

## 2020 STREET BUNDLE - SECTOR III WATER, SEWER AND STREET IMPROVEMENTS McKINNEY, HETTIE, WOOD, HICKORY, OAK, BRADSHAW, CRAWFORD, ULAND AND ROSE PROJECT # 630441517, 640427541, 350499402.

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\* THE DETAILS SHEETS SPECIFICALLY IDENTIFIED ABOVE HAVE BEEN SELECTED BY ME UNDER MY RESPONSIBLE SUPERVISION AS BEING APPLICABLE TO THIS PROJECT.

NOVEMBER 2021

## **CITY of DENTON**



## ENGINEERING SERVICES

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JAMES E. WILDER , P.E.

DATE: 11/16/2021

### GENERAL CONSTRUCTION NOTES

- 1. GOVERNING SPECIFICATIONS REGARDING CONSTRUCTION AND MATERIALS FOR THIS PROJECT ARE CONTAINED WITHIN THE PROJECT MANUAL.
- 2. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL BE FAMILIAR WITH THE PLANS, ALL NOTES, AND THE SPECIFICATIONS CONTAINED WITHIN THE BID DOCUMENTS.. FAILURE ON THE PART OF THE CONTRACTOR TO BE FAMILIAR WITH ALL STANDARDS AND SPECIFICATIONS PERTAINING TO THIS WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY OF PERFORMING THE WORK IN ACCORDANCE WITH ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS.
- 3. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE AND NOTIFY THE OWNER'S REPRESENTATIVE OF ANY OMISSIONS, DISCREPANCIES, OR DIMENSIONAL ERRORS PRIOR TO BEGINNING OR FABRICATING ANY WORK, OTHERWISE THE CORRECTIONS (AND ASSOCIATED COST) WILL BE THE RESPONSIBILITY OF THE CONTRACTOR
- 4. CONTRACTOR SHALL SAWCUT EXISTING CURB AND GUTTER, PAVEMENT, DRIVEWAYS, ALLEYS AND SIDEWALKS AT AREAS WHERE PAVEMENT OR CONCRETE IS TO BE REMOVED. SAWCUTS WILL BE CONSIDERED SUBSIDIARY TO THE PRICE BID FOR THE RESPECTIVE ITEM.
- 5. THE CONTRACTOR SHALL PRESERVE AND PROTECT OR REMOVE AND REPLACE (WITH PRIOR APPROVAL OF AFFECTED PROPERTY OWNER) ANY TREES, SHRUBS, HEDGES, GUARDRAILS, FENCES, RETAINING WALLS, LANDSCAPING, BUILDINGS, WALKS, MAILBOXES, SPRINKLERS, ETC. IN OR NEAR PROPOSED CONSTRUCTION AREA WHICH ARE NOT SPECIFICALLY DESIGNATED ON THE PLANS FOR REMOVAL AND/ OR REPLACEMENT. USE ORANGE CONSTRUCTION FENCE TO PROTECT TREES/SHRUBS TO REMAIN. THIS WORK WILL BE CONSIDERED INCIDENTAL AND NOT A SEPARATE PAY ITEM.
- 6. THE PROPOSED IMPROVEMENTS AT TIMES WILL BE CONSTRUCTED CLOSE TO OTHER EXISTING UTILITIES AND STRUCTURES BOTH ABOVE AND BELOW GROUND. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS FOR THE SUPPORT AND PROTECTION OF ALL UTILITY POLES, GAS MAINS, TELEPHONE CABLES, SANITARY SEWER LINES, TV CABLES, DRAINAGE PIPES, UTILITY SERVICES, AND ALL OTHER UTILITIES AND STRUCTURES BOTH ABOVE AND BELOW GROUND DURING CONSTRUCTION. THE CONTRACTOR IS LIABLE FOR ALL DAMAGES DONE TO SUCH EXISTING FACILITIES AS A RESULT OF THE CONTRACTOR'S OPERATIONS.
- 7. THE CONTRACTOR SHALL REBUILD EXISTING FRENCH DRAIN OUTFALLS INTO THE NEW CURB FACE. THESE WILL BE CONSIDERED SUBSIDIARY TO THE PRICE BID FOR CURB AND GUTTER REPLACEMENT 8. NO EXCESS EXCAVATED MATERIAL SHALL BE DEPOSITED IN LOW AREAS OR ALONG NATURAL DRAINAGE WAYS WITHOUT
- WRITTEN PERMISSION FROM THE PROPERTY OWNER IF THE CONTRACTOR PLACES EXCESS MATERIAL IN AREAS WITHOUT WRITTEN PERMISSION, HE WILL BE RESPONSIBLE FOR ALL DAMAGE RESULTING FROM SUCH FILL, AND HE SHALL REMOVE THE MATERIAL AT HIS OWN COST IF THE CITY SO DIRECTS.
- 9. CONTRACTOR TO COORDINATE WITH PROPERTY OWNER TO VERIFY CONDITION OF EXISTING IRRIGATION STRUCTURES. ALL IRRIGATION STRUCTURES AFFECTED BY CONSTRUCTION WILL BE REPAIRED TO A CONDITION AS GOOD OR BETTER THAN THAT WHICH EXISTED PRIOR TO CONSTRUCTION WITH NO SEPARATE PAY ITEM.
- 10. ALL IMPROVEMENTS NOT SCHEDULED FOR REPLACEMENT DURING CONSTRUCTION WHICH ARE DAMAGED OR DESTROYED BY THE CONTRACTOR SHALL BE RESTORED TO EQUAL OR BETTER CONDITION BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY OF DENTON OR THE AFFECTED PROPERTY OWNER.
- 11. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION TO ORIGINAL CONDITION OR BETTER. RESTORED AREAS INCLUDE, BUT ARE NOT LIMITED TO TRENCH BACKFILL, SIDE SLOPES, FENCES, CULVERT PIPES, DRAINAGE DITCHES, DRIVEWAYS, PRIVATE YARDS AND ROADWAYS. UNPAVED AREAS SHALL BE RESTORED WITH SOLID SOD (COMMON BERMUDA), UNLESS EXISTING IS ST. AUGUSTINE GRASS. THEN CONTRACTOR SHALL REPLACE WITH ST. AUGUSTINE. THIS CONTRACT ASSUMES TWO FEET IN WIDTH OF REPLACEMENT SOD TO BE REPLACED ALONG CURB AND GUTTER REPLACEMENT. SIDEWALK REPLACEMENT, AND BARRIER FREE RAMP REPLACEMENT. CONTRACTOR IS EXPECTED TO MINIMIZE SOD REPLACEMENT BY LIMITING IMPACT TO EXISTING SODDED AREA. CONTRACTOR TO COORDINATE WITH CITY IF THIS ASSUMED RATE OF SOD REPLACEMENT IS TO BE EXCEEDED PRIOR TO INSTALLATION OF ADDITIONAL SOD.
- 12. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING GENERAL SAFETY AT AND ADJACENT TO THE PROJECT AREA, INCLUDING THE PERSONAL SAFETY OF THE CONSTRUCTION CREW AND GENERAL PUBLIC AND THE SAFETY OF PUBLIC AND PRIVATE PROPERTY.
- 13. CONSTRUCTION STAKING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND WILL BE CONSIDERED SUBSIDIARY TO THE BASE BID FOR THE PROJECT. 14. THE CONTRACTOR SHALL PRESERVE AND PROTECT OR REMOVE AND REPLACE ALL EXISTING ROADSIDE SIGNS IN OR NEAR
- THE PROPOSED CONSTRUCTION AREA WHICH ARE NOT SPECIFICALLY DESIGNATED ON THE PLANS FOR REMOVAL AND/OR REPLACEMENT. THIS WORK WILL BE CONSIDERED INCIDENTAL AND NOT A SEPARATE PAY ITEM.
- 15. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL CONCRETE CURB AND GUTTER IN OR NEAR THE PROPOSED CONSTRUCTION AREA WHICH ARE NOT SPECIFICALLY DESIGNATED ON THE PLANS FOR REMOVAL AND/OR REPLACEMENT. WHEREVER CONCRETE CURB AND GUTTER EXISTS ALONG THE EXISTING EDGE OF PAVEMENT. THE PROPOSED PAVEMENT SHALL BE CONSTRUCTED TO THE EXISTING CURB AND GUTTER UNLESS APPROVED BY CITY. THIS WORK WILL BE CONSIDERED INCIDENTAL AND NOT A SEPARATE PAY ITEM.
- 16. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING SIDEWALK APPROACHES IN OR NEAR THE PROPOSED CONSTRUCTION AREA WHICH ARE NOT SPECIFICALLY DESIGNATED ON THE PLANS FOR REMOVAL AND/OR REPLACEMENT. THIS WORK WILL BE CONSIDERED INCIDENTAL AND NOT A SEPARATE PAY ITEM.
- 17. CONTRACTOR SHALL PROVIDE SMOOTH TRANSITION BETWEEN EXISTING AND PROPOSED PAVEMENT. THIS WORK WILL BE CONSIDERED INCIDENTAL AND NO SEPARATE PAY ITEM IS INCLUDED. 18. CONTRACTOR SHALL NOT HAVE MORE THAN 2,500 LINEAR FEET OF CONSECUTIVE ASPHALT ROADWAY RECONSTRUCTION AT
- ANY ONE TIME. CONTRACTOR SHALL BRING TO SUBSTANTIAL COMPLETION THE ENTIRE STREET WIDTH BEFORE COMMENCING ON THE NEXT SECTION OF ASPHALT RECONSTRUCTION. THE FINAL LIFT OF THE TYPE C RIDE SURFACE SHALL BE LAID AT THE END OF EACH 2,500 FOOT STREET RECONSTRUCTION INCREMENT. 19. CONTRACTOR SHALL NOT HAVE MORE THAN 5 CONSECUTIVE UNFINISHED DRIVEWAYS AT ONE TIME.
- 20. ANY CONCRETE WORK, SUCH AS SIDEWALKS, CURB RAMPS, CURB & GUTTER, DRIVEWAYS, APRONS, VALLEY GUTTERS, ETC. MAY BEGIN ON THE NEXT PHASE IF CONCRETE RECONSTRUCTION OF CURRENT PHASE IS FULLY COMPLETED. CONCRETE WORK MAY NOT CONTINUE MORE THAN ONE CONSTRUCTION PHASE AHEAD OF THE CURRENT CONSTRUCTION PHASE AT ANY
- 21. PREPARING ROW/REMOVAL OF EXISTING ITEMS TO BE DONE ONLY IN AREAS WHERE WORK IS OCCURRING.
- 22. BEGIN SURFACE CONSTRUCTION ON HIGH SIDE OF ROAD TO AVOID WATER PONDING ISSUES.
- 23. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL PROVIDE AS-BUILT PLANS IDENTIFYING ALL DEVIATIONS OR VARIATIONS OF ORIGINAL PLANS. THIS WORK WILL BE CONSIDERED INCIDENTAL AND NOT A SEPARATE PAY ITEM.
- 24. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH RELOCATION OR TEMPORARY SUPPORT OF POWER POLES. THIS IS TRUE EVEN IF THE PLANS DO NOT SHOW THE POLES IN QUESTION.

### UTILITY NOTES

- 1. THE LOCATION OF DRIVEWAYS, STEPS, RETAINING WALLS, ETC. AND ALL WATER, SANITARY SEWER, TELEPHONE, GAS, ELECTRIC AND CABLE TELEVISION UTILITIES. AS SHOWN ON THE PLANS ARE APPROXIMATE, ACCURATE LOCATIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AFTER CONSULTATION WITH THE RESPECTIVE UTILITY COMPANIES OR PROPERTY OWNERS.
- 2. UNLESS SPECIFICALLY NOTED IN THE PLANS, THE LOCATIONS OF UTILITIES SHOWN IN THESE PLANS ARE APPROXIMATE AND HAVE BEEN TAKEN FROM PUBLIC RECORDS. UTILITIES MAY EXIST THAT ARE NOT SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY OWNERS PRIOR TO ANY CONSTRUCTION IN THE AREA AND VERIFY THE ACTUAL LOCATION OF ALL BURIED UTILITIES IN THE AREA OF WORK. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL UNDERGROUND AND OVERHEAD FACILITIES AND BE RESPONSIBLE FOR ANY DAMAGE HE MAY CAUSE TO THEM. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT MANAGER AT ONCE OF ANY CONFLICTS IN GRADES AND ALIGNMENT.
- 3. THE CONTRACTOR SHALL VERIFY THAT NECESSARY CROSSING CLEARANCES BETWEEN EXISTING AND PROPOSED UTILITIES EXIST PRIOR TO CONSTRUCTION OF ANY SUCH CROSSINGS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL UTILITIES IN THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR TO VERIFY SIZE AND LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- 4. THE CONTRACTOR SHALL CONTACT 811 AND THE UTILITY COMPANIES, AS WELL AS ANY OTHER UTILITY COMPANY WITH UTILITY LINES ENCOUNTERED IN THE FIELD, WHETHER THE UTILITY LINES ARE SHOWN IN THE PLANS OR NOT, AT LEAST 48 HOURS PRIOR TO EXCAVATING.
- 5. SURVEY DATA OF SURFACE UTILITY FEATURES WAS COLLECTED APPROXIMATELY JUNE OF 2020. THERE MAY HAVE BEEN UTILITY IMPROVEMENTS WITHIN THE PROJECT LIMITS AFTER SURVEY WAS COMPLETED. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY IF THERE ARE EXISTING UTILITY CONFLICTS NOT SHOWN ON THE PLANS.

### **EROSION CONTROL**

- 1. CONTRACTOR SHALL PREPARE, IMPLEMENT, AND MAINTAIN STORM WATER POLLUTION PREVENTION PLAN. 2. ADEQUATE MEASURES SHALL BE TAKEN TO PREVENT EROSION. GUIDELINE MEASURES SHOWN IN THE PLANS ARE MINIMUM
- MEASURES. 3. IN THE EVENT THAT SIGNIFICANT EROSION OCCURS AS A RESULT OF CONSTRUCTION THE CONTRACTOR SHALL RESTORE THE
- ERODED AREA TO ORIGINAL CONDITION. 4. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING STREETS AND SIDEWALKS ADJACENT TO THE PROJECT FREE OF MUD AND DEBRIS FROM THE CONSTRUCTION. CONTRACTOR SHALL IMMEDIATELY CLEAN STREETS AND CORRECT EROSION CONTROLS ON
- SITE TO PREVENT ADDITIONAL RELEASES OF MUD OR DELETERIOUS MATERIALS ONTO PUBLIC ROADWAYS OR PRIVATE PROPERTY.

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### HAULING EQUIPMENT

- THE PROJECT MANAGER.

- CHANGE THEIR OPERATION TO CORRECT THE UNSATISFACTORY CONDITION.
- WILL ENDANGER TRAFFIC.
- DETOURS.
- 7. COORDINATE WITH ADJACENT PROJECTS.

- APPLICABLE STANDARDS.

- INSTALLATION.

### SAFETY

- "STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS".

### FINAL CLEAN UP

MANAGER.

16. UNPAVED ACCESS SHALL BE LIMITED TO LESS THAN THIRTY (30) LINEAR FEET.

1. THE USE OF RUBBER-TIRED EQUIPMENT WILL BE REQUIRED FOR MOVING DIRT OR OTHER MATERIALS ALONG OR ACROSS PAVED SURFACES. WHERE THE CONTRACTOR DESIRES TO MOVE ANY EQUIPMENT NOT LICENSED FOR OPERATION ON PUBLIC HIGHWAYS, ON OR ACROSS PAVEMENT, THEY SHALL PROTECT THE PAVEMENT FROM DAMAGE AS DIRECTED/APPROVED BY 2. THROUGHOUT CONSTRUCTION OPERATIONS, THE CONTRACTOR WILL BE REQUIRED TO CONDUCT THEIR HAULING OPERATIONS

IN A MANNER SUCH THAT VEHICLES WILL NOT HAUL OVER PREVIOUSLY RECOMPACTED SUBGRADE OR COMPACTED BASE MATERIAL EXCEPT IN SHORT SECTIONS FOR DUMPING MANIPULATIONS.

DETOURS, BARRICADES, WARNING SIGNS, SEQUENCE OF WORK, ETC. NOTES GENERAL 1. TRAFFIC MUST BE HANDLED THROUGHOUT THE PROJECT DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A SAFE AND COMFORTABLE PASSAGE FOR VEHICULAR AND PEDESTRIAN TRAFFIC WITH MINIMAL INCONVENIENCE

TO THE PUBLIC, AS SHOWN IN THE PLANS OR AS DIRECTED/APPROVED BY THE PROJECT MANAGER. 2. THE CONTRACTOR MAY PROPOSE/RECOMMEND MODIFICATIONS TO THE SEQUENCE OF WORK FOR CONSIDERATION BY THE PROJECT MANAGER. ANY MAJOR RECOMMENDED MODIFICATION BY THE CONTRACTOR SHALL INCLUDE ANY CHANGES TO THE VARIOUS BID ITEMS, IMPACT TO TRAFFIC, EFFECT OF OVERALL PROJECT IN TIME AND COST. ETC. IF THIS PROPOSAL IS IMPLEMENTED. THE CONTRACTOR WILL BE RESPONSIBLE FOR DEVELOPING DETAILED PLAN SHEETS TO BE SEALED BY A LICENSED PROFESSIONAL ENGINEER FOR INCLUSION WITH THE CHANGE ORDER. THE CONTRACTOR CANNOT PROCEED WITH ANY CONSTRUCTION OPERATIONS BASED ON A REVISED PHASE/SEQUENCE UNTIL WRITTEN APPROVAL IS OBTAINED FROM THE PROJECT MANAGER. IF AT ANY TIME DURING THE CONSTRUCTION THE CONTRACTOR'S PROPOSED PLAN OF OPERATION FOR HANDLING TRAFFIC DOES NOT PROVIDE FOR SAFE AND COMFORTABLE MOVEMENT, THE CONTRACTOR WILL IMMEDIATELY

3. DO NOT STORE ANY CONSTRUCTION MATERIAL OR EQUIPMENT AT ANY LOCATION THAT WILL CONSTITUTE A HAZARD AND

4. THE CONTRACTOR WILL PROVIDE THREE (3) WEEKS ADVANCE NOTIFICATION TO THE CITY OF IMPENDING/UPCOMING LANE CLOSURES FOR ALL TEMPORARY AND/OR PERMANENT LANE, RAMP, CONNECTOR, FRONTAGE, SHOULDER, ETC. CLOSURES OR

5. TEMPORARY DRAINAGE IS THE RESPONSIBILITY OF THE CONTRACTOR.

6. AT NO TIME SHALL TWO CONSECUTIVE INTERSECTING ROADWAYS BE CLOSED DURING CONSTRUCTION. CONTRACTOR SHALL LIMIT CLOSURE THE OF INTERSECTIONS TO MINIMIZE INCONVENIENCE TO PUBLIC.

8. COVER PERMANENT SIGNS IF NOT USED. THIS IS SUBSIDIARY TO THE TRAFFIC CONTROL BID ITEM(S).

9. EXCAVATION WITHIN 5 FEET OF AN EXISTING DME ENERGY POLE WILL REQUIRE POLE BRACING. CONTACT DENTON MUNICIPAL ELECTRIC TO REQUEST POLE BRACING (CODY TENORIO, CODY.TENORIO@CITYOFDENTON.COM). THE ESTIMATED DURATION FOR THE POLE BRACING PROCESS IS APPROXIMATELY 6 TO 8 WEEKS

10. ADVANCE WARNING SIGNS AND LANE CLOSURES MUST BE MOVED UP PERIODICALLY IN ORDER TO KEEP UP WITH THE MOVING WORK ZONE. AS WORK PROGRESSES, THE LANE CLOSURE SIGNING AND APPROPRIATE BARRICADES MUST FOLLOW

11. ALL LOCAL RESIDENTS & BUSINESSES WHO WILL BE DENIED ACCESS TO THEIR DRIVEWAYS SHALL BE NOTIFIED BY THE CONTRACTOR ONE (1) WEEKS PRIOR TO THE CLOSURE OF THEIR ACCESS. THE NOTICE SHALL INCLUDE SPECIFIC INFORMATION REGARDING THE PROPOSED CONSTRUCTION OPERATIONS AND THE LENGTH OF TIME REQUIRED BEFORE ACCESS WILL BE RESTORED. ACCESS SHALL BE RESTORED AT THE END OF EACH WORKING DAY, UNLESS PRIOR NOTICE AS AFOREMENTIONED IS PROVIDED TO RESIDENT OR BUSINESS. CONTRACTOR SHALL NOT DENY ACCESS FOR MORE THAN FIVE (5) CONSECUTIVE DAYS AND ACCESS SHALL BE MAINTAINED TO THE PRIVATE PROPERTY AT ALL TIMES DURING CÓNSTRUCTION UPON REQUEST OF THE PROPERTY OWNER. THIS WORK WILL BE CONSIDERED INCIDENTAL AND NO EXTRA PAYMENT WILL BE MADE TO THE CONTRACTOR TO MAINTAIN ACCESS.

12. CONTRACTOR SHALL NOTIFY CITY THREE (3) WEEKS PRIOR TO CLOSURE OF ANY PEDESTRIAN OR BIKE ACCESS ROUTES. 13. CONTRACTOR SHALL SUBMIT WRITTEN REQUEST TO THE CITY FOR APPROVAL OF ALL AREAS TO BE USED FOR STAGING, MOBILIZATION, EQUIPMENT, AND MATERIAL STORAGE AND GENERAL PROJECT CONSTRUCTION MANAGEMENT. REQUESTS SHALL BE SUBMITTED TO THE CITY AT LEAST FIVE (5) DAYS PRIOR TO NOTICE TO PROCEED.

14. CONTRACTOR SHALL PREPARE, IMPLEMENT AND MAINTAIN TRAFFIC CONTROL PLAN.

15. ALL BARRICADES, WARNING SIGNS, LIGHT DEVICES, ETC. FOR THE GUIDANCE AND PROTECTION OF TRAFFIC AND PEDESTRIANS MUST CONFORM TO THE INSTALLATION SHOWN IN THE TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AS CURRENTLY AMENDED, PUBLISHED BY THE TEXAS DEPARTMENT OF TRANSPORTATION.

17. CON1RACTOR TO ADD 3" OF BASE COURSE ASPHALT UNDER CURB AND GUTTER IF THE LENGTH OF CURB AND GUTTER REPLACEMENT IS GREATER THAN 100 FT. NO SEPARATE PAY ITEM. ASPHALT IS SUBSIDIARY TO CURB AND GUTTER

18. THIS PROJECT WILL BE CONSTRUCTED IN PHASES. BEFORE THE COMMENCEMENT OF EACH PHASE, INSTALL ADVANCE WARNING SIGNS, TEMPORARY SIGNS, AND BARRICADES AS SHOWN ON SHALL ADHERE TO THE TRAFFIC CONTROL PLAN AND MUTCD THE PLANS AND/OR AS DIRECTED/APPROVED BY THE PROJECT MANAGER. DAILY LANE CLOSURES. DROP OFF CONDITIONS GREATER THAN 2" MUST HAVE A 3:1 SLOPE AT THE END OF EACH DAY, AS WELL AS THROUGHOUT THE PROJECT WHERE ACCESS TO ADJACENT PROPERTIES IS ALLOWED TO DRIVEWAYS AND SIDE STREETS. 19. CONTRACTOR SHALL INSTALL METAL PLATES OVER OPEN TRENCHES, UNCOVERED MANHOLES OR OPEN INLETS ADJACENT TO TRAFFIC OVERNIGHT OR WHEN NO WORK IS BEING PERFORMED FOR MULTIPLE DAYS.

1. THE CONTRACTOR WILL PROVIDE, CONSTRUCT, AND MAINTAIN BARRICADES AND SIGNS IN ACCORDANCE WITH STATE STANDARDS BC(1–12)–14. ANY SIGNS REQUIRED THAT ARE NOT DETAILED IN THE STANDARD SHEETS SHALL BE IN CONFORMANCE WITH THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AND THE

2. THE CONTRACTOR SHALL KEEP THE ROADWAY CLEAN AND FREE OF DIRT OR OTHER MATERIALS DURING HAULING OPERATIONS. IF THE CONTRACTOR DOES NOT MAINTAIN A CLEAN ROADWAY, THEY SHALL CEASE ALL CONSTRUCTION OPERATIONS, WHEN DIRECTED BY THE PROJECT MANAGER, TO CLEAN THE ROADWAY TO THE SATISFACTION OF THE PROJECT

1. UPON COMPLETION OF THE WORK AND BEFORE FINAL ACCEPTANCE AND FINAL PAYMENT IS MADE. THE CONTRACTOR SHALL CLEAR AND REMOVE FROM THE SITE ALL SURPLUS AND DISCARDED MATERIALS AND DEBRIS OF EVERY KIND AND LEAVE THE ENTIRE PROJECT IN A SMOOTH, NEAT AND SIGHTLY CONDITION.

### UTILITY NOTE

THE EXISTING UTILITIES SHOWN ON THESE PLANS WERE COMPILED FROM VARIOUS SOURCES AND ARE INTENDED TO SHOW THE GENERAL EXISTENCE AND LOCATION OF THE UTILITY INFORMATION ON THE PLANS. THE CONTRACTOR SHALL CONTACT A UTILITY LOCATING SERVICE 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND OF ALL EXISTING UTILITIES AND DETERMINE IF THERE ARE ANY CONFLICTS WITH THE PROPOSED FACILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY WHEN CONFLICTS WITH EXISTING UTILITIES ARE DISCOVERED.

### LIST OF COMPANIES:

TEXAS DEPT. OF TRANSP. ATTN: ALEXANDER TRAZNOV 2624 W. PRAIRIE DENTON, TX. (940) 387-1324

FRONTIER (PREVIOUSLY VERIZON) ATTN: WILLIAM KING 312 W. HICKORY STREET DENTON, TX 76201 (940) 222-5275

CHARTER COMMUNICATIONS (SPECTRUM) ATTN: JEREMEY ECKENROTH 1565 CHENAULT ST. DALLAS TX, 75228 (214)-320-7435

AT&T ATTN: ERIC WILLIAMS 1460 ROUNDTABLE DALLAS TX, 75247 (214) 745-2964

DENTON MUNICIPAL ELECTRIC ATTN: DOUG BREON 601 E. HICKORY STREET DENTON, TX. 76205 (940) 349-7509

CITY OF DENTON-WATER/WASTEWATER P.S. ARORA 901-A TEXAS STREET DENTON, TX. 76209

ATMOS ATTN' RON HAYES 146 N. BRADSHAW STREET DENTON, TX 76205 (469) 834-4596

TEXAS 811 (800) 344-8377

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CAPS.

OF THIS NOTE.

SPECIFICATIONS)

SEPARATELY.

# ENGINEERING SERVICES

## **2020 STREET BUNDLE - SECTOR III**

### **GENERAL NOTES**

### WATER AND SANITARY NOTES:

1. THE CITY HAS ACQUIRED PERMANENT AND TEMPORARY CONSTRUCTION EASEMENTS AS SHOWN ON THE DRAWINGS. THE CONTRACTOR MAY ACQUIRE ADDITIONAL TEMPORARY CONSTRUCTION EASEMENTS AT HIS OWN COST, IF HE SO CHOOSES. IF THE CONTRACTOR ACQUIRES ADDITIONAL TEMPORARY EASEMENTS, HE SHALL PROVIDE COPIES OF THE WRITTEN AGREEMENTS TO THE CITY. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGES AS A RESULT OF THE USE OF ADDITIONAL TEMPORARY EASEMENTS OR WORK CONDUCTED ON PRIVATE PROPERTY AND/OR OUTSIDE THE PROJECTS EXTENTS.

2. CONTRACTOR SHALL BECOME FAMILIAR WITH THE TERMS AND CONDITIONS SET FORTH IN TEMPORARY CONSTRUCTION EASEMENTS. UNLESS GRANTED BY THE PROPERTY OWNER, INGRESS AND EGRESS TO THE WORK SITE SHALL BE ONLY THROUGH THE TEMPORARY CONSTRUCTION EASEMENTS, EXISTING UTILITY EASEMENTS OR R.O.W. IN THE AREAS WHERE NO CONSTRUCTION EASEMENTS ARE AVAILABLE, CONTRACTOR SHALL LIMIT ACTIVITIES TO WITHIN THE EXISTING UTILITY EASEMENT OR

3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING WATER AND SEWER CONNECTIONS IN WORKING ORDER AT ALL TIMES. IN NO CASE SHALL SERVICES BE ALLOWED TO REMAIN OUT OF SERVICE OVERNIGHT.

4. THE CONTRACTOR SHALL BE LIABLE FOR DAMAGES TO BUSINESSES, HOMES, OR BASEMENTS FROM BACKUP WHICH MAY RESULT DURING THE INSTALLATION OF NEW SEWER PIPE. THE CONTRACTOR WILL BE ALLOWED TO OPEN CLEAN OUTS WHERE AVAILABLE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL CLEAN-UF ASSOCIATED WITH OPENING CLEAN OUTS AND FOR REPLACEMENT OF REMOVED

5. CONTRACTOR SHALL FURNISH AND INSTALL PIPE DETECTION TAPE OVER ALL WATER OR SEWER LINES INSTALLED. THE PIPE TAPE SHALL CONTINUOUSLY INDICATE THE PRESENCE OF BURIED WATER OR SANITARY SEWER PIPE UNDERNEATH. THE PIPE TAPE SHALL BE INSTALLED ON TOP OF THE GRANULAR PIPE EMBEDMENT, OR AS SHOWN ON THE PLANS, ALONG THE CENTERLINE OF THE PIPELINE.

6. IN GENERAL, MAINTAIN 2' MIN. VERTICAL SEPARATION BETWEEN SANITARY SEWER AND WATERLINES AND 1 FT. MIN. VERTICAL SEPARATION BETWEEN SANITARY SEWER AND STORM SEWER AT CROSSINGS

7. CONTRACTOR SHALL PREPARE AND PRESENT A PLAN TO THE CITY ON HOW TIE-INS BETWEEN EXISTING LATERALS AND THE NEW SANITARY SEWER SHALL BI COORDINATED. NO EXISTING LATERAL LINES WILL BE ALLOWED TO REMAIN UNCONNECTED TO THE COLLECTION SYSTEM OVERNIGHT. TEMPORARY TIE-IN WORK SHALL BE SUBSIDIARY TO THE COST OF PIPE INSTALLATION AND WILL NOT BE PAID FOR SEPARATELY.

8. CONTRACTOR SHALL PREPARE AND PRESENT A PLAN ON HOW TO SUPPORT WATER, STORM DRAIN OR OTHER LINES THAT SPAN THE CONSTRUCTION TRENCH PRIOR TO BEGINNING ANY WORK OF THE PROJECT.

9. SERVICE LINE LOCATIONS ARE APPROXIMATE. CONTRACTOR IS TO VERIFY ACTUAL LOCATION IN FIELD PRIOR TO INSTALLING NEW SERVICE LINES. NO PAYMENT SHALL BE MADE FOR REINSTALLATION OF SERVICE LINES DUE TO CONTRACTOR OVERSIGHT

10. EXISTING SERVICES MAY NOT MATCH TO SIZE OF NEW SERVICE LINES. CONTRACTOR SHALL SUPPLY CONNECTORS/ADAPTORS TO MAKE SERVICE SIZE TRANSITIONS AT NO ADDITIONAL COST.

11. MAXIMUM ALLOWABLE JOINT DEFLECTION IS 1°.

12. USE PROPER RESTRAINT, THRUST BLOCKING, OR RESTRAINED MJ AT ALL BENDS, TEES, VALVES, PLUGS, ETC.

13. FOLLOW OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION) REGULATIONS AND WORK A SAFE DISTANCE FROM ALL POWER LINES. WHENEVER WORK IS TO BE PERFORMED NEAR OVERHEAD LINES, OSHA REQUIRES THAT WORKMEN AND ANY EQUIPMENT OR TOOLS BEING OPERATED OR HANDLED BE KEPT A SAFE DISTANCE FROM POWER LINES. OSHA ALSO REQUIRES THAT THE POWER LINES SHALL FITHER BE DE-ENERGIZED AND GROUNDED OR OTHER PROTECTIVE MEASURES SHALL BE TAKEN BEFORE WORK IS STARTED. OSHA HAS PRESCRIBED CERTAIN DISTANCES THAT WORKMEN, TOOLS, AND EQUIPMENT MUST BE KEPT FROM OVERHEAD LINES. 10 FEET IS THE DISTANCE FOR POWER LINES OF 50,000 VOLTS OR LESS. 11 FEET IS THE DISTANCE FOR POWER LINES OF 138,000 VOLTS.

14. NEW UTILITY LINES SHALL BE BACKFILLED & HAVE TEMPORARY PAVEMENT REPAIR PER THE STANDARD DETAILS UNLESS OTHERWISE INDICATED ON PLANS.

15. CLEANOUT BOX AND MATERIAL TO BE DETERMINED BY SURFACE LOCATION (SEE

16. ALL TAPPING SLEEVE AND VALVE CONNECTIONS SHALL BE MADE BY CITY CREWS UTILIZING CITY PROVIDED TAPPING SLEEVES AND VALVES. CONTACT CHRIS CAMPBELL AT 940-349-7181 FOR PRICING AND SCHEDULING OF TAPS.

17. EXISTING AND PROPOSED WATER, SEWER, OR STORM DRAINAGE APPURTENANCES (I.E, VALVE STACKS, MANHOLE FRAMES, ETC.) LOCATED IN PROPOSED STREET RECONSTRUCTION ZONES SHALL BE ADJUSTED TO MATCH THE GRADE OF STREET. THESE ADJUSTMENTS SHALL BE CONSIDERED INCIDENTAL WORK AND NOT PAID FOR

SY	MBOL LEGEND
$\triangle$	CONTROL POINT
$\mathcal{I}$	POWER POLE
<	GUY WIRE
X	LIGHT POLE
¢	LIGHTED BOLARD
<b>A</b>	LANDSCAPE LIGHT
$\square$	ELECTRIC TRANSFORMER
	CABLE T.V. BOX
	STORM DRAIN GRATE
$\oplus$	TELEPHONE MANHOLE
Pied	TELEPHONE CABINET
	TELEPHONE SERVICE BOX
	TELEPHONE PEDESTAL
$\bigcirc$	GAS TEST STATION
$\overline{\bigcirc}$	GAS METER
$\otimes$	GAS VALVE
Ŷ	PEDESTRIAN SIGNAL POLE
M	TRAFFIC CONTROL BOX
o	TRAFFIC SIGNAL
$\bigcirc$	MONITORING WELL
Ø	UNKNOWN UTILITY VAULT
	BOLLARD
	SIGN
·	MAILBOX
$\bigcirc$	TREE
$\bigcirc$	BUSH/HEDGE

DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No. 1 of 73	HOR 1"= NTS VER 1"= NTS	James Wilde W16/21



























EXISTING TYPICAL ROADWAY SECTION N.T.S

McKINNEY STREET



PROPOSED TYPICAL ROADWAY SECTION

McKINNEY STREET

N.T.S

ENTERED BY	M.S.	PROJEC	CT # 350499402
DESIGNED BY	M.S.	DATE	REVISION
CHECKED BY	J.W.		
PROJ. ENGR.	J.W.		
PATH S: \WATER ENGINEER 3\DESIGN\TYPICAL'S	RING\ENGR\DESIGN\PROJECTS\STREET BUNDLE 2020 - SECTOR		



## **TYPICAL STREET CROSS-SECTION 2**

## 2020 STREET BUNDLE - SECTOR III

STA.8+00 TO 16+00 STABILIZED SUBGRADE SHALL BE 7% CEMENT STABILIZED SOIL BY DRY WEIGHT.

NOTE: STA.0+00 TO 8+00 AND STA 16+00 TO 24+39(END) STABILIZED SUBGRADE SHALL CONSIST OF HYDRATED LIME APPLIED AT A 7% RATE BY DRY WEIGHT.

<u>NOTE:</u>

- 1. CONTRACTOR SHALL COORDINATE WITH GEOTECHNICAL ENGINEER FOR LIME-SERIES TEST AND SULPHATE TEST PRIOR TO LIME OR CEMENT STABILIZATION OF SUBGRADE. CONTRACTOR SHALL NOTIFY CITY INSPECTOR 48 HOURS PRIOR TO TEST BEING COMPLETED.
- 2. EXISTING SUBGRADE UNDER SIDEWALK AND CURB AND GUTTER REPLACEMENT TO BE COMPACTED BY CONTRACTOR TO A MINIMUM OF 95% MAXIMUM STANDARD PROCTOR DRY DENSITY (ASTM D 698) IN THE RANGE OF 0 TO +3 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTÉNT FOR CLAY SOILS.
- 3. EXISTING SUBGRADE UNDER SIDEWALK AND CURB AND GUTTER REPLACEMENT TO BE COMPACTED BY CONTRACTOR TO A MINIMUM OF 95% MAXIMUM STANDARD PROCTOR DRY DENSITY (ASTM D 698) IN THE RANGE OF -2 to +2 percentage POINTS OF OPTIMUM MOISTURE CONTENT FOR SANDY SOILS.
- 4. FOUR-WAY INTERSECTIONS SHALL UTILIZE 12 INCHES OF FLEXIBLE BASE COURSE IN LIEU OF CEMENT OR LIME STABILIZED SOIL. FLEXIBLE BASE COURSE SHALL BE TYPE B, GRADE 1.

DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No.	HOR 1"= N.T.S.	83438
10 of 73	VER 1"= N.T.S.	James Wilde 1/16/21

### **EROSION CONTROL PLAN**

THE CONTRACTOR IS RESPONSIBLE FOR CREATING THE EROSION CONTROL PLAN FOR THE PROJECT. THE PLAN SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATIONS CONTAINED IN THE PROJECT MANUAL AND THE EROSION CONTROL PLAN NARRATIVE SHEETS. THE EROSION CONTROL PLAN SHELL BE REVIEWED AND APPROVED BY THE CITY OF DENTON WATERSHED DEPARTMENT PRIOR TO IMPLEMENTATION.

PROJECT NAME PROJECT IS LOC OF DENTON IN

CONTACT AND PHONE NO.: JOETTA DAILEY 940-349-7153

TRENCHING

NAME OF RECEIVING WATERS: PECAN CREEK

IDENTIFY STORM WATER DISCHARGE POINTS: STORM DRAINS WITHIN THE PECAN CREEK DRAINAGE BASINS

ENTERED BY	M.S.	PROJEC	CT # 350499402
DESIGNED BY	M.S.	DATE	REVISION
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PROJ. ENGR.	J.W.		
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SITE DESCRIPTION
E AND LOCATION: <u>STREET BUNDLE 2020 - SECTOR III</u>
CATED IN THE EAST-CENTRAL SECTION OF THE CITY
DENTON COUNTY.

MAJOR SOIL DISTRIBUTION ACTIVITIES: EXCAVATION, DEMOLITION,

TOTAL PROJECT AREA (ACRES): 1.0343 Acres

\_\_\_\_\_

POST-CONSTRUCTION CHANGE IN RUNOFF POTENTIAL: NONE

EXISTING CONDITION OF SOIL, VEGETATIVE COVER: WELL ESTABLISHED SOILS; APPROXIMATELY 10% VEGETATIVE COVER IN PARKWAYS BEHIND CURB

DESCRIPTION OF WATER DISCHARGE NOT ASSOCIATED WITH CONSTRUCTION: NONE

A DESCRIPTION AND TIME FRAME FOR THE INSTALLATION OF STABILIZATION PRACTICES IN CONJUNCTION WITH CONSTRUCTION: BMPs WILL BE INSTALLED PRIOR TO CONSTRUCTION

### EROSION AND SEDIMENTATION CONTROL

### SOIL STABILIZATION PRACTICES:

HYDROMULCHING.

TEMPORARY SEEDING.

X PERMANENT PLANTING, SODDING OR SEEDING.

\_\_\_\_\_ MULCHING.

X SOIL RETENTION BLANKET

BUFFER ZONES.

PRESERVATION OF NATURAL RESOURCES.

DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HA TEMPORARILY OR PERMANENTLY, SHALL BE STABILIZED WIT UNLESS ACTIVITIES ARE SCHEDULED WITHIN 21.

### STRUCTURAL PRACTICES:

X	_SILT FENCES
	_ HAY BALES
X	_ GRAVEL FILTRATION BAGS
X	_ ROCK BERMS
X	_ DIVERSION, INTERCEPTOR OR PERIMETER DIKES
	_ DIVERSION, INTERCEPTOR OR PERIMETERS SWALES.
	_ DIVERSION, DIKE AND SWALE COMBINATION.
	_ PAVED FLUMES.
Х	_ ROCK BEDDING AT CONSTRUCTION EXIT (STABILIZED E
	_ TIMBER MATTING AT CONSTRUCTION EXITS (STABILIZE
	_ CHANNEL LINERS.
	_SEDIMENT TRAPS
	_SEDIMENT BASINS
X	_STORM INLET SEDIMENT TRAP
	_STONE OUTLET SEDIMENT
X	_ CURBS AND GUTTERS
X	_STORM SEWERS
	_ VELOCITY CONTROL STRUCTURES
	_GEOTEXTILES.
OTHEI	RS:

SEQUENCE OF STORMWATER MANAGEMENT AND CONSTRUCT ACTIVITIES:

BMP INSTALLATION, DEMOLITION, UTILITY WORK, PAV REMOVAL 

MAINTENANCE PROCEDURES FOR CONTROL MEASURES USED: **INSPECTIONS WILL BE PERFORMED WEEKLY AND WITHIN 24** THE END OF A 0.5 INCH OR GREATER STORM EVENT

STORM WATER MANAGEMENT: STORM WATER WILL BE CON CURB AND GUTTER TO THE NEAREST INLET OR DISCHARGE LO

PERMANENT EROSION CONTROL MEASURES: SODDING, SEED EROSION CONTROL BLANKETS

PERMANENT STORM WATER MANAGEMENT MEASURES: CUI STORM INLETS, STORM DRAINS



## 2020 STREET BUNDLE - SECTOR III

\_\_\_\_\_

EROSION CONTROL PLAN NARRATIVE

	OTHER EROSION AND SEDIMENTATION CONTROL			
	MAINTENANCE:			
	ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER. IF REPAIR 1S NECESSARY, IT WILL BE DONE AT THE EARLIEST DATE POSSIBLE, BUT NO LATER THAN 7 CALENDAR DAYS AFTER THE SURROUNDING EXPOSED GROUND HAS DRIED SUFFICIENTLY TO PREVENT FURTHER DAMAGE FROM HEAVY EQUIPMENT. THE AREAS ADJACENT TO CREEKS AND DRAINAGEWAYS SHALL HAVE PRIORITY, FOLLOWED BY DEVICES PROTECTION STORM SEWER INLETS.			
AS CEASED THIN 14 DAYS	INSPECTION: AN INSPECTION WILL BE PERFORMED BY THE CONTRACTOR EVERY 14 DAYS AS WELL AS AFTER EVERY ½" OR MORE OF RAIL (RECORDED ON A NON FREEZING RAIN GAUGE TO BE LOCATED AT THE PROJECT SITE). AN INSPECTION AND MAINTENANCE REPORT WILL BE MADE PER INSPECTION BASED ON THE INSPECTION RESULTS, THE CONTROLS SHALL BE CORRECTED BEFORE THE NEXT SCHEDULED INSPECTION.			
ENTRANCE).	WASTE MATERIALS: ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL STATE AND LOCAL CITY SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER WILL BE EMPTIED AS NECESSARY OR AS REQUIRED BY LOCAL REGULATION AND THE TRASH WILL BE HAULED TO A LOCAL DUMP. NO CONSTRUCTION MATERIALS WILL BE BURIED ON SITE.			
ED EN I KANCEJ	HAZARDOUS WASTE (INCLUDING SPILL REPORTING)			
	AT A MINIMUM, ANY PRODUCTS IN THE FOLLOWING CATEGORIES ARE CONSIDERED TO BE HAZARDOUS; PAINTS, ACIDS FOR CLEANING MASONRY SURFACES, GASOLINE, MOTOR OIL, CLEANING SOLVENTS, ASPHALT PRODUCTS, CHEMICAL ADDITIVES FOR SOIL STABILIZATION OR CONCRETE CURING COMPOUND AND ADDITIVES. IN THE EVENT OF A SPILL WHICH MAY BE HAZARDOUS AND MEETS REPORTING REQUIREMENTS, THE NATION RESPONSE CENTER SHOULD BE CONTACTED AT 800-424-8802, AND ANY REQUIRED CHANGES MADE TO SWPPP. IN THE EVENT OF A LIFE THREATENING SPILL THE DENTON FIRE DEPARTMENT SHOULD BE NOTIFIED AS WELL AS THE APPROPRIATE CITY INSPECTORS.			
	SANITARY WASTE RESPONSIBILITY OF THE CONTRACTOR			
TION TING, BMP	OFFSITE EXCAVATION SOURCE LOCATION: NONE			
BMP	OFFSITE FILL SOURCE LOCATION: NONE			
HOURS OF	OFFSITE VEHICLE TRACKING:			
IVEYED BY DCATION	XHAUL ROADS DAMPED FOR DUST CONTROLXLOADED HAUL TRUCKS TO BE COVERED WITH TARPAULINXEXCESS DIRT ON ROAD TO BE REMOVED DAILYXSTABILIZED CONSTRUCTION ENTRANCE			
DING OR	OTHERS: CERTIFICATION THAT SITE DISTURBANCES AND/OR DISCHARGES WILL NOT EFFECT LISTED ENDANGERED SPECIES AND THEIR HABITAT. WHAT METHOD IS USED TO SATISEY THE ENDANCEBED SPECIES			
	REQUIREMENTS? NOT APPLICABLE			
RB & GUTTER,				
DATE NOV. 2021 SHEET No. 11 of 73	SCALECERTIFICATION: THIS CITY OF DENTON STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS HEREON, AND WHO CERTIFIES THE CONTENT OF THE DETAILS AND NOTES HEREIN HAVE NOT BEEN ALTERED AND ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THE STANDARDS WITHIN THIS SHEET.CONTENT OF THE STANDARD NOTES BAMES E. WILDER BAMES E. WILDER BAMES E. WILDERHOR 1"= N.T.S.N.T.S.			



ENTERED BY	M.S.	PROJEC	CT # 350499402
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CHECKED BY	J.W.		
PROJ. ENGR.	J.W.		
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2020 STREET BUNDLE - SECTOR III

TRAFFIC CONTROL PLAN NARRATIVE

### TRAFFIC CONTROL PLAN GUIDELINES

ALL TRAFFIC CONTROL PLANS FOR THIS PROJECT SHALL BE CREATED BY THE CONTRACTOR AND SUBMITTED FOR REVIEW BY THE CITY PRIOR TO IMPLEMENTATION. THE PLANS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATIONS CONTAINED IN THE PROJECT MANUAL. TRAFFIC CONTROL PLANS SHALL BE SUBJECT TO THE SITE—SPECIFIC REQUIREMENTS ADDRESSED BELOW.

- HETTIE, WOOD, HICKORY, OAK, BRADSHAW, CRAWFORD, ULAND AND ROSE STREETS 1. THE CONTRACTOR CAN CLOSE THE ROAD TO THRU TRAFFIC IN ONE BLOCK SEGMENTS AS LONG AS DRIVEWAY INGRESS/EGRESS IS MAINTAINED FOR RESIDENTS OR BUSINESSES.
- 2. DETOUR ROUTES UTILIZING WIDER STREETS WILL BE PREFERRED TO ROUTES USING NARROWER STREETS.

McKINNY STREET

- 1. THE CONTRACTOR SHALL MAINTAIN A SINGLE LANE OF TRAFFIC IN BOTH DIRECTIONS AT ALL TIMES.
- 2. SIDE STREET INTERSECTIONS ARE ONLY TO BE CLOSED DURING ACTIVE CONSTRUCTION OF IMPROVEMENTS IN OR THROUGH THE INTERSECTION.
- 3. MESSAGE BOARDS FOR THRU TRAFFIC WILL BE REQUIRED ONE WEEK IN ADVANCE OF THE BEGINNING OF LANE CLOSURES AND TRAFFIC CONTROL IMPLEMENTATION.

MCKINNEY STREET AT AUDRA INTERSECTION STREET

- 1. THE CONTRACTOR SHALL MAINTAIN A SINGLE LANE OF TRAFFIC IN BOTH DIRECTIONS AT ALL TIMES.
- THE TRAFFIC CONTROL PLAN SHALL SHIFT THE TRAFFIC PATTERN TO THE APPROPRIATE SIDE OF THE MEDIAN USING CONES OR OTHER CHANNELING DEVICES AT THE AUDRA INTERSECTION.
- 3. THE SIGNALS AT AUDRA SHALL BE DEACTIVATED AND BAGGED DURING CONSTRUCTION IN THIS SEGMENT.
- 4. TEMPORARY STOP SIGNS SHALL BE ERECTED AT THE AUDRA INTERSECTION TO CONTROL TRAFFIC FLOW.
- 5. MESSAGE BOARDS FOR THIS SECTION SHALL BE REQUIRED ONE WEEK IN ADVANCE OF TRAFFIC CONTROL IMPLEMENTATION.

DATE NOV. 2021	SCALE	CERTIFICATION: THIS CITY OF DENTON STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS HEREON, AND WHO CERTIFIES THE CONTENT OF THE DETAILS AND NOTES	JAMES E. WILDER	
SHEET No.	HOR 1"= N.T.S. VER 1"= N.T.S.	HEREIN HAVE NOT BEEN ALTERED AND ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THE STANDARDS WITHIN THIS SHEET.	83438	11/16/2
13 of 73			James	, ,

		-	
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DESIGNED BY	M.S.	DATE	REVISION
CHECKED BY	J.W.		
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## 2020 STREET BUNDLE - SECTOR III STREET IMPROVEMENTS - MCKINNEY STREET

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### CONTROL POINTS:

CP-63 N-7128144.79 E-2390991.04 ELEV.-622.02

CP-69 N-7128137.33 E-2391233.54 ELEV.-623.95

CP-70 N-7128079.6 E-2391559.17 ELEV.-631.22

CP-71 N-7128051.66 E-2391896.606 ELEV.-628.96

CP-72 N-7128112.88 E-2392443.02 ELEV.-617.74

CP-73

N-7128099.93 E-2392798.7 ELEV.-617.84

SYMBOL LEGEND CONTROL POINT POWER POLE ELECTRIC PULL BOX ELECTRIC TRANSFORMER ELECTRIC PULL BOX WATER VALVE WATER METER - FIRE HYDRANT SANITARY SEWER M.H. (MANHOLE) SANITARY CLEANOUT STORM DRAIN M.H. (MANHOLE) SIGN TELEPHONE CABINET TELEPHONE SERVICE BOX TREE

KEY NOTES:

 $\langle 1 \rangle$  TYPE 1A RAMP ALTERNATE B

- $\langle 2 \rangle$  TYPE 1B RAMP ALTERNATE B
- $\langle 3 \rangle$  TRUNCATED DOME, DETECTABLE WARNING PAD, SURFACE MOUNTED 2'X4'. ULTRATECH INTERNATIONAL INC. OR APPROVED EQUAL.

BUSH/HEDGE

(4) TYPE 1 RAMP ALTERNATE B



		a state a
DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No. 14 of 73	HOR 1"= 40' VER 1"= 20'	James Wilde Wi6/21









KEY NOTES:

- 1 TYPE 1A RAMP ALTERNATE B
- $\langle 2 \rangle$  TYPE 1B RAMP ALTERNATE B
- $\langle 3 \rangle$  TRUNCATED DOME, DETECTABLE WARNING PAD, SURFACE MOUNTED 2'X4'. ULTRATECH INTERNATIONAL INC. OR APPROVED EQUAL.
- (4) TYPE ] RAMP ALTERNATE B

DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No. 15 of 73	HOR 1"= 40' VER 1"= 20'	James Wilde 1/16/21

ENTERED BY M.S.	PROJEC	CT # 350499402
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STA 20+50.00 TO STA 24+38.86

2020 STREET BUNDLE - SECTOR III STREET IMPROVEMENTS - MCKINNEY STREET









HOR 1"= 40'

VER 1"= 20'

SHEET No.

16 of 73

JAMES E. WILDER

**83**438

James Wilder 11/16/21

ENTERED BY	M.S.	PROJEC	CT # 350499402
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## STA. 0+00.00 TO STA 8+50.00

2020 STREET BUNDLE - SECTOR III STREET IMPROVEMENTS - WOOD STREET  $\sum \overline{\overline{\overline{}}}$ 





SHEET No. 17 of 73 HOR 1"= 40' VER 1"= 20'



)JECT # 350499402
E REVISION









## 2020 STREET BUNDLE - SECTOR III **STREET IMPROVEMENTS - WOOD STREET**

STA. 8+50.00 TO STA 15+54.71

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CONTROL POINTS: CP-66 N-7128170.31 E-2390843.88 ELEV.-622.096 CP-67 N-7128402.71 E-2390801.96 ELEV.-627.127 CP-68 N-7128815.97 E-2390837.73 ELEV.-637.81 PROPOSED VALLEY GUTTER, DRIVE WAY REPLACEMENT. PROPOSED CURB & GUTTER REPLACEMENT. PROPOSED SIDEWALK REPLACEMENT. PROPOSED ASPHALT PAVEMENT REPLACEMENT. KEY NOTES:  $\langle 1 \rangle$  Type 1A RAMP ALTERNATE B  $\langle 2 \rangle$  TYPE 1B RAMP ALTERNATE B  $\langle 3 \rangle$  TRUNCATED DOME, DETECTABLE WARNING PAD, SURFACE MOUNTED 2'X4'. EQUAL. 4 TYPE I RAMP ALTERNATE B <u>NOTES 1:</u> ENSURE THAT SIDEWALK REPLACEMENT AND WOOD MEETS ADA REQUIREMENTS.



SY	MBOL LEGEND
$\triangle$	CONTROL POINT
J.	POWER POLE
	ELECTRIC PULL BOX
$\square$	ELECTRIC TRANSFORMER
Ø	ELECTRIC PULL BOX
$\bowtie$	WATER VALVE
$\square$	WATER METER
ů	FIRE HYDRANT
$\bigcirc$	SANITARY SEWER M.H. (MANHOLE)
o <sup>co</sup>	SANITARY CLEANOUT
	STORM DRAIN M.H. (MANHOLE)
_0_	SIGN
P••C	TELEPHONE CABINET
	TELEPHONE SERVICE BOX
$\odot$	TREE
$\odot$	BUSH/HEDGE

ULTRATECH INTERNATIONAL INC. OR APPROVED

DRIVEWAY REPLACEMENT ON THE EAST SIDE OF







SYMBOL LEGEND		
$\triangle$	CONTROL POINT	
$\cdot$	POWER POLE	
	ELECTRIC PULL BOX	
$\square$	ELECTRIC TRANSFORMER	
	ELECTRIC PULL BOX	
$\bowtie$	WATER VALVE	
$\blacksquare$	WATER METER	
÷	FIRE HYDRANT	
$\bigcirc$	SANITARY SEWER M.H. (MANHOLE)	
oco	SANITARY CLEANOUT	
	STORM DRAIN M.H. (MANHOLE)	
_0_	SIGN	
P··C	TELEPHONE CABINET	
	TELEPHONE SERVICE BOX	
$\odot$	TREE	
$\odot$	BUSH/HEDGE	



PROPOSED VALLEY GUTTER, DRIVE WAY REPLACEMENT. PROPOSED CURB & GUTTER REPLACEMENT. PROPOSED SIDEWALK REPLACEMENT.



DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No. 19 of 73	HOR 1"= 40' VER 1"= 20'	James Wilde Wi6/21

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2020 STREET BUNDLE - SECTOR III STREET IMPROVEMENTS - WOOD STREET

STA. 0+00.00 TO STA 5+61.05



 $\rightarrow 77$ 



CONTROL POINTS:

CP-63ClN-7128144.79NE-2390991.04E-ELEV.-622.02EL

CP-62 N-7127828.46 E-2390971.43 ELEV.-615.21

CP-55 N-7127535.85 E-2390966.201 ELEV.-613.7 CP-80050 N-7127045.745 E-2390995.181 ELEV.-611.151 CP-64

N-7127030.85 E-2390970.32 ELEV.-610.8

CP-65 N-7126686.567 E-2391000.876 ELEV.-604.92

SYMBOL LEGEND		
$\triangle$	CONTROL POINT	
$\odot$	POWER POLE	
	ELECTRIC PULL BOX	
$\square$	ELECTRIC TRANSFORMER	
	ELECTRIC PULL BOX	
$\bowtie$	WATER VALVE	
$\blacksquare$	WATER METER	
÷	FIRE HYDRANT	
$\bigcirc$	SANITARY SEWER M.H. (MANHOLE)	
oco	SANITARY CLEANOUT	
	STORM DRAIN M.H. (MANHOLE)	
_0_	SIGN	
P··C	TELEPHONE CABINET	
	TELEPHONE SERVICE BOX	
$\odot$	TREE	
$\odot$	BUSH/HEDGE	

PROPOSED VALLEY GUTTER, DRIVE WAY REPLACEMENT.

PROPOSED CURB & GUTTER REPLACEMENT.

PROPOSED SIDEWALK REPLACEMENT.

PROPOSED ASPHALT PAVEMENT REPLACEMENT.

### <u>KEY NOTES:</u>

(1) TYPE 1A RAMP ALTERNATE B

2 TYPE 1B RAMP ALTERNATE B

- 3 TRUNCATED DOME, DETECTABLE WARNING PAD, SURFACE MOUNTED 2'X4'. ULTRATECH INTERNATIONAL INC. OR APPROVED EQUAL.
- 4 TYPE I RAMP ALTERNATE B

DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No.	HOR 1"= 40'	B3438
20 of 73	VER 1"= 20'	James Wilde W16/21

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- SURFACE MOUNTED 2'X4'. ULTRATECH INTERNATIONAL INC. OR APPROVED EQUAL.
- $\langle 2 \rangle$  TYPE 1B RAMP ALTERNATE B  $\langle 3 \rangle$  TRUNCATED DOME, DETECTABLE WARNING PAD,
- TYPE 1A RAMP ALTERNATE B

KEY NOTES:



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## STA 0+00.00 TO STA 11+00.00

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**2020 STREET BUNDLE - SECTOR III** STREET IMPROVEMENTS - HICKORY STREET



6 + 00.00

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## N-7127532.93 E-2390559.16

ELEV.-612.08 CP-55 N-7127535.85 E-2390966.201 ELEV.-613.7

CONTROL POINTS:

CP-54

CP-65 N-7126686.567 E-2391000.876 ELEV.-604.92

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PROPOSED VALLEY GUTTER, DRIVE WAY REPLACEMENT.

PROPOSED ASPHALT PAVEMENT REPLACEMENT.

PROPOSED CURB & GUTTER REPLACEMENT.

PROPOSED SIDEWALK REPLACEMENT.



ENTERED BY M.S.	PROJEC	CT # 350499402
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CHECKED BY J.W.		
PROJ. ENGR. J.W.		
PATH S:\WATER ENGINEERING\ENGR\DESIGN\PROJECTS\STREET BUNDLE 2020 - S 3\DESIGN	ECTOR	







## STA 11+00.00 TO STA 17+30.79

22 of 73



PROJEC	CT # 350499402
DATE	REVISION
	PROJEC DATE







## 2020 STREET BUNDLE - SECTOR III STREET IMPROVEMENTS - BRADSHAW STREET

STA 0+00.00 TO STA 5+71.13

DATE SCALE 穷 NOV. 2021 JAMES E. WILDER HOR 1"= 40' **83**438 SHEET No. ame Wilde Wi6/21 VER 1"= 20' 23 of 73

ENTERED BY	1.S.	PROJEC	CT # 350499402
DESIGNED BY N	1.S.	DATE	REVISION
CHECKED BY J	. W.		
PROJ. ENGR. J	. W.		
PATH S: \WATER ENGINEERIN 3\DESIGN	NG\ENGR\DESIGN\PROJECTS\STREET BUNDLE 2020 - SECTOR		



STA 0+00.00 TO STA 2+59.36

STREET IMPROVEMENTS - CRAWFORD STREET









SHEET No.

24 of 73

VER 1"= 20'

amer Welde Wi6/21



ENTERED BY	M.S.	PROJEC	CT # 350499402
DESIGNED BY	M.S.	DATE	REVISION
CHECKED BY	J.W.		
PROJ. ENGR.	J.W.		
PATH S: \WATER ENGINE	ERING\ENGR\DESIGN\PROJECTS\STREET BUNDLE 2020 - SECTOR		



2020 STREET BUNDLE - SECTOR III **STREET IMPROVEMENTS - OAK STREET** 

STA 0+00.00 TO STA 8+10.06

SY	MBOL LEGEND
$\triangle$	CONTROL POINT
Ś	POWER POLE
Ø	ELECTRIC PULL BOX
	ELECTRIC TRANSFORMER
Ø	ELECTRIC PULL BOX
Χ	WATER VALVE
$\blacksquare$	WATER METER
Ģ	FIRE HYDRANT
$\bigcirc$	SANITARY SEWER M.H. (MANHOLE)
0 <sup>c0</sup>	SANITARY CLEANOUT
	STORM DRAIN M.H. (MANHOLE)
$\overline{\odot}$	SIGN
P:C	TELEPHONE CABINET
	TELEPHONE SERVICE BOX
$\odot$	TREE
$\odot$	BUSH/HEDGE



PROPOSED VALLEY GUTTER, DRIVE WAY REPLACEMENT. PROPOSED CURB & GUTTER REPLACEMENT. PROPOSED SIDEWALK REPLACEMENT. PROPOSED ASPHALT PAVEMENT REPLACEMENT.

2" MILL AND OVERLAY

CONTROL POINTS:

CP-58 N-7127815.61 E-2390117.62 ELEV.-608.642

CP-62 N-7127828.46 E-2390971.43 ELEV.-615.21

CP-60 N-7127804.22 E-2390519.74 ELEV.-613.39

KEY NOTES:

- $\langle 1 \rangle$  type 1a ramp alternate b
- $\langle 2 \rangle$  TYPE 1B RAMP ALTERNATE B
- 3 TRUNCATED DOME, DETECTABLE WARNING PAD, SURFACE MOUNTED 2'X4'. ULTRATECH INTERNATIONAL INC. OR APPROVED EQUAL.
- 4 TYPE I RAMP ALTERNATE B

DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No. 25 of 73	HOR 1"= 40' VER 1"= 20'	83438 James Wilde 11/16/21





PATH S: \WATER ENGINEERING\ENGR\DESIGN\PROJECTS\STREET BUNDLE 2020 -

SECTOR 3\DESIGN

## STREET IMPROVEMENTS STA 00+00 TO STA 08+50











SHEET No. ames Wilde Wi6/21 VER 1"= 8' 26 of 73











CP-17192	CP-17197	CP-17195	CP-17194
N-7128987.127	N-7128729.0450	N-7128757.3720	N-7129619
E-2389563.528	E-2389057.3610	E-2389583.3600	E-2389544
ELEV618.378	ELEV614.4900	ELEV617.4450	ELEV623.
CP-17198	CP-17196	CP-17193	
N-7128755.5540	N-7128722.1690	N-7129230.1250	
E-2388711.6910	E-2389541.7460	E-2389566.3160	
ELEV614.6980	ELEV617.0350	ELEV619.6970	





PROPOSED CURB & GUTTER REPLACEMENT.

PROPOSED SIDEWALK REPLACEMENT.

PROPOSED ASPHALT PAVEMENT REPLACEMENT.

2" MILL AND OVERLAY

### PROPOSED VALLEY GUTTER, DRIVE WAY REPLACEMENT.

SY	MBOL LEGEND
$\triangle$	CONTROL POINT
$\overline{\mathbf{u}}$	POWER POLE
$\checkmark$	GUY WIRE
$\Sigma$	LIGHT POLE
-¢-	LIGHTED BOLARD
	LANDSCAPE LIGHT
	ELECTRIC TRANSFORMER
$\square$	CABLE T.V. BOX
$\bowtie$	WATER VALVE
⊞	WATER METER
$\boxtimes$	IRRIGATION CONTROL VALVE
¢	FIRE HYDRANT
0	FIRE DEPT. CONNECTION
oco	SANITARY SEWER CLEANOUT
$\bigcirc$	SANITARY SEWER MANHOLE
Û	STORM DRAIN MANHOLE
	STORM DRAIN GRATE
$\oplus$	TELEPHONE MANHOLE
P···C	TELEPHONE CABINET
	TELEPHONE SERVICE BOX
	TELEPHONE PEDESTAL
$\bigcirc$	GAS TEST STATION
$\odot$	GAS METER
$\otimes$	GAS VALVE
Ô	PEDESTRIAN SIGNAL POLE
M	TRAFFIC CONTROL BOX
o	TRAFFIC SIGNAL
$\bigcirc$	MONITORING WELL
	UNKNOWN UTILITY VAULT
•	BOLLARD
_O_	SIGN
·	MAILBOX
$\odot$	TREE
$\bigcirc$	BUSH/HEDGE

DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No. 27 of 73	HOR 1"= 40' VER 1"= 8'	83438 James Wilde 11/16/21

ENTERED BY	1.S.	PROJEC	CT # 350499402
DESIGNED BY N	1.S.	DATE	REVISION
CHECKED BY J	. W.		
PROJ. ENGR. J	. W.		
PATH S: \WATER ENGINEERIN 3\DESIGN	NG\ENGR\DESIGN\PROJECTS\STREET BUNDLE 2020 - SECTOR		



## 2020 STREET BUNDLE - SECTOR III STREET IMPROVEMENTS - CRAWFORD STREET

STA 0+00.00 TO STA 2+77.28





		<u></u>	
40'		0' 40'	۰.
40		40	80
			•
	SY	MBOL LEGEND	
	$\triangle$	CONTROL POINT	
	$\mathcal{I}$	POWER POLE	
		ELECTRIC PULL BOX	
		ELECTRIC TRANSFORMER	
		ELECTRIC PULL BOX	
	$\bowtie$	WATER VALVE	
	⊞	WATER METER	
	¢	FIRE HYDRANT	
	$\bigcirc$	SANITARY SEWER M.H. (MANHOLE)	
	o <sup>co</sup>	SANITARY CLEANOUT	
		STORM DRAIN M.H. (MANHOLE)	
		SIGN	
	P··C	TELEPHONE CABINET	
		TELEPHONE SERVICE BOX	
	$\odot$	TREE	
	3	BUSH/HEDGE	



CP-60	
N-7127804.22	
E-2390519.74	
ELEV613.39	

CP-61 N-7128151.4 E-2390543.159 ELEV.-617.94

PROPOSED VALLEY GUTTER, DRIVE WAY REPLACEMENT.
PROPOSED CURB & GUTTER REPLACEMENT.
PROPOSED SIDEWALK REPLACEMENT.
PROPOSED ASPHALT PAVEMENT REPLACEMENT.

DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No. 28 of 73	HOR 1"= 40' VER 1"= 20'	James Wilde Wi6/21

FNTERED BY EJP		T # .350499402
DESIGNED BY FJP	DATE	REVISION
CHECKED BY J.W.		
PROJ. ENGR. J.W.		
PATH S: \WATER ENGINEERING\ENGR\DESIGN\PROJECTS\STREET BUNDLE 2020 - SECTOR 3\DESIGN		









## 2020 STREET BUNDLE - SECTOR III **STREET IMPROVEMENTS - HETTIE STREET**

KEY NOTES: 1 TYPE 1A RAMP ALTERNATE B

		$\Sigma \neq$	7 <b>-&gt;</b>				
	40'	0'	40 <b>'</b>	8	30' ]		
	F	ROPOSED	VALLEY	GUTTER,	DRIVE WA	Y REPLACE	MENT.
	P	ROPOSED	CURB &	c GUTTER	REPLACE	MENT.	
		ROPOSED	SIDEWA	LK REPLA	CEMENT.		
	F	ROPOSED	ASPHAL	T PAVEM	ENT REPLA	ACEMENT.	
N	OTES:						
	DRIVEWAY APPROACHES SHALL BE ADA COMPLIANT WHERE THEY INTERSECT SIDEWALKS, SEE DETAILS FOR SIDEWALK TO DRIVEWAY TRANSITION.						E K
	<u>CONTROL</u>	POINTS :		CONTROL	. POINTS :	-	
	CP-51 N-712971 E-239153 Z-653.61'	7.82' 9.36'		CP-52 N-71292 E-23915 Z-654.2	95.19' 35.25' 6''		
	DESC: CP	5/8 CIRS		DESC: CP	MAG SET		

DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No. 30 of 73	HOR 1"= 40' VER 1"= 8'	83438 James Welder 11/16/21



## 2020 STREET BUNDLE - SECTOR III

MCKINNEY STREET STRIPING PLANS LEGEND



PAVEMENT MARKING

(WORD) WHITE

**11** TURN ARROW (8') WHITE

12

DATE NOV. 2021	SCALE	STATE OF TEXAS
SHEET No. 31 of 73	N.T.S.	MICHAEL LINDER 131445 OK: (/CENSED.) SS/ONALENG



ENTERED BY ML PROJECT # 3504994	402
DESIGNED BY ML DATE REVISION	
PROJ. ENGR. JW	
PATH S: \WATER ENGINEERING\ENGR\DESIGN\PROJECTS\STREET BUNDLE 2020 - SECTOR 3\DESIGN\MCKINNEY STRIPING	







DATE NOV. 2021 SHEET No. 33 of 73	SCALE HOR 1"= 30' VER 1"= N/A	MICHAEL LINDER 131445 SS/ONAL ENGINE



ENTERED BY	M.S.	PROJEC	CT #	630441517
DESIGNED BY	M.S.	DATE		REVISION
CHECKED BY	J.W.			
PROJ. ENGR.	J.W.			
PATH S: \WATER ENGINEER 3\DESIGN\SB_2020	RING\ENGR\DESIGN\PROJECTS\STREET BUNDLE 2020 - SECTOR _SEC.3_SEWER - WATER			



MBOL LEGEND	$\oplus$	TELEPHONE MANHOLE
CONTROL POINT	P••C	TELEPHONE CABINET
POWER POLE		TELEPHONE SERVICE BOX
GUY WIRE		TELEPHONE PEDESTAL
LIGHT POLE	$\bigcirc$	GAS TEST STATION
LIGHTED BOLARD	$\odot$	GAS METER
LANDSCAPE LIGHT	$\otimes$	GAS VALVE
ELECTRIC TRANSFORMER	Ô	PEDESTRIAN SIGNAL POLE
CABLE T.V. BOX	M	TRAFFIC CONTROL BOX
WATER VALVE	o	TRAFFIC SIGNAL
WATER METER	$\bigcirc$	MONITORING WELL
IRRIGATION CONTROL VALVE	W	UNKNOWN UTILITY VAULT
FIRE HYDRANT	•	BOLLARD
FIRE DEPT. CONNECTION	_0_	SIGN
SANITARY SEWER CLEANOUT	·	MAILBOX
SANITARY SEWER MANHOLE	$\odot$	TREE
STORM DRAIN MANHOLE	$\odot$	BUSH/HEDGE
STORM DRAIN GRATE		





SY	MBOL LEGEND	$\oplus$	TELEPHONE MANHOLE
$\triangle$	CONTROL POINT	P••C	TELEPHONE CABINET
Ś	POWER POLE		TELEPHONE SERVICE BOX
$\checkmark$	GUY WIRE		TELEPHONE PEDESTAL
X	LIGHT POLE	$\bigcirc$	GAS TEST STATION
¢	LIGHTED BOLARD	$\odot$	GAS METER
$\Diamond$	LANDSCAPE LIGHT	$\otimes$	GAS VALVE
	ELECTRIC TRANSFORMER	Ô	PEDESTRIAN SIGNAL POLE
$\boxtimes$	CABLE T.V. BOX	M	TRAFFIC CONTROL BOX
Χ	WATER VALVE	o	TRAFFIC SIGNAL
$\boxplus$	WATER METER	$\bigcirc$	MONITORING WELL
X	IRRIGATION CONTROL VALVE		UNKNOWN UTILITY VAULT
ď	FIRE HYDRANT	•	BOLLARD
0	FIRE DEPT. CONNECTION	_0_	SIGN
o <sup>co</sup>	SANITARY SEWER CLEANOUT		MAILBOX
$\int$	SANITARY SEWER MANHOLE	$\odot$	TREE
Û	STORM DRAIN MANHOLE	$\odot$	BUSH/HEDGE
	STORM DRAIN GRATE		
	CONC. BLOCK WALL 3 CHAINLINK FENCE		
---	--	-----------------	
	INSTALL STA. EQUA	L S	
	8" WATERLINE	1	
	(SEE SHT. 35) 1-8" GATE	: VA	
	TIE INTO NEW	8"	
	<u>v</u> 212		
	216 -ABANDON VALVE		
	REMOVE		
		EWE	
	EX. SSMH (CONCRETE) RIM EL 619.71 FL BUT (S) 612.2± (6"PVC) (SEE SHI	-48)	
		2	
	TAS - AS - CAS - C	AS X BIBLE	
AS GAS GAS		₩	
	(')///////	74	
		╧╟┦	
	aphic. conc. conc.		
	STA. 0+25.54		
A       FIBEL         A       FIBEL         A       L(1.8.)         STMH (J.B.)       A±         A±       (1.**CP)         A±       (4.**CP)         A±	STA. 0+25.54		
BER       FIBER       FIBER         RD       Ex       STMH         RIM       L.B.       STMH         F15.4±       (12°RCP)       F15.4±         F15.54±       (42°RCP)       F15.4±         F15.54±       (42°RCP)       F16         F16.54±       (42°RCP)       F16         F17.54±       (42°RCP)       F16         F18.54±       (42°RCP)       F16         F18.55       (42°RCP)       F16         F18.55       (42°RCP)       F16         F18.55       (42°RCP)       F16	STA. 0+25.54 INSTALL $1-8" \times 6"$ TEE (MJxFLG) 1-6" GATE VALVE (MJxFLG) AND BOX		
FL UUL (2) AIB.2.# [1]         FIBER       FIBER         48" RCP       [1]         48" RCP       [1]         48" RCP       [1]         600 Bin (U)       615.44       (1.2" RCP         10 (1)       615.44       (1.2" RCP         11 (0)       615.44       (1.2" RCP         11 (0)       615.44       (1.2" RCP         MATERIANE       GAS       [42]	STA. 0+25.54 INSTALL 1-8" x 6" TEE (MJxFLG) 5 1-6" GATE VALVE (MJxFLG) AND BOX 1-6" FIRE HYDRANT		
H. JUL (2) 010.24 11         HBER       HBER       HBER         HBER       HBER       HBER         HE. 01 (3)       Ex. STMH (J.G. 105, J.E. 021, 05, 05, 05, 05, 05, 05, 05, 05, 05, 05	STA. 0+25.54 INSTALL 1-8" × 6" TEE (MJxFLG) 5 1-6" GATE VALVE (MJxFLG) AND BOX 1-6" FIRE HYDRANT N-7128081.01 215		
FIBER       FIBER <th< th=""><th>STA. 0+25.54       INSTALL       1-8" x 6" TEE (MJxFLG)       1-6" GATE VALVE (MJxFLG) AND BOX       1-6" FIRE HYDRANT       N-7128081.01     215       E-2390978.93</th><th>-8"</th></th<>	STA. 0+25.54       INSTALL       1-8" x 6" TEE (MJxFLG)       1-6" GATE VALVE (MJxFLG) AND BOX       1-6" FIRE HYDRANT       N-7128081.01     215       E-2390978.93	-8"	
RUNCO       FL UUT CONDUCT         PIBER       FIBER       FIBER       FIBER         TY       ST       48" RCP       EX. STMH (J.B. STM) (J.B	STA. 0+25.54 INSTALL 1-8" x 6" TEE (MJxFLG) 1-6" GATE VALVE (MJxFLG) AND BOX 1-6" FIRE HYDRANT N-7128081.01 215 E-2390978.93 1-6" GATE VA	-8" LVE	
There is a set of the	STA. $0+25.54$ INSTALL 1-8" x 6" TEE (MJxFLG) 1-6" GATE VALVE (MJxFLG) AND BOX 1-6" FIRE HYDRANT N-7128081.01 215 E-2390978.93 1-6" GATE VA	-8" LVE	
HEE       1000       HEE       LOUID       State       LOUID       State       LOUID       HEE	STA. 0+25.54       INSTALL       1-8" x 6" TEE (MJxFLG)       1-6" GATE VALVE (MJxFLG) AND BOX       1-6" FIRE HYDRANT       N-7128081.01     215       E-2390978.93       1-6" GATE VA       BEGIN PROJECT	-8" LVE	
FIGE   THE   THE   THE   THE   THE     GOB   FIGE   FIGE   FIGE   FIGE     GOB   GOB   FIGE   FIGE   FIGE     GOB   GOB   FIGE   FIGE   FIGE     GOB   GOB   FIGE   FIGE   FIGE     HALT   PACMENT   FL   N   615.44   (12°RCP)     FX   SIM   FL   N   615.44   (12°RCP)     FX   FL   N   615.44   (12°RCP)     FX   FL   N   615.44   (12°RCP)     SM   FL   N   615.44   (12°RCP)     FX   FL   N   615.44   (12°RCP)     SM   FX   FL   N   615.44   (12°RCP)     SM   FX   FR   FX   616.44   (12°RCP)  <	STA. $0+25.54$ INSTALL 1-8" x 6" TEE (MJxFLG) 1-6" GATE VALVE (MJxFLG) AND BOX 1-6" FIRE HYDRANT N-7128081.01 215 E-2390978.93 1-6" GATE VA BEGIN PROJECT STA. 0+00 NOTALL	-8" LVE	
Heren   FLE   THOL     Heren   THOL   THOL     Hole   THOL   THOL     Hole   THOL   THOL     SKINNBEY   ST   48" Rcp     (ASPHALT PAVEMENT)   FL IN (N) 615.44 (12"Rcp     (ASPHALT PAVEMENT)   FL IN (N) 615.44 (12"Rcp     To EX SAN. SEWER   FL IN (N) 615.44 (12"Rcp     To IN (N) 615.44 (12"Rcp     Stand (CL)   FL IN (N) 615.44 (12"Rcp     Rine EL 62.055   FL IN (N) 615.44 (12"Rcp     Stand (CL)   FL IN (N) 615.44 (12"Rcp     Rine EL 62.055   FL IN (N) 615.44 (12"Rcp     Stand (CL)   FL IN (N) 615.44 (12"Rcp     Rine EL 62.055   FL IN (N) 615.44 (12"Rcp     Stand (CL)   FL IN (N) 615.44 (12"Rcp     Rine EL 62.055   EX REPR     Stand (CL)   FL IN (N) 615.44 (12"Rcp     Stand (CL)   FL IN (N) 615.44 (12"Rcp     Stand (CL)   FL IN (N) 615.44 (12"Rcp     Stand (CL)   EX REPR     Stand (CL)     Stand (	STA. $0+25.54$ INSTALL 1-8" x 6" TEE (MJxFLG) 1-6" GATE VALVE (MJxFLG) AND BOX 1-6" FIRE HYDRANT N-7128081.01 215 E-2390978.93 1-6" GATE VA BEGIN PROJECT STA. 0+00 INSTALL 1-8" X 8" TEE (MJxFLG)	-8" LVE	
	STA. $0+25.54$ INSTALL $1-8" \times 6"$ TEE (MJxFLG) 1-6" GATE VALVE (MJxFLG) AND BOX 1-6" FIRE HYDRANT N-7128081.01 215 E-2390978.93 1-6" GATE VA BEGIN PROJECT STA. 0+00 INSTALL 1-8" X 8" TEE (MJxFLG) 1-8" GATE VALVE (MJxFLG) AND BOX	-8" LVE	
MCKINNEY ST 48 ROP ABEN FIBER FIBER FIBER FIBER FIBER FIBER ASPHALT PAVEMENT) (ASPHALT PAVEMENT) FL IN (N) 615.44 (12 RCP RIM EL 62.055 FL IN (N) 615.44 (12 RCP FL IN	STA. $0+25.54$ INSTALL 1-8" x 6" TEE (MJxFLG) 1-6" GATE VALVE (MJxFLG) AND BOX 1-6" FIRE HYDRANT N-7128081.01 215 E-2390978.93 1-6" GATE VA BEGIN PROJECT STA. 0+00 INSTALL 1-8" X 8" TEE (MJxFLG) 1-8" GATE VALVE (MJxFLG) AND BOX TIE INTO NEW 8" WATERLINE ON MCKINNE	-8" LVE 1	
E. MCKINNEY ST 48 ROL 100 FIER FIER FIER FIEL FIER FIEL FIEL FIEL FIEL FIEL FIEL FIEL FIEL	STA. $0+25.54$ INSTALL 1-8" x 6" TEE (MJxFLG) 1-6" GATE VALVE (MJxFLG) AND BOX 1-6" FIRE HYDRANT N-7128081.01 215 E-2390978.93 1-6" GATE VA BEGIN PROJECT STA. 0+00 INSTALL 1-8" X 8" TEE (MJxFLG) 1-8" GATE VALVE (MJxFLG) AND BOX TIE INTO NEW 8" WATERLINE ON McKINNE N-7128106.57 E 2300970.42	-8" LVE 1	
	STA. $0+25.54$ INSTALL 1-8" x 6" TEE (MJxFLG) 1-6" GATE VALVE (MJxFLG) AND BOX 1-6" FIRE HYDRANT N-7128081.01 215 E-2390978.93 1-6" GATE VA BEGIN PROJECT STA. 0+00 INSTALL 1-8" X 8" TEE (MJxFLG) 1-8" GATE VALVE (MJxFLG) AND BOX TIE INTO NEW 8" WATERLINE ON McKINNE N-7128106.57 E-2390979.42	-8" LVE 1	
	STA. $0+25.54$ INSTALL 1-8" x 6" TEE (MJxFLG) 1-6" GATE VALVE (MJxFLG) AND BOX 1-6" FIRE HYDRANT N-7128081.01 215 E-2390978.93 1-6" GATE VA BEGIN PROJECT STA. 0+00 INSTALL 1-8" X 8" TEE (MJxFLG) 1-8" GATE VALVE (MJxFLG) AND BOX TIE INTO NEW 8" WATERLINE ON McKINNE N-7128106.57 E-2390979.42	-8" LVE 1	
BER FIER FIER FIER FIER TO AND FIER FIER FIER FIER FIER FIER FIER FIER	STA. $0+25.54$ INSTALL 1-8" × 6" TEE (MJxFLG) 1-6" GATE VALVE (MJxFLG) AND BOX 1-6" FIRE HYDRANT N-7128081.01 215 E-2390978.93 1. 1-6" GATE VA BEGIN PROJECT STA. 0+00 INSTALL 1-8" X 8" TEE (MJxFLG) 1-8" GATE VALVE (MJxFLG) AND BOX TIE INTO NEW 8" WATERLINE ON McKINNE N-7128106.57 E-2390979.42	-8" LVE 1	
FIBER	STA. $0+25.54$ INSTALL 1-8" x 6" TEE (MJxFLG) 1-6" GATE VALVE (MJxFLG) AND BOX 1-6" FIRE HYDRANT N-7128081.01 215 E-2390978.93 1-6" GATE VA BEGIN PROJECT STA. 0+00 INSTALL 1-8" X 8" TEE (MJxFLG) 1-8" GATE VALVE (MJxFLG) AND BOX TIE INTO NEW 8" WATERLINE ON McKINNE N-7128106.57 E-2390979.42	-8" LVE 1	
L 413.4 FIBER FIBE	STA. 0+25.54       INSTALL       1-8" x 6" TEE (MJxFLG)       1-6" GATE VALVE (MJxFLG) AND BOX       1-6" FIRE HYDRANT       N-7128081.01     215       E-2390978.93       1-6" GATE VA       BEGIN PROJECT       STA. 0+00       INSTALL       1-8" X 8" TEE (MJxFLG)       1-8" GATE VALVE (MJxFLG) AND BOX       TIE INTO NEW 8" WATERLINE ON MCKINNE       N-7128106.57       E-2390979.42	–8" LVE	

ENTERED BY	M.S.	PROJEC	CT #	630441517
DESIGNED BY	M.S.	DATE		REVISION
CHECKED BY	J.W.			
PROJ. ENGR.	J.W.			
PATH S: \WATER ENGINEER 3\DESIGN\SB_2020	RING\ENGR\DESIGN\PROJECTS\STREET BUNDLE 2020 - SECTOR _SEC.3_SEWER - WATER			



RABANDON VALVE

REMOVE

### **8" WATER LINE REPLACEMENT** LINE "A" STA 0+00.00 TO STA 6+05.78

2020 STREET BUNDLE - SECTOR III WOOD STREET

<u>- 240</u> - 280 - 280 - 280





DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No. 36 of 73	HOR 1"= 40' VER 1"= N/A	83438 James Wilde 1/16/21

\_\_\_\_

8, MOOD LENCE





### CONTROL POINTS: CP-80050 CP-63 N-7128144.79 N-7127045.745 E-2390991.04 E-2390995.181 ELEV.-622.02 ELEV.-611.151 CP-62 CP-64 N-7127828.46 N-7127030.85 E-2390971.43 E-2390970.32 ELEV.-615.21 ELEV.-610.8 CP-55 CP-65 N-7127535.85 N-7126686.567 E-2390966.201 E-2391000.876 ELEV.-613.7 ELEV.-604.92

2020 STREET BUNDLE - SECTOR III WOOD STREET 8" WATER LINE REPLACEMENT LINE "B" STA 0+00.00 TO STA 8+45.40



						40'	0' 40'	80'
						S	ZMBOL LEGEN	
┇	DISCONNE	CT AND CAF	EX. 1"			$\triangle$		
	WATER SE SERVICE 1	RVICE INSTA	.LL NEW 1" R				POWER POLE	
	DISCONNE	CT AND CAP	FX 1"			X	LIGHT POLE	
2	WATER SE RELOCATE	RVICE EX. METER				ф Д	LIGHTED BOLARD	
I	INSTALL 1 METER	" SERVICE T	O RELOCA	ſED			ELECTRIC TRANSFORMER	
							CABLE T.V. BOX	
3	DISCONNE WATER SE	CT AND CAP	・EX. 1 <b>½"</b>			⊞	WATER METER	
I	RELOCATE INSTALL 2	EX. METER 2" SERVICE 1	O RELOCA	TED			IRRIGATION CONTROL VALVE	
	METER						FIRE DEPT. CONNECTION	
	DISCONNE WATER SE	CT AND CAP	EX. 2"				SANITARY SEWER CLEANOUT	
	INSTALL N	IEW 2" SERV	ICE TO EX				STORM DRAIN MANHOLE	
							STORM DRAIN GRATE	
₽							TELEPHONE CABINET	
5	METER	IEW I SERV	ICE IU EX.				TELEPHONE SERVICE BOX	
							GAS TEST STATION	
							GAS METER GAS VALVE	
STA. 8+	+18.37					Ŷ	PEDESTRIAN SIGNAL POLE	
IN 8" TEE (M	ISTALL JxFLG) \						TRAFFIC CONTROL BOX	
IJ×FLG)ANI /E(MJ)ANI	D BOX \	CUT AND EX. 6"W	PLUG ATERLINE 7				MONITORING WELL	
PVC WATE	ERLINE S (MJ)						BOLLARD	
6" REDUCER E. SYCAMOR	R (MJ) RE ST. 32	21	325				SIGN	
N-/1266 E-2390	971.41			DD FENCE		$\bigcirc$	TREE	
	FL	EX. SSMH (CONCRETE RIM EL 604.92 L IN N 600.4± (8" PVC OUT W 600.4± (8" PVC		Mo Mo Mo Mo Mo Mo Mo Mo Mo Mo Mo Mo Mo M		$\odot$	BUSH/HEDGE	
vo∰≊ svo	- state							
		Ç <b>F</b> -65						
ODD ST	[. ´ <u> </u>	28100	8+45	WATERINE				
		CONC. XIL		80051				
Cor				-3CF				
ABANDO	N VALVE			END	PROJECT			
<b>2-VALV</b> 11	/E STACK	BRICK	CONC	STA. INST	8+45.40 ALL			
		GAS 6" WA			45" BEND ( X 6" REDU	(MJ) CER (MJ)		
CUT AND	PLUG-				NIO EX. 6" 26663.08	WATERLINE	ON WOOD ST.	
EX. 6 WA	AIERLINE	ST ST			90975.75			
		SEE Construction of the second						
1121			AVEMENT)					
1_8"	STA. 8+3 INS 45° BEND		SPHALT P.					
1-0	N-712666 E-23909	7.83	₹)					
111	19							
						28	SE OF PLAN	
DAT	E		SCALE			En/	*	
NOV. 2	.021		۸ »»			E States	MES E. WILDER	
SHEET	No.	HOR	] =	40		200	83438	11.1
37 of	73	VER	1"=	N/A		Ja	methold	11/16/21
						U		



		40' 80'
	SYMBOL LEGEND       Image: Control point	TELEPHONE MANHOLE       Prod       TELEPHONE CABINET       TELEPHONE SERVICE BOX       TELEPHONE PEDESTAL       O       GAS TEST STATION
	Image: Analytic intermeter	GAS METER       GAS VALVE       O     PEDESTRIAN SIGNAL POLE       TRAFFIC CONTROL BOX       O     TRAFFIC SIGNAL       MONITORING WELL
	Image: object to the second	Image: Withows utility vault       Image: Bollard       Image: Bollard       Image: Sign       Image: Bollard       Image: Bollard
	CP-53     CP-       N-7127498.97     N-7       E-2390137.992     E-2       ELEV607.577     ELEV	54 127532.93 390559.16 7612.08
620		
616	DISCONNECT AND CA DISCONNECT AND CA MATER SERVICE INST SERVICE TO EX. MET	P EX. 1" ALL NEW 1" ER
612	DISCONNECT AND CA DISCONNECT AND CA WATER SERVICE RELOCATE EX. METER INSTALL 1" SERVICE METER	P EX. 1" R TO RELOCATED
608	DISCONNECT AND CA S WATER SERVICE RELOCATE EX. METER INSTALL 2" SERVICE	P EX. 1½" ? TO RELOCATED
600	METER DISCONNECT AND CA 4 WATER SERVICE INSTALL NEW 2" SER METER	P EX. 2" VICE TO EX.
596	INSTALL NEW 1" SER	VICE TO EX.
592	L	

DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No. 38 of 73	HOR 1"= 40' VER 1"= 4'	James Wilde Wi6/21

		8" (SEE	INSTALL WATERLINE SHT. 36)
			CONC.
	8" S (SE	INSTA SAN. SEWE E SHT. 4	LL S ER 7) CP - E BOR FIBER C
	ABAN 1—VA	DON VAL' REMO' LVE STAC	ATCH LINE - P.L
		8" W (SEE	≥ INSTALL /ATERLINE SHT. 37)
		620	
		616	7+50.00
		612 608	P.L. STA.
		<u>604</u>	 
		600 596	MATC
		592	<b>.16 T/P</b> .45 T/G
ENTERED BY M.S. DESIGNED BY M.S.	PROJEC DATE	CT #	80441517 630441517 REVISION
CHECKED BY     J.W.       PROJ. ENGR.     J.W.       PATH S: \WATER ENGINEERING\ENGR\DESIGN\PROJECTS\STREET BUNDLE 2020 - SECTOR       3\DESIGN\SB_2020_SEC.3_SEWER - WATER			



DATE	SCALE	all of the second
NOV. 2021		JAMES E. WILDER
SHEET No.	VER 1'' = 4'	amen Wilde W16/21
39 of /3		J

ENTERED BY	M.S.	PROJEC	CT #	630441517
DESIGNED BY	M.S.	DATE		REVISION
CHECKED BY	J.W.			
PROJ. ENGR.	J.W.			
⊃ATH S: \WATER ENGINE 3\DESIGN\SB_20	EERING\ENGR\DESIGN\PROJECTS\STREET BUNDLE 2020 – SECTOR 20_SEC.3_SEWER – WATER			





# 2020 STREET BUNDLE - SECTOR III BRADSHAW STREET 8" WATERLINE REPLACEMENT

STA 00+00 TO STA 6+20.17









ENTERED BY	M.S.	PROJEC	CT #	630441517
DESIGNED BY	M.S.	DATE		REVISION
CHECKED BY	J.W.			
PROJ. ENGR.	J.W.			
PATH S: \WATER ENGINEER 3\DESIGN\SB_2020	RING\ENGR\DESIGN\PROJECTS\STREET BUNDLE 2020 - SECTOR _SEC.3_SEWER - WATER			



## 2020 STREET BUNDLE - SECTOR III OAK STREET **8" WATER LINE REPLACEMENT**

STA 00+00 TO STA 8+40.72

INSTALL NEW 1" SERVICE TO EX. METER

DISCONNECT AND CAP EX. 1" WATER SERVICE INSTALL NEW 1"

SERVICE TO EX. METER

WATER SERVICE RELOCATE EX. METER

DISCONNECT AND CAP EX. 1"

INSTALL 1" SERVICE TO RELOCATED METER

DISCONNECT AND CAP EX. 11/2" WATER SERVICE

RELOCATE EX. METER INSTALL 2" SERVICE TO RELOCATED

DISCONNECT AND CAP EX. 2"

WATER SERVICE

METER

INSTALL NEW 2" SERVICE TO EX. METER

### CONTROL POINTS:

CP-58
N-7127815.61
E-2390117.62
ELEV608.642

CP-60 N-7127804.22 E-2390519.74 ELEV.-613.39

CP-62 N-7127828.46 E-2390971.43 ELEV.-615.21



	0 40
SY	MBOL LEGEND
$\triangle$	CONTROL POINT
$\mathcal{O}$	POWER POLE
<	GUY WIRE
X	LIGHT POLE
-¢-	LIGHTED BOLARD
A	LANDSCAPE LIGHT
	ELECTRIC TRANSFORMER
	CABLE T.V. BOX
$\bowtie$	WATER VALVE
$\blacksquare$	WATER METER
$\boxtimes$	IRRIGATION CONTROL VALVE
÷	FIRE HYDRANT
0	FIRE DEPT. CONNECTION
oco	SANITARY SEWER CLEANOUT
$\bigcirc$	SANITARY SEWER MANHOLE
Û	STORM DRAIN MANHOLE
	STORM DRAIN GRATE
$\oplus$	TELEPHONE MANHOLE
P••C	TELEPHONE CABINET
	TELEPHONE SERVICE BOX
	TELEPHONE PEDESTAL
$\bigcirc$	GAS TEST STATION
$\overline{\bigcirc}$	GAS METER
$\otimes$	GAS VALVE
Ŷ	PEDESTRIAN SIGNAL POLE
	TRAFFIC CONTROL BOX
o	TRAFFIC SIGNAL
$\bigcirc$	MONITORING WELL
W	UNKNOWN UTILITY VAULT
•	BOLLARD
_O_	SIGN
·	MAILBOX
$\odot$	TREE
$\odot$	BUSH/HEDGE

DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No. 41 of 73	HOR 1"= 40' VER 1"= N/A	James Wilde W16/21

ENTERED BY	M.S.	PROJEC	CT #	630441517
DESIGNED BY	M.S.	DATE		REVISION
CHECKED BY	J.W.			
PROJ. ENGR.	J.W.			
PATH S: \WATER ENGINEER 3\DESIGN\SB_2020	RING\ENGR\DESIGN\PROJECTS\STREET BUNDLE 2020 - SECTOR _SEC.3_SEWER - WATER			





# 2020 STREET BUNDLE - SECTOR III **CRAWFORD STREET**

8" WATERLINE REPLACEMENT LINE A STA 00+00 TO STA 3+25.32



	40'	0'	40'	80'
SY	MBOI	IEGEND	1	
	CONTROL POINT		-	(+) те

 $\sum \overline{\overline{\overline{}}}$ 

J.	POWER POLE
$\checkmark$	GUY WIRE
X	LIGHT POLE
¢	LIGHTED BOLARD
$\wedge$	LANDSCAPE LIGHT
	ELECTRIC TRANSFORMER
	CABLE T.V. BOX
$\bowtie$	WATER VALVE
$\blacksquare$	WATER METER
$\boxtimes$	IRRIGATION CONTROL VALVE
÷	FIRE HYDRANT
0	FIRE DEPT. CONNECTION
0 <sup>c0</sup>	SANITARY SEWER CLEANOUT
$\bigcirc$	SANITARY SEWER MANHOLE
Û	STORM DRAIN MANHOLE
	STORM DRAIN GRATE

$\oplus$	TELEPHONE MANHOLE
P••C	TELEPHONE CABINET
	TELEPHONE SERVICE BOX
	TELEPHONE PEDESTAL
$\bigcirc$	GAS TEST STATION
$\odot$	GAS METER
$\otimes$	GAS VALVE
Ŷ	PEDESTRIAN SIGNAL POLE
M	TRAFFIC CONTROL BOX
o	TRAFFIC SIGNAL
$\bigcirc$	MONITORING WELL
(U)	UNKNOWN UTILITY VAULT
	BOLLARD
_0_	SIGN
·	MAILBOX
$\odot$	TREE
$\odot$	BUSH/HEDGE

CONTROL POINTS:

CP-54 N-7127532.93 E-2390559.16 ELEV.-612.08

CP-60 N-7127804.22 E-2390519.74 ELEV.-613.39

	DISCONNECT AND CAP EX. 1" WATER SERVICE INSTALL NEW 1" SERVICE TO EX. METER
2	DISCONNECT AND CAP EX. 1" WATER SERVICE RELOCATE EX. METER INSTALL 1" SERVICE TO RELOCATED METER
3	DISCONNECT AND CAP EX. 1½" WATER SERVICE RELOCATE EX. METER INSTALL 2" SERVICE TO RELOCATED METER
4	DISCONNECT AND CAP EX. 2" WATER SERVICE INSTALL NEW 2" SERVICE TO EX. METER
5	INSTALL NEW 1" SERVICE TO EX. METER

DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No. 42 of 73	HOR 1"= 40' VER 1"= N/A	James Wilde Wi6/21

ENTERED BY	M.S.	PROJEC	CT #	630441517
DESIGNED BY	M.S.	DATE		REVISION
CHECKED BY	J.W.			
PROJ. ENGR.	J.W.			
PATH S: \WATER ENGINEER 3\DESIGN\SB_2020	NING\ENGR\DESIGN\PROJECTS\STREET BUNDLE 2020 - SECTOR _SEC.3_SEWER - WATER			





# 2020 STREET BUNDLE - SECTOR III **CRAWFORD STREET**

8" WATER LINE LINE B STA 00+00 TO STA 2+84.19

Σ	)-Z:Z	$\rightarrow$



SY	MBOL LEGEND
$\triangle$	CONTROL POINT
9	POWER POLE
$\checkmark$	GUY WIRE
X	LIGHT POLE
¢	LIGHTED BOLARD
	LANDSCAPE LIGHT
	ELECTRIC TRANSFORMER
	CABLE T.V. BOX
$\bowtie$	WATER VALVE
$\blacksquare$	WATER METER
$\boxtimes$	IRRIGATION CONTROL VALVE
ů	FIRE HYDRANT
0	FIRE DEPT. CONNECTION
Oco	SANITARY SEWER CLEANOUT
$\bigcirc$	SANITARY SEWER MANHOLE
Û	STORM DRAIN MANHOLE
	STORM DRAIN GRATE

$\oplus$	TELEPHONE MANHOLE
P••Q	TELEPHONE CABINET
	TELEPHONE SERVICE BOX
	TELEPHONE PEDESTAL
$\bigcirc$	GAS TEST STATION
$\overline{\bigcirc}$	GAS METER
$\otimes$	GAS VALVE
Ô	PEDESTRIAN SIGNAL POLE
	TRAFFIC CONTROL BOX
o	TRAFFIC SIGNAL
$\bigcirc$	MONITORING WELL
W	UNKNOWN UTILITY VAULT
•	BOLLARD
_0_	SIGN
	MAILBOX
$\odot$	TREE
$\odot$	BUSH/HEDGE

CONTROL POINTS:

CP-60 N-7127804.22 E-2390519.74 ELEV.-613.39

CP-61 N-7128151.4 E-2390543.159 ELEV.-617.94

	DISCONNECT AND CAP EX. 1" WATER SERVICE INSTALL NEW 1" SERVICE TO EX. METER
2	DISCONNECT AND CAP EX. 1" WATER SERVICE RELOCATE EX. METER INSTALL 1" SERVICE TO RELOCATED METER
3	DISCONNECT AND CAP EX. 1½" WATER SERVICE RELOCATE EX. METER INSTALL 2" SERVICE TO RELOCATED METER
4	DISCONNECT AND CAP EX. 2" WATER SERVICE INSTALL NEW 2" SERVICE TO EX. METER
5	INSTALL NEW 1" SERVICE TO EX. METER

DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No.	HOR 1"= 40'	83438
43 of 73	VER 1"= N/A	James Wilde 11/16/21



ENTERED BY	M.S.	PROJEC	CT #	640427541
DESIGNED BY	M.S.	DATE		REVISION
CHECKED BY	J.W.			
PROJ. ENGR.	J.W.			
PATH S: \WATER ENGINEER 3\DESIGN\SB_2020				







 DISCONNECT AND CAP EXISTING SERVICE INSTALL NEW 4" SERVICE AND CLEANOUT
 DISCONNECT AND CAP EXISTING SERVICE INSTALL NEW 4" SERVICE AND CLEANOUT (FIELD VERIFY EX. SERVICE ROUTING IS APPROX. ONLY)
 DISCONNECT AND CAP EXISTING SERVICE INSTALL NEW 6" SERVICE AND CLEANOUT
 DISCONNECT AND CAP EXISTING SERVICE INSTALL NEW 6" SERVICE AND CLEANOUT
 DISCONNECT AND CAP EXISTING SERVICE INSTALL NEW 6" SERVICE AND CLEANOUT
 DISCONNECT AND CAP EXISTING SERVICE INSTALL NEW 6" SERVICE AND CLEANOUT (FIELD VERIFY EX. SERVICE ROUTING IS APPROX. ONLY)

### CONTROL POINTS:

CP-70
N-7128079.6
E-2391559.17
ELEV631.22

DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No. 45 of 73	HOR 1"= 40' VER 1"= 4'	83438 James Wilde 11/16/21

ENTERED BY	M.S.	PROJEC	CT #	640427541
DESIGNED BY	M.S.	DATE		REVISION
CHECKED BY	J.W.			
PROJ. ENGR.	J.W.			
PATH S: \WATER ENGINEER 3\DESIGN\SB_2020				



### HICKORY STREET 8" SANITARY SEWER LINE "A" REPLACEMENT STA 00+00 TO STA 1+83.28

2020 STREET BUNDLE - SECTOR III

	183.28 L.F. OF BACKF	8" SANITARY S LL PER STANDA	EWER BY OPEN RD DETAILS	сит 🖣	
616 STA. 0 EX. 6" WAT TO BE ABAN T/P 6 APPROX. LOCATION	+24.31 ERLINE DONED 509.48	-EX. SSMH TO BE REMOVED	APPROX. L (G/ FLFV U	DCATION APPR( AS LINE) (FIBER NKNOWN FIFV	616
(UGE BANK) ELEV. UNKNOWN					612
APPROX. LOCATION— (FIBER LINE) ELEV. UNKNOWN		TOP OF GROUN (ASPHAL	D		
608	V				_
574. PROP 12" WA T/P	0+14.72 TERLINE 606.95	8" PF SAN.	RESSURE RATED SEWER @ 0.5%		∼8" PRESSURE RATED SAN. SEWER © 0.5% 604
600	()			PVC)	() () () () () () () () () () () () () (
596 g	607.3± (8" P <sup>N</sup> 8"SEWER (S) .36	507.53 (8" PV 607.53 (8" I	C	2.76 608.13 (8" PV ) 608.13 (8" 28 2.66 2.66	) 608.22 (8 <sup>1</sup> )
592 <sup>40</sup>	FL IN (N) ( TIE TO EX. STA. 0+46.	FL IN (E) (FL OUT (S)	STA. 1+65	RIM EL 612 FL IN (N) FL OUT (W STA. 1+83. RIM EL 612 EV EL MI	2 (S) - 16 - 16 - 12 - 12 - 592
607.30 FI	1/P 607.55 FL	612.99 T/P 607.80 FL	612.92 T/P 608.05 FL	612.81 T/P 608.22 FL 612.66 T/P	
0+	-00	1+	00	1+83	





SY	MBOL LEGEND
$\triangle$	CONTROL POINT
$\mathcal{O}$	POWER POLE
$\checkmark$	GUY WIRE
X	LIGHT POLE
¢	LIGHTED BOLARD
Æ	LANDSCAPE LIGHT
	ELECTRIC TRANSFORMER
$\bowtie$	CABLE T.V. BOX
Χ	WATER VALVE
$\blacksquare$	WATER METER
$\boxtimes$	IRRIGATION CONTROL VALVE
ů	FIRE HYDRANT
0	FIRE DEPT. CONNECTION
o <sup>co</sup>	SANITARY SEWER CLEANOUT
$\bigcirc$	SANITARY SEWER MANHOLE
Û	STORM DRAIN MANHOLE
	STORM DRAIN GRATE

$\oplus$	TELEPHONE MANHOLE	
P••C	TELEPHONE CABINET	
	TELEPHONE SERVICE BOX	
	TELEPHONE PEDESTAL	
$\bigcirc$	GAS TEST STATION	
$\overline{\bigcirc}$	GAS METER	
$\otimes$	GAS VALVE	
$\circ$	PEDESTRIAN SIGNAL POLE	
$\mathbb{N}$	TRAFFIC CONTROL BOX	
o	TRAFFIC SIGNAL	
$\bigcirc$	MONITORING WELL	
U	UNKNOWN UTILITY VAULT	
•	BOLLARD	
_0_	SIGN	
·	MAILBOX	
$\odot$	TREE	
$\odot$	BUSH/HEDGE	

CONTROL POINTS:

CP-56 N-7127534.778 E-2391266.76 ELEV.-612.88

DATE NOV. 2021	SCALE	JAMES E. WILDER
SHEET No. 46 of 73	HOR 1"= 40' VER 1"= 4'	James Wilde Wi6/21













	W104		
ENTERED BY		PROJEC	CT #
DESIGNED BY		DATE	REVISION
CHECKED BY			
PROJ. ENGR.			
→ → A T H S: \Water Engineering \Engr \Design \Projects \Standard Details \water	details\Water Details Sheet 1-	-3.dwg	

W100



2. FOR 24" AND LARGER VALVES, PROVIDE SPUR GEAR AND VAULT.

3. FOR 30" AND LARGER VALVES, PROVIDE AND INTEGRALLY CAST BYPASS.

4. PROVED 2" CORPORATION AND CURB STOPS A MAX. OF 12" FROM EACH END OF GATE VALVE.





CURB STOP -

SEE NOTE 4

SEE NOTE 1-

NOTES:

1. POLYURETHANE CUSHION PAD.



PORT, A SEPARATE SPOOL PIECE WILL BE PROVIDED BETWEEN THE METER AND THE DOWNSTREAM GATE VALVE. THE SPOOL PIECE WILL BE EQUIPPED WITH A TEST PORT AND THREADED BRASS PLUG SIZED PER THE MANUFACTURER'S REQUIREMENTS OR AS FOLLOWS. 12. WHERE NOT SPECIFICALLY NOTED, ALL FLANGED PIPE SHALL BE DUCTILE IRON PIPE WITH DUCTILE IRON FLANGES THREADED ON.

SLOPES AWAY FROM THE VAULT. 10. FOR 3" METERS AND ABOVE ON PROJECTS ON WHICH THE CITY INSTALLS THE TAP IN THE MAINLINE AND STUBS OUT THE SERVICE LINE TO THE BACK OF CURB, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ALL REMAINING PIPING FROM THE STUBOUT BEHIND THE CURB THROUGH THE VAULT. 11. FOR WATER METER VAULT INSTALLATIONS WHERE THE METER IS NOT EQUIPPED WITH AN INTEGRAL TEST

8. VAULT BEDDING SHALL BE GRADE 4 STANDARD CRUSHED AGGREGATE, 1 IN. SIEVE. 9. THE TOP OF METER VAULT SHALL BE SET AT AN ELEVATION SUCH THAT THE SURROUNDING GROUND

6. HATCH OPENING WILL BE ¼" ALUMINUM DIAMOND PLATE COVER WITH EXTRUDED ALUMINUM FRAME. HATCH TO BE FURNISHED WITH TYPE 316 STAINLESS STEEL SNAP AND LOCK WITH BRASS HINGES. 7. ALL VAULTS OVER 4 FT. IN DEPTH SHALL HAVE A LADDER INSTALLED AND SECURED TO THE VAULT WALL AT HATCH ENTRY.

5. ALL METERS SHALL BE EQUIPPED WITH ENCODER REGISTERS AND HAVE TOUCH PADS INSTALLED ON THE LID FOR READING PURPOSES. ALL METERS SHALL BE INSTALLED WITH STRAINERS ON THE INLET SIDE OF THE METER.

4. MAINLINE AND BYPASS VALVES WILL BE RESILIENT SEAT TYPE WITH CORROSION RESISTANT FUSION BONDED EPOXY COATING INSIDE AND OUT, NON-RISING STEM. ALL VALVES IN THE VAULT WILL HAVE HANDWHEELS. CUSTOMER VALVES SHALL BE LOCATED OUTSIDE OF VAULT AND EASEMENTS. ALL VALVES SHALL BE RIGHT-HAND TURN CLOSE.

3. METER VAULT MUST BE LOCATED BEHIND CURB AND/OR WALK AND OUT OF VEHICLE/PEDESTRIAN TRAFFIC, IN THE WATER UTILITY EASEMENT OR DEDICATED EASEMENT. METER VAULT TO BE PLACED IN A PROTECTED GRASSY AREA.

2. PREFABRICATED OR POURED IN PLACE VAULTS SHALL HAVE PRE CAST-CLASS H OR POURED-CLASS S CONCRETE, REINFORCED WITH MINIMUM #4 O.C.E.W.

METER VAULT INSTALLATION NOTES: 1. PIPE, METER SIZE AND VAULT SHALL BE APPROVED BY THE WATER UTILITIES DEPARTMENT DURING REVIEW PROCESS.



![](_page_53_Figure_16.jpeg)

![](_page_54_Figure_0.jpeg)

![](_page_55_Figure_0.jpeg)

$\Delta = \Delta \geq$				Δ = 30°					Δ	= 45*				
N.)       (FT.)       Z.JO       E         .4       1.5       1.5       0.9         .5       1.5       1.5       1.2         .6       1.5       1.5       1.6         .7       4.5       4.5       4.5		I.D. G (IN.) (FT.) 4,6,8 1.0 10.12 1.5	THRUST (TONS) (F 2.6 2 5.9 7	EARTH A B VO T.) (FT.) (C. 2.0 1.5 0. 2.5 2.5 0	L. A (.) (FT.) 2 1.0 3 2.0	ROCK B VOL. (FT.) (C.Y.) 1.5 0.1 1.5 0.2	I.D. (IN.) 4,6,8 10.12	G T (FT.) ( 1.5 2.2	HRUST TONS) 3.9 8.7	A (FT.) ( 2.0 3.5	EARTH B V (FT.) (0 2.0 2.5	OL. A C.Y.) (FT.) 0.2 1.5 0.5 2 0	ROCk B (FT.) 1.5 2.5	VOL. (C.Y.) 0.1 0.3
1.5       1.5       1.8         0.9       1.5       1.5       2.1		10,12       1.5         16,18       2.2         20       2.4         24       2.9	13.2   1     16.3   2     23.4   6	2.3   2.3   0.     3.5   4.0   0.     4.5   4.0   1.     6.0   4.0   1.	2.0 8 2.5 0 3.0 4 3.5	3.0       0.2         3.0       0.4         3.0       0.5         3.5       0.7	16,18 20 24	2.2     3.2     3.6     4.3	19.5 24.1 34.6	4.5 5.5 8.0	4.5 4.5 4.5	1.2       3.0         1.5       3.5         2.3       4.5	2.3 3.5 3.5 4.0	0.6 0.7 1.1
Δ= 22.50		[]		Δ = 67.50 <b>*</b>					Δ	= 90*				
VOL.       I.D.       G       THRUST       A         (C.Y.)       (IN.)       (FT.)       (TONS)       (FT.)       (F         0       0.1       4,6,8       0.8       2.0       1.5       5         5       0.1       10,12       1.1       4.4       2.0       3.0         0       0.2       16,18       1.6       9.9       3.0       3.0	B       VOL.       A       B       VOL.         FT.)       (C.Y.)       (FT.)       (FT.)       (C.Y.)         1.5       0.1       1.0       1.0       0.1         2.5       0.3       1.5       1.5       0.1         3.5       0.6       2.0       2.5       0.3	I.D. G (IN.) (FT.) 4,6,8 2.1 10,12 3.1	THRUST (TONS) (F 5.6 3 12.6 5	EARTH A B VO T.) (FT.) (C.Y 5.0 2.0 0. 5.5 2.5 0.	L. A (FT.) 3 2.0 8 3.5	B       VOL.         (FT.)       (C.Y.)         1.5       0.2         2.0       0.4	I.D. (IN.) 4,6,8 10,12	G TI (FT.) ( 2.7 4.0	HRUST TONS) ( 7.1 16.0	A FT.) (F 5.0 6.5	EARTH B \ T.) (0 1.5 2.5	/OL. A C.Y.) (FT 0.4 2. 1.0 3.	ROCk B .) (FT.) 0 2.0 5 2.5	VOL. (C.Y.) 0.2 0.5
0 0.3 20 1.8 12.3 3.5 . 0 0.3 24 2.2 17.7 4.0	3.5       0.7       2.0       3.0       0.4         4.5       1.0       3.0       3.5       0.5	20   5.2     24   6.2	20.3       7         34.9       9         50.3       11	.0   4.0   2.     .5   4.5   3.	3 5.5 5 6.5	3.5       1.2         4.0       1.6	20 24	6.6 7.9	44.4 1 64.0 1	0.0	4.5	3.1   6.     5.0   8.	0 4.0 0 4.0	1.5
Ensions and quanti-	TIES			ABLES	<u>of D</u>	IMENSI	ONS	AND	) QU,	ant	ITIES	<u> </u>		
AL THRUST B PIPE BEND	<u>LOCK</u>													
	W702B													W7
- WARNING SIGN WITH														
ATTACHED BY STRAPS														
	TRACE	ER WIRE IS	s reqi	uired f	PER S	SECTIC	)N 3	3 05	5 97					
VACUUM AIR ANGE MOUNTING														
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DATE	SUME		CER' THIS DET	TIFICATIO S CITY OF I AIL SHEET	N: DENTO IS AU1	N STAND FHORIZE	ARD D FOR							W9
JAN. 2021	UNR 1"- N	I T C	USE ENG HER CON HER	IN THIS PR INEER WH EON, AND TENT OF T EIN HAVE	COJECT OSE SE WHO C THE DE NOT BI	BY THE CAL APPE CERTIFIES TAILS AN EEN ALT	ARS S THE ND NO ERED	TES						
SHEET No. 3 OF 20	VER 1"= N	/A	AND APPI STAI	O ASSUMES ROPRIATE NDARDS W	RESPO USE OI THIN	ONSIBILI F THE THIS SHE	ΓΥ FO	R						

![](_page_56_Figure_0.jpeg)

![](_page_57_Figure_0.jpeg)

![](_page_57_Picture_1.jpeg)

# STANDARD DETAILS

![](_page_57_Figure_3.jpeg)

![](_page_57_Figure_4.jpeg)

![](_page_58_Figure_0.jpeg)

![](_page_58_Figure_1.jpeg)

![](_page_59_Figure_0.jpeg)

![](_page_59_Figure_1.jpeg)

![](_page_59_Figure_2.jpeg)

![](_page_59_Figure_3.jpeg)

![](_page_60_Figure_0.jpeg)

![](_page_60_Figure_3.jpeg)

DATE AN. 2021	SCALE		CERTIFICATION: THIS CITY OF DENTON STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS HEREON, AND WHO CERTIFIES THE CONTENT OF THE DETAILS AND NOTES HEREIN HAVE NOT
HEET No. 3 OF 20	HOR 1"= VER 1"=	N.T.S. N/A	BEEN ALTERED AND ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THE STANDARDS WITHIN THIS SHEET.

### INSTALLATION IN STEEL CASING FOR CONCRETE PRESSURE PIPE BAR-WRAPPED STEEL CYLINDER TYPE

![](_page_60_Figure_7.jpeg)

U208

<u>end view</u>

U206

![](_page_61_Figure_0.jpeg)

![](_page_62_Figure_0.jpeg)

![](_page_63_Figure_0.jpeg)

![](_page_63_Picture_2.jpeg)

# STANDARD DETAILS STORM DRAINAGE DETAILS

![](_page_63_Figure_4.jpeg)

![](_page_63_Figure_5.jpeg)

![](_page_63_Figure_6.jpeg)

![](_page_63_Figure_7.jpeg)

![](_page_63_Figure_8.jpeg)

SECTION "A-A"

![](_page_63_Figure_10.jpeg)

SECTION "B-B"

![](_page_63_Figure_13.jpeg)

![](_page_63_Figure_14.jpeg)

TRAVERSE BEAM

DATE JAN. 2021 SHEET No. 11 OF 20

SCALE

HOR 1"= N.T.S. VER 1"= N/A

<u>CERTIFICATION:</u> THIS CITY OF DENTON STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS HEREON, AND WHO CERTIFIES THE CONTENT OF THE DETAILS AND NOT HEREON, AND WHO CERTIFIES THE CONTENT OF THE DETAILS AND NOTES HEREIN HAVE NOT BEEN ALTERED AND ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THE STANDARDS WITHIN THIS SHEET.

	Bill Of Reinforcing Steel for Inlet Depth of 6'																																					
Length of	#5 Bars A @ 6"		#5 Bars B @ 6"	#5 Bars @ 6	.С "	Ba @	#5 mrs D 9 6"	Bo	#5 ars E 0 6"	Ba	#5 rs F 0 6"		#4 Bars G	i	Bc @	#4 rs H 12"	‡ Ba @	#4 rs J 12"	7 Bai @	#4 Irs K 2 8"	† Bai @	4 -s L 12"		#4 Bars M		Ba	#4 Irs P	Bc	#6 rs R	Bc	#6 ars S	Bc	#6 ars T	Bo	#4 ars U 10"	#4 Bars V @ 5"	Ba	#4 rs W
Opening	No. Wt.	No	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Length	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Length	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No. Wt.	No.	Wt.
10'	22 198.8	7 22	107.08	22 20	0.86	22	193.13	22	130.03	22	149.15	20	11.83	158.05	11	13.47	11	31.54	14	62.35	4	17.59	3	21'8"	43.42	2	7.57	2	21.03	2	21.03	2	15.02	4	8.46	3 24.72	6	9.02
15'	32 289.2	6 32	155.75	32 29	2.16	32	280.91	32	189.13	32	216.94	20	16.83	224.85	16	19.59	16	45.87	14	62.35	4	17.59	3	26'8"	53.44	2	7.57	2	21.03	2	21.03	2	15.02	4	8.46	3 24.72	6	9.02
20'	42 379.6	5 42	204.43	42 38	3.46	42	368.7	42	248.23	42	284.74	20	21.83	291.65	21	25.72	21	60.2	14	62.35	4	17.59	3	31'8"	63.46	2	7.57	2	21.03	2	21.03	2	15.02	4	8.46	3 24.72	6	9.02

![](_page_64_Figure_1.jpeg)

PATH S:\Water Engineering\Engr\Design\Projects\Standard Details\Storm Sewer details\SHEET4.dwg

![](_page_64_Figure_4.jpeg)

![](_page_64_Figure_5.jpeg)

![](_page_64_Figure_6.jpeg)

![](_page_64_Picture_9.jpeg)

![](_page_65_Figure_0.jpeg)

![](_page_66_Figure_0.jpeg)

![](_page_67_Figure_0.jpeg)

![](_page_68_Figure_0.jpeg)

T304

T305

![](_page_69_Figure_0.jpeg)

# STANDARD DETAILS DRIVE APPROACH DETAILS

T306C

T306A

DRIVE APPROACH							
USE	WIDTH	RADIUS	MIN. THICKNESS*				
SINGLE FAMILY & DUPLEX RESIDENTIAL	MIN. WIDTH = 12 FEET MAX. WIDTH = 20 FEET	5 FEET	6 INCHES				
MULTI-FAMILY RESIDENTIAL	MIN. WIDTH = 24 FEET MAX. WIDTH = 38 FEET	10 TO 20 FEET	8 INCHES				
COMMERCIAL & INDUSTRIAL	MIN. WIDTH = 30 FEET MAX. WIDTH = 38 FEET	20 TO 25 FEET	8 INCHES				

1. THICKNESS AND REINFORCEMENT TO BE DESIGNED BY ENGINEER OF RECORD. MATERIAL TO BE CLASS P2 REINFORCED CONCRETE WITH A MINIMUM OF #4 BARS ON 18" CENTERS BOTH WAYS. 2. ÄLL DESIGNS MUST MEET THE MINIMUM APPROVED REQUIREMENTS OF THE STANDARD DRIVE APPROACH DIMENSION TABLE.

### GENERAL NOTES:

1. IF ROW IS UNDETERMINED OR ULTIMATE STREET ROW HAS NOT BEEN OBTAINED: (a) HALF PROPOSED R.O.W. WIDTH FOR "ASPHALT PAVING" OR "CONCRETE PAVING" IN ACCORDANCE WITH CITY DESIGNATION OF STREET CLASSIFICATION.

(b) R.O.W. LINE AS DETERMINED IN 1a. (c) PARKWAY WIDTH IN ACCORDANCE WITH CITY DESIGNATION OF STREET CLASSIFICATION 2. JOINTS ARE TO BE SAWED AS SOON AS THE SETTING OF THE CONCRETE WILL PERMIT WITHOUT SPALLING OR MARKING THE SLAB. AN APPROVED CURING COMPOUND SHALL BE APPLIED TO THE FINISHED SLAB PRIOR TO THE LOSS OF SURFACE MOISTURE AND NO LATER THAN 30 MIN. AFTER FINISHING OPERATIONS. 3. SUBGRADE FOR DRIVE APPROACH SHALL HAVE 98% COMPACTION. SUBGRADE SHALL HAVE LIME STABILIZATION IN ACCORDANCE WITH CITY STANDARD FOR HEAVY DUTY DRIVE AISLE.

4. DRIVE APPROACH GREATER THAN 12' IN WIDTH SHALL HAVE A TOOLED JOINT PERPENDICULAR TO THE CURB LINE, FROM THE FRONT OF THE GUTTER TO THE BACK OF THE DRIVE APPROACH, AT THE MIDPOINT. DRIVE APPROACHES WITH A WIDTH GREATER THAN 24' SHALL HAVE TWO OR MORE PERPENDICULAR TOOLED JOINTS PLACED AT THE DIRECTION OF THE ENGINEER OF RECORD. 5. DRIVE APPROACHES SHALL END AT THE ROW AND SHALL HAVE A 1/2" REDWOOD BOARD EXPANSION JOINT. 6. ASPHALT PATCH ONLY WHEN ROADWAY IS ASPHALT.

7. ALL JOINTS SHALL BE SEALED. 8. DRIVE APPROACH SLOPE REQUIREMENTS: (a) MAXIMUM SIDEWALK CROSS SLOPE WITHIN THE LIMITS OF THE DRIVE APPROACH SHALL BE 2%

(b) MINIMUM DRIVE APPROACH SLOPE SHALL BE DETERMINED BY: S=(6+[0.02xWx12])/(Wx12) WHERE W=THE WIDTH OF THE PARKWAY IN FEET. (c) MAXIMUM DRIVE APPROACH SLOPE WITHIN THE ROW SHALL BE 8% (d) THE DRIVE APPROACH SLOPE FROM THE BOTTOM OF THE GUTTER TO THE NEAREST EDGE OF THE SIDEWALK (WITHIN THE LIMITS OF THE ROW) SHALL NOT EXCEED THE DRIVEWAY/DRIVE AISLE SLOPE BEGINNING AT THE FURTHERMOST EDGE OF THE SIDEWALK (FROM THE BOTTOM OF THE GUTTER). IT SHALL ALSO NOT BE LESS THAN THE MINIMUM SLOPE NOR BE GREATER THAN THE MAXIMUM SLOPE AS NOTED HEREIN. (e) WHERE THE PARKWAY WIDTH IS INSUFFICIENT TO PROVIDE APPROPRIATE DRIVE APPROACH SLOPE, THEN A SIDEWALK EASEMENT EQUAL TO THE BALANCE OF THE SIDEWALK WIDTH NEEDED OUTSIDE THE ROW PLUS 2' SHALL BE PROVIDED FOR SIDEWALK INSTALLATION/MAINTENANCE PURPOSES. NOTE: BECAUSE OF BOTH VARIABLE PARKWAY AND SIDEWALK WIDTHS, THE MINIMUM SLOPE IS DETERMINED WITHOUT CONSIDERATION OF ANY SIDEWALK WHICH MIGHT BE PARTIALLY OR ENTIRELY CONTAINED

WITHIN THE ROW. THE INCLUSION OF MAX. 2% CROSS-SLOPE REQUIREMENT FOR THE SIDEWALK WIDTH, RELATIVE TO THE PARKWAY'S WIDTH, SHALL BE MANDATORY WHEN DETERMINING THE POTENTIAL SLOPE NEEDS OF ANY DRIVE APPROACH FOR ANY SITE AND THUS ANY NEED FOR A SIDEWALK EASEMENT. CALCULATIONS WILL BE PROVIDED BY THE PERSON IN CHARGE OF THE DESIGN OF THE DRIVE APPROACH CHANGE AT THE TIME OF PLATTING, OR PRIOR TO THE DRIVE APPROACH'S CONSTRUCTION (WHICHEVER IS FIRST) TO DETERMINE THE NEED OF A SIDEWALK EASEMENT. IF NEEDED, THE PERSON IN CHARGE OF THE DESIGN OF THE DRIVE APPROACH CHANGE SHALL INDICATE THE MINIMUM WIDTH OF SAID SIDEWALK EASEMENT'S REQUIREMENTS ON THE APPLICABLE DOCUMENTS IN ACCORDANCE WITH THE REQUIREMENTS OF THIS NOTE

(8a-e). 9. REMOVE AND REPLACE ALL CURB AND GUTTER WITHIN THE LIMITS OF CONSTRUCTION. 10. NEW CURB AND GUTTER SHALL BE POURED MONOLITHIC WITH THE DRIVE APPROACH.

11. FOR RESIDENTIAL DRIVE APPROACHES: (a) USE MINIMUM CLASS P2 CONCRETE; MIN. 6" DEPTH. (b) USE #4 BARS ON 18" CENTERS BOTH WAYS.

12. FOR ALL OTHER DRIVE APPROACHES, INCLUDING APARTMENTS. (a) USE MINIMUM CLASS P2 CONCRETE; MIN. 8" DEPTH. (b) USE #4 BARS ON 18" CENTERS, BOTH WAYS. 13. SAW-CUT SMOOTH EDGE (1' MIN.-3' MAX.) INTO UNDISTURBED PAVEMENT. THE SAW-CUT IS TO BE CONTINUOUS AND FOLLOW IN A LINEAR MANNER WITHOUT SHARP-CUT ANGLES. THE SAW-CUT SHALL BE FULL PENETRATION OF THE PAVEMENT, FOR THE ENTIRE DEPTH OF THE PAVEMENT. THE SAW-CUT AT THE PAVEMENT'S FACE SHALL BE SMOOTH AND VERTICAL, WITH A MINIMUM OF SPOILS FOR THE ENTIRE DEPTH OF THE SAW-CUT AND SHALL BE SO MAINTAINED UNTIL AT SUCH TIME AS THE JOINING OF THE NEW PAVEMENT TO IT. IF THE EXISTING PAVEMENT'S FACE AT THE SAW-CUT, IS NOT SMOOTH AND VERTICAL AND WITH A MINIMUM OF SPALLS AT THE TIME OF JOINING OF NEW PAVEMENT, ADDITIONAL SAW-CUTTING TO STABLE PAVEMENT AND IN ACCORDANCE WITH THE CONDITIONS NOTED HEREIN CAN BE REQUIRED BY THE CITY INSPECTOR AT SAID INSPECTOR'S DISCRETION. APPROPRIATE JOINTING MATERIAL(S) AND METHODS SHALL BE USED AT THE JUNCTION OF EXISTING AND NEW

PAVEMENT, IN ACCORDANCE WITH THE CITY REQUIREMENTS. REMOVE PAVEMENT WITHIN SAW LIMITS. INSTALL SUBBASE AND PAVEMENT IN ACCORDANCE WITH DRIVE

APPROACH REQUIREMENTS. 14. THE DRIVE APPROACH SLOPE WITHIN THE SIDEWALK EASEMENT (IF PROVIDED) AND/OR WITHIN THE SITE SHALL NOT CHANGE FROM PLUS TO MINUS WITHOUT HAVING A TRANSITIONAL AREA (NEARLY FLAT) OF NOT LESS THAN 3' OR AS APPROVED BY THE CITY ENGINEER IN WRITING PRIOR TO CONSTRUCTION. 15. DRIVEWAY OR DRIVE AISLE CONSTRUCTION WHICH EXTENDS INTO THE PROPERTY AND/OR PAST THE DRIVE APPROACH RADIUS SHALL HAVE A TRANSVERSE TOOLED JOINT AT THE RADIUS POINT AND A 3/ ASPHALT BOARD EXPANSION JOINT AT THE OTHER CONNECTION (PROPERTY LINE, ETC.).

16. PAVEMENT DEPTHS INDICATED ARE MINIMUM AND MAYBE INCREASED UPON RECOMMENDATION OF ENGINEER OF RECORD-PAVEMENT DEPTH SHALL BE CONSISTENT FOR

ALL APPLICABLE DETAILS. 17. #4 BARS INDICATED ARE MINIMUM AND MAY BE INCREASED UPON RECOMMENDATION OF ENGINEER OF RECORD-REBAR SIZE SHALL BE CONSISTENT FOR ALL APPLICABLE DETÄILS. 18. ALL REBAR TO BE SUPPORTED ON APPROVED PLASTIC C

### STANDARD DRIVE APPROACH-DIMENSION TABLE

TIC	CHAIRS.	

DATE JAN. 2021	SCALE	CERTIFICATION: THIS CITY OF DENTON STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS HEREON, AND WHO CERTIFIES THE CONTENT OF THE DETAILS AND NOTES
SHEET No. 17 OF 20	HOR 1"= N.T.S. VER 1"= N.T.S.	HEREIN HAVE NOT BEEN ALTERED AND ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THE STANDARDS WITHIN THIS SHEET.

![](_page_70_Figure_0.jpeg)

![](_page_71_Figure_0.jpeg)
## **DIVISION 1000 EROSION & SEDIMENT CONTROL**

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1060B	Erosion Control Blankets	201.15. pages 201-1 to 201-11
		. –

## NOTES:

 The City is adopting use of the NCTCOG Erosion and Sedimentation Standard Detail Drawings referenced in the table above. The drawings can be found in the 4th Edition of the NCTCOG specifications, October 2004.
Modifications to the above referenced drawings may be considered for individual projects upon submittal by a registered Professional Engineer in the State of Texas and supporting documentation as to why the modification is being requested.

ENTERED BY		PROJECT #	
DESIGNED BY	DATE	REVISION	
CHECKED BY			
PROJ. ENGR.			
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**EROSION & SEDIMENTATION CONTROL DETAILS** 

DATESCALECERTIFICATION:<br/>THIS CITY OF DENTON STANDARD<br/>DETAIL SHEET IS AUTHORIZED FOR<br/>USE IN THIS PROJECT BY THE<br/>ENGINEER WHOSE SEAL APPEARS<br/>HEREON, AND WHO CERTIFIES THE<br/>CONTENT OF THE DETAILS AND NOTES<br/>HEREIN HAVE NOT BEEN ALTERED<br/>AND ASSUMES RESPONSIBILITY FOR<br/>APPROPRIATE USE OF THE<br/>STANDARDS WITHIN THIS SHEET.20 OF 20VER 1" = N.T.S.