

GENERAL NOTES

- ONE WEEK PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY URBANDALE WATER UTILITY - #278-3940 URBANDALE CITY ENGINEER - #278-3950
- CONTRACTOR SHALL PROVIDE ALL MATERIALS, BUT NOT LIMITED TO: PVC PIPES, HYDRANTS, HYDRANT RECEPTACLES ANCHORING FITTINGS, COUPLINGS, VALVES, TAPPING SLEEVE AND VALVE, VALVE BOXES AND ADAPTORS, PIPE FLANGES, PIPE PLUGS, CAPS, CORPORATION COCKS, SADDLES, FITTINGS, TRACER WIRE, POLYETHYLENE ENCASEMENT MATERIAL AND SERVICE PIPE. IN ADDITION, THE CONTRACTOR WILL FURNISH MISCELLANEOUS MATERIALS TO INCLUDE BUT NOT LIMITED TO SAND, GRAVEL, CONCRETE, ASPHALT, ETC.
- ALL PAVING AND SITE UTILITY IMPROVEMENTS SHALL COMPLY WITH THE CURRENT URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, INCLUDING THE CITY OF URBANDALE SUPPLEMENTAL SPECIFICATIONS, WITH THE EXCEPTION TO THE WATER SECTION WHICH WILL BE REPLACED WITH THE CURRENT URBANDALE WATER UTILITY'S STANDARD SPECIFICATIONS FOR WATER MAIN AND APPURTENANCES.
- EXTEND NEW SERVICES FROM NEW MAIN TO NEW STOP BOX. STOP BOX SHALL BE LOCATED IN S/W WITH NO SLEEVE.
- PROTECT EXISTING STORM INTAKES AND PIPING. MAINTAIN 18" CLEARANCE (MINIMUM) BETWEEN BOTTOM OF STM. PIPE AND TOP OF NEW MAIN.
- REMOVE AND REPLACE SIDEWALKS WHERE SIDEWALKS ARE SHOWN ON PLANS. PROTECT ALL SIDEWALKS NOT SHOWN TO BE REMOVED. EXCESS SIDEWALK REMOVAL AND REPLACEMENT SHALL BE AT THE CONTRACTOR'S EXPENSE. REFERENCE URBANDALE'S STANDARD SIDEWALK AND DRIVEWAY APPROACH DETAIL IN THE SPECIAL PROVISIONS FOR SIDEWALK REPLACEMENT AT DRIVEWAY LOCATIONS.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF AND PROTECT ALL UTILITIES AND STRUCTURES. DAMAGE TO UTILITIES AND STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER, AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL PROTECT AND BACKFILL AROUND UNDERGROUND UTILITIES. BACKFILL SHALL BE IN 6-INCH LIFTS, COMPACTED TO 95% STANDARD PROCTOR DENSITY, 0 TO +4% MOISTURE.
- COMPLETE ALL PRESSURE AND DISINFECTION TESTS FOR WATER MAIN BEFORE THE INSTALLATION OF CORPORATION COCKS; AFTER MAIN HAS PASSED TESTS, INSTALL CORPORATION COCKS AND SERVICE LINES.
- PROVIDE COMPACTION TESTS ON ALL EXCAVATIONS AND STREET REPLACEMENTS IN ACCORDANCE WITH URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS. COMPACTION TESTS WILL BE MADE AT LEAST ONCE EVERY 500' OR AT THE DIRECTION OF THE WATER UTILITY. SUCCESSFUL COMPACTION TESTS ARE AT NO COST TO THE CONTRACTOR. CONTRACTOR TO PAY FOR ALL FAILED TESTS.
- PIPE MATERIALS: ANWA C900 CLASS 150 PVC, INSTALL NO.12 HIGH STRENGTH TRACER WIRE UNDER PIPE. BRING TRACER WIRE TO SURFACE AT FIRE HYDRANTS AND NEW DEAD ENDS IN TRACING WIRE RECEPTACLES. CONNECT NEW TRACER WIRE TO EXISTING WIRE. PROVIDE ANODE GROUNDING ROD WHEN REQUIRED.

GRADING

1. ALL RESTORATION REQUIRED BY THE CONTRACTOR SHALL CONFORM TO THE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS. CONTRACTOR SHALL FINISH GRADE FOR SIDEWALK INSTALLATION. SURFACE PREPARATION FOR SOD SHALL HAVE THE SURFACE CLOSE TO FINISH GRADE, REMOVING EXCESS DIRT OR THE ADDITION OF DIRT TO PROVIDE THE TOLERANCE FOR FINISH GRADE AS OUTLINED IN THE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS. SOD WILL BE INSTALLED BY A CONTRACTOR WORKING FOR THE URBANDALE WATER UTILITY.

2. CONTRACTOR SHALL ADJUST S/W TO ACCOMMODATE NO MORE THAN A 10% SLOPE FOR THE D/W APPROACH AND MAINTAIN TARGET SLOPE FOR THE S/W.

3. CONTRACTOR SHALL CLEAN STREETS OF DIRT AND DEBRIS AT THE END OF EACH DAY.

TRAFFIC CONTROL

1. PROVIDE ONE LANE TRAFFIC ON 67TH STREET, MADISON AVENUE, AIRLINE AVENUE, AND PRAIRIE AVENUE FOR PUBLIC ACCESS. ONE LANE OF TRAFFIC IN BOTH DIRECTIONS ON AURORA AVENUE SHALL BE MAINTAINED DURING CONSTRUCTION. CONTRACTOR TO EXPEDITE WATER MAIN INSTALLATION AT ROAD CROSSING TO MINIMIZE ROAD CLOSURE. CROSSING THE ROAD SHALL BE COMPLETED IN ONE DAY. COORDINATE WITH WATER UTILITY AND CITY OF URBANDALE.

2. PROVIDE SIGNS, BARRICADES, FLASHER ARROWBOARD, CHANNELIZING DEVICES AND OTHER MISCELLANEOUS TRAFFIC CONTROL ITEMS AS SPECIFIED.

3. AT END OF EACH WORKING DAY, PLACE BARRICADES AND LIGHTS AS REQUIRED; MAINTAIN LIGHTS IN OPERABLE CONDITION AS REQUIRED.

4. MAINTAIN ACCESS TO PROPERTIES ALONG WATERMAIN ROUTE; PROVIDE ROCK FOR VEHICLE ACCESS. COST OF MAINTAINING ACCESS SHALL BE INCIDENTAL TO THE PROJECT.

5. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

MISCELLANEOUS

1. RECONSTRUCTION OF RESIDENTIAL ACCESSES SHALL BE COORDINATED WITH PROPERTY OWNER BY THE CONTRACTOR SO THAT PROPERTY OWNER CAN PARK PERSONAL VEHICLES ON OR NEAR PERSONAL PROPERTY. CONTRACTOR WILL USE SPECIAL CONSTRUCTION TECHNIQUES FOR PROPERTY OWNERS WITH UNIQUE PROBLEMS E.G. HANDICAPPED, AGED, ETC.

2. CONTRACTOR SHALL NOTIFY THE CITY A MINIMUM OF 48 HOURS PRIOR TO ANY STREET CLOSURES.

3. ALL HOLES RESULTING FROM OPERATIONS OF THE CONTRACTOR, INCLUDING REMOVAL OF GUARDRAIL POSTS, FENCE POSTS, UTILITY POLES, OR FOUNDATION STUDIES, SHALL BE FILLED AND CONSOLIDATED TO FINISHED GRADE AS DIRECTED BY THE ENGINEER TO PREVENT FUTURE SETTLEMENT. THE VOIDS SHALL BE FILLED AS SOON AS PRACTICAL - PREFERABLY THE DAY CREATED AND NOT LATER THAN THE FOLLOWING DAY. ANY PORTION OF THE RIGHT-OF-WAY OR PROJECT LIMITS INCLUDING BORROW AREAS AND OPERATION SITES DISTURBED BY ANY SUCH OPERATIONS SHALL BE RESTORED TO AN ACCEPTABLE CONDITION. THIS OPERATION SHALL BE CONSIDERED INCIDENTAL TO OTHER BID ITEMS IN PROJECT.

4. IN ORDER TO AVOID ANY UNNECESSARY SURFACE BREAKS OR PREMATURE SPALLING, THE CONTRACTOR IS CAUTIONED TO EXERCISE EXTREME CARE WHEN PERFORMING ANY OF THE NECESSARY SAW-CUTTING OPERATIONS FOR THE PROPOSED PAVEMENT REMOVAL.

5. ALL TREES, TREE ROOTS, SHRUBS AND LANDSCAPING ARE TO BE PROTECTED DURING CONSTRUCTION. TUNNELING THRU TREE ROOTS MAY BE REQUIRED TO PREVENT ROOT DAMAGE. TREES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR. THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONSTRUCTION SHALL BE CONFINED TO WITHIN THE EXISTING ROW AND DESIGNATED TEMPORARY EASEMENTS. ALL TREES AND SHRUBS OUTSIDE THE RIGHT-OF-WAY LIMITS THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR WITH OF-KIND MATERIAL OR BETTER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING ALL TREES AND WARRANTING THE REPLACEMENT VEGETATION FOR UP TO ONE YEAR.

6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE WASTE AREAS OR DISPOSAL SITES FOR EXCESS MATERIAL WHICH IS NOT DESIRABLE TO BE INCORPORATED INTO THE WORK INVOLVED ON THIS PROJECT (EXCAVATED MATERIAL OR BROKEN CONCRETE). NO PAYMENT FOR OVERHAUL WILL BE ALLOWED FOR MATERIAL HAULED TO THESE SITES.

ESTIMATED PROJECT QUANTITIES			
NO.	ITEM	UNIT	BASE BID TOTAL
1	8" PVC PIPE, OPEN CUT	LF	1858
2	8" CERTALOK PVC PIPE, DIRECTIONAL DRILL OR HAND DIG	LF	100
3	CONNECTION #1 - 67TH STREET & MADISON AVENUE - CONNECTION IN NE CORNER	LS	1
4	CONNECTION #2 - 67TH STREET & AIRLINE AVENUE - CONNECTION IN NE CORNER	LS	1
5	CONNECTION #3 - 67TH STREET & PRAIRIE AVENUE - CONNECTION IN SE CORNER	LS	1
6	CONNECTION #4 - 67TH STREET & PRAIRIE AVENUE - CONNECTION IN NE CORNER	LS	1
7	CONNECTION #5 - 67TH STREET & AURORA AVENUE - CONNECTION IN NE CORNER	LS	1
8	ABANDONMENT #1 - 67TH STREET & MADISON AVENUE - ABANDONMENT IN NE CORNER	LS	1
9	ABANDONMENT #2 - 67TH STREET & AIRLINE AVENUE - ABANDONMENT IN NE CORNER	LS	1
10	ABANDONMENT #3 - 67TH STREET & PRAIRIE AVENUE - ABANDONMENT IN SE CORNER	LS	1
11	ABANDONMENT #4 - 67TH STREET & PRAIRIE AVENUE - ABANDONMENT IN NE CORNER	LS	1
12	ABANDONMENT #5 - 67TH STREET & AURORA AVENUE - ABANDONMENT IN NE CORNER	LS	1
13	HYDRANT - REMOVAL	EA	3
14	HYDRANTS - ASSEMBLY, VALVE, ANCHORING TEE, VALVE BOX AND HYDRANT	EA	6
15	1" COPPER WATER SERVICE CONNECTION, NEAR SIDE, WITH CURB BOX	EA	29
16	1" COPPER WATER SERVICE CONNECTION, FAR SIDE, NEW CURB BOX	EA	27
17	REMOVAL OF 6" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT	SY	50
18	7" NONREINFORCED PORTLAND CEMENT CONCRETE PAVEMENT	SY	50
19	REMOVAL OF 6" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT WITH 2" ASPHALT OVERLAY	SY	75
20	7" NONREINFORCED PORTLAND CEMENT CONCRETE PAVEMENT WITH 2" ASPHALT OVERLAY	SY	75
21	REMOVAL OF PORTLAND CEMENT CONCRETE DRIVEWAY, 5"	SY	182
22	DRIVEWAY, PORTLAND CEMENT CONCRETE, 6"	SY	182
23	REMOVAL OF ASPHALT OVERLAY DRIVEWAY, 6"	SY	23
24	ASPHALT OVERLAY DRIVEWAY, 6"	SY	23
25	CURB AND GUTTER, PORTLAND CEMENT CONCRETE, 6"	LF	110
26	REMOVAL OF SIDEWALK, 4", 4' WIDE	SY	1008
27	SIDEWALK, PC CONCRETE, 6", 5' WIDE	SY	210
28	SIDEWALK, PC CONCRETE, 4", 4' & 5' WIDE	SY	1050
29	DETECTABLE WARNING PANELS	SF	104
30	SURVEY	LS	1
31	TRAFFIC CONTROL	LS	1

MISCELLANEOUS NOTES CONTINUED

7. IF PUBLIC UTILITY FIXTURES ARE ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES, UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION AND TO AVOID DAMAGE THERE TO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.

8. THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OUTSIDE THE CONSTRUCTION LIMITS (PUBLIC ROW) OR USE THESE AREAS FOR STORAGE OF MATERIALS, STORAGE, PARKING AND SERVICE AREA(S) SHALL BE SUBJECT TO THE APPROVAL OF THE CITY ENGINEER.

9. ALL APPURTENANCES THAT ARE REMOVED SHALL BE RETURNED TO URBANDALE WATER UTILITY, IE. VALVE LIDS AND HYDRANTS.

10. DEPTHS FOR ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR.

11. ALL STREET SIGNS REMOVED SHALL BE IN PUBLIC RIGHT-OF-WAY. INCIDENTAL COST TO BE INCLUDED WITH OTHER BID ITEMS.

12. MATERIAL STORAGE FOR THE PROJECT SHALL BE IN PUBLIC RIGHT-OF-WAY.

13. C-4 CONCRETE WILL BE REQUIRED FOR ALL PAVING.

14. SOIL EROSION CONTROL SHALL BE REQUIRED. THE INSTALLATION OF SILT SOCKS AND/OR INTAKE BASKETS SHALL BE INSTALLED ACCORDING TO SUDAS PRACTICES. EROSION CONTROL SHALL BE INCIDENTAL TO THE PROJECT.

15. ALL CONCRETE SAW CUTTING SLURRY SHALL BE CONTAINED AND NOT ALLOWED TO ENTER STORM DRAIN.

ABAN.	ABANDON	SAN.	SANITARY
ACC.	ASPHALT CEMENT CONCRETE	SB	STOP BOX
APP.	APPROACH	SERV.	SERVICE
ASPH.	ASPHALT	SGNL.	SIGNAL
ASSBLY.	ASSEMBLY	ST.	STREET
AVE.	AVENUE	STA.	STATION
BOC	BACK OF CURB	STM.	STORM SEWER
OR.	CIRCLE	S/W	SIDEWALK
CONC.	CONCRETE	SWR.	SEWER
CORP.	CORPORATION	TELE.	TELEPHONE
COUP.	COUPLING	TS&V	TAPPING SLEEVE & VALVE
DEG.	DEGREE	TYP.	TYPICAL
DR.	DRIVE	VAL.	VALVE
D/W	DRIVEWAY	UWUJ	URBANDALE WATER UTILITY
EA.	EACH	W	WATER
EOP	EDGE OF PAVEMENT	WS	WATER SERVICE
ELEV.	ELEVATION		
ELEC.	ELECTRIC		
EQUIP.	EQUIPMENT		
EX.	EXISTING		
G.	GAS		
GRD.	GROUND		
GS	GAS SERVICE		
GVL.	GRAVEL		
HYD.	FIRE HYDRANT		
LF	LINEAR FEET		
MJ	MECHANICAL JOINED		
MH	MANHOLE		
OVLY.	OVERLAY		
PAVT.	PAVEMENT		
PED.	PEDESTRIAN		
P/L	PROPERTY LINE		
PVC	POLYVINYL CHLORIDE PIPE		
RED.	REDUCER		
REM.	REMOVE		
REPL.	REPLACE		
ROW	RIGHT-OF-WAY		

ABBREVIATIONS

EXISTING	EXISTING
PROPOSED	PROPOSED
	WATER VALVE
	REDUCER
	FIRE HYDRANT
	WATER LINE & SIZE
	GAS LINE & SIZE
	STORM SEWER LINE & SIZE
	SANITARY SEWER LINE
	BURIED ELECTRIC LINE
	BURIED TELEPHONE CABLE
	CENTER LINE
	PROPERTY LINE
	ROW
	EDGE OF PAVEMENT
	WATER SERVICE LINE
	GAS SERVICE LINE
	STOP BOX
	GUY ANCHOR
	CATCH BASIN
	FENCE
	ELECTRIC POLE
	TRAFFIC LIGHT POLE
	STREET SIGN
	SURFACE REPLACEMENT
	TREE /BUSHES
	MANHOLE
	MAILBOX

LEGEND

UTILITY CONTACTS

- SCOT ENGER
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