELOPMENT SERVICES

SCALE:
1"=40' HORIZ.
1"=4' VERT.

LEGEND:
EX. NG. C.L.
EX. NG. LT. R.O.W.
EX. NG. RT. R.O.W.
PROP. W.W.L.

BORE LOCATIONS

No.	STA.	DEPTH	NORTH	EAST	OFFSET	ELEVATION
B-1	1+34.90	60'	10024989.2585	3102945.5435	15.90' (LT)	574.7
B-2	4+21.03	59.5'	10024989.2585	3103194.0981	17.80' (LT)	573.7
B-3	7+25.27	60'	10025286.5062	3103455.7087	25.26' (LT)	562.1

NOTE:
THE SOIL BORING DATA HAS BEEN PROVIDED BY FUGRO CONSULTANTS, INC. LJA ENGINEERING & SURVEYING, INC. IS PROVIDING THIS AS INFORMATION PURPOSES ONLY. CONTRACTOR SHALL USE THE BASELINE REPORT PREPARED BY FUGRO CONSULTANTS, INC. FOR DATA.

3C – REPLACEMENT SHEET

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLAN, THE CITY OF AUSTIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
REVIEWED BY:
WATERSHED PROTECTION DEVELOPMENT REVIEW DEPARTMENT DATE

GP NO.: GP-2015-0280.AWU

RECORD DRAWING SP-05-0033D 20 OF 23

CITY OF AUSTIN
WATER AND WASTEWATER UTILITY
10300 BLOCK OF RIVER PLANTATION DRIVE
ZACHARY SCOTT SUBDIVISION
WASTEWATER IMPROVEMENTS
STA. 1+00.00 TO 12+00.00

REVISIONS

NO.	DESCRIPTION	BY	DATE
1C	CHANGED 36" WW to 10" WW, ADDED 6' SLUDGE BYPASS	JGF	8/14/2009
3C	CHANGED 10" WW to 36" WW, DELETED 6' SLUDGE BYPASS REPLACED JUNCTION BOX #1 WITH MANHOLE #1 AS-BUILT; RECORD DRAWING.	JGF JAC	

DESIGNED BY: JGF
DRAWN BY: JGF
CHECKED BY: JAC
DRAWING NAME: WW_Profile Sta 1+00 to 12+00

DANIEL RYAN 89458 LICENSED PROFESSIONAL ENGINEER 8/14/2009

LJA Engineering & Surveying, Inc.
5316 Highway 290 West
Suite 150
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716

JOB NUMBER: A135-0401

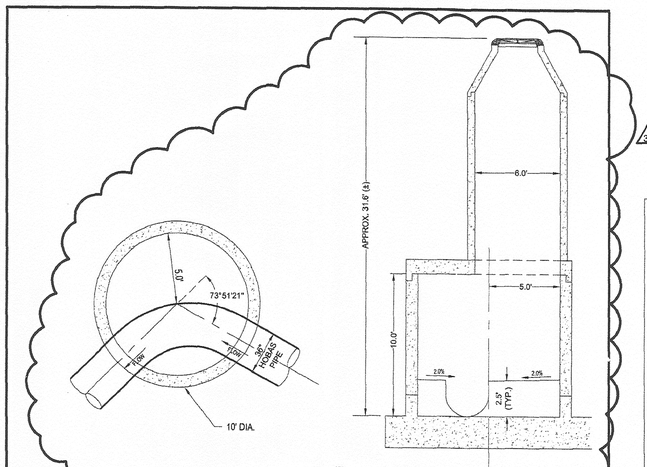
SHEET NO. 7 OF 22 SHEETS

I:\A136 COA\402\revised plans 08-26-08\WW_Profile Sta 1+00 to 12+00.dwg, 8/14/2009 11:08:35 AM

F:\Orion Creek\WWP\Projects\136\WW Profiles\WW_Profile Sta 1+00 to 12+00.dwg, 8/14/2009 11:08:35 AM, Adobe PDF

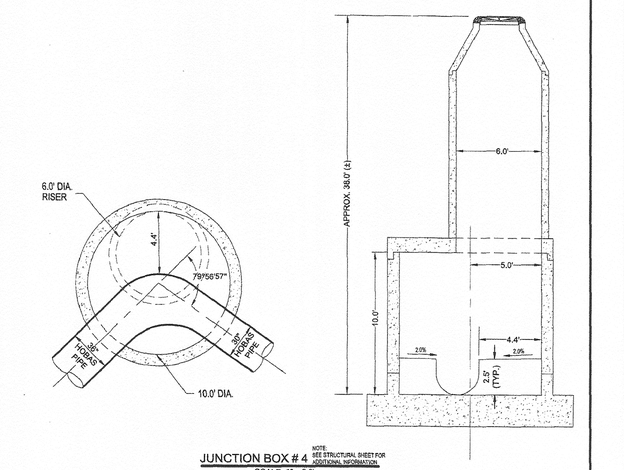
Replacement Sheet
REVIEWED
SEP 08 2009
Austin Water Utility
As-Built Information

2008-0031



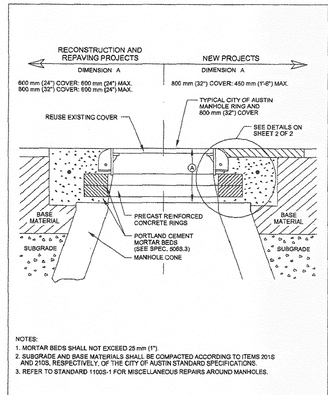
MANHOLE # 1
SCALE: 1" = 5.0'

NOTE: SEE STRUCTURAL SHEET FOR ADDITIONAL INFORMATION



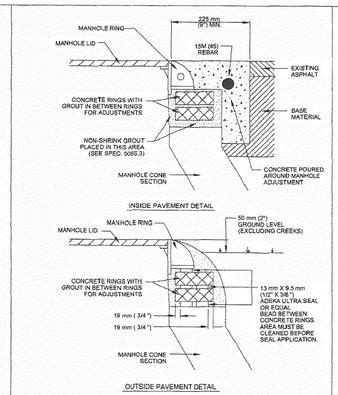
JUNCTION BOX # 4
SCALE: 1" = 5.0'

NOTE: SEE STRUCTURAL SHEET FOR ADDITIONAL INFORMATION



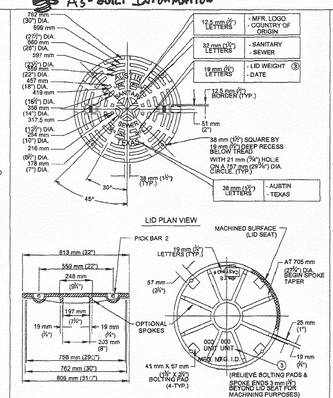
NOTES:
1. MORTAR BEDS SHALL NOT EXCEED 25 mm (1").
2. SUBGRADE AND BASE MATERIALS SHALL BE COMPACTED ACCORDING TO ITEMS 201S AND 210S, RESPECTIVELY, OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS.
3. REFER TO STANDARD 1100S-1 FOR MISCELLANEOUS REPAIRS AROUND MANHOLES.

CITY OF AUSTIN WATER AND WASTEWATER UTILITY		NEW MANHOLE CONSTRUCTION AND MINOR MANHOLE ADJUSTMENT	
RECORD COPY SIGNED BY KATHI L. FLOWERS	8/8/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-4 1 OF 2



OUTSIDE PAVEMENT DETAIL

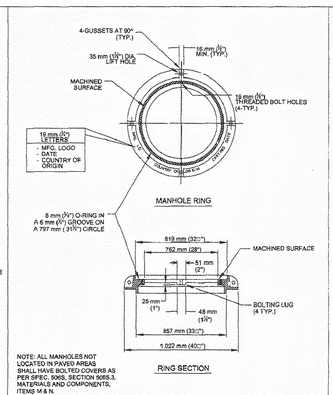
CITY OF AUSTIN WATER AND WASTEWATER UTILITY		NEW MANHOLE CONSTRUCTION AND MINOR MANHOLE ADJUSTMENT	
RECORD COPY SIGNED BY KATHI L. FLOWERS	8/8/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-4 2 OF 2



LID PLAN VIEW

LID SECTION VIEW

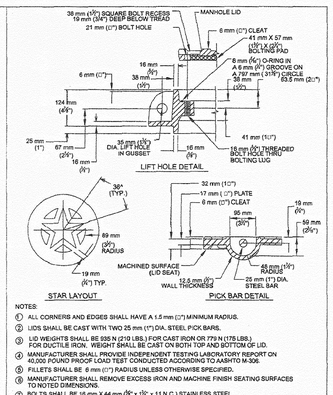
CITY OF AUSTIN WATER AND WASTEWATER UTILITY		WATERTIGHT MANHOLE RING AND 813 mm (32") COVER	
RECORD COPY SIGNED BY KATHI L. FLOWERS	3/9/04 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-5W 1 OF 3



RING SECTION

NOTE: ALL MANHOLES NOT LOCATED IN PAVED AREAS SHALL HAVE BOLTED COVERS AS PER SPEC. 506S, SECTION 505S.3, MATERIALS AND COMPONENTS, ITEMS M & N.

CITY OF AUSTIN WATER AND WASTEWATER UTILITY		WATERTIGHT MANHOLE RING AND 813 mm (32") COVER	
RECORD COPY SIGNED BY KATHI L. FLOWERS	3/9/04 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-5W 2 OF 3

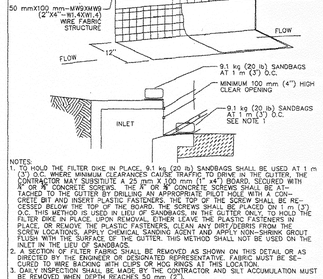


NOTES:
1. ALL CORNERS AND EDGES SHALL HAVE A 1.5 mm (1/16") MINIMUM RADIUS.
2. LIDS SHALL BE CAST WITH TWO 25 mm (1") DIA. STEEL PICK BARS.
3. LID WEIGHTS SHALL BE 695 N (210 LBS.) FOR CAST IRON OR 779 N (175 LBS.) FOR DUCTILE IRON. WEIGHT SHALL BE CAST ON BOTH TOP AND BOTTOM OF LID.
4. MANUFACTURER SHALL PROVIDE INDEPENDENT TESTING LABORATORY REPORT ON 40,000 POUND PROOF LOAD TEST CONDUCTED ACCORDING TO AASHTO M-306.
5. FILLETS SHALL BE 6 mm (1/4") RADIUS UNLESS OTHERWISE SPECIFIED.
6. MANUFACTURER SHALL REMOVE EXCESS IRON AND MACHINE FINISH SEATING SURFACES TO NOTED DIMENSIONS.
7. BOLTS SHALL BE 16 mm X 44 mm (5/8" x 1 3/4" N.C.) STAINLESS STEEL HEX HEAD (TYPE 316).

CITY OF AUSTIN WATER AND WASTEWATER UTILITY		WATERTIGHT MANHOLE RING AND 813 mm (32") COVER	
RECORD COPY SIGNED BY KATHI L. FLOWERS	3/9/04 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-5W 3 OF 3

NOTES:
1. TO HOLD THE FILTER DIKE IN PLACE, 9.1 kg (20 lb) SANDBAGS SHALL BE USED AT 1 m (3') O.C. WHERE MINIMUM CLEARANCES CAUSE TRAFFIC TO DRIVE IN THE GUTTER, THE CONTRACTOR MAY SUBSTITUTE A 25 mm X 100 mm (1" x 4") BOARD, SECURED WITH #7 OR #8 CONCRETE SCREWS. THE #7 OR #8 CONCRETE SCREWS SHALL BE ATTACHED TO THE GUTTER BY DRILLING AN APPROPRIATE PILOT HOLE WITH A CONCRETE BIT AND INSERT PLASTIC FASTENERS, THE TOP OF THE SCREW SHALL BE RECESSED BELOW THE TOP OF THE BOARD. THE SCREWS SHALL BE PLACED ON 1 m (3') O.C. THIS METHOD IS USED IN LIEU OF SANDBAGS IN THE GUTTER ONLY. TO HOLD THE FILTER DIKE IN PLACE UPON REMOVAL, EITHER LEAVE THE PLASTIC FASTENERS IN PLACE, OR REMOVE THE PLASTIC FASTENERS, CLEAN ANY DIRT/DEBRIS FROM THE SCREW LOCATIONS, APPLY CHEMICAL SANDING AGENT AND APPLY NON–SHRINK GROUT PLUG IN THE HEIGHT OF THE GUTTER. THIS METHOD SHALL NOT BE USED ON THE PLUG IN THE HEIGHT OF SANDBAGS.
2. A SECTION OF FILTER FABRIC SHALL BE REMOVED AS SHOWN ON THIS DETAIL OR AS DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR HOG RINGS AT THIS LOCATION.
3. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 150 mm (6").
4. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORM–WATER BEGINS TO OVERTOP THE CURB.
5. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

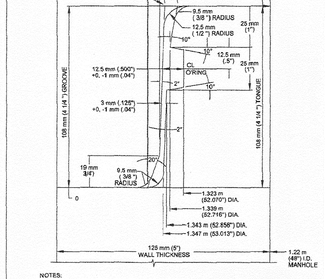
CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		FILTER DIKE CURB INLET PROTECTION	
RECORD COPY SIGNED BY HENRY CICAS	1/2/07 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 628S-2



TYPICAL PRECAST BASE

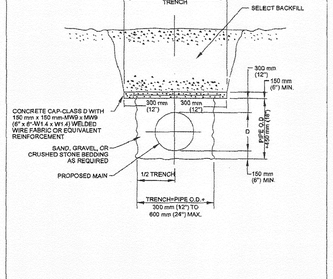
NOTE:
THE MANHOLE BASE SHALL BE BEDDED ON 150 mm (6") COARSE AGGREGATE. THE CONTRACTOR SHALL LEVEL AND PLUMB THE BASE PRIOR TO SETTING THE PRECAST MANHOLE RISER SECTIONS ON THE PRECAST CONCRETE BASE.

CITY OF AUSTIN WATER AND WASTEWATER UTILITY		WASTEWATER MANHOLE ON PRECAST BASE	
RECORD COPY SIGNED BY KATHI F. PAYNE	2/17/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-10

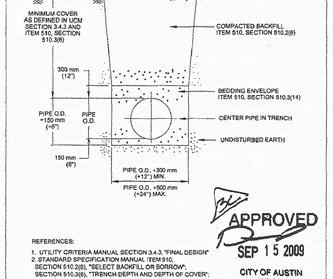


NOTES:
1. O'RING DIMENSION 20 mm (25/32") DIA., 1013 oc VOLUME.
2. DRAWING NOT TO SCALE FOR CLARIFICATION OF DIMENSIONS.

CITY OF AUSTIN WATER AND WASTEWATER UTILITY		ORING JOINT DETAIL PRECAST MANHOLE SECTION	
RECORD COPY SIGNED BY KATHI F. PAYNE	2/17/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-12



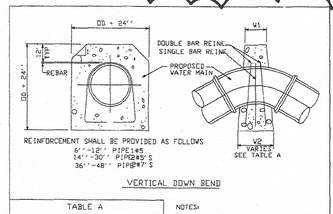
CITY OF AUSTIN WATER AND WASTEWATER UTILITY		CONCRETE TRENCH CAP	
RECORD COPY SIGNED BY KATHI F. PAYNE	2/17/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 510S-1



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPICAL TRENCH DETAIL WITH UNFINISHED SURFACE	
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 510S-5

REFERENCES:
1. UTILITY CRITERIA MANUAL SECTION 3.4.3, "FINAL DESIGN"
2. STANDARD SPECIFICATION MANUAL ITEM 510, SECTION 510.2(6), "SELECT BACKFILL OR BORROW"; SECTION 510.3(6), "TRENCH DEPTH AND DEPTH OF DOVER"; SECTION 510.3(14), "PIPE BEDDING ENVELOPE"

APPROVED
SEP 15 2009
CITY OF AUSTIN
WPDR
DEVELOPMENT SERVICES



REINFORCEMENT SHALL BE PROVIDED AS FOLLOWS
6"–12" PIPE #5
14"–30" PIPE #6
36"–48" PIPE #7

VERTICAL DOWN BEND

TABLE A
UPWARD THRUST GRAVITY BLOCKS

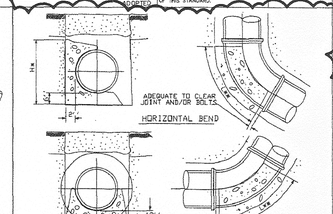
PIPE DIA.	MIN. TOP WIDTH W1	ANGLE	MINIMUM WIDTH W2 (in)
6"	6"	0–5	NOTE 2
		5–15	24
		15–25	48
		> 25	NOTE 1
8"	6"	0–5	NOTE 2
		5–9	30
		9–15	36
		>15	NOTE 1
12"	6"	0–5	NOTE 2
		5–15	48
		> 15	NOTE 1
16"	12"	0–5	NOTE 2
		5–10	60
		10–15	96
		> 15	NOTE 1
24" THRU 36"		>15.0	NOTE 1
42" THRU 48"		>3.0	NOTE 1

NOTES:
1– FOR ANGLES GREATER THAN THOSE INDICATED RESTRAINED JOINTS SHALL BE INSTALLED
2– FOR JOINT DEFLECTIONS LESS THAN 5 BORED, NO HORIZONTAL OR VERTICAL THRUST RESTRAINT IS REQUIRED FOR PIPES LESS THAN 42" IN DIAMETER.

THRUST BLOCK DESIGN AS FOLLOWS
A. PRESSURE OF 150 P. S. I. (ACTUAL IF HIGHER) + 50 % SURGE ALLOWANCE.
B. MAXIMUM SOIL BEARING SEE TABLE BELOW

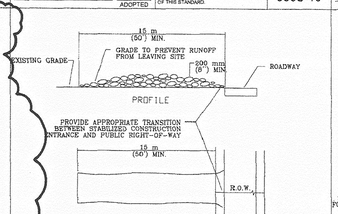
SOIL TYPES	PRESSURE
LOOSE OR SPONGY SOIL	1500 Lbs/Sq. Ft
UNDISTURBED SOIL, CALICHE	6000 Lbs/Sq. Ft
LIMESTONE ROCK	4000 Lbs/Sq. Ft

CITY OF AUSTIN WATER AND WASTEWATER UTILITY		CONCRETE THRUST BLOCKING	
RECORD COPY SIGNED BY JAMES E. THOMPSON	2/11/86 APPROVED DATE	ADOPTED 2/17/86 SCALE: N.T.S. INITIAL:	STANDARD NO. 510-6 1 OF 2



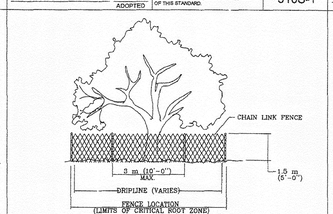
* THE DIMENSION FOR "H" MUST BE GREATER THAN DIAMETER OF THE PIPE
** LENGTH "L" ALONG THE BEND MUST BE GREATER THAN "H" AND LESS THAN 2 TIMES "H"

CITY OF AUSTIN WATER AND WASTEWATER UTILITY		CONCRETE THRUST BLOCKING	
RECORD COPY SIGNED BY JAMES E. THOMPSON	2/11/86 APPROVED DATE	ADOPTED 2/17/86 SCALE: N.T.S. INITIAL:	STANDARD NO. 510-6 2 OF 2



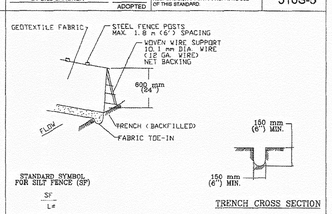
NOTES:
1. SPINE SIZE: 75–125 mm (3–5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR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

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		STABILIZED CONSTRUCTION ENTRANCE	
RECORD COPY SIGNED BY J. PATRICK MURPHY	6/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1



NOTES:
1. USE ONLY OPEN GRADED ROCK 100 to 200 mm (4 to 8") DIAMETER FOR STREAM FLOW CONDITIONS. USE OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR OTHER CONDITIONS
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE). ROCK BERMS IN CHANNEL APPLICATIONS SHALL BE ANCHORED FIRMLY INTO THE SUBSTRATE A MINIMUM OF 150 mm (6"), WITH T–POSTS OR WITH 15M OR 20M (#5 OR #6) REBAR, WITH MAXIMUM SPACING APART OF 1.2 m (48") ON CENTER.
3. THE ROCK BERM SHALL BE INSPECTED WEEKLY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE–WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE–THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SILTATION PROBLEM.
5. DAILY INSPECTION SHALL BE MADE ON SEVERE–SERVICE ROCK BERMS; SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES 150 mm (6").
6. WHEN THE SITE IS COMPLETELY STABILIZED,THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		ROCK BERM	
RECORD COPY SIGNED BY J. PATRICK MURPHY	6/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S-1



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TREE PROTECTION FENCE TYPE A – CHAIN LINK	
RECORD COPY SIGNED BY J. PATRICK MURPHY	11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-2

NOTES:
1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 500 mm (1').
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CAN NOT BE TRENCHED INTO THE SURFACE (E.G. PAVEMENT), THE FABRIC FLAP SHALL BE WEIGHTED DOWN WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		SILT FENCE	
RECORD COPY SIGNED BY J. PATRICK MURPHY	6/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1

FOR INFORMATION ONLY:
THIS IS A RECORD DRAWING FROM THE CITY OF AUSTIN FOR THE ORIGINAL CONSTRUCTION OF THE LIFT STATION AS DESIGNED BY LJA ENGINEERING (ENGINEER OF RECORD).

3C – REPLACEMENT SHEET

GP NO.: GP-2015-0280.AWU

RECORD DRAWING

SP-05-0033D

93524

21 OF 23

CITY OF AUSTIN
WATER AND WASTEWATER UTILITY
10300 BLOCK OF RIVER PLANTATION DRIVE
ZACHARY SCOTT SUBDIVISION
WASTEWATER IMPROVEMENTS
DETAILS

REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	ADDED THRUST BLOCK DETAIL	JAC	8/14/2009
2	DELETED JUNCTION BOX # 1 DETAIL	JAC	
3	AS-BUILT: RECORD DRAWING.	JAC	

DATE: 8/14/2009
DESIGNED BY: JGF
DRAWN BY: JGF
CHECKED BY: JAC
DRAWING NAME: Details.dwg

LJA Engineering & Surveying, Inc.
5316 Highway 290 West
Suite 150
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716

JOB NUMBER: A135-0401

SHEET NO. 11 OF 22 SHEETS

J:\A135 CCAH\02\revised plans 08-26-08\details.dwg, 8/14/2009 8:54:57 AM

F:\Onion Creek WWTP Demo\Projects\15.005 WWTP Demo\Drawings\Sheets\15 LIFT STATION SITE PLAN (RECORD DRAWING).dwg, 8/5/2016 4:44:48 PM, BRYAN

STRUCTURAL GENERAL NOTES

BUILDING CODES & DESIGN SPECIFICATIONS

1. BUILDING CODE: 2012 INTERNATIONAL BUILDING CODE (2012 IBC)
2. STRUCTURAL CONCRETE: ACI 350-06 "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES AND COMMENTARY"
3. CURRENT CITY OF AUSTIN (COA) REQUIREMENTS AND SPECIFICATIONS:

ITEM NO.	COA SPECIFICATION
4033	CONCRETE FOR STRUCTURES
4055	CONCRETE ADMIXTURES
4065	REINFORCING STEEL
4105	CONCRETE STRUCTURES
4115	SURFACE FINISHES FOR CONCRETE

SHOULD THERE BE A CONFLICT BETWEEN THE SPECIFICATIONS AND THE STRUCTURAL DRAWINGS, THEN DRAWINGS SHALL GOVERN OVER SPECIFICATIONS.

GENERAL

1. THESE STRUCTURAL DRAWINGS DEPICT THE RETROFIT OF AN EXISTING WET WELL AT THE ONION CREEK WASTEWATER (WW) TREATMENT PLANT LIFT STATION TO SERVE AS A JUNCTION BOX. WITHIN THE EXISTING WET WELL (ALSO REFERRED TO AS MANHOLE IN THESE PLANS) OF THE LIFT STATION, A NEW ELEVATED TROUGH SHALL BE CONSTRUCTED WITH INFILL CONCRETE TO CONNECT THE INVERTS OF TWO EXISTING WW LINES. THE INTERIOR COATING OF THE EXISTING WET WELL SHALL BE REPAIRED PER CIVIL.
2. CONTRACTOR SHALL EXAMINE THE DRAWINGS AND SPECIFICATIONS, VISIT THE JOB SITE, AND FULLY INFORM HIMSELF OF ALL EXISTING CONDITIONS AND LIMITATIONS. FAILURE TO VISIT THE SITE AND NOT BEING FAMILIAR WITH THE EXISTING CONDITIONS AND LIMITATIONS IN NO WAY RELIEVES THE CONTRACTOR FROM FURNISHING ANY MATERIALS OR PERFORMING ANY WORK THAT MAY BE REQUIRED TO COMPLETE CONSTRUCTION IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS WITHOUT ANY ADDITIONAL COST TO THE OWNER.
3. EXISTING ELEMENTS SHOWN ON THE STRUCTURAL DRAWINGS ARE BASED ON EXISTING CONTRACT DOCUMENTS. RECORD DRAWINGS OF THE EXISTING WET WELL ARE INCLUDED AS PART OF THIS PLAN SET. THE CONTRACTOR SHALL REVIEW THE EXISTING AS-BUILT CONSTRUCTION DOCUMENTS, CAREFULLY FIELD VERIFY EXISTING CONDITIONS BEFORE AND DURING WORK, AND SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON OBSERVING ANY EXISTING CONDITION WHICH IS DIFFERENT FROM OR CONFLICTS WITH THAT INDICATED ON THE STRUCTURAL DRAWINGS.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE STRUCTURAL DRAWINGS WITH THE CIVIL AND OTHER TRADE DRAWINGS. IN CASE OF CONFLICT BETWEEN THE STRUCTURAL DRAWINGS AND DRAWINGS RELATED TO OTHER TRADES, THE CONTRACTOR SHALL ADHERE TO THE MORE STRINGENT REQUIREMENTS. ALL CONFLICTS BETWEEN THE STRUCTURAL DRAWINGS AND THE DRAWINGS OF OTHER TRADES SHALL BE CALLED TO THE ENGINEER'S ATTENTION.
5. IN ANY CASE OF CONFLICT BETWEEN THE NOTES, DETAILS, AND SPECIFICATIONS, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN.
6. STRUCTURAL DRAWINGS ARE NOT TO BE SCALED FOR DETERMINATION OF QUANTITIES, LENGTHS, OR MATERIAL SIZES.
7. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO ORDERING MATERIALS AND SHALL TAKE ANY AND ALL OTHER MEASUREMENTS NECESSARY TO VERIFY THE DRAWINGS AND TO PERFORM HIS WORK PROPERLY.
8. COMPLETE SHOP DRAWINGS FOR STRUCTURAL WORK SHALL BE SUBMITTED FOR REVIEW PRIOR TO COMMENCEMENT OF CONSTRUCTION, IN ACCORDANCE WITH THE SPECIFICATIONS. REVIEW OF THE SHOP DRAWINGS BY THE ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR CORRECT FABRICATION AND CONSTRUCTION OF THE WORK.
9. STRUCTURAL DOCUMENTS SHALL NOT BE COPIED AND SUBMITTED AS SHOP DRAWINGS WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER. SUBMITTALS WHICH ARE UNAUTHORIZED COPIES OF STRUCTURAL DOCUMENTS WILL BE REJECTED WITHOUT REVIEW.
10. THE CONTRACTOR SHALL MAKE NO DEVIATION FROM DESIGN DRAWINGS WITHOUT WRITTEN APPROVAL OF THE ENGINEER.
11. THE CONTRACTOR SHALL PERFORM ALL WORK WITH DUE REGARD TO LIFE AND PROPERTY IN THE VICINITY OF THE WORK AREA. THE CONTRACTOR ALONE SHALL BE RESPONSIBLE FOR PROTECTION OF THE SAME FROM ANY HARM OR DAMAGE DURING ALL CONSTRUCTION OPERATIONS. ANY HARM OR DAMAGE SHALL BE RECTIFIED TO THE ENTIRE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
12. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL CONSTRUCTION DEBRIS IN THE VICINITY OF WORK.
13. CONSTRUCTION MATERIALS SHALL NOT BE STORED ON THE ELEVATED SLAB AT THE TOP OF THE WET WELL.

EXISTING UTILITIES

1. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES TO FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROTECT EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OPERATIONS.
2. CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE OWNER OF INCIDENTAL UNKNOWN UTILITIES DISCOVERED DURING CONSTRUCTION PRIOR TO PROCEEDING WITH WORK.

CONCRETE MIX GUIDELINES

1. PROVIDE CONCRETE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATION:

CLASS	28 DAY STRENGTH	AGGREGATE	MAX. AGG. SIZE	USAGE
" S "	4,000 PSI	C-33 (HD RK)	1 1/2"	MODIFIED MANHOLE

2. CEMENTITIOUS MATERIAL SHALL BE A COMBINATION OF PORTLAND CEMENT AND FLY ASH, PER COA SPECIFICATION 4035. MIX DESIGN OPTION 1 SHALL BE USED IN ORDER TO REDUCE THE HEAT OF HYDRATION IN THE MASS CONCRETE.
3. FLY ASH SHALL BE CLASS F.
4. WORKABILITY ADMIXTURES MAY BE UTILIZED, PROVIDED THAT BATCH PROPORTIONS ARE DETERMINED PER THE MANUFACTURER AND SUBMITTED FOR REVIEW BY THE ENGINEER.
5. PROVIDE 5 PERCENT AIR ENTRAINMENT IN ALL CONCRETE.
6. THE USE OF CALCIUM CHLORIDE IS NOT PERMITTED
7. CEMENT SHALL BE TYPE II (MH) PER ASTM C 150.
8. CONCRETE SLUMP SHALL BE BETWEEN 3" AND 4".
9. THE CONTRACTOR SHALL INCLUDE THE FOLLOWING FOR EACH SUBMITTED MIX DESIGN:

   A] WEIGHT OF INDIVIDUAL ELEMENTS PER CUBIC YARD OF CONCRETE, INCLUDING CEMENT, SAND, AGGREGATE, WATER, AND EACH ADDITIVE.

   B] THE MAXIMUM AGGREGATE SIZE.

   C] 30 CONSECUTIVE TESTS (ACI 301/318) OR 5-28 DAY CYLINDER BREAKS (ACI 301).

   D] MANUFACTURER'S PRODUCT INFORMATION AND CONFIRMATION OF ASTM COMPLIANCE FOR EACH ADDITIVE.

10. IN ORDER TO MINIMIZE SHRINKAGE CRACKING, MIX DESIGNS SHALL BE DIRECTED TOWARD MINIMIZING WATER/CEMENT (W/C) RATIO WHILE MAINTAINING WORKABILITY. MAXIMUM W/C RATIO FOR ALL MIX DESIGNS SHALL BE 0.45.

CAST-IN-PLACE CONCRETE

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI STANDARD "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) AND "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES" (ACI 350).
2. THE CONTRACTOR SHALL USE A TREMIE TO PLACE CONCRETE IN ALL AREAS WHERE THE FALL OF CONCRETE WILL EXCEED 5 FEET.
3. ALL SURFACES IN THE WET WELL, INCLUDING EXPOSED SURFACE OF INFILL CONCRETE/TROUGH, WILL BE COATED WITH AN EPOXY COATING/LINER PER CIVIL. CONTRACTOR SHALL PROVIDE CONCRETE SURFACE FINISH WHICH COMPLIES WITH COATING MANUFACTURER'S RECOMMENDATIONS.
4. CURING OF CONCRETE SHALL BE ACCOMPLISHED WITH FORM CURING AND WATER APPLICATION IN ACCORDANCE WITH THE RECOMMENDATIONS OF ACI 308 "STANDARD PRACTICE FOR CURING CONCRETE" AND IN ACCORDANCE WITH COA SPECIFICATION 4105. LIQUID MEMBRANE CURING COMPOUND IS NOT PERMITTED. CURING SHALL CONTINUE FOR A MINIMUM OF 28 DAYS.

CONCRETE REINFORCEMENT

1. CONCRETE REINFORCING FABRICATOR AND INSTALLER SHALL INCLUDE IN BASE BID AN ALLOWANCE FOR UP TO 250 POUNDS OF MISCELLANEOUS REINFORCING STEEL TO BE INSTALLED IN THE FIELD AS DIRECTED BY THE ENGINEER. ALLOWANCE SHALL COVER ALL COSTS INCLUDING MATERIAL, FABRICATION, TRANSPORTATION AND PLACEMENT.
2. REINFORCING BARS SHALL BE NEW DEFORMED BILLET STEEL CONFORMING TO ASTM A615 GRADE 60.
3. BAR DETAILING, SUPPORTS, SPACERS AND ACCESSORIES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI DETAILING MANUAL (SP-66). WHERE NOT SPECIFICALLY DETAILED IN THE PLANS, BAR DIMENSIONS SHALL SATISFY MINIMUM CLEAR COVER REQUIREMENTS AND STANDARD HOOK REQUIREMENTS OF ACI 350-06.
4. THE FOLLOWING MINIMUM CONCRETE CLEAR COVER SHALL BE PROVIDED FOR REINFORCEMENT:

   CONCRETE EXPOSED TO LIQUID OR WEATHER ..... 2"

WET WELL REPAIR AND RETROFIT

1. INSTALL TEMPORARY BYPASS PUMPING SYSTEM PER CIVIL DRAWINGS AND TEMPORARILY PLUG THE INTERIOR OPENINGS OF THE TWO 36" DIAMETER AND THE 12" DIAMETER WW LINES TO REMAIN.
2. AFTER REMOVAL OF ALL LIFT STATION COMPONENTS INTERNAL TO THE WET WELL, THE EXISTING WALLS OF THE WET WELL SHALL BE THOROUGHLY CLEANED AND INSPECTED FOR HOLES, CRACKS, DEFECTIVE SURFACES AND EMBEDDED METAL ITEMS.
3. ANY EXPOSED ENDS OF EMBEDDED METAL ITEMS SHALL BE CUT FLUSH TO THE FACE OF THE CONCRETE WALL. TREAT THE EXPOSED METAL WITH TWO COATS OF ZINC RICH PAINT (WITH MINIMUM OF 95% ZINC CONTENT BY WEIGHT IN THE DRY FILM). APPLY PAINT IN STRICT CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS.
4. DRILL AND PLACE DOWELS INTO THE INFILL CONCRETE BELOW THE CONSTRUCTION JOINT SHOWN ON THE DRAWINGS AND PLACE REINFORCEMENT FOR INFILL CONCRETE AS SPECIFIED ON THE DRAWINGS.
5. ANY TEMPORARY WORK PLATFORMS/SCAFFOLDING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. IF TEMPORARY WORK PLATFORMS ARE INTENDED TO CONNECT TO INTERIOR OF WET WELL, SUBMIT PROPOSED ANCHORAGE TO ENGINEER FOR APPROVAL.
6. PLACE CONCRETE TO FORM THE NEW TROUGH INSIDE THE WET WELL AS SPECIFIED ON THE DRAWINGS. PROVIDE SURFACE FINISH THAT COMPLIES WITH SELECTED COATING MANUFACTURER'S REQUIREMENTS FOR APPLICATION OF COATING.
7. STRUCTURAL CRACKS IN THE WALLS OF THE EXISTING WET WELL SHALL BE REPAIRED WITH A MATERIAL APPROVED TO BE COMPATIBLE WITH THE SELECTED COATING.
8. AFTER ALL CONCRETE SURFACES HAVE BEEN REPAIRED AND HAVE CURED, PREPARE WET WELL INTERIOR WALL AND TROUGH SURFACE FOR COATING APPLICATION ACCORDING TO COATING MANUFACTURER'S RECOMMENDATIONS.

REQUIRED TESTING/INSPECTIONS

1. OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED BELOW. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL OR OWNER, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION.
2. CONCRETE CONSTRUCTION
   A. PERIODIC INSPECTION OF REINFORCING STEEL AND PLACEMENT IN ACCORDANCE WITH IBC TABLE 1705.3 ITEM 1.
   B. VERIFICATION OF REQUIRED DESIGN MIX IN ACCORDANCE WITH IBC TABLE 1705.3 ITEM 5.
   C. CONTINUOUS TESTING AT THE TIME FRESH CONCRETE IS SAMPLED. FABRICATE TEST SAMPLES IN ACCORDANCE WITH IBC TABLE 1705.3 ITEM 6.
   D. CONTINUOUS INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES IN ACCORDANCE WITH IBC TABLE 1705.3 ITEM 7.
   E. PERIODIC INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURES AND TECHNIQUES IN ACCORDANCE WITH IBC TABLE 1705.3 ITEM 8.
   F. PERIODIC INSPECTION OF FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED IN ACCORDANCE WITH IBC TABLE 1705.3 ITEM 12.

REQUIRED SUBMITTALS

1. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA WITH APPLICATION AND INSTALLATION INSTRUCTIONS FOR PROPRIETARY MATERIALS AND ITEMS, INCLUDING REINFORCEMENT AND FORMING ACCESSORIES, ADMIXTURES, PATCHING COMPOUNDS, MORTAR REPAIR PRODUCTS AND ZINC RICH PAINT.
2. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS FOR FABRICATION, BENDING AND PLACEMENT OF CONCRETE REINFORCEMENT. COMPLY WITH ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," SHOWING BAR SCHEDULES, DIAGRAMS OF BENT BARS, AND ARRANGEMENT OF CONCRETE REINFORCEMENT.
3. CONCRETE MIX DESIGN: SEE CONCRETE MIX GUIDELINES SECTION FOR ADDITIONAL INFORMATION.
4. SPECIAL INSPECTION REPORTS: FOR EACH SPECIAL INSPECTION LISTED ABOVE, SUBMIT ONE (1) COPY OF REPORTS TO THE CIVIL ENGINEER, ONE (1) COPY TO STRUCTURAL ENGINEER AND ONE (1) COPY TO THE OWNER.

STATE OF TEXAS
ANNA BOENIG
93891
LICENSED PROFESSIONAL ENGINEER
March 29, 2016

CITY OF AUSTIN FOUNDED 1839

MALONE+WHEELER INC.
CIVIL ENGINEERING & ENVIRONMENTAL CONSULTING & PROJECT MANAGEMENT
5113 Southwest Parkway, Suite 260
Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-0655
Firm Registration No. F-786

PESC
P.E. Structural Consultants, Inc.
9406 Spicewood Springs Road
Austin, Texas 78759
512.250.5200
www.PEStructural.com
Firm Registration # F-1475

GENERAL PERMIT OFFICE

STRUCTURAL GENERAL NOTES
MODIFIED MANHOLE

NO.	BY	DATE	REVISIONS REMARKS

SHEET INFORMATION
DATE 3/29/2016
SHEET 22 OF 23
CAD REF. NO. S-01 GENERAL NOTES.dwg
GP NO. GP-2015-0280 (WW)

GENERAL PERMIT PROGRAM

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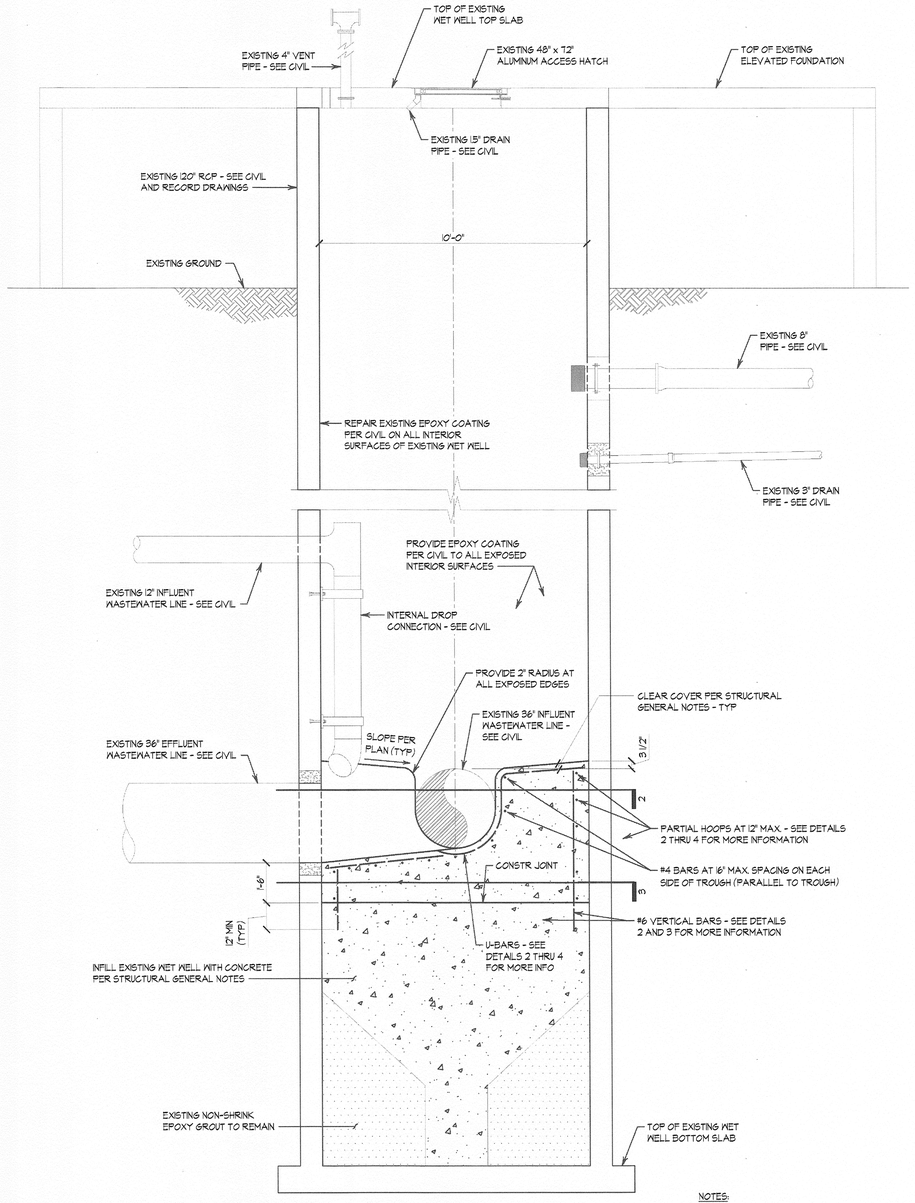
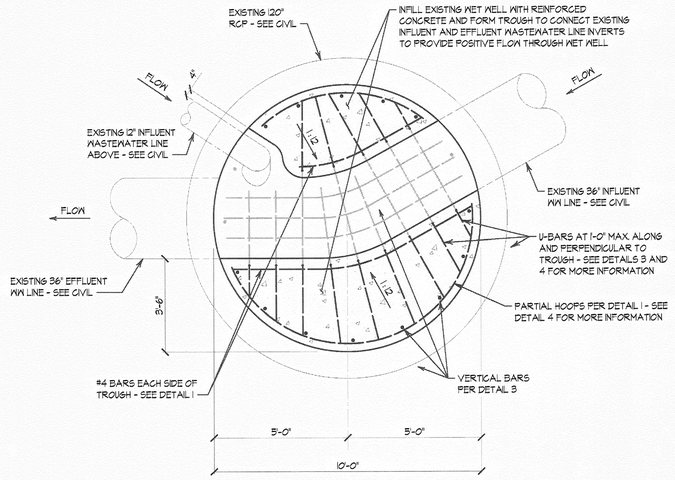


1 MODIFIED MANHOLE SECTION
3/8" = 1'-0"

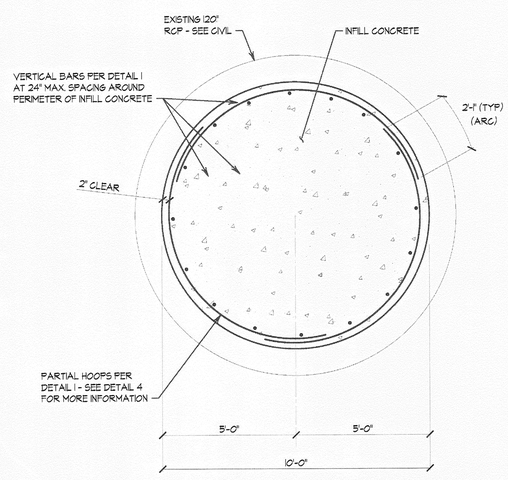
NOTES:

1. SEE CIVIL FOR ELEVATIONS OF ALL EXISTING CONCRETE, GRADE, WASTEWATER LINE, PIPES, ETC.

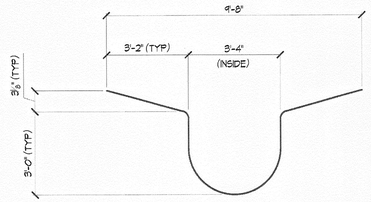
2. CONCRETE BELOW CONSTRUCTION JOINT MAY BE UNREINFORCED. COMPLY WITH COA SPECIFICATION 405 FOR CONSTRUCTION JOINT.



2 MODIFIED MANHOLE - PLAN VIEW AT TROUGH
3/8" = 1'-0"

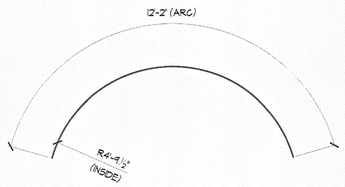


3 MODIFIED MANHOLE - PLAN VIEW BELOW TROUGH
3/8" = 1'-0"



MAXIMUM REQUIRED LENGTH SHOWN. FIELD TRIM LEGS AS NEEDED.

U-BAR - #4



PARTIAL HOOP - #4

THREE PARTIAL HOOPS ARE INTENDED TO COMPLETE A FULL HOOP WITH 2'-1" LAP. TRIM PARTIAL HOOPS OR INCREASE LAP IN FIELD AS NEEDED TO FIT BETWEEN TROUGHS.

4 BAR BEND DIAGRAMS
3/8" = 1'-0"

STATE OF TEXAS
ANNA BOENIG
93891
LICENSED PROFESSIONAL ENGINEER

March 29, 2016

CITY OF AUSTIN FOUNDED 1839

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5113 Southwest Parkway, Suite 260
Austin, Texas 78735
Phone: (512) 899-3600 Fax: (512) 899-3655
Firm Registration No.: F-786

PESC
P.E. Structural Consultants, Inc.
9438 Spicewood Springs Road
Austin, Texas 78759
512.250.5200
www.PEStructural.com
Firm Registration # F-1475

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GENERAL PERMIT OFFICE

STRUCTURAL DETAILS

MODIFIED MANHOLE

REVISIONS

NO.	BY	DATE	REMARKS

SHEET INFORMATION

DATE 3/29/2016

SHEET 23 OF 23

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