

BACKFLOW RELOCATION

LAVEN DISTRICT OFFICE

AT
5001 W. DOBBINS ROAD
LAVEN, ARIZONA 85339

LAVEN ELEMENTARY SCHOOL DISTRICT #39
FOR
9401 S. 91ST AVENUE
LAVEN, ARIZONA 85339
PHONE: (602) 237-9100

HESS - ROUNTREE, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
1001 NORTH 1ST STREET, SUITE 200
PHOENIX, ARIZONA 85004
(602) 258-1000

DATE: 5-21-18

DESIGN: []
DRAWN: []
CHECKED: []
DATE: 5-21-18

1008-05H

BENCH MARK

TOP OF BRASS CAP FLUSH WITH CURB AT THE INTERSECTION OF 9401 S. 91ST AVENUE AND DOBBINS ROAD (LAVEN DISTRICT OFFICE DATUM)
ELEVATION = 1093.10 (EQUALS CITY OF PHOENIX DATUM, NAVD 29)

SITE BENCHMARK

TOP OF BRASS CAP IN HANDHOLE AT THE INTERSECTION OF 91ST AVENUE AND DOBBINS ROAD (LAVEN DISTRICT OFFICE DATUM)
ELEVATION = 1093.13 (EQUALS CITY OF PHOENIX DATUM, NAVD 29)

ONSITE TIEOFF BENCHMARK

FOULING STATION (LAVEN SCHOOL DISTRICT OFFICE DATUM)
ELEVATION = 1025.29
ELEVATION = 1025.10 (EQUALS CITY OF PHOENIX DATUM, NAVD 29)

OWNER

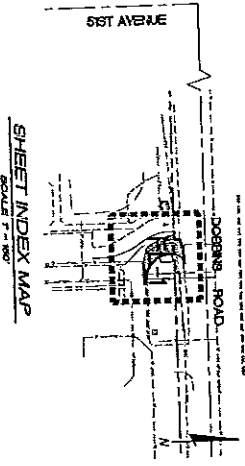
LAVEN ELEMENTARY SCHOOL DISTRICT #39
LAVEN, ARIZONA 85339
PHONE: (602) 237-9100
CONTACT: ROBERT JOHNSON

ENGINEER

HESS - ROUNTREE, INC. SUITE 200
1001 NORTH 1ST STREET, SUITE 200
PHOENIX, ARIZONA 85004
PHONE: (602) 258-1000
FAX: (602) 258-1000
CONTACT: 0038 05289N1 P/E

ASSESSOR'S PARCEL NO.

300-0-022 C



DESIGN ONLY ENGINEER'S NOTICE TO CONTRACTOR

- NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE NOR SHALL BE CONSTRUED TO BE DESIGN ENGINEER'S CONTRACTUAL LIABILITY TO THE CONTRACTOR OR ANY SUBCONTRACTOR.
- THE DESIGN ENGINEER WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S METHODS, TECHNIQUES, PROCEDURES OR PRECAUTIONS FOR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK. THE DESIGN ENGINEER'S SOLE DUTY IS TO PROVIDE THE CONTRACTOR WITH THE INFORMATION NECESSARY FOR THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING TRUCKS AND/OR OTHER EQUIPMENT OF MUD FROM DRIVEWAYS AND SIDEWALKS AND TO BE RESPONSIBLE FOR THE MAINTENANCE OF PUBLIC STREETS AND ALLEYS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE ROADWAYS AND ON SITE PARKING LOTS/PRE LINES ARE MAINTAINED IN A CLEAN, MUD AND DIRT-FREE CONDITION AT ALL TIMES.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE PUBLIC UTILITY COMPANIES TO OBTAIN PERMISSION TO ANY EXCAVATION WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES FROM DAMAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES FROM DAMAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES FROM DAMAGE.
- THE CONTRACTOR SHALL MAINTAIN ALL EXISTING AND NEW UTILITIES AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES FROM DAMAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES FROM DAMAGE.
- ALL NEW UNDERGROUND FACILITIES/UTILITIES SHALL BE INSTALLED WITH A DETECTABLE UNDERGROUND LOCATING DEVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES FROM DAMAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES FROM DAMAGE.
- THE CONTRACTOR SHALL MAINTAIN ALL EXISTING AND NEW UTILITIES AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES FROM DAMAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES FROM DAMAGE.

ESTIMATED ONSITE QUANTITIES

ITEM NO.	DESCRIPTION	QTY.
1	REMOVE EX. 6" WATERLINE	11 LF
2	REMOVE EX. 6" WATERLINE	48 LF
3	REMOVE EX. 6" WATERLINE	1 EA
4	INSTALL 6" SALVAGED DUCT BACKFLOW PREVENTION ASSEMBLY	1 EA

NOTE

THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR SHALL VERIFY ALL QUANTITIES. THESE ARE ITEMS SHOWN ON THE PLANS THAT ARE NOT LISTED IN THE QUANTITIES.

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE AS-BUILT DRAWINGS, MEASUREMENTS AND FIELD NOTES ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED ENGINEER: _____ DATE: _____
REGISTRATION NUMBER: _____



COVER SHEET

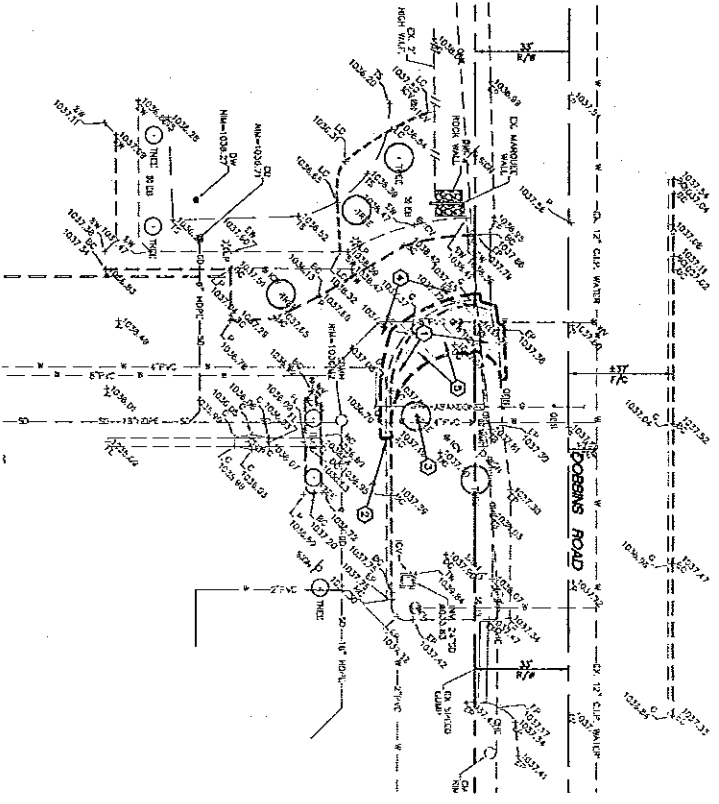
LAVEN ELEMENTARY SCHOOL DISTRICT NO. 39

BACKFLOW RELOCATION FROM LAVEN DISTRICT OFFICE

DATE:	05/20/18
SHEET:	1 OF 1
FL-1	

THESE PLANS HAVE BEEN SUBMITTED TO THE FOLLOWING UTILITY COMPANIES AND THE WORK CONTAINED IN THESE PLANS HAS BEEN APPROVED BY THESE COMPANIES AS SHOWN ON THE GAS, TELEPHONE AND POWER LINES AND CONSTRUCTION AGREES WITH THE INFORMATION CONTAINED IN THE UTILITY COMPANIES RECORDS. THE CONTRACTOR TO BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES FROM DAMAGE AND/OR AS OTHERWISE NOTED ON THESE PLANS. CONTRACTORS ARISING DURING THE COURSE OF CONSTRUCTION TO THE INTERESTED UTILITY COMPANIES SHALL BE REGULATED BY THEM AND THE DESIGN ENGINEER.

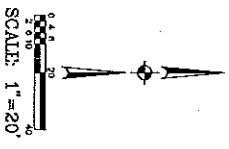
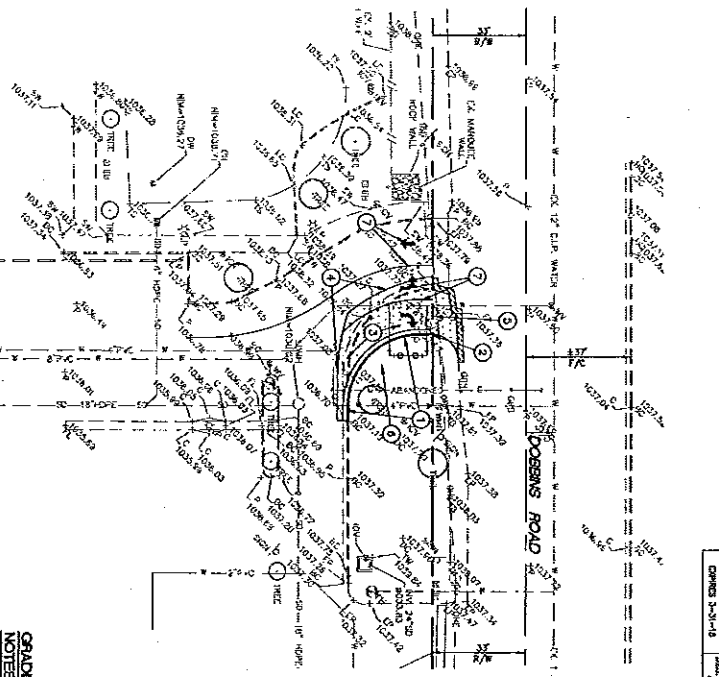
M. JOHNSON
REGISTERED ENGINEER
NO. 0038 05289N1
STATE OF ARIZONA



- SPECIFIC DEMOLITION NOTES:**
1. WITHIN DEMOLITION AREA, REMOVE AND LOCATE EXISTING STRUCTURES, UTILITIES, AND LANDSCAPING, ETC. EXCEPT ITEMS NOTED TO REMAIN AND BE PROTECTED OR REMAIN, AND BE PROTECTED UNLESS NOTED OTHERWISE.
 2. PROTECT EXISTING VERTICAL CURB AND CUTTER FROM DAMAGE.
 3. PROTECT EXISTING PAVEMENT FROM DAMAGE.
 4. REMOVE EXISTING CURBS AND ALL REPAIRATION UNDER NEW PAVEMENT. REMOVE EXISTING SPRINKLER IRRIGATION SYSTEMS TO WORK WITH NEW SPRINKLER IRRIGATION SYSTEMS TO BE INSTALLED AT THE END OF THE PROJECT. REMOVE PLANTS DAMAGED BY CONSTRUCTION.

- GENERAL DEMOLITION NOTES:**
1. EXISTING STRUCTURES, MATERIALS, LANDSCAPING, ETC. SHALL BE DEMOLISHED AND REMOVED FROM THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND STRUCTURES TO REMAIN OR TO BE RECONSTRUCTED.
 2. ALL NON-SALVAGE ITEMS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
 3. SECURITY AND SAFETY ARE THE CONTRACTOR'S SOLE RESPONSIBILITY.
 4. ALL UTILITIES ARE TO REMAIN IN PLACE (WATERS, SEWERS, TELEPHONE, STORM DRAIN, FLOOD IRRIGATION, GAS, ETC.) UNLESS NOTED OTHERWISE. PROTECT FROM DAMAGE.
 5. SAWCUT BERMS SHALL BE CONCRETE AT NEAREST JOINT OR AS DIRECTED BY THE CITY INSPECTOR.
 6. SAWCUT ASPHALTIC CONCRETE AT LIMITS OF DEMOLITION AS SHOWN ON PLANS OR AS DIRECTED BY THE CITY INSPECTOR.
 7. SALVAGE ITEMS NOT BEING REINSTALLED SHALL BE DELIVERED TO THE DISTRICT MAINTENANCE YARD.
 8. CONTRACTOR SHALL REMOVE ALL THE SPRINKLER IRRIGATION VALVES WITHIN DEMOLITION AREA UNLESS NOTED OTHERWISE.

PARTIAL TOPOGRAPHIC SURVEY AND DEMOLITION PLAN



GRADING AND DRAINAGE PLAN

- LEGEND**
- EXISTING GRADE
 - PROPOSED GRADE
 - EXISTING DRAINAGE
 - PROPOSED DRAINAGE
 - EXISTING PAVEMENT ELEVATION
 - PROPOSED PAVEMENT ELEVATION
 - EXISTING CONCRETE ELEVATION
 - PROPOSED CONCRETE ELEVATION
 - EXISTING FLOW LINE ELEVATION
 - PROPOSED FLOW LINE ELEVATION
 - EXISTING ACCUMULATED DEWATER ELEVATION
 - PROPOSED ACCUMULATED DEWATER ELEVATION
 - EXISTING TOP OF SOIL ELEVATION
 - PROPOSED TOP OF SOIL ELEVATION
 - EXISTING TOP OF SLAB ELEVATION
 - PROPOSED TOP OF SLAB ELEVATION
 - EXISTING LANDSCAPE CURB ELEVATION
 - PROPOSED LANDSCAPE CURB ELEVATION
 - EXISTING POWER POLE
 - PROPOSED POWER POLE
 - EXISTING FIRE HYDRANT
 - PROPOSED FIRE HYDRANT
 - EXISTING TIE-UP JUNCTION BOX
 - PROPOSED TIE-UP JUNCTION BOX
 - EXISTING WATER VALVE
 - PROPOSED WATER VALVE
 - EXISTING ELECTRICAL BOX
 - PROPOSED ELECTRICAL BOX
 - EXISTING SIGN
 - PROPOSED SIGN
 - EXISTING WATER METER BOX
 - PROPOSED WATER METER BOX
 - EXISTING INSULATION CONTROL WALK
 - PROPOSED INSULATION CONTROL WALK
 - EXISTING GROUND COVER WALK
 - PROPOSED GROUND COVER WALK
 - EXISTING COMMUNICATION MANHOLE
 - PROPOSED COMMUNICATION MANHOLE
 - EXISTING CATCH BASIN
 - PROPOSED CATCH BASIN
 - EXISTING DRAINELL
 - PROPOSED DRAINELL
 - EXISTING TREE

- GRADING AND DRAINAGE CONSTRUCTION NOTES:**
1. CONSTRUCT CONCRETE VERTICAL CURB AND CUTTER (M&M STANDARD DETAIL NO. 225-1, TYPE 1).
 2. CONSTRUCT CURB TERMINATION (M&M STANDARD DETAIL NO. 222).
 3. INSTALL ASPHALTIC CONCRETE PAVEMENT (4" A.C. (3/4" INCH) OVER 3" A.C. OVER 1/2" COMPACTED SUBGRADE).
 4. SAWCUT EXISTING PAVEMENT TO PROVIDE NEXT AND CLEAN EDGE FROM PLANTING.
 5. SEE SPECIFIC PAVING PLANS FOR CONTINUATION.
 6. INSTALL NEW DECOMPOSED GRANITE IN AREAS DISTURBED OR CONTAMINATED BY THE CONSTRUCTION. REPAIR BY CONSTRUCTION. REPAIR AND FINISH DAMAGED BY CONSTRUCTION.
 7. PAINT STRIKE THE PARALLEL TO THE ALIGNMENT INDICATED INCLUDING DIRECTIONAL ARROWS ETC. ALL STRIPING SHALL BE 4" WHITE EXCEPT THE DRIVE CENTERLINE WHICH SHALL BE 4" YELLOW.



HESS - ROUTIERRE, INC.
 CONSULTING ENGINEERS & LAND SURVEYORS
 800 SOUTH 61ST STREET, SUITE 310
 PHOENIX, ARIZONA 85044 (480)948-0244


DRWG. 3-21-14
 DRO AFS DRO 801 NO. 1008-0814

GRADING AND DRAINAGE PLANS

LAUREN ELEMENTARY SCHOOL, DISTRICT NO. 59

DRIVEWAY RECONSTRUCTION FOR
 LAUREN DISTRICT OFFICE

DATE	02/20/14
NO.	1
SHEET	1
OF	1
	C-1


Hess - Rountree, Inc.
 ENGINEERING ARCHITECTURE
 1000 WEST 10TH AVENUE
 PHOENIX, ARIZONA 85001
 PHONE: 602.955.1400 FAX: 602.955.1404

DRAWN BY: JRM
 CHECKED BY: JRM
 DATE: 02/28/08

1000 DPO 1000 ARS 1000 DPO 1000 NO. 1008-06H

ON-SITE PRIVATE FIRE LINE CONSTRUCTION

- NOTES:**
1. INSTALL 8" P.V.C. (AWWA C-900, CLASS 200) WATER LINE.
 2. REMOVE AND SALVAGE EXISTING 6" DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY.
 3. INSTALL 8" SALVAGED DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY, (CITY OF PHOENIX STANDARD DETAIL NO. P1352).
 4. FIELD VERIFY LOCATION OF EXISTING 8" WATER LINE PRIOR TO THE START OF CONSTRUCTION, CONNECT TO EXISTING WATER LINE WITH AN 8" 90° BEND.
 5. REMOVE EX. 8" P.V.C. WATER LINE TO THE LIMITS SHOWN.
 6. INSTALL 8"-90° BEND.

PRIVATE FIRE LINE THRUST BLOCK NOTE

ALL THRUST BLOCKS SHALL BE CONSTRUCTED OF 4" x 6" CLASS C CONCRETE FOR ALL PRIVATE FIRE LINE THRUST BLOCKS. THE AREA OF BEARING FACE SHALL BE PER NFPA-24, THE FOLLOWING CHART IS FROM NFPA-24:

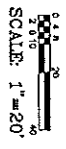
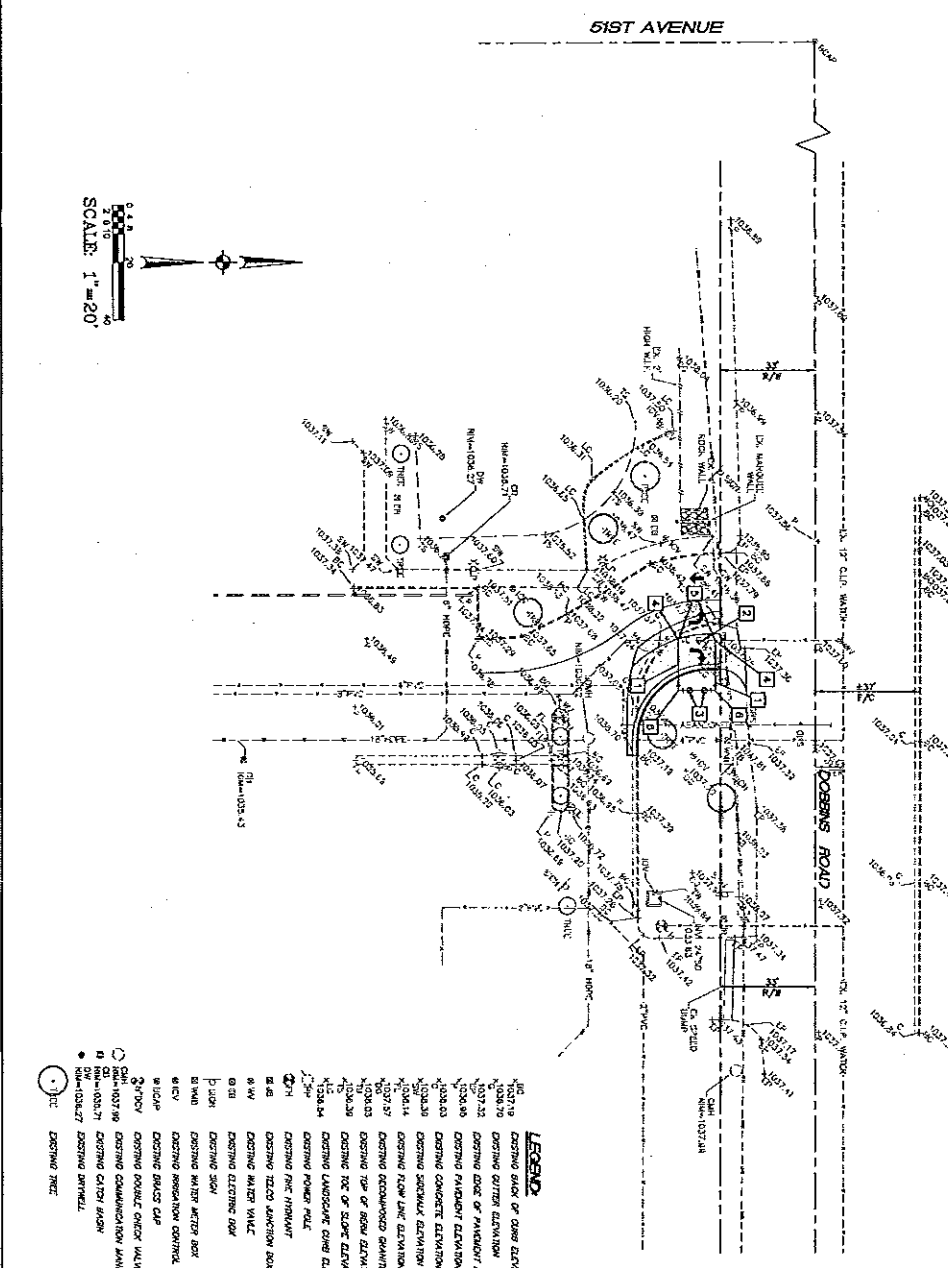
PIPE SIZE (IN.)	90° BEND (SQ.FT.)	45° BEND (SQ.FT.)	TEE, FLANGE CAPS AND HYDRANTS (SQ.FT.)
4	2	3	2
6	3	5	3
8	5	7	4
10	8	10	6
12	12	14	9
14	16	19	12
16	22	25	16

UNDERGROUND UTILITY TRACER WIRE NOTE

ALL NEW UNDERGROUND FACILITIES/UTILITIES SHALL BE INSTALLED WITH A TRACER WIRE. TRACER WIRE SHALL BE INSTALLED INSULATED TRACER WIRE SECURELY ATTACHED TO EACH UTILITY. 8'-FEET ON CENTER, 12" OF TRACER WIRE SHALL BE ACCESSIBLE ABOVE GROUND AT THE TERMINATION AND SHALL BE ACCESSIBLE TO THE CITY OF PHOENIX. THE CONTRACTOR SHALL INCLUDE ALL COSTS ASSOCIATED WITH THIS RECOMMENDATION IN THEIR BID.

NOTE

ALL NEW UNDERGROUND UTILITIES (WATER, SEWER, FIRE AND STORM DRAIN LINES) SHALL BE DEIGNED WITH A 6" (MIN) PER LMO SECTION 702 FROM 4" (MIN.) BELOW THE BOTTOM OF THE PIPE TO 12" (MIN.) ABOVE THE TOP OF THE PIPE.



LAVENEY ELEMENTARY SCHOOL DISTRICT NO. 89
 BACKFLOW PREVENTION ASSEMBLY
 LAVENEY DISTRICT OFFICE
 DRAWING STATUS: SHEET OF
 NO. 2 OF 2
 DATE: 02/28/08
FL-2



ROM Project Cost Estimate

PRICE STATUS: Proposal

DATE: 09/16/16

Project Name: District Office Water Line & Driveway
 Project Location: 5001 W. Dobbins Road
 Owner: LESD

Base Bid

Division	Description	Unit	Quantity	Unit Price	Total Price	
1	GENERAL REQUIREMENTS					
01.061	Permit Fees	EXCLUDED				
01.061	ROW Permit	LS	1.00	450.00	450.00	
01.110	Project Manager	WK	1.00	3,100.00	3,100.00	
01.115	Project Engineer	WK	1.50	2,400.00	3,600.00	
01.116	Contract Administrator	WK	0.50	1,400.00	700.00	
01.120	Project Superintendent	WK	3.10	2,720.00	8,432.00	
01.123	Safety Manager	WK	0.35	3,000.00	1,050.00	
01.310	Blue Prints	LS	1.0	350.00	350.00	
01.513	Temp Water	LS	1.0	2,500.00	2,500.00	
01.514	Temp Toilet	LS	1.0	500.00	500.00	
01.515	Dumpsters	LS	1.0	750.00	750.00	
01.532	Temp Fence	LS	1.0	1,900.00	1,900.00	
01.562	Dust Control	LS	1.0	1,500.00	1,500.00	
01.531	Barricades & Traffic Control	LS	1.0	5,050.00	5,050.00	
01.600	Miscellaneous Material & Equip	LS	1.0	750.00	750.00	
01.710	Final cleaning	LS	1.0	500.00	500.00	
2	SITE WORK					
02.001	Construction Staking & Testing	EXCLUDED				
02.060	Driveway, Curb & Speed Bump Demolition	LS	1.0	8,900.00	8,900.00	
02.200	Earthwork	LS	1.0	7,352.00	7,352.00	
02.510	Asphalt Paving	LS	1.0	11,950.00	11,950.00	
02.550	Striping & Signage	LS	1.0	1,200.00	1,200.00	
02.600	Site Utility Piping	LS	1.0	11,448.00	11,448.00	
02.830	Fence & Gates	EXCLUDED				
02.900	Landscaping	LS	1.0	3,875.00	3,875.00	
	Sub Total- Direct Cost				75,857.00	
19.050	Owners Contingency	10.000%			7,585.70	
01.780	General Insurance	1.250%			1,043.03	
01.007	Builder's Risk (min. \$25)	0.700%			591.40	
01.006	Bonds	1.500%			1,276.16	
	FEE	7.00%			6,044.73	
20.300	TAX	5.395%			4,984.87	
	Sub Total- Indirect Cost				21,525.89	
	GRAND TOTAL				\$97,382.89	