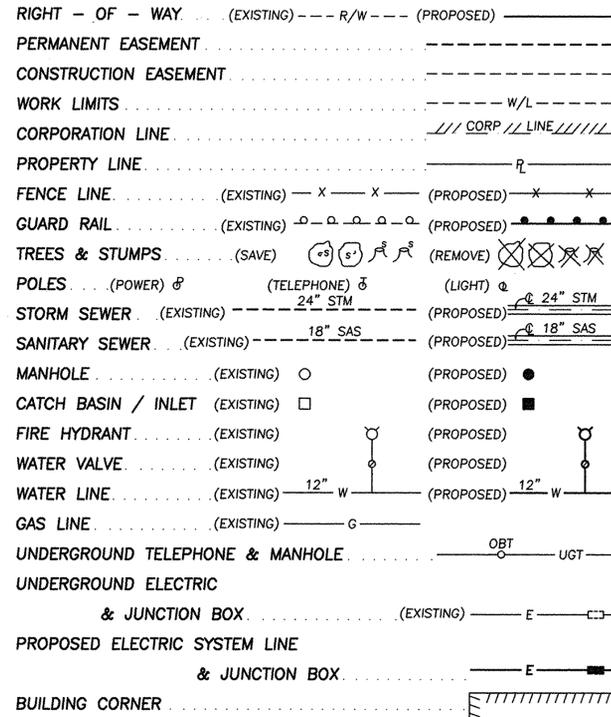


LEGEND



CONSTRUCTION DRAWINGS

FOR

LAWRENCE STREET LIFT STATION

AND

SEWER IMPROVEMENTS

CITY OF LANCASTER, OHIO

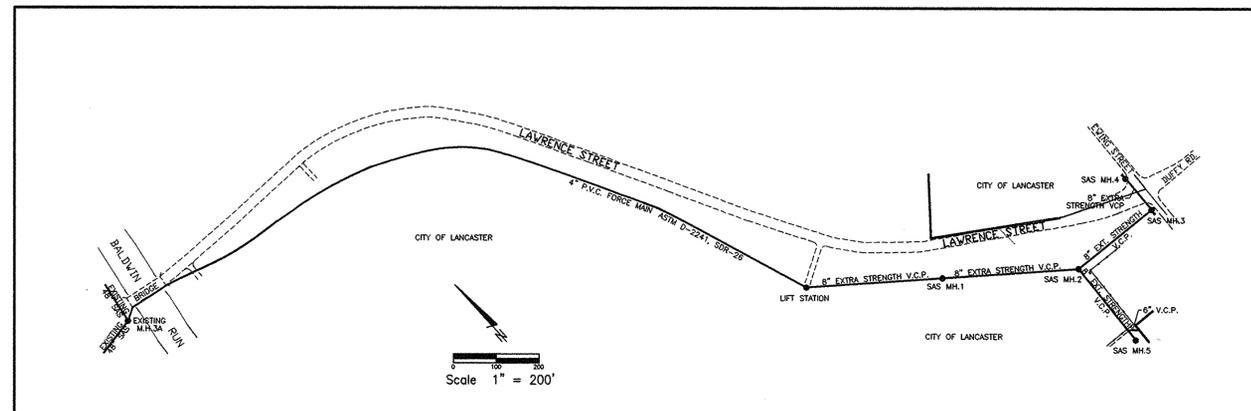
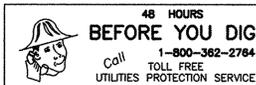
OCTOBER, 1998

SUMMARY OF ESTIMATED QUANTITIES			
NO.	SPEC	DESCRIPTION	UNIT QTY.
		SANITARY SEWER	
604		MANHOLE, SANITARY	EACH 4
604		DROP MANHOLE, SANITARY	EACH 1
901		8" EXTRA STRENGTH, 8" V.C.P. SANITARY SEWER	L.F. 1197
918		6" EXTRA STRENGTH, 8" V.C.P. SANITARY SEWER	L.F. 25
918		8"x8"x6" EXTRA STRENGTH V.C.P. WYE, 706.08	EACH 1
SPEC		PIPE PLUG FOR 8" V.C.P. (FUTURE CONNECTIONS)	EACH 3
912		COMPACTED GRANULAR BACKFILL (#87 AGGREGATE)	C.Y. 105
SPEC		4" P.V.C. - SDR26 FORCE MAIN, ASTM D-2241	L.F. 1772
901		BEDDING (TYPE 1 FOR FORCE MAIN) ASTM 2774	C.Y. 136
901		BEDDING (TYPE 1)	C.Y. 95.2
628		PERMANENT PAVEMENT REPLACEMENT, LAWRENCE ST.	S.Y. 37.5
SPEC		AIR RELIEF VALVE	EACH 1
		LIFT STATION	
SPEC		LIFT STATION	EACH 1
SPEC		TELEMETERING COMPLETE	EACH 1
301		#2 LIMESTONE FOR ACCESS DRIVE	C.Y. 22.2
304		#57 LIMESTONE FOR ACCESS DRIVE	C.Y. 7.4
203		EXCAVATION FOR ACCESS DRIVE	C.Y. 30
		GENERAL	
623		CONSTRUCTION SURVEYING AND STAKING	LUMP 1
659		SEEDING AND MULCHING	LUMP 1
659		FERTILIZER	LUMP 1
614		MAINTENANCE OF TRAFFIC	LUMP 1
624		MOBILIZATION / DEMOBILIZATION	LUMP 1
		8" DUCTILE IRON PIPE	L.F. 100
		PIPE INSULATION	LUMP 1
		DUCTILE IRON HANGERS	EACH 11
		CORE DRILL (ABUTMENT & MANHOLE)	EACH 3

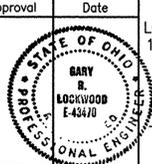
The following City of Lancaster Standard Construction Drawings are considered an integral part of these plans:
 P-1 D-1 D-7 S-1 S-13 S-17
 P-2 D-4 D-8 S-6 S-15 S-20
 D-6 D-9 S-11 S-16 S-24

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DESCRIPTION	SHEET No.
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LAWRENCE STREET LIFT STATION DETAILS	4
LAWRENCE STREET LIFT STATION, GRAVITY & FORCE MAIN SEWERS - GENERAL NOTES	5
LAWRENCE STREET LIFT STATION, GRAVITY & FORCE MAIN SEWERS - DETAILS	6

BENCH MARK DESCRIPTION
 RM-29 Chiseled cross on northeast abutment of Lawrence Street bridge over Baldwin Run.
 Elevation = 814.45



EASEMENT REFERENCE			REVISIONS			Plans Prepared By :	Signatures below signify only concurrence with the general purpose and general location of the project. All technical details remain the responsibility of the engineer preparing the plans.	ENG. FILE NO. <u>11.0664</u>	IMP. ACCT. NO. _____	CONTRACT NO. _____	COMPLETION DATE <u>SEPT. 22, 1999</u>	CONTRACTOR <u>T.A.M. CONSTRUCTION</u>	City of Lancaster, Ohio DIVISION OF ENGINEERING & CONSTRUCTION	LAWRENCE STREET LIFT STATION AND SEWER IMPROVEMENTS
City's No.	County Recorder Volume Page	Grantor	No.	Description	Approval									
							CITY ENGINEER _____						Scale : NONE	Sheet No. : 1 OF 6
							SUPERINTENDENT ELECTRICAL DEPARTMENT _____						Date : JULY, 1998	Dwg. No. : <u>SL-121</u>

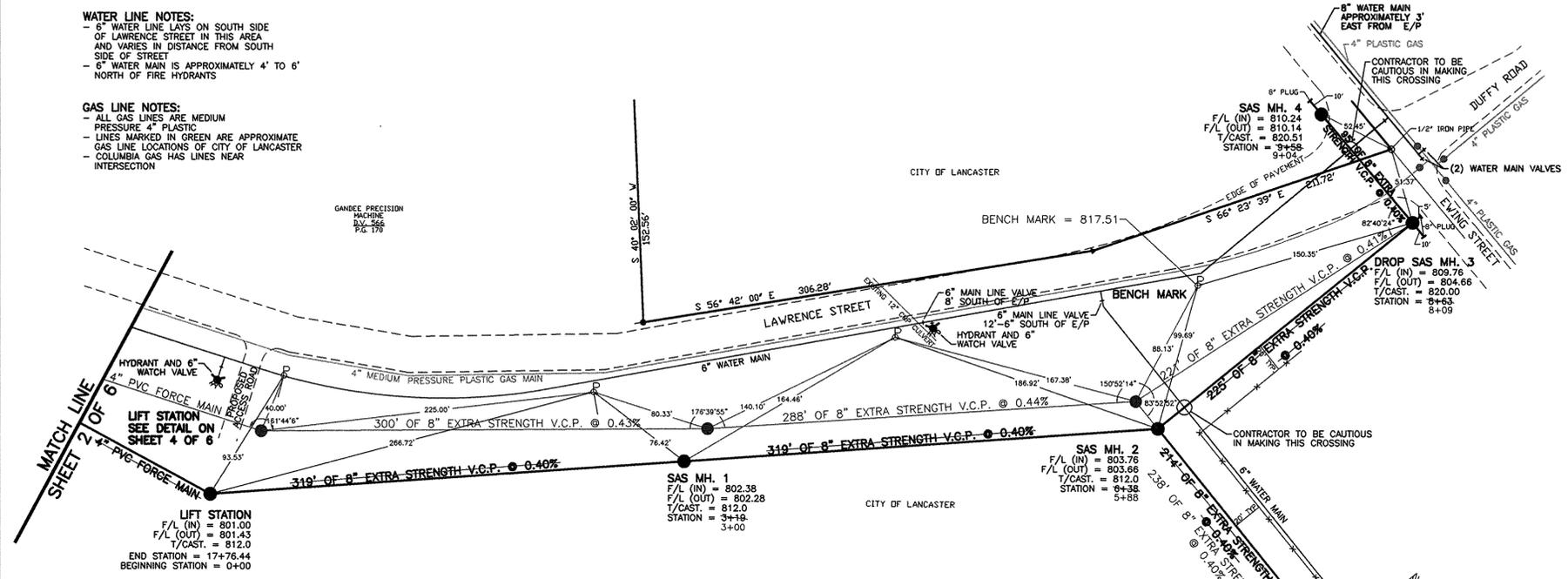


LOCKWOOD AND ASSOCIATES, INC
 1955 LANCASTER-NEWARK ROAD
 LANCASTER, OHIO 43130
 (740) 687-5542
Gary R. Lockwood
 REGISTERED ENGINEER
 GARY R. LOCKWOOD
 43470
 Ohio Reg. No. 4-4-01
 Date

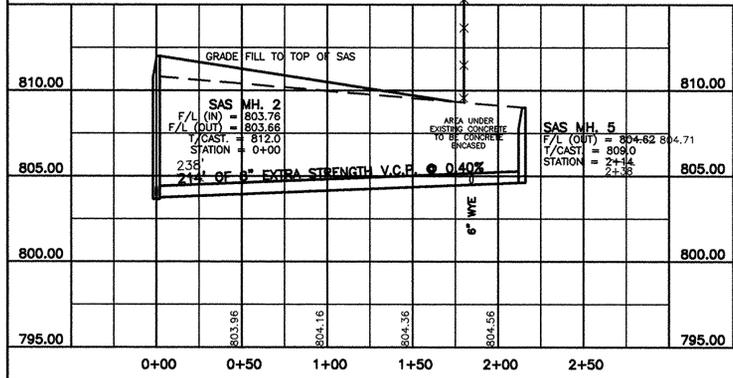
M:\Projects\lanc lift stat\title.dwg Wed Apr 04 15:51:42 2001 RPH

WATER LINE NOTES:
 - 6" WATER LINE LAYS ON SOUTH SIDE OF LAWRENCE STREET IN THIS AREA AND VARIES IN DISTANCE FROM SOUTH SIDE OF STREET
 - 6" WATER MAIN IS APPROXIMATELY 4' TO 6' NORTH OF FIRE HYDRANTS

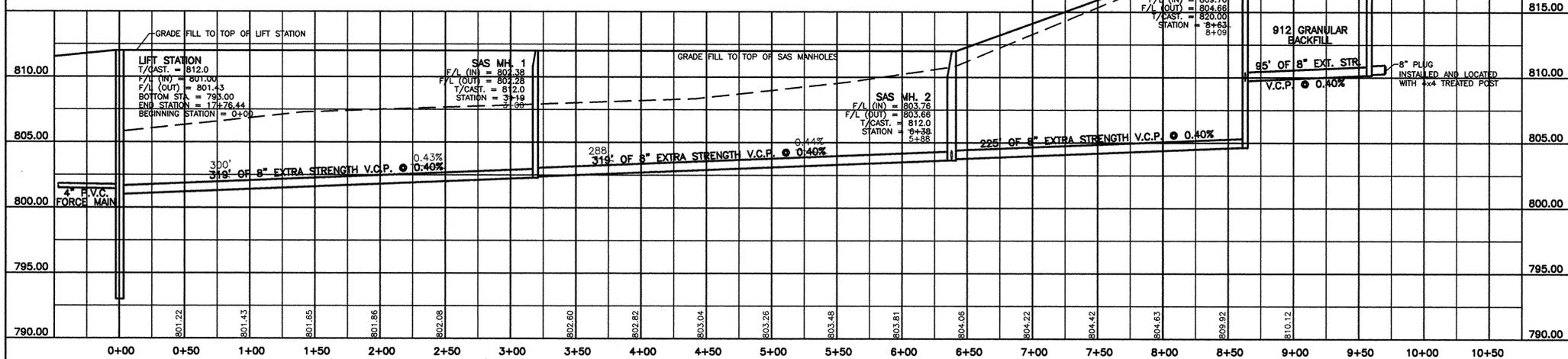
GAS LINE NOTES:
 - ALL GAS LINES ARE MEDIUM PRESSURE 4" PLASTIC
 - LINES MARKED IN GREEN ARE APPROXIMATE GAS LINE LOCATIONS OF CITY OF LANCASTER
 - COLUMBIA GAS HAS LINES NEAR INTERSECTION



PROFILE FROM SAS MH 2 TO SAS MH 5



PROFILE FROM LIFT STATION TO SAS MH 4



EASEMENT REFERENCE		
City's No.	County Recorder	Grantor
	Volume	Page

REVISIONS			
No.	Description	Approval	Date
1	Relocation of 4" Force Main & Gravity sewer	-	7/26/99
AS BUILT			
PER CITY ENGINEERS FIELD NOTES			4-03-01

Plans Prepared By :
 LOCKWOOD AND ASSOCIATES, INC.
 1955 LANCASTER-NEWARK ROAD
 LANCASTER, OHIO 43130
 (614) 687-5542

REGISTERED ENGINEER
 Ohio Reg. No. _____ Date _____

ENG. FILE NO. _____
 IMP. ACCT. NO. _____
 CONTRACT NO. _____
 COMPLETION DATE _____
 CONTRACTOR _____

City of Lancaster, Ohio
 DIVISION OF ENGINEERING & CONSTRUCTION

**LAWRENCE STREET LIFT STATION
 AND GRAVITY SEWER PLAN**

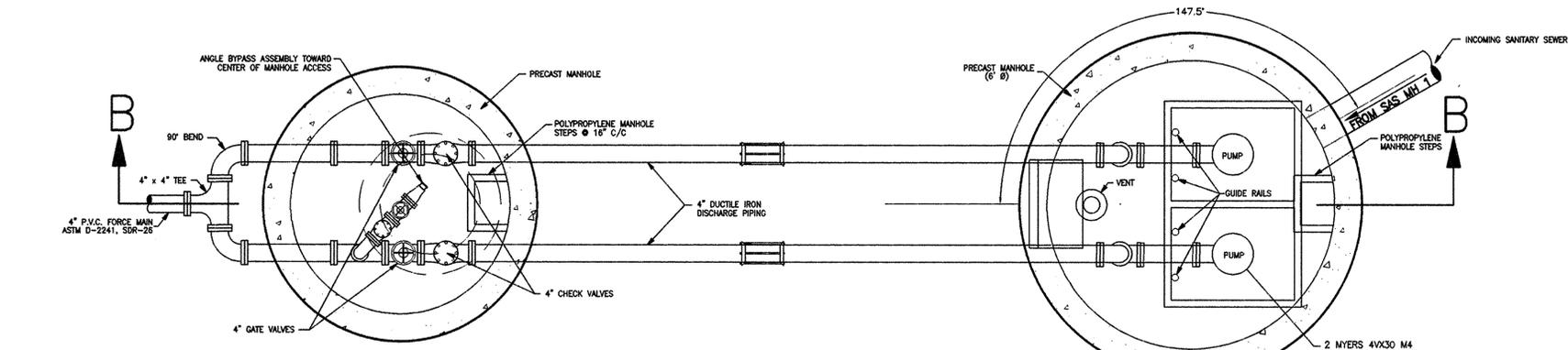
Scale : Horiz. = 1" = 50'
 Vert. = 1" = 5'

Date : JULY, 1998

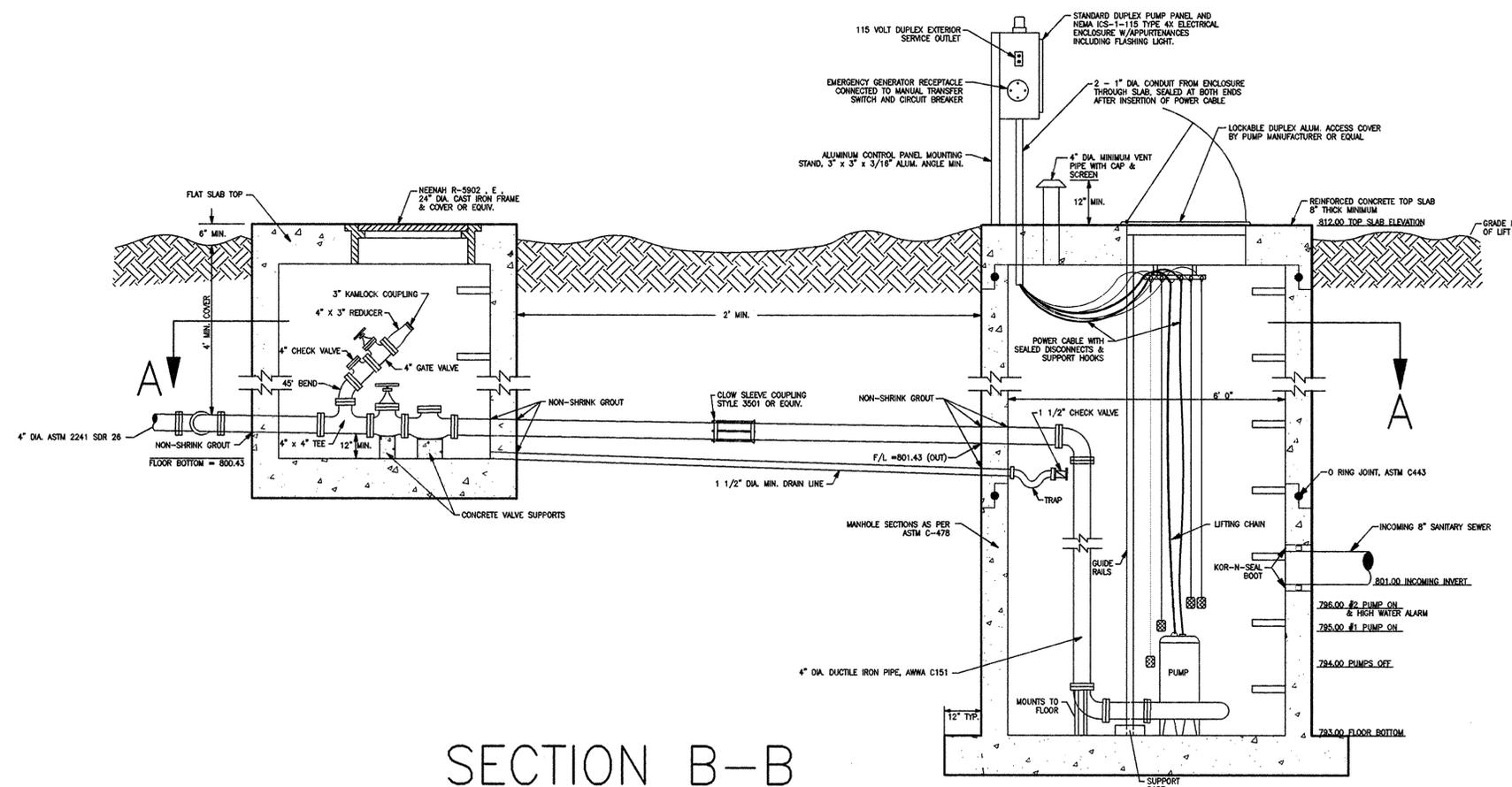
Sheet No. : 3 of 6
 Dwg. No. : SL-121B

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LIFT STATION NOTES



SECTION A-A



SECTION B-B

LIFT STATION DETAILS

(NTS)

Before ordering any materials the Contractor shall submit shop drawings and manufacturer's cut sheets on all items stated below to the City for approval.

The wet well lift station and valve vault shall be constructed of standard precast concrete 6'-ring joint, ASTM C478 and ASTM C443, manhole sections and valve vault using an 8" precast reinforced concrete top slab as provided by E.C. Babbart or equal and/or as modified hereon. A padlock shall be provided by the Contractor.

GENERAL - Furnish and install a complete non-clog sewage pumping system consisting of two (2) Myers 4W30 submersible non-clog sewage pumps and SRA-400 lift-out check valve rail systems, shutoff valves, controls, access covers and all other appurtenances to make a complete system.

COMPONENTS - Each lift-out system shall consist of a discharge and rail support elbow that bolts to bottom of wetwell, a combination check valve and seal flange that mounts to pump, top rail support guides, and guide/support brackets that mount to pump. All exposed nuts, bolts, and fasteners shall be 302 series stainless steel.

CHECK VALVE - The lift-out check valve shall be of the swing clapper type with rubber facing. A bronze seal bushing shall be mounted in face of valve to provide a corrosion-proof seat. The clapper shall be mounted on a stainless steel shaft and shall be spring loaded to prevent slamming when closing.

The open face of the valve shall be tapered and have a holding groove machined in the face to hold a sealing o-ring. The tapered seat shall allow pump to be nearly sealed at discharge elbow before sealing faces make full contact. A guide plate and adjustable guide bar shall fasten to the top of the pump to insure proper alignment and support of the pump.

The check valve shall lift out with pump to allow for inspection, cleaning or maintenance of the valve outside the wetwell. No additional check valve shall be required in the discharge piping. Lift-out systems that do not incorporate a lift-out check valve as an integral part of the lift-out assembly shall not be considered equal.

ELBOW - Discharge elbow shall be 4" x 4" and shall be integrally cast into the base assembly.

GUIDE RAILS - Two rail pipes shall be used to guide the pump from the surface to the discharge base connection. The guide rails shall be 1-1/2" stainless steel pipe. The weight of the pump shall bear solely on the discharge base and not on the guide rails. Rail systems that require the pump to be supported by legs that might interfere with the flow of solids into the pump suction will not be considered equal. The guide rails shall be firmly attached to the access hatch frame. Systems deeper than 18 feet shall use an intermediate guide for each 18 feet of wetwell depth.

LIFTING CHAIN - An adequate length of stainless steel lifting chain shall be supplied for removing pump. The chain shall be of sufficient length and shall include an adequate number of lifting rings to provide ease of pump removal.

PUMP MODEL - Pump shall be Myers Model Number 4W Non-Clog Submersible Pump with vane enclosed impeller. All openings in pump impeller and volute case shall be large enough to pass a 3" diameter sphere. Discharge flange shall be four (4) inch standard. Pump and motor assembly shall be UL listed for Class 1, Group D explosion-proof service.

OPERATING CONDITIONS - Pump shall have a capacity of 98 GPM at a total head of 25 feet and shall use a 3 HP motor operating at 1,750 RPM.

MOTOR - Pump motor shall be of the sealed submersible type rated 3 HP at 1,750 PM 60 Hertz. Motor shall be for single-phase 230 volts. The single-phase motors shall be of the capacitor start, capacitor run, and NEMA L type. Stator winding shall be of the open type with Class B insulation good for 130 degrees C (266 degrees F) maximum operating temperature. Winding housing shall be filled with a clean high dielectric oil that lubricates bearings and seals and transfers heat from windings and rotor to outer shell. Air-filled motors that do not have the superior heat dissipating capabilities of oil-filled motors shall not be considered equal.

Motor shall have two heavy-duty ball bearings to support pump shaft and take radial and thrust loads and a sleeve guide bushing directly above the lower seal to take radial load and act as flame path or seal chamber. Ball bearings shall be designed for 50,000 hours B-10 life. Stator shall be heat shrunk into motor housing.

A heat sensor thermostat shall be attached to and imbedded in the winding and be connected in series with the motor starter contractor coil to stop motor if temperature of winding is more than 120 degrees C (248 degrees F). Thermostat to reset automatically when motor cools to safe operating temperature. Two heat sensors to be used on 3 phase motors. The common pump, motor shaft shall be of 416 stainless steel.

SEALS - Motor shall be protected by two mechanical seals mounted in tandem with a seal chamber between the seals. Seal chamber shall be oil filled to lubricate seal face and to transmit heat from shaft to outer shell.

Seal face shall be carbon and ceramic and lapped to a flatness of one light band.

A double electrode shall be mounted in the seal chamber to detect any water entering the chamber through the lower seal. Water in the chamber shall cause a red light to turn on at the control box. This signal shall not stop motor but shall act as a warning only, indicating service is required.

IMPELLER - The impeller shall be cast iron and of the 2 vane non-clog enclosed type. Vane inlet tips shall be carefully rounded to prevent stringy material from catching in vane. Pump-out vane shall be used in front and back chamber. Impeller shall be dynamically balanced. Impeller shall be driven by stainless steel shaft key and impeller held in place with lock screw and washer.

Impeller and motor shall lift off of case as a unit without disturbing discharge piping.

Impeller neck shall run in bronze wear ring that is pressed into volute case.

PUMP CASE - The volute case shall be cast iron and have a flanged centerline discharge. Discharge flange shall be 4" standard with bolt holes straddling centerline. A bronze wear ring shall be pressed into case for guiding impeller neck and to prevent corrosion freeze up. Wear ring shall be held from rotating by locking with stainless steel set screw in end of ring.

PUMP AND MOTOR CASTING - All castings shall be of high tensile cast iron and shall be treated with phosphite and chromate rinse.

All fasteners shall be 302 stainless steel.

BEARING END CAP - Upper motor bearing cap shall be a separate casting for easy mounting and replacement.

POWER CABLES - Power cord and control cord shall be double sealed. The power and control conductor shall be single strand sealed with epoxy potting compound and then clamped in place with rubber seal bushing to seal outer jacket against leakage and to provide for strain pull. Cords shall withstand a pull of 300 pounds to meet U.L. requirements.

Insulation of power and control cords shall be type SOW/SOW-A. Both control and power cords shall have a green carrier ground conductor that attaches to motor frame.

CABLE ENTRY SYSTEM: Cable entry system shall consist of three separate seals. A rubber grommet that seals both cable jackets shall be clamped onto cord by end holding cap. An "O" ring seal and holding cap to bottom half of cord cap. Both cables shall have individual conductors stripped and potted into motor if the cable jacket becomes damaged. Cords shall withstand a pull of 150 pounds without loosening or losing integrity. The end holding cap shall have a female threaded tapping for 2" conduit.

A NEMA 4x stainless steel electrical enclosure shall include a 230 volt, three phase panel, manual over-ride switches, circuit breakers, shutoff valves, audio-visual alarm system, high overvoltage protection, indicating lights, and a 115 volt duplex convenience exterior mounted power outlet. A schematic diagram (showing wire color) shall be permanently fastened to the inside of the enclosure. The exact location to be designated by the Superintendent of Water Pollution Control. The panel shall be equipped with circuit breakers and a main disconnect safety switch. Material shall be equal to Square "D" or General Electric. The access door shall provide means for padlocking. A padlock shall be provided by the contractor with the cost included with the price of the lift station. The motor control switches shall be operated by 115 volt power. Pump controls shall be mercury-switch, liquid-level sensors in corrosion resistant plastic casings with flexible cord and weight. The level control system shall include support brackets for suspending the sensors at proper levels in the wet well. The controls shall provide for pump shut-off, single-pump on, double-pump on, alternating the pumps, and a high-water alarm system. A timing device shall be installed so that at least one pump runs at least once every 24 hours. The pumps and rails shall be designed to permit ground-level removal of the pumps without dewatering the wet well or interrupting operation of the other pump. The design shall permit the pumps to be lowered in place and connected to the discharge piping without need for personnel to enter the wet well. The lifting rails shall be galvanized pipe. Each pump shall be furnished with a galvanized chain of sufficient length and strength to raise and lower each pump. A lift-out rail system similar to the Myers Model 1-RWGR-300, and 1-RWGLH-300 which consists of a combined check valve, and seal fitting that mounts vertically into a stationary discharge casting. A simple downward motion shall connect pump and combination check valve and seal fitting to the stationary discharge casting. Check valve and seal fitting shall seal with two "O" rings and a tapered rubber seal ring into funnel of discharge case. Check valve flipper shall be spring loaded to prevent water hammer slam. A time-elapsed meter shall be provided for each pump. The meters shall be mounted on the inner panel, and shall accurately record the running time for each pump.

The contractor shall furnish and install the electrical meter at the pump station wet well, five (5) feet plus or minus one (1) foot above the top of the wet well. American Electric Power Company will install the wire from the power pole to the meter. The contractor shall provide for all electrical components and devices to properly serve electrical requirements for the completed facility. All workmanship, materials and equipment shall conform to the Ohio Basic Building Code, the National Electrical Code, Local Building Code(s) and other regulations by authorities having jurisdictional rights for enforcement of construction and safety standards. The Contractor shall pay the cost of fees associated with any permits or agency charges associated with this work.

PUMP STATION PAYMENT: All labor and material required to construct pump station wet well. The volute pit and the overflow chamber structure including all electrical work, control boxes, alarms and all other items related to the pump station, shall be included in the price bid for sanitary pump station complete.

TELEMETERING

The contractor shall provide radio controlled telemetry to the city's existing centralized receiving station which is monitored on a 24 hour basis.

The following functions shall be monitored:

- High Water Alarm
- Pump Operating Signal
- Pump Seal Failure
- Pump Failure
- Control Box or Boxes Intrusion (Telemetering and Pump Controls)

The equipment shall be radio controlled as manufactured by Westernman Companies, which is the equipment presently being used by the City of Lancaster.

The contractor shall provide the following:

- Remote Terminal Unit RT 1700 RTU with a CA-1531 1200 Baud FSK Modem with a Maxon VHF Radio.
- The frequency shall be the same as currently used by the City of Lancaster.
- All electrical power, control box and all other labor and equipment required to provide a completed functional telemetering system equal to the existing Lancaster system.
- The control box shall be a NEMA 4X fiberglass locking enclosure and shall be pedestal mounted at the pump wet well.

The height and foundation of the aerial shall be as recommended by the manufacturer.

The manufacturer shall arrange to include the addition of this site to the City of Lancaster's current FCC license and pay the fees required by the FCC.

Payment for all labor and materials to complete this item shall be included in the price bid for item special - telemetering complete.

ALARM: A battery backup shall be provided for the alarm system. A battery pack as recommended by the manufacturer to allow the signal from the station to the central monitor to continue in case of a power failure, shall be provided.

An elapsed time meter shall be provided as a flow measuring device. Contractor must supply water pollution control with all spare parts, warranty cards, and at least (3) copies of necessary service and maintenance manuals for all electrical, mechanical and telemetry items installed.

The Ductile Iron Pipe in the lift station shall be AWWA C 151 or ANSI A21.51, Class 53, Ductile Iron pipe with flanged or mechanical joints, fittings shall be AWWA C 110-71, Class 250. Material and equipment meeting the requirements listed herein shall be provided and installed along with all necessary accessories to provide a complete serviceable facility. The Contractor shall submit six (6) copies of all shop and equipment drawings for approval prior to ordering or installing any equipment or materials. The top slab shall not be poured until the opening and anchor bolts spacing are determined from the approved shop drawings of the electrical enclosure and equipment. The electrical conduit, 1" pipe, anchor bolts shall be galvanized. The opening shall be caulked after installation of the pipe and fittings.

* WARNING : TO AVOID FLOTATION OF THE WET WELL, COMPLETELY BACKFILL THE WET WELL IMMEDIATELY AFTER SETTING

EASEMENT REFERENCE			REVISIONS				Plans Prepared By :	ENG. FILE NO.	IMP. ACCT. NO.	CONTRACT NO.	COMPLETION DATE	CONTRACTOR	
City's No.	County Recorder	Grantor	No.	Description	Approval	Date							
	Volume	Page					LOCKWOOD AND ASSOCIATES, INC. 1955 LANCASTER-NEWARK ROAD LANCASTER, OHIO 43130 (614) 687-5542						
AS BUILT							REGISTERED ENGINEER						
PER CITY ENGINEERS FIELD NOTES							Ohio Reg. No. _____ Date _____						

City of Lancaster, Ohio
DIVISION OF ENGINEERING & CONSTRUCTION
LAWRENCE STREET LIFT STATION DETAILS

Scale : NONE
Date : JULY, 1998
Sheet No. : 4 of 6
Dwg. No. : SL-121C

001
UTILITY OWNERS: The following utilities and owners are located within the work limits of the project:
WATER:
 City of Lancaster
 Water Department
 225 North Memorial Drive
 Lancaster, Ohio 43130
 740-687-6631
SEWERS:
 Sanitary Storm City of Lancaster
 Water Pollution Control Street Department
 800 Lawrence Street
 Lancaster, Ohio 43130
 740-687-6664
ELECTRIC:
 AEP City of Lancaster
 JIM BEITER Electrical Department
 P.O. BOX 827 746 Lawrence Street
 LANCASTER, OHIO 43130
 740-681-7009
 320-436-7040
COMMUNICATIONS AND SIGNALS:
 AMERICA BEN CURRY
 RIGHT OF WAY ENGINEER
 150 E. GAY ST., RM. 7A
 COLUMBUS, OHIO 43215
GAS:
 City of Lancaster
 Gas Department
 800 Lawrence Street
 Lancaster, Ohio 43130
 740-687-6670
CABLE TV:
 Media One
 1315 Ohio Pike
 Lancaster, Ohio 43130
 740-653-9685
 002
UTILITY LOCATIONS: The location of underground utilities shown on the plans are obtained from the owners of utilities as required by Section 153.64 O.R.C. Locations and elevations of existing underground utilities and structures shown in the plans are approximate only. It shall be the responsibility of the Contractor to determine their exact location and elevation when working in their vicinity.
 Where potential grade conflicts might occur with existing utilities, the Contractor shall uncover such utilities sufficiently in advance of construction to determine their exact location and elevation and the necessary adjustments made. Cost of the above, if any, will be included in the price bid for the permanent item.
 Location, support, protection and restoration of all utility lines, services and appurtenances shall be the responsibility of the Contractor. The cost of this work shall be included with the price bid for the permanent item, unless otherwise noted on the plans. Estimated quantities shown on the plans for water and sanitary sewer relocations are for those items actually called for and shown on the plans.
 003
SURVEYS: The Contractor shall be responsible for performing all detail surveys needed for construction. The City of Lancaster has established bench marks and control points from which this work may be performed.
 004
MODIFICATIONS: Any modifications or changes to the work, as shown on the drawings, must have prior written approval by the City Engineer, City of Lancaster.
 005
SAFETY: The Contractor shall solely be responsible for complying with all Federal, state or local safety requirements, together with exercising precautions at all times for the protection of persons including employees and property. It is also the Contractor's responsibility to initiate, maintain, suspend or alter safety requirements, precautions and programs in connection with the work.
 The Contractor shall be solely responsible for securing the project site from the general public both during and after his working hours. The Contractor shall provide, erect and maintain all lights, signs, fences or any other safety device to prevent unauthorized personnel from hazardous or dangerous conditions on the project site. The cost of such work shall be included in the various items bid for furnishing and installing materials on this project.
 006
REVIEW OF PROJECT SITE: Prior to bidding the Contractor shall, by personal examination, satisfy himself as to the location of the proposed work and to acquaint himself thoroughly with the existing conditions and the difficulties that are likely to be encountered in the performance of the proposed work.
 007
IRON PINS AND MONUMENTS: The Contractor shall reference all iron pins and monuments before excavating at or near them. If any iron pins or monuments are destroyed or damaged by the Contractor, they shall be accurately replaced by a registered surveyor employed by the Contractor at the completion of the project and at no expense to the City or the property owner.
 008
NOTIFICATION OF CONSTRUCTION: The Contractor shall notify the City of Lancaster, City Engineer's Office a minimum of two (2) days before beginning work, holidays and weekends excluded. When the contractor suspends operations for two (2) or more working days, he shall notify the City Engineer a minimum of twenty-four (24) hours before resuming work.
 At least seventy-two hours prior to commencing construction operations in an area which may involve underground utility facilities, the Contractor shall notify the registered utility protection service and the owners of each utility facility shown in the plans.
 The owner of the underground utility facility shall, within forty-eight hours, excluding Saturdays, Sundays and Legal Holidays, after notice is received, state, mark or otherwise designate the location of the underground utility facilities in the construction area in such a manner as to indicate their course together with the approximate depth at which they were installed. The marking or locating shall be coordinated to stop approximately two days ahead of the planned construction.
 The utility protection service is the Ohio Utility Protection Service (1-800-362-2784).

011
LEGAL DIMENSION AND WEIGHT LIMITS: Pursuant to Sections 5577.04 and 5577.05 Ohio Revised Code (ORC), legal limits for dimensions and weights for highway vehicles were amended effective October 1, 1992. The amended ORC may affect the Contractor's cost for performing the various items of work on this project. It shall be the Contractor's responsibility to factor any additional costs resulting from the amended ORC into the unit bid price for the various items of work to be performed on this project. No additional reimbursement for the costs will be paid by the City.
 013
USE OF FIRE HYDRANTS: The Contractor is hereby notified that it is his/her responsibility to contact the City of Lancaster, Division of Water to make arrangements to take water from city fire hydrants. All arrangements shall be made before opening any fire hydrant. The taking of water from fire hydrants without Division authorization will result in the Contractor's prosecution for theft of a public utility. The Contractor shall be responsible for any damage to fire hydrants caused by his/her or employee's actions.
 014
LINE CROSSINGS: At all points of crossing of water or sewer conduits, the backfill shall be granular material, per Item 912, between the top of the upper conduit and the bottom of the lower conduit.
 016
WEEKEND AND HOLIDAY WORK: No work shall be permitted on weekends or on City of Lancaster holidays without the prior, written approval of the City Engineer. In the event the Contractor wishes to work on a weekend day or a holiday, he shall submit his request stating the reasons for working those days to the City Engineer a minimum of forty-eight (48) hours in advance of that weekend or holiday.
 017
ESTIMATED QUANTITIES: The quantities listed in the "Summary of Estimated Quantities" are approximate only, and shall be used in determining the total amounts of bids for the purpose of determining the lowest and best bidder. The quantities may be increased or diminished at the option of the Engineer.
 018
SEEDING AND MULCHING AS PER PLAN: The following mixture shall be used for permanent seeding within the street right-of-way and on slopes flatter than 5:1:

SPECIES	PERCENT BY WEIGHT	PERCENT BY PURITY	PERCENT GERMINATION
Annual Ryegrass	20%	95%	90%
Kentucky Bluegrass	40%	95%	87%
Red Fescue	40%	95%	87%

 The seeding shall be applied at the rate specified in 659.09. The following mixture shall be used for permanent seeding within drainage channels and on slopes steeper than 5 to 1:

Turf-type Fescue	92%	90%	90%
Kentucky Bluegrass	8%	95%	87%

 A 12-12-12 fertilizer shall be incorporated into the soil prior to seeding at a rate of 1000 pounds per acre. Seed shall be applied at a rate of 100 pounds per acre.
 022
GENERAL: The current City of Lancaster, Construction and Material Specifications (CMSL), including all supplements thereto, with the requirements of the City of Lancaster current on the date of the contract, shall govern all workmanship, materials and methods of construction involved in the improvements shown on these plans, except as such specifications are modified by the following specifications or by the construction details set forth herein.
 Sections of CMSL refer to the State of Ohio, Department of Transportation Construction and Material Specifications (ODOT-CMS). The contractor shall keep copies of CMSL and ODOT-CMS on the project site during all construction operations.
 023
TRAFFIC CONTROL: It shall be the responsibility of the Contractor to maintain traffic within the project area. The Contractor shall erect, maintain and remove the necessary traffic control devices, barricades, flagmen, and lights to safely maintain traffic around his operations. Traffic control devices shall be maintained in accordance with the Ohio Manual of Uniform Traffic Control Devices and the City of Lancaster's Traffic Control for Construction and Maintenance Operations.
 In no case shall the stipulations of these traffic control notes waive the requirements of either the construction and material specifications or the Ohio Manual of Uniform Traffic Control Devices.
 025
PERMANENT PAVEMENT REPLACEMENT: The pavement shall be replaced by first removing the temporary pavement down to the clean granular material and removing the existing pavement for at least 12 inches beyond the trench limits on each side. The pavement to be removed shall be neatly trowled, not more than 24 hours after the removal of the existing materials. The permanent pavement materials and workmanship shall be at least equivalent to the existing pavement applications, as determined by the Engineer. After removal of the temporary pavement and sawing of the existing pavement edges, Item 407 lock coat shall be applied to the exposed existing pavement edges, and to the base material, prior to the placing of the permanent pavement.
 026
MISCELLANEOUS WORK: All items of work called for on the plans for which no specific method of payment is provided shall be performed by the Contractor and the cost of same shall be included in the price bid for the various related items.
 027
FINAL CLEAN-UP: The Contractor shall clean up all debris and materials resulting from his operations and restore all surfaces, structures, facilities, and property to its original condition to the satisfaction of the Engineer.
 030
INDemnIFICATION: The contractor will indemnify and hold harmless the CITY and the ENGINEER and their agents and employees from and against all claims, damages, losses and expenses including attorneys' fees arising out of or resulting from performance of the WORK, provided that any such claims, damages, loss or expenses are attributable to bodily injury, sickness, disease or death, or injury to or destruction of tangible property, including the loss of use resulting therefrom, and is caused in whole or in part by any negligent or willful act or omission of the CONTRACTOR and SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.
 In any and all claims against the City or the Engineer, or any of their agents or employees, by any employees of the CONTRACTOR, any SUBCONTRACTOR, anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any SUBCONTRACTOR under Workers' Compensation acts, disability benefit acts, or other employee benefit acts.
 The obligation of the Contractor under this paragraph shall not extend to the liability of the ENGINEER, his agents or employees arising out of the preparation or approval of maps, PLANS, opinions, reports, surveys, CHANGE ORDERS, designs or SPECIFICATIONS.

101
ITEM 207 FILTER FABRIC FENCE:
MATERIALS: Filter fabric shall meet the requirement of Item 207.02.
CONSTRUCTION: The bottom of the fence shall be buried 6" below the ground. The fence shall be high enough to retain sediment laden water and adequately supported to prevent collapse or bursting. The ground elevation of the fence shall be held constant except that the end elevations shall be raised to prevent flow around the end of the fence.
MAINTENANCE: The filter fabric fence shall, at the direction of the engineer, be maintained to be functional. This shall include removal of trapped sediment and required cleaning, repair, and/or replacement of the filter fabric.
PAYMENT: The cost of all materials, construction, maintenance and removal required shall be paid for under Item 207 Lin. Ft. filter fabric fence.
 102
EROSION CONTROL: The Contractor shall be responsible for controlling soil erosion from the project site to prevent contamination of adjacent streams or other water courses, lakes, ponds or other areas of water impoundment.
 The following estimated quantities are to be used as directed by the Engineer, for temporary erosion and sediment control measures:

207 Straw or Hay Bales	Each
207 Temporary Slope Drains	Lin. Ft.
207 Temporary Benches, Dikes, Dams and Sediment Basins	Cu. Yd.
207 Filter Fabric Fence	Lin. Ft.
601 Type C Rock Channel Protection (without Bedding)	Cu. Yd.
659 Mowing	M. Sq. Ft.
659 Repair Seeding and Mulching	Sq. Yd.
659 Mulch	M. Sq.
659 Temporary Seeding and Mulching for Erosion Control	Sq. Yd.

 103
EROSION AND SEDIMENTATION CONTROL:
 The Contractor is responsible for controlling soil erosion resulting from his operations. It shall be the objective of the Contractor to contain erosion, siltation and sedimentation within the project site as far as practical. The Engineer may require additional activities when and where the work set forth herein is not sufficient to control the effects of erosion, siltation and sedimentation on non-project site properties.
 Topsoil shall be removed and stockpiled from all work areas prior to the commencement of construction. Immediately after construction of ditches and/or base paving of streets, topsoil from the stockpile shall be spread over the exposed areas and graded as required to prepare areas for permanent seeding. Application of permanent seeding, agricultural lime, fertilizer, and mulching material shall be as per the pertinent 659 or 669 items.
 Seeding shall be applied the same day that grading operations are complete. All constructed slopes and cuts shall be seeded at each vertical interval of no more than ten (10) feet in length. The Contractor shall irrigate or water as necessary to establish a healthy, erosion resistant cover on the work described above.
 When grading operations shall cease for a period of ten (10) calendar days or more, temporary seeding per 669 shall be immediately applied. If an unencountered delay is encountered, seed immediately when recognized.
 If construction takes place from October 1 to February 28, all exposed areas are to be temporarily mulched with straw or hay. The mulch shall be applied at a rate of 100 pounds per 1000 square feet. It shall be anchored with liquid asphalt rapid curing (RC-70, 220 or 600) at a rate of 0.04 gallons per square yard. When applied during freezing weather it shall be cut back with a keroseene-like product. In areas where runoff water is concentrated much nettings of jute, bio-degradable synthetic materials light-weight paper shall be used to hold the mulch in place. Substitute anchoring methods may be used such as straight disk or notched disk to lock the straw into the seeded three (3) inches horizontal to the slope.
 In addition to the above described work other notes, contingency quantities or construction and material specification may be set forth or called out in the plans or bidding documents. In such cases, the other work shall be performed in addition to the work described above.
 The above work, where not specifically itemized in the quantities, shall be considered incidental to the earthwork and seeding work as set forth in the plans and the cost of same shall be included in the price bid for the work described above.
 301
TRAFFIC CONTROL: It shall be the responsibility of the Contractor to maintain traffic within the project area. The Contractor shall erect, maintain and remove the necessary traffic control devices, barricades, flagmen, and lights to safely maintain traffic around his operations. Traffic control devices shall be maintained in accordance with the Ohio Manual of Uniform Traffic Control Devices and the City of Lancaster's Traffic Control for Construction and Maintenance Operations.
 In no case shall the stipulations of these traffic control notes waive the requirements of either the construction and material specifications or the Ohio Manual of Uniform Traffic Control Devices.
 302
PLACEMENT OF ASPHALT CONCRETE: Two-way traffic shall be maintained at all times except that one-way traffic will be permitted for minimum periods of time consistent with the requirements of the specifications for protection of completed asphalt concrete courses.
 303
ITEM 614 MAINTAINING TRAFFIC: The contractor shall maintain traffic at all times in accordance with the requirements of Item 614. Two-way traffic shall be maintained at all times by the use of the existing pavement, (the completed pavement), (Item 502 Temporary Structure), (Item 615 Temporary Roads and Pavements), (Item 616 Temporary Roadways surfaced with aggregate and stabilized with Item 616 color-binder). The limits and duration of work for temporary roadways shall be held to an absolute minimum, and in all cases shall be subject to the approval of the Engineer.
 The following estimated quantities have been included in the General Summary to be used as directed by the Engineer for the maintenance of traffic.

ITEM 404 Bituminous Concrete for Maintaining Traffic	Cu. Yd.
ITEM 410 Traffic Compacted Surface Type A & B	Cu. Yd.
ITEM 410 Traffic Compacted Surface Type C	Cu. Yd.
ITEM 616 Calcium Chloride Water	Tons

 Separate pay items shall be made for Items 404, 410, 502, 615, and 616 noted above. All other work required for traffic maintenance, except providing low enforcement officers, shall be included with payment for Item 614 Maintaining Traffic.
 NOTE TO DESIGNER: The text of the note must be edited to suit the traffic maintenance requirements.
 Communications between flaggers shall be by two-way radio during the paving operations.
 Payment for the above shall be included in Item 614, Maintaining Traffic.
 311
CONTROL OF ONE-WAY TRAFFIC: In addition to the requirements of the Ohio Manual of Uniform Traffic Control Devices and Material Specifications, the following requirements shall apply:
 Communications between flaggers shall be by two-way radio during the paving operations.
 Payment for the above shall be included in Item 614, Maintaining Traffic.

304
ITEM 615 TEMPORARY ROADS AND PAVEMENTS: On this project the (stabilized aggregate) temporary Class _____ pavement shall be feet wide and the roadway width shall be not less than _____ feet out to out of shoulders and _____ feet face to face of rail where guardrail is used. The alignment and pavement typical section shall be as detailed on the associated plan-profile sheet.
 The following estimated quantities have been included in the General Summary to be used in constructing the (stabilized aggregate) temporary Class _____ pavement.

ITEM 615 Temporary Pavement, Class 0	Sq. Yd.
ITEM 616 Traffic Compacted Surface, Type 0	Cu. Yd.
ITEM 616 Calcium Chloride	Tons
ITEM 616 Water	M-Gals.

 Although estimates for (temporary guardrail), (temporary sidewalk), (temporary excavation and embankment), (temporary fence), (temporary drainage facilities) have been shown on the plan details, these items shall be considered incidental to, and included with, payment for Item 615 Temporary Road.
 305
TRENCH FOR WIDENING: Trench excavation for base widening shall be on one side of the pavement at a time. The open trench shall be adequately maintained and protected with drums or barricades at all times. Placement of proposed subbase and base material shall follow as closely as possible behind the excavation operations. The length of widening trench which is open at any one time shall be held to a minimum and shall at all times be subject to approval of the Engineer.
 306
OVERNIGHT TRENCH CLOSING: The base widening on this project will be completed to a depth 3 inches below the existing pavement by the end of the work day. Except for a short length of a work section (25 feet or less) at the end of the trench, no trench will be left open overnight. In case work must be suspended because of inclement weather or other reasons, the trench for the uncompleted base widening will be backfilled at the direction of the Engineer.
 307
RESTRICTING PARKING ON CITY STREETS: The streets within the project area are urban in character and generally allow on-street parking on one or both sides. Before restricting permitted parking along any public street, the Contractor shall obtain a Use of the Public Right-of-Way Permit from the Service-Safety Director. The Contractor shall make application for the permit a minimum of seventy-two (72) hours prior to the effective time of the requested restriction, weekends and holidays excluded.
 Upon approval of the permit, the Contractor may obtain the "NO PARKING BY ORDER OF THE SERVICE-SAFETY DIRECTOR" signs from the Engineering Department (687-6614). The signs shall be posted a minimum of twenty-four (24) hours prior to the effective time of the posting. The Contractor shall mark on the signs the effective time and date of the posted restriction. The person posting the signs shall initial, and note the date and time the sign was erected in the lower outside margin. The signs shall be erected per the Ohio Manual of Traffic Control Devices. Failure to follow these procedures will cause the restriction to be unenforceable by the Lancaster Police Department. All unused signs shall be returned to the Department of Engineering.
 The cost of obtaining, posting, removing and returning the signs shall be included in the lump sum bid for Item 614, Maintenance of Traffic.
 308
614 WORK ZONE MARKING SIGNS: The contractor shall furnish, install, maintain and subsequently remove work zone marking signs (OW-167 and OW-168) within the work limits in accordance with the following requirements:
 The Contractor may use signs and supports in used but good condition provided the signs meet current department specifications. Sign costs shall be reflected with the cost of the sign and necessary supports. All other work requirements of 730.19 work zone marking signs shall be provided with suitable yielding supports of sufficient strength and stability.
 Work zone marking signs will be measured as the number of sign installations, including the sign and necessary supports. All other work zone signs shall be included in 614 maintaining traffic unless separately itemized.
 Payment for accepted quantities, complete, in place will be made at the contract unit price. Payment shall be full compensation for all materials, labor, incidentals and equipment for placement, maintenance and removal of the signs.
 309
STREET AND LANE CLOSINGS: No street or part of any street including the sidewalk shall be permitted to be closed without the approval of a Permit to Use the Public Right-of-Way from the Service-Safety Director. The Contractor shall submit his request along with a plan of the proposed detour route, and maintenance of traffic plan a minimum of forty-eight (48) hours before the actual closing, weekends and holidays excluded. If the closing is approved, the Contractor shall notify the City Engineer a minimum of four (4) hours before he implements the actual closing. The Contractor shall notify any affected residents or businesses prior to the closing as to the extent, nature and duration of the closure.
 310
SPECIAL DUTY POLICE OFFICERS: When the Contractor requires the services of a Special Duty City Police Officer, with or without a city police cruiser, the contractor shall make arrangements for these services with the Captain of Operations, Lancaster Police Department, 687-5283. Notice of one (1) week should be provided to ensure the availability of a special duty police officer. Lesser notice may result in the unavailability of a special duty police officer. Any resulting delay to the project due to the unavailability of a Special Duty City Police Officer shall not be the responsibility of the City of Lancaster.
 Special Duty City Police officers shall be considered as employees of the Contractor and the Contractor shall be responsible for their actions. Although employed by the Contractor, the project engineer shall have control over their placement.
 Payment for the services of Special Duty City Police Officers and city police cruisers shall be included in the unit price bid for Item 614, Maintenance of Traffic unless otherwise set forth as a separate pay item in these plans.
 311
CONTROL OF ONE-WAY TRAFFIC: In addition to the requirements of the Ohio Manual of Uniform Traffic Control Devices and Material Specifications, the following requirements shall apply:
 Communications between flaggers shall be by two-way radio during the paving operations.
 Payment for the above shall be included in Item 614, Maintaining Traffic.

312
RESTRICTING PARKING ON CITY STREETS: The streets within the project area are urban in character and generally allow on-street parking on one or both sides. Before restricting permitted parking along any public street, the Contractor shall obtain a Use of the Public Right-of-Way Permit from the Service-Safety Director. The Contractor shall make application for the permit a minimum of seventy-two (72) hours prior to the effective time of the requested restriction, weekends and holidays excluded.
 Upon approval of the permit, the Contractor may obtain the "NO PARKING BY ORDER OF THE SERVICE-SAFETY DIRECTOR" signs from the Engineering Department (687-6614). The signs shall be posted a minimum of twenty-four (24) hours prior to the effective time of the posting. The Contractor shall mark on the signs the effective time and date of the posted restriction. The person posting the signs shall initial, and note the date and time the sign was erected in the lower outside margin. The signs shall be erected per the Ohio Manual of Traffic Control Devices. Failure to follow these procedures will cause the restriction to be unenforceable by the Lancaster Police Department. All unused signs shall be returned to the Department of Engineering.
 The cost of obtaining, labeling, posting, removing and returning no parking signs shall be included in the lump sum bid for Item 614, Maintaining Traffic.
 601
SPRING DRAINS: All springs encountered during excavation shall be drained to an outlet approved by the City Engineer. The spring drain shall conform to the Spring Drain Detail. [UNKNOWN QUANTITY]
 602
DRAIN TILE: All drain tile found during construction activities shall be reported to the City Engineer. Any drain tile broken during excavation shall be replaced to its original condition, connected either to curb underdrain or storm sewer system, or new underdrain installed to an unobstructed outlet approved by the City Engineer. The City Engineer may require, at his option, to connect any or all drain tile found on this project to other tile, a storm sewer or to an unobstructed outlet.
 Where the City Engineer requires new drain tile be installed as above, the cost of such work shall be paid for at the unit bid price for the following contingency quantities:

Item 605 4" unclassified pipe under drain, as per plan: 100 LF.

 In no case shall the drain be connected to a sanitary sewer or allowed to flow onto a public street.
 902
SERVICE CONNECTIONS: Services or house connections shall not be connected to the lateral or main sewers shown hereon until full approval of said lateral or main line sewer has been received.
 903
MANHOLE LOCATIONS: The station and offset of the manholes shown on the plans are to the center of the manhole base.
 905
CONNECTION TO EXISTING PIPE: Where the plans provide for proposed conduit to be connected to, or to cross either over or under an existing conduit, it shall be the responsibility of the Contractor to locate the existing conduit both as to line and grade before he starts to lay the proposed conduit.
 Payment for all operations described above shall be included in the items bid for furnishing and installing pipe.
 906
CONNECTIONS TO EXISTING MANHOLES: Where new sewers are connected to existing manholes, the Contractor shall core drill any new openings into the existing manhole. The manhole shall have a water-tight joint of a flexible rubber gasket expansion bolt. The Contractor shall then clean the manhole of all debris before making the connection. The Contractor shall construct a semi-circular, concrete channel to the new pipe to provide smooth, uninterrupted flow through the manhole.
 Payment for this work shall be included in the item bid for furnishing and installing pipe.
 907
BACKFILL: All trench backfill shall be compacted backfill as per CMSL Item 911. The cost of all compacted backfill shall be included in the price bid for furnishing and installing pipe.
 In addition to the requirements of CMSL Item 901.08 as it refers to compacted backfill, there may be areas on the plans with the limits indicated on the profile view of the sewer as "Compacted Granular Backfill". These areas will be compacted to meet the requirements of CMSL Item 912.03. Payment for the compaction of backfill within these areas shall be included in the price bid for CMSL furnishing and installing pipe.
 908
CONNECTIONS TO SANITARY SEWER SYSTEM: Roof drains, foundation drains and other clean water connections to the sanitary sewer system are prohibited in the City of Lancaster.
 912
PROFILE: Profile is shown along sewer centerline. Profiles are not shown on all inlet collector sewers.
 913
TOP OF CASTING ELEVATIONS: The elevations shown on the plans for top of casting of proposed manholes matches the existing or proposed pavement surface. In areas where the pavement is to be resurfaced the top of casting shall match the surface of the resurfaced pavement.
 915
SANITARY SEWER PLUGS: Plugs were called for in the plans or as designated by note or specification shall be factory installed by the sewer pipe manufacturer. Plugs shall be watertight and removable.
 916
SEQUENCE OF OPERATIONS: The Contractor shall conduct his operations in such a way that he will complete any portion of the sewer construction started, (including manholes, catch basins, concrete cover, concrete plugging of lines) to insure proper operation at all times, beginning at the outlet end of any pipe. Any failure of the Contractor to comply with the above provisions will be reason for the Engineer to suspend work until the conditions are met.

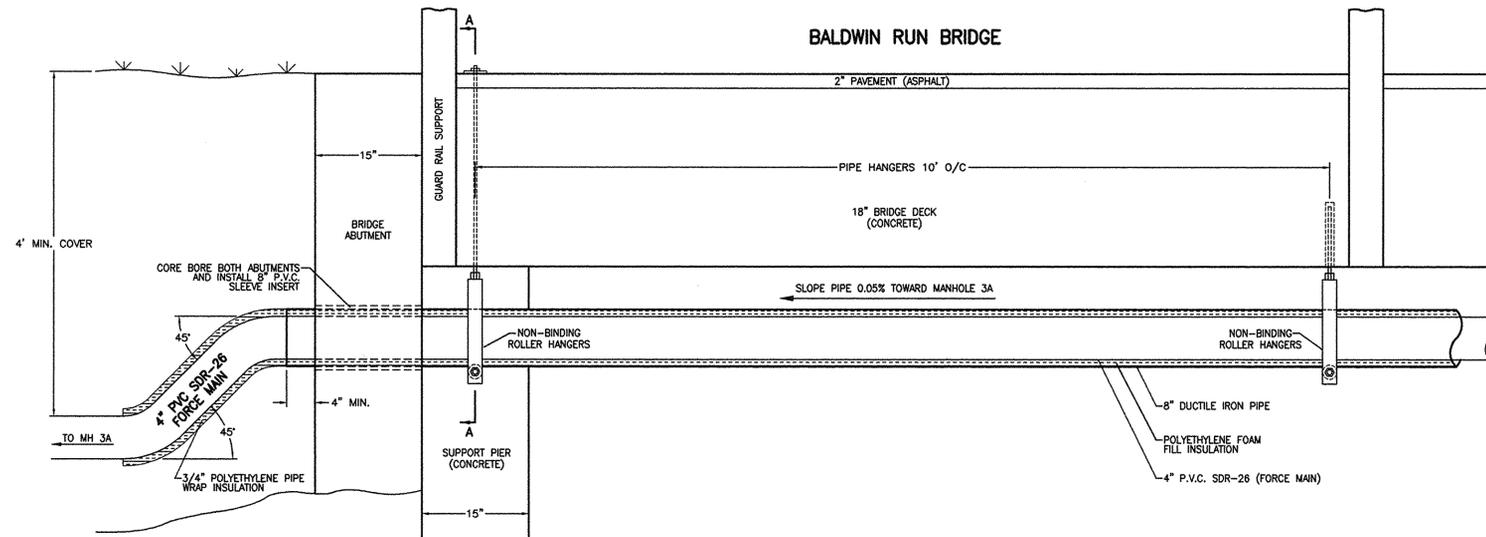
917
EXISTING SEWERS AND STRUCTURES: The contractor shall replace to the satisfaction of the Engineer all existing manholes, catch basins, structures, and appurtenances removed or abandoned through construction. The above is not applicable to structures to be abandoned. The Contractor shall remove debris, silt, etc. from existing manholes and catch basins and various sewer pipe which are connected in the new system.
 918
EXISTING SEWAGE FLOW: The Contractor shall make provisions to maintain flow in the existing sewer at all times during construction. Methods for maintaining flows shall be submitted to the Engineer for approval prior to construction. At no time will sanitary sewage be allowed to discharge to any river or stream nor spill out on the ground. Approval of plans by the Engineer to maintain flows shall not relieve the Contractor of any responsibility to adequately provide for all flows.
 The Contractor shall be aware that the existing sewers may be operating under pressure (head) during times of rainfall; therefore the Contractor shall exercise caution when working on these sewers.
 Payment for this work shall be included in the item bid for furnishing and installing pipe.
 919
SANITARY SEWER-MANHOLE CONNECTIONS: The sanitary sewer pipe to manhole connections shall be of a flexible watertight joint of approved manufacture. The joint may be of the following design (A) rubber sleeve with stainless steel banding, (B) rubber gasket compression, or (C) rubber gasket bonding.
 Payment for this work and materials shall be included with the item bid for furnishing and installing manholes.
 920
SEWER-WATER MAIN CROSSING: Where the water main does not maintain 18" vertical separation or is below the sanitary sewer, the sewer shall be constructed (or encased in) water main type materials which will withstand a 100 PSI pressure test for a distance of 10 feet on both sides of the water main. At all points of crossing of water or sewer conduits, the backfill shall be granular material per Item 912, between the top of the upper conduit and the bottom of the lower conduit.
 921
SEEDING LIMITS: Quantities for seeding are calculated for the soil areas shown between the seeding limits on the Typical Trench Standard Detail.
 Areas outside the seeding limits which are disturbed by the Contractor's operation shall be seeded and mulched per Item 659, the cost of which shall be borne by the Contractor. Where the Contractor's proposed method of operation will disturb an area outside the seeding limits, it shall be his responsibility to determine his actual seeding and mulching area and to include the additional cost in his unit bid for seeding and mulching.
 923
SEWER INSPECTIONS: Pipe laying and backfill shall be performed in accordance with pertinent construction and material specifications of Lancaster and City of Lancaster standard construction drawings. Backfilling operations shall not begin until this work has been inspected by the City Engineer or his representative. This inspection prior to the backfilling operation does not relieve the contractor of his responsibilities for the leakage tests. Inspections must be requested twenty-four (24) hours in advance. Inspections will only be performed on week-days between 7:30 A.M. and 3:30 P.M. excluding City holidays. Requests for inspections on weekends or holidays must be submitted in writing forty-eight (48) hours in advance. Requests must state the special circumstances warranting the inspection.
 Leakage tests shall conform to City of Lancaster CMSL 901.02 as per City Engineer.
 925
CONNECTION TO EXISTING PIPE: Where the plans provide for proposed conduit to be connected to, or to cross either over or under an existing conduit, it shall be the responsibility of the contractor to locate the existing pipe both as to line and grade before he starts to lay the proposed conduit.
 Payment for all operations described above shall be included in the unit price bid for furnishing and installing pipe.
 927
SANITARY SEWER LATERALS: All backfill for sanitary sewer laterals under the existing or proposed street pavement and within the influence of the pavement shall be Compacted Granular Material per CMSL 912. The remaining backfill within the street right-of-way shall be Compacted Backfill per CMSL Item 911.
 Payment for this work and material shall be included in the unit bid for furnishing and installing Sanitary House Connection Service.
 928
TYPE I BEDDING: The sanitary sewer pipe bedding material to be used on this project shall conform to No. 67 stone as set forth in Table 703.1 of ODOT CMS. Bedding installation shall conform to Standards Construction Drawing S-1.
 Payment for the above work and materials shall be included in the item bid for furnishing and installing sewer pipe.
SHOP DRAWING APPROVALS: The Contractor shall submit to the City Engineer and the Developer's Engineer a copy of the manufacturer's shop drawings for all precast items, castings and any other items constructed wholly or in part off the jobsite but which will be incorporated into the improvements shown herein these plans. These items shall not be ordered or delivered to the site unless approved in writing by the City.
 Scale : NONE
 Date : JULY, 1998
 PROJECTS/LANC LIFT STATION/NOTES
 Dwg. No. : SL-121D

City of Lancaster, Ohio
 DIVISION OF ENGINEERING & CONSTRUCTION
 LAWRENCE STREET LIFT STATION,
 GRAVITY AND FORCE MAIN SEWERS
 GENERAL NOTES

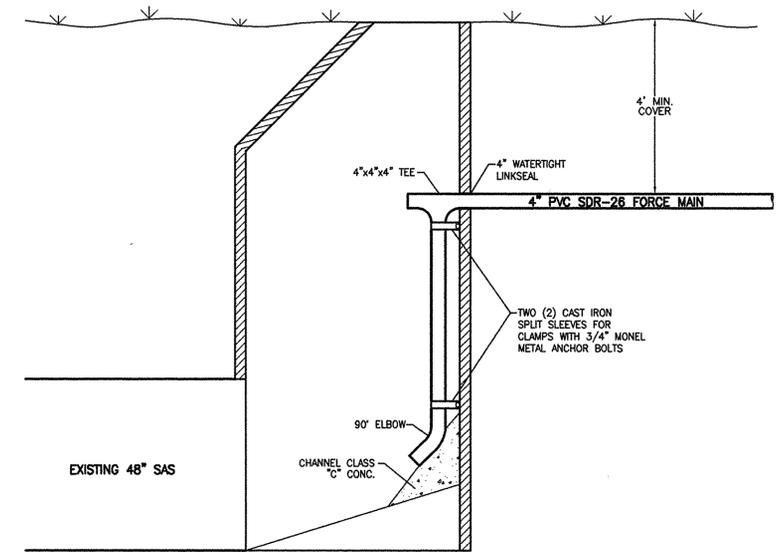
EASEMENT REFERENCE			REVISIONS			
City's No.	County Recorder	Grantor	No.	Description	Approval	Date
	Volume	Page				
				AS BUILT		
				PER City ENGINEERS FIELD NOTES		4-03-01

Plans Prepared By :
 LOCKWOOD AND ASSOCIATES, INC.
 1955 LANCASTER-NEWARK ROAD
 LANCASTER, OHIO 43130
 (614) 687-5542
 REGISTERED ENGINEER
 48244
 Ohio Reg. No. _____ Date _____

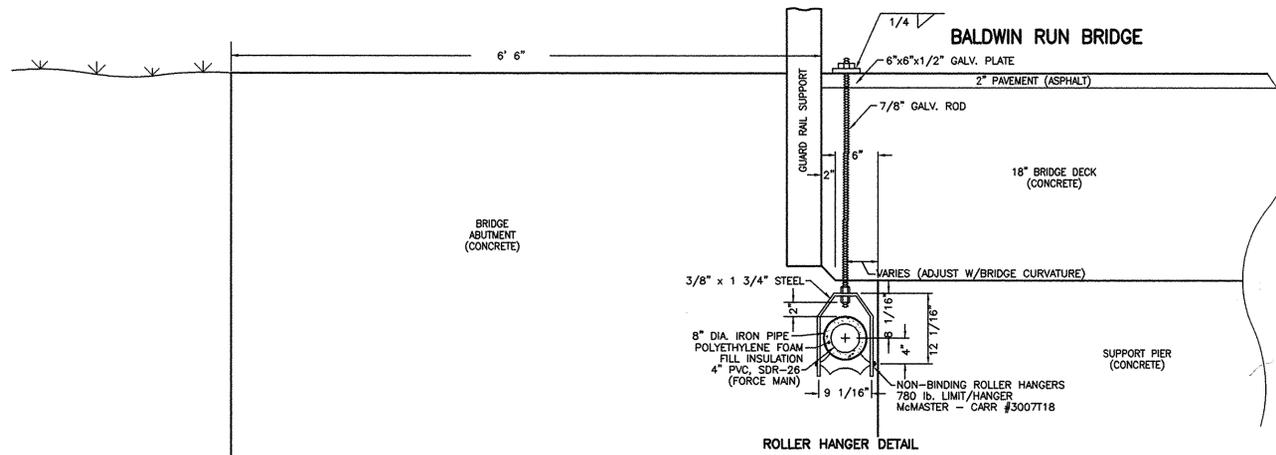
ENG. FILE NO. _____
 IMP. ACCT. NO. _____
 CONTRACT NO. _____
 COMPLETION DATE _____
 CONTRACTOR _____



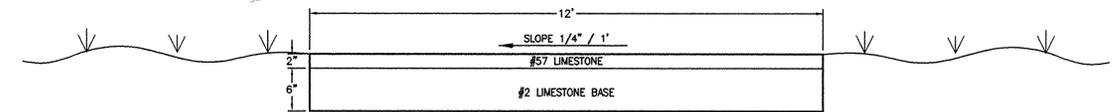
PIPE SUPPORT DETAIL
(NTS)



EXISTING MANHOLE 3A
FORCE MAIN TERMINATION DETAIL
SEE LANCASTER CITY STANDARD
CONSTRUCTION DRAWING S-17
INSIDE DROP
(NTS)



SECTION A-A
(NTS)



ACCESS ROAD TO LIFT STATION
TYPICAL SECTION
(NTS)

EASEMENT REFERENCE		
City's No.	County Recorder	
	Volume	Page
Grantor		

REVISIONS			
No.	Description	Approval	Date
1.	CHANGE DUCTILE IRON PIPE TO 8"		RFM 12-17-97
AS BUILT			
Per City Engineer's Field Notes			
			4-03-01

Plans Prepared By :
 LOCKWOOD AND ASSOCIATES, INC.
 1955 LANCASTER-NEWARK ROAD
 LANCASTER, OHIO 43130
 (614) 687-5542

REGISTERED ENGINEER
 Ohio Reg. No. _____ Date _____

ENG. FILE NO. _____
 IMP. ACCT. NO. _____
 CONTRACT NO. _____
 COMPLETION DATE _____
 CONTRACTOR _____

City of Lancaster, Ohio
 DIVISION OF ENGINEERING & CONSTRUCTION

LAWRENCE STREET LIFT STATION
 GRAVITY & FORCE MAIN SEWERS - DETAILS

Scale : NTS
 Date : JULY, 1998

Sheet No. : 6 of 6
 Dwg. No. : **SL-121E**

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