

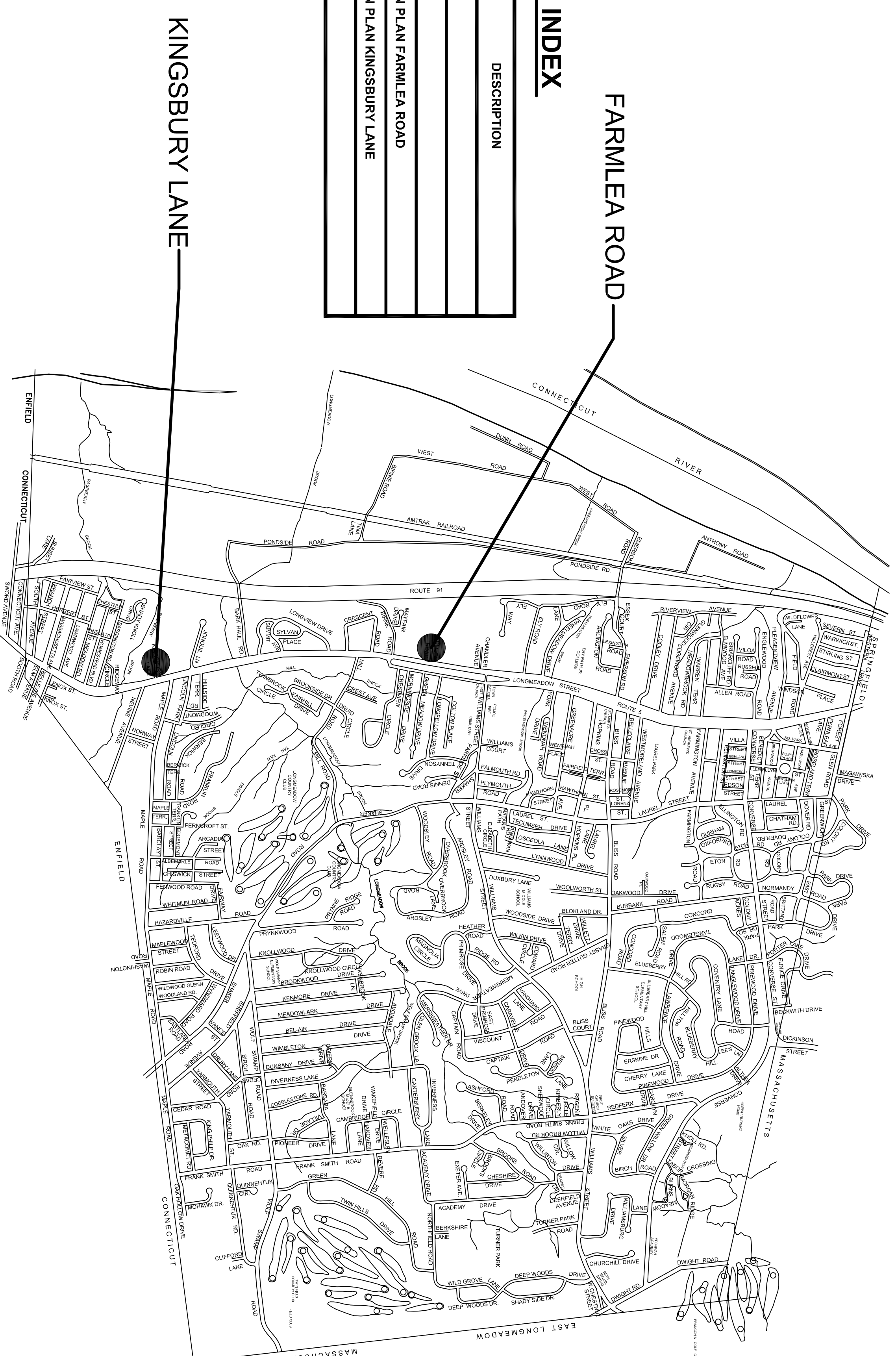
# TOWN OF LONGMEADOW, MASSACHUSETTS

## FARMLEA ROAD & KINGSBURY LANE

### WATER MAIN REPLACEMENT PROJECT

SHEET NUMBER	DESCRIPTION
1	COVER SHEET
2	NOTES
3	CONSTRUCTION PLAN FARMLEA ROAD
4	CONSTRUCTION PLAN KINGSBURY LANE
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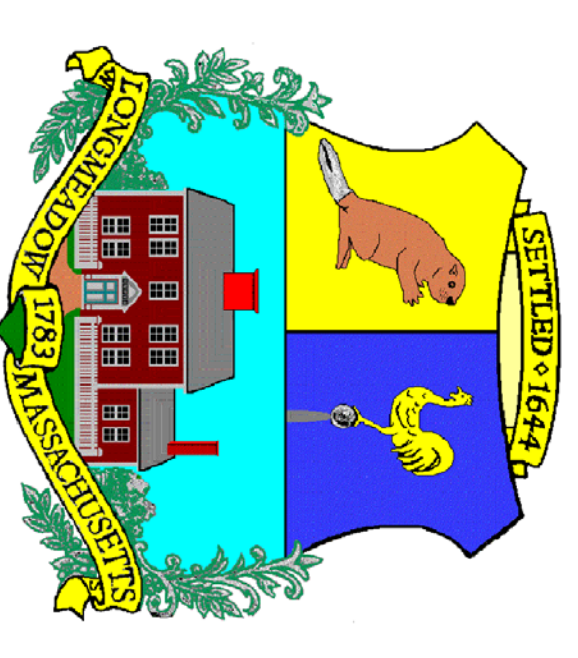


**SELECT BOARD**  
**THOMAS LACHIUSA**  
**MARK P. GOLD**  
**MARIE ANGELIDES**  
**RICHARD FOSTER**  
**WILLIAM LOW**

**TOWN MANAGER**  
**STEPHEN J. CRANE**

**DEPARTMENT OF PUBLIC WORKS**  
**MARIO MAZZA, DIRECTOR**  
**ANDREW KRAR, P.E., TOWN ENGINEER**

**Longmeadow**  
**Engineering**  
**Department**



**LOCUS MAP**

Not To Scale













MARCH 2019

**COMPLETE SET 6 SHEETS**

## GENERAL NOTES

- EXISTING UTILITY LOCATIONS ARE BASED ON AVAILABLE INFORMATION. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF UTILITIES BY TEST PIT OR OTHER METHOD WHERE REQUIRED. SECTIONS OF PROPOSED WATER MAY NEED TO BE ADJUSTED BASED ON LOCATION AND DEPTH OF EXISTING UTILITIES.
- DURING THE INSTALLATION OF THE PROPOSED WATER MAIN, THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO MAINTAIN EXISTING WATER SERVICES TO ALL PROPERTIES. DAMAGED WATER SERVICES SHALL BE REPAIRED IMMEDIATELY AT AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS TO ALL PROPERTIES WITHIN THE PROJECT AREA AT ALL TIMES.
- ADJUSTMENTS TO THE PROPOSED WATER MAIN LAYOUT AND ELEVATIONS SHALL NOT BE CONSIDERED AS CAUSE FOR ADDITIONAL PAYMENTS. THE CONTRACTOR SHALL NOT MAKE PROPOSED WATER LAYOUT AND ELEVATION ADJUSTMENTS WITHOUT APPROVAL FROM THE ENGINEER.
- DAMAGE TO ALL UNDERGROUND AND OVERHEAD UTILITIES (I.E. WATER, SEWER, STORM CULVERTS, ELECTRIC, PET FENCES, ETC.)) IS THE RESPONSIBILITY OF THE CONTRACTOR. REPAIRS SHALL BE MADE BY THE CONTRACTOR OR UTILITY COMPANY AS APPLICABLE. AND AS ACCEPTABLE TO THE ENGINEER, NO COMPENSATION SHALL BE ALLOWED UNDER THIS CONTRACT FOR THE REPAIR OF UTILITIES IN THE PROJECT AREA.
- THE CONTRACTOR SHALL REMOVE AND REPLACE FENCES, MAILBOXES, CURBING, ETC. AS NECESSARY. CONDITION OF REPLACED ITEMS SHALL BE EQUAL OR BETTER THAN ORIGINAL CONDITION PRIOR TO REMOVAL.
- SOME EXISTING WATER MAIN PIPE TO BE REPLACED IS ASBESTOS CONCRETE. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND LEGAL DISPOSAL OF THE PIPE AND ANY ASSOCIATED APPURTENANCES.
- PROPERTIES MAY HAVE ROOF/YARD DRAINS CONNECTED TO STORM DRAIN CULVERTS IN THE STREET. THE CONTRACTOR SHALL CONFIRM THEIR LOCATIONS PRIOR TO CONSTRUCTION.
- CONTRACTOR REQUIRED TO CONFIRM LOCATIONS OF IRRIGATION SYSTEMS WITH ALL HOMEOWNERS PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. IF SPRINKLER SYSTEMS ARE DAMAGED DURING CONSTRUCTION, CONTRACTOR IS REQUIRED TO REPAIR AT HIS EXPENSE.
- THE PROPOSED WATER MAIN AND SERVICES SHALL HAVE A MINIMUM OF 5 FEET OF COVER. AT LOCATIONS WHERE GRADE CONFLICTS WITH EXISTING UNDERGROUND UTILITIES OR PIPES OCCUR, THE WATER MAIN SHALL BE INSTALLED DEEPER AS REQUIRED TO PROVIDE A MINIMUM OF 6" VERTICAL CLEARANCE BETWEEN THE WATER MAIN AND THE UTILITY PIPE EXCEPT FOR A SANITARY SEWER CROSSING WHERE THE WATER MAIN SHALL BE INSTALLED 18 INCHES ABOVE THE SANITARY SEWER.
- ALL FITTINGS SHALL HAVE MECHANICAL JOINTS AND RETAINER GLANDS. RESTRAINED JOINTS SHALL BE USED ON BOTH SIDES OF BENDS AND FITTINGS.
- THE LOCATIONS OF SOME EXISTING WATER SERVICES ARE NOT KNOWN AND THEREFORE NOT SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL EXCAVATE TEST PITS OR USE OTHER MEANS TO DETERMINE THE LOCATION OF THESE SERVICES IN ORDER TO COMPLETE THE PROPOSED RECONNECTION.
- ALL PROPOSED WATER SERVICES SHALL BE 1-1/2" DIAMETER COPPER UNLESS OTHERWISE NOTED. SERVICES SHALL BE INSTALLED TO THE NEW CURB STOP. NEW CURB STOPS SHALL BE PLACED AT THE SAME LOCATION AS THE EXISTING CURB STOP. HOWEVER, IN THE CASE WHERE AN EXISTING CURB STOP IS LOCATED IN THE ROAD, THE NEW CURB STOP SHALL BE POSITIONED APPROXIMATELY 2 FEET BEYOND THE SIDEWALK OR UP TO THE PROPERTY LINE WHERE NO SIDEWALK EXISTS. EXISTING SERVICE PIPING SHALL BE CAPPED ONCE SERVICE IS TRANSFERRED TO NEW MAIN.
- THE PROPOSED WATER MAIN SHALL BE FULLY TESTED AND DISINFECTED BEFORE TRANSFERRING HOUSE SERVICES.
- ASBESTOS CEMENT PIPE TO BE REMOVED AS A RESULT OF THIS PROJECT SHALL BE HANDLED, TRANSPORTED AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE ASBESTOS ABATEMENT PROCEDURES AND REGULATIONS AS SPECIFIED IN SECTION 13281.

## LEGEND

HYDRANT	
STORM DRAIN MANHOLE	
SANITARY MANHOLE	
PROPOSED WATER VALVE	
EXISTING WATER VALVE	
CATCHBASIN	
UTILITY POLE	
TREE	
SHRUB	
PROPOSED WATER LINE	
EXISTING WATER LINE	
EXISTING GAS LINE	

## ABBREVIATIONS

ASBESTOS CEMENT	AC
BITUMINOUS CONCRETE	BIT CONC
BOTTOM OF EXPLORATION	CI
CAST IRON	CB
CATCH BASIN	CU FEN
CHAIN LINK FENCE	CHIM
CHIMNEY	CL
CEMENT LINED STEEL	CO
CLEANOUT	CONC
CONCRETE	C
CONCRETE WALK	CU
COPPER	CMP
CORRUGATED METAL PIPE	CS
CUT SPIKE	DB
DEBRIS	DP
DIRT PILE	DMH
DRAIN MANHOLE	DI
DUCTILE IRON	EL
EASEMENT LINE ELEVATION	EOP
EDGE OF PAVEMENT	EC
EROSION CONTROL	EG
GAS GATE	GG
GATE VALVE	GV
GEOGRAPHICAL INFORMATION SYSTEMS	GIS
GRANITE CURB	GR CURB
GUY WIRE	GY
GUY POLE	GP
HOUSE	HSE
HYDRANT	HYD
INVERT	INV
IRON PIPE	IP
MAIL BOX	MB
MANHOLE	MH
MECHANICAL JOINT	MJ
NOT IN THIS CONTRACT	NTC
NOT TO SCALE	NTS
PAVED WALK	PV
POLYETHYLENE PIPE	PE
POLY-VINYL CHLORIDE	PVC
PROPERTY LINE	PL
PUMP STATION	P.S.
REINFORCED CONCRETE PIPE	RCP
RIGHT OF WAY	R.O.W.
ROCK PILE	RP
SANITARY MANHOLE	SMH
STANDARD DIMENSION RATIO	SDR
STATION	STA
STONE BOUND	SB
STREET LINE	SL
SHUT OFF CURB STOP	SO
TEMPORARY BENCH MARK	TBM
TELEPHONE POLE	TP
TRAFFIC CONTROL	TC
UNDER CONSTRUCTION	UC
UTILITY POLE	U.P.
UTILITY STRUCTURE	UT
UNDELINEATED WETLAND AREA	UWA
VITRIFIED CLAY PIPE	VC
WATER GATE	WG
WATER SERVICE	WS
WATER TIGHT COVER	WTC

TOWN OF LONGMEADOW, MA  
FARLMLLEA ROAD &  
KINGSBURY LANE  
WATER MAIN IMPROVEMENTS

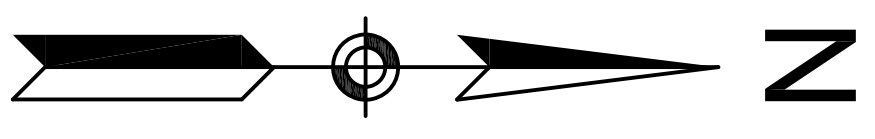
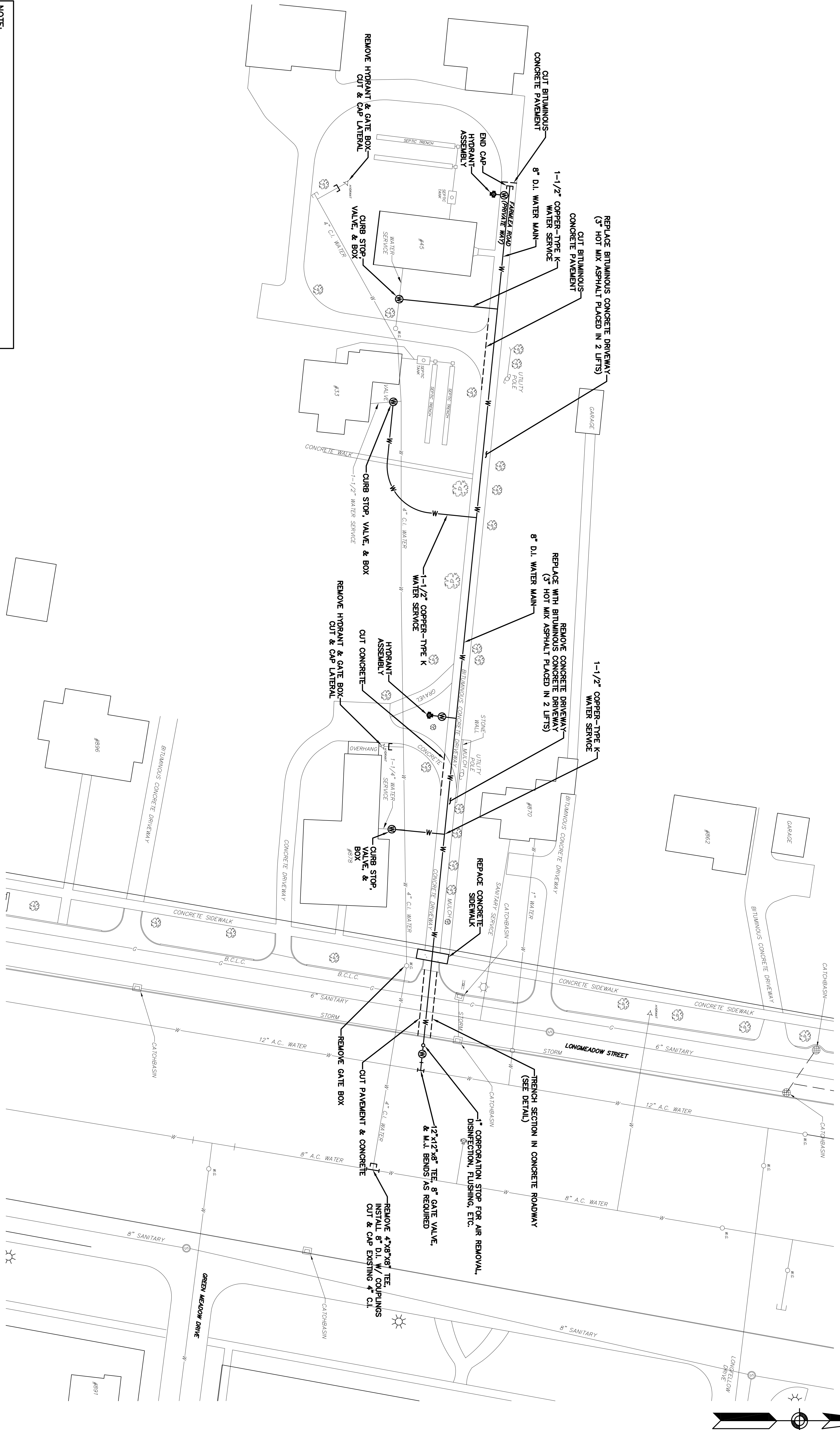
DATE: FEBRUARY 2019

### REVISIONS

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### NOTES

**N-1**



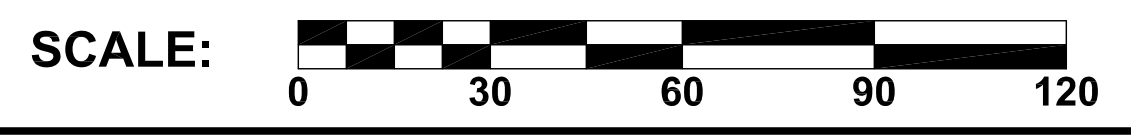
**NOTE:**  
 EXISTING CONDITIONS SHOWN HEREON WERE TAKEN FROM AVAILABLE MAPS, AERIAL PHOTOGRAPHY, FIELD MEASUREMENTS, AND OTHER SOURCES THAT MAY NOT BE ACCURATE, AND WAS PREPARED FOR ILLUSTRATIVE PURPOSES ONLY. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL COORDINATE WITH TOWN ENGINEERING STAFF TO VERIFY LOCATIONS OF THE PROPOSED WORK.

TOWN OF LONGMEADOW, MA  
 FARMLLEA ROAD &  
 KINGSBURY LANE  
 WATER MAIN IMPROVEMENTS

DATE: MARCH 2019

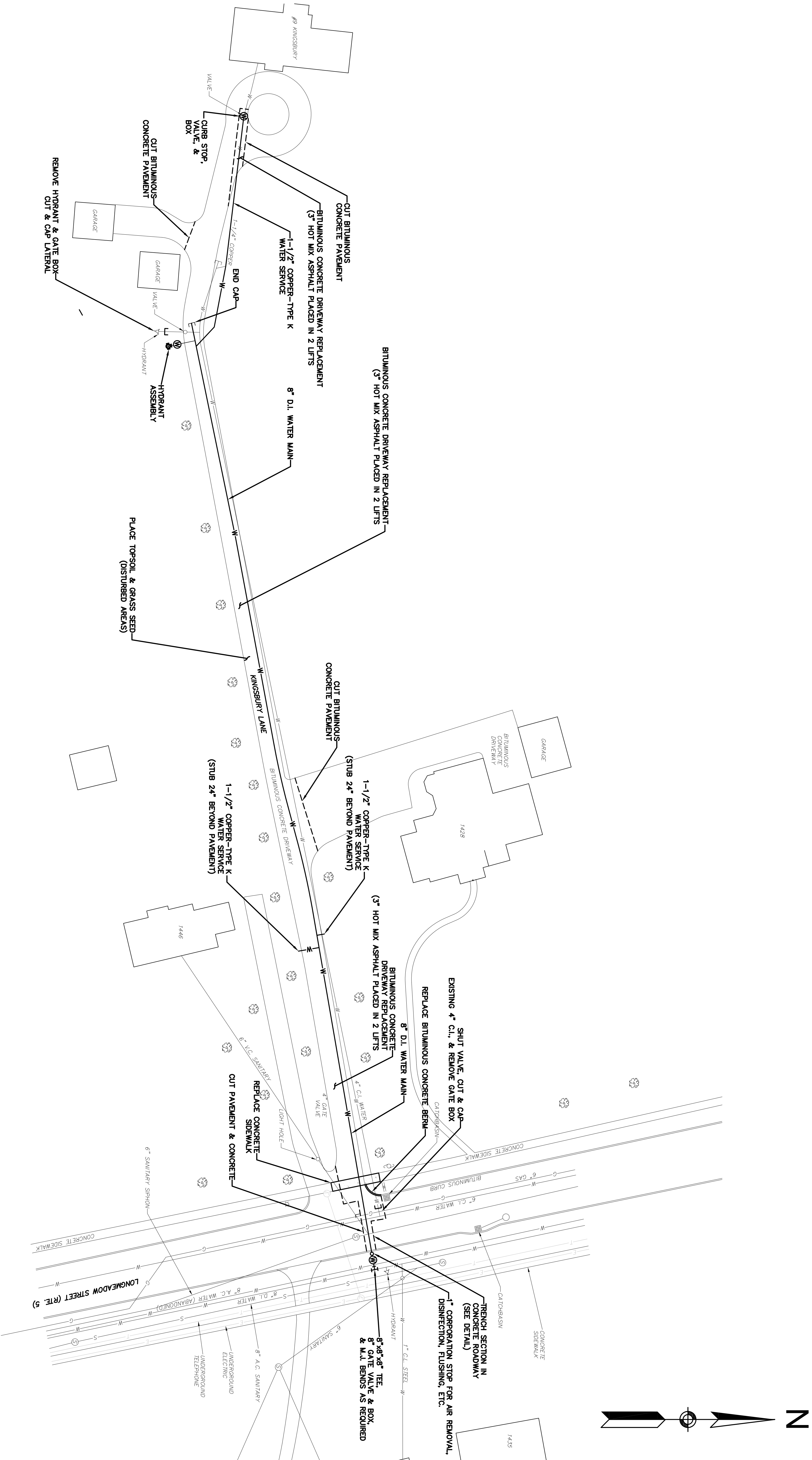
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**CONSTRUCTION PLAN  
 FARMLLEA ROAD**



**CP-1**

SHEET 3 OF 6



**NOTE:**  
 EXISTING CONDITIONS SHOWN HEREON WERE TAKEN FROM AVAILABLE MAPS, AERIAL PHOTOGRAPHY, FIELD MEASUREMENTS, AND OTHER SOURCES THAT MAY NOT BE ACCURATE, AND WAS PREPARED FOR ILLUSTRATIVE PURPOSES ONLY. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL COORDINATE WITH TOWN ENGINEERING STAFF TO VERIFY LOCATIONS OF THE PROPOSED WORK.

**CP-2**  
**SHEET 4 OF 6**

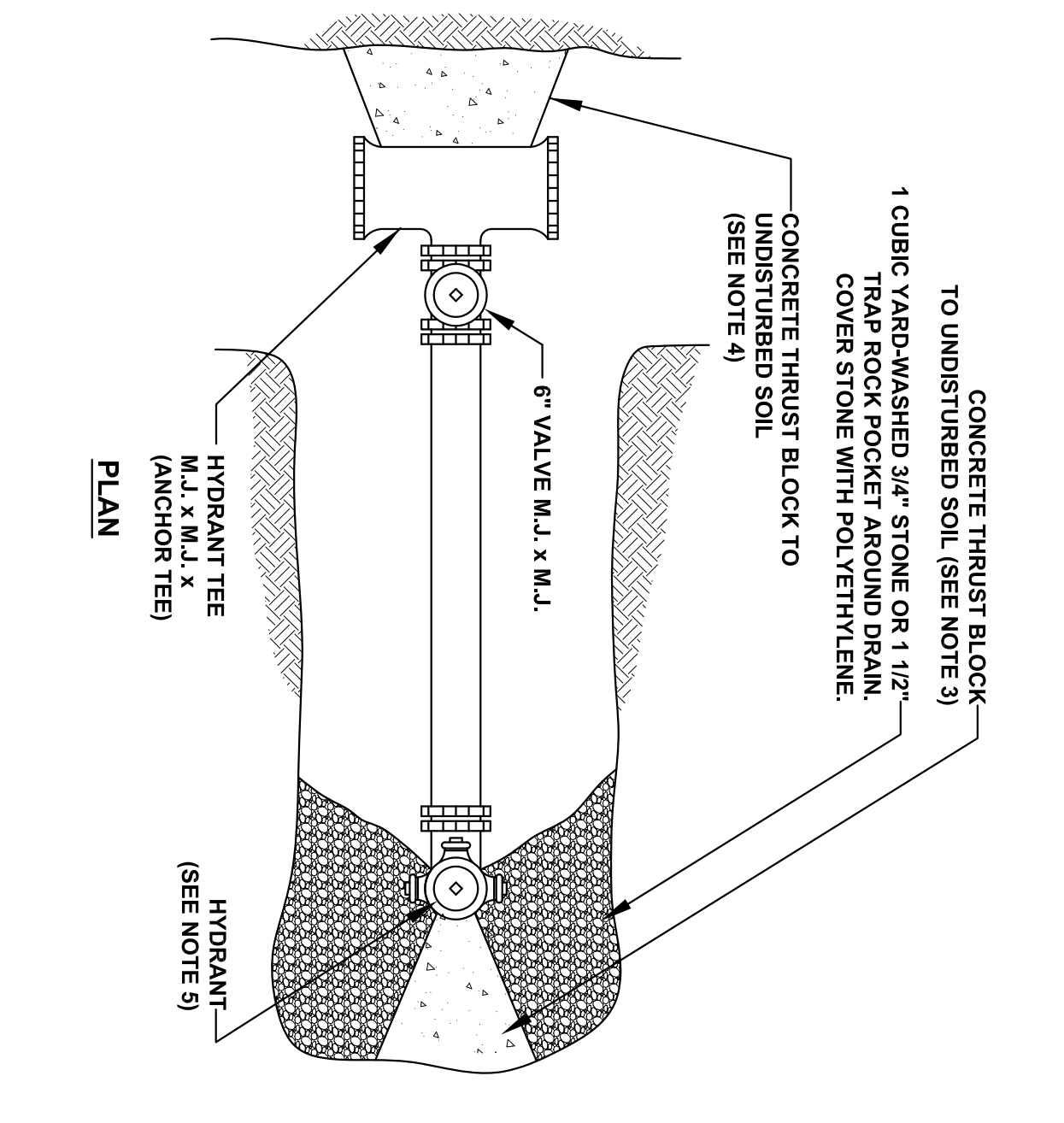
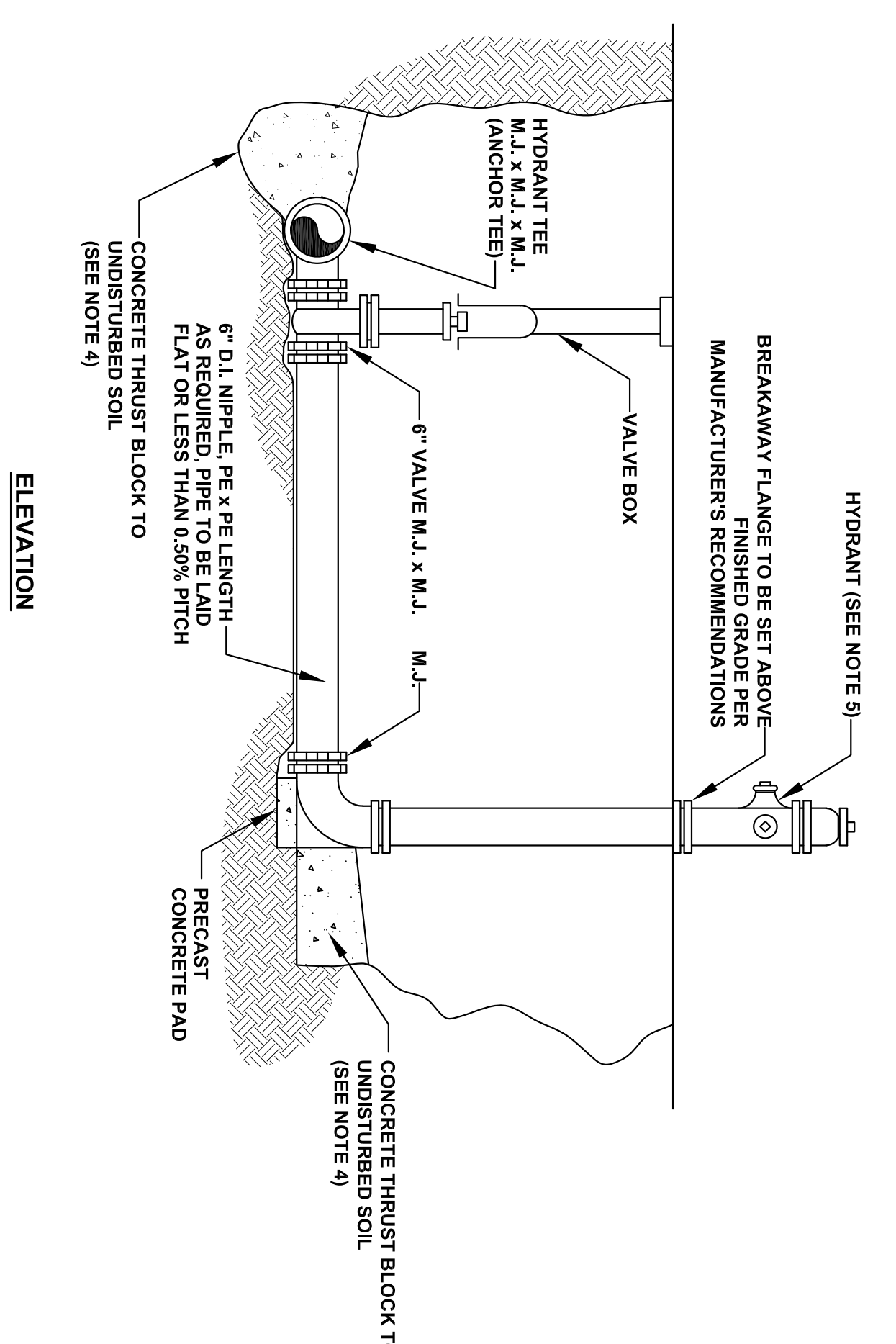
**CONSTRUCTION PLAN**  
**KINGSBURY LANE**

SCALE:

NO.	DATE	REVISIONS
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**TOWN OF LONGMEADOW, MA**  
**FARLMLEA ROAD & KINGSBURY LANE**  
**WATER MAIN IMPROVEMENTS**

DATE: **MARCH 2019**



- NOTES:
1. ALL CONCRETE TO BE CAST-IN-PLACE (3000 PSI).
  2. ALL M.J. JOINTS SHALL HAVE RETAINER GLANDS.
  3. CARE SHALL BE TAKEN TO SHIELD HYDRANT BASE DRAIN HOLES DURING PLACEMENT OF THE CONCRETE THRUST BLOCK. DRAIN HOLES SHALL BE VERIFIED AS OPEN AND FREE OF OBSTRUCTIONS PRIOR TO BACKFILLING.
  4. CARE SHALL BE TAKEN TO SHIELD ALL MECHANICAL JOINT GLANDS AND BOLTS DURING PLACEMENT OF CONCRETE THRUST BLOCK. ALL BOLTS AND GLANDS SHALL BE FREE AND UNOBSTRUCTED BEFORE BACKFILLING.
  5. HYDRANT SHALL BE SET PLUMB. VERTICAL HYDRANT EXTENSIONS SHALL BE USED AS NECESSARY TO PROTECT AND LOCATE THE BREAKAWAY FLANGE PER MANUFACTURER'S RECOMMENDATIONS.
  6. POLYETHYLENE SHEETING SHALL BE PLACED OVER THE FITTING AND/OR HYDRANT BASE TO PREVENT DIRECT CONTACT OF CONCRETE WITH THE FITTING.
  7. HYDRANTS TO BE DARLING B-84-B OR MUELLER CENTURION.

FIELD LOCK GASKETS

SIZE (IN.)	HORIZ BEND	MINIMUM RESTRAINED LENGTH BASE ON DIPRA, THURST RESTRAINT DESIGN FOR DUCTILE IRON PIPE <sup>1</sup> , VERSION 3.3 2003.
8"	90°	40
8"	45°	20
8"	22 1/2°	10
8"	11 1/4°	6

TEES

8" x 8"	60
8" x 6"	40

CAPS

8"	120
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NOTES:

MINIMUM RESTRAINED LENGTH BASE ON DIPRA, THURST RESTRAINT DESIGN FOR DUCTILE IRON PIPE<sup>1</sup>, VERSION 3.3 2003.

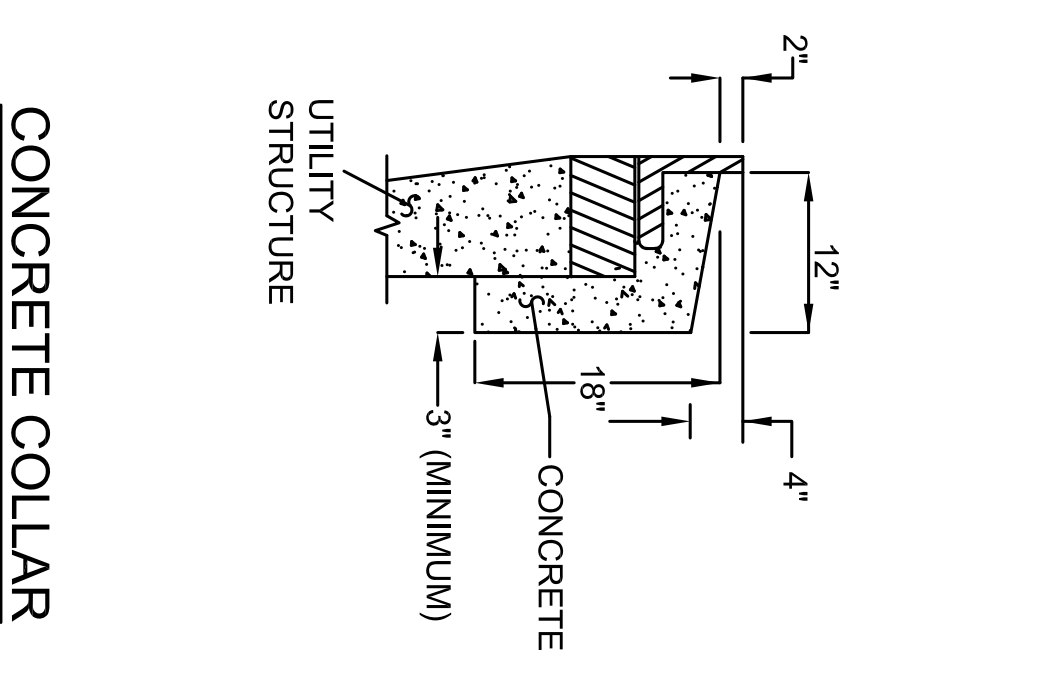
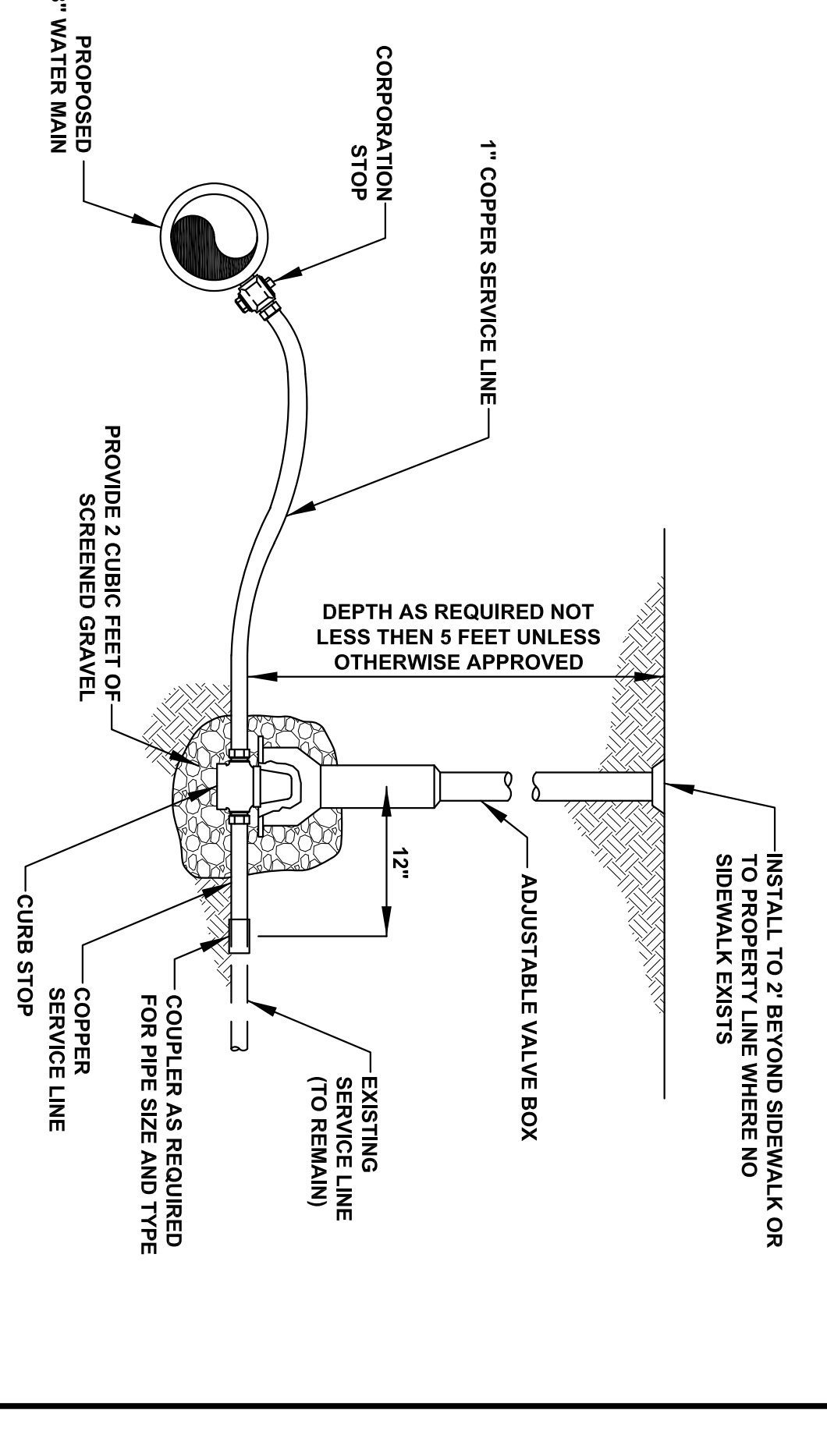
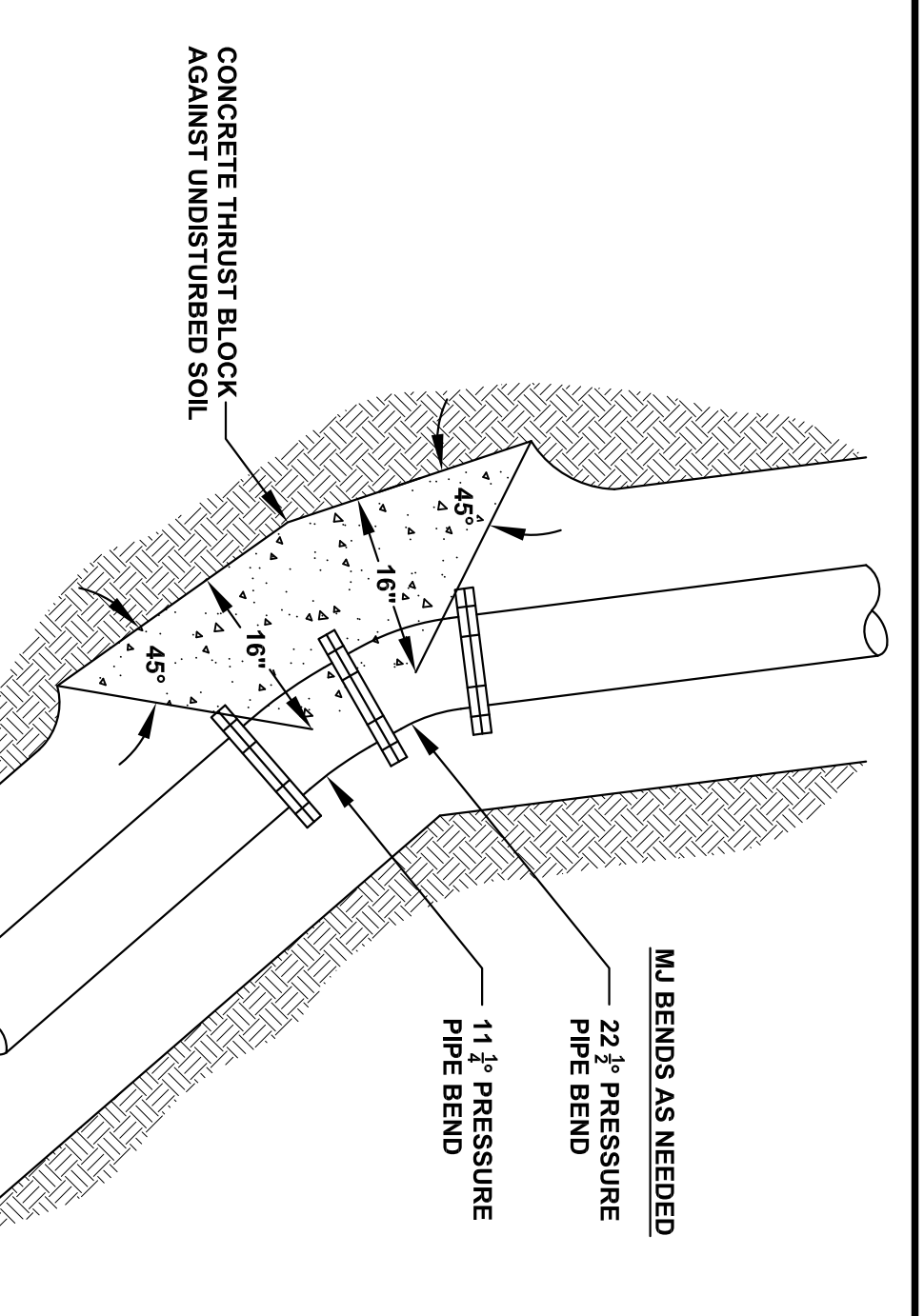
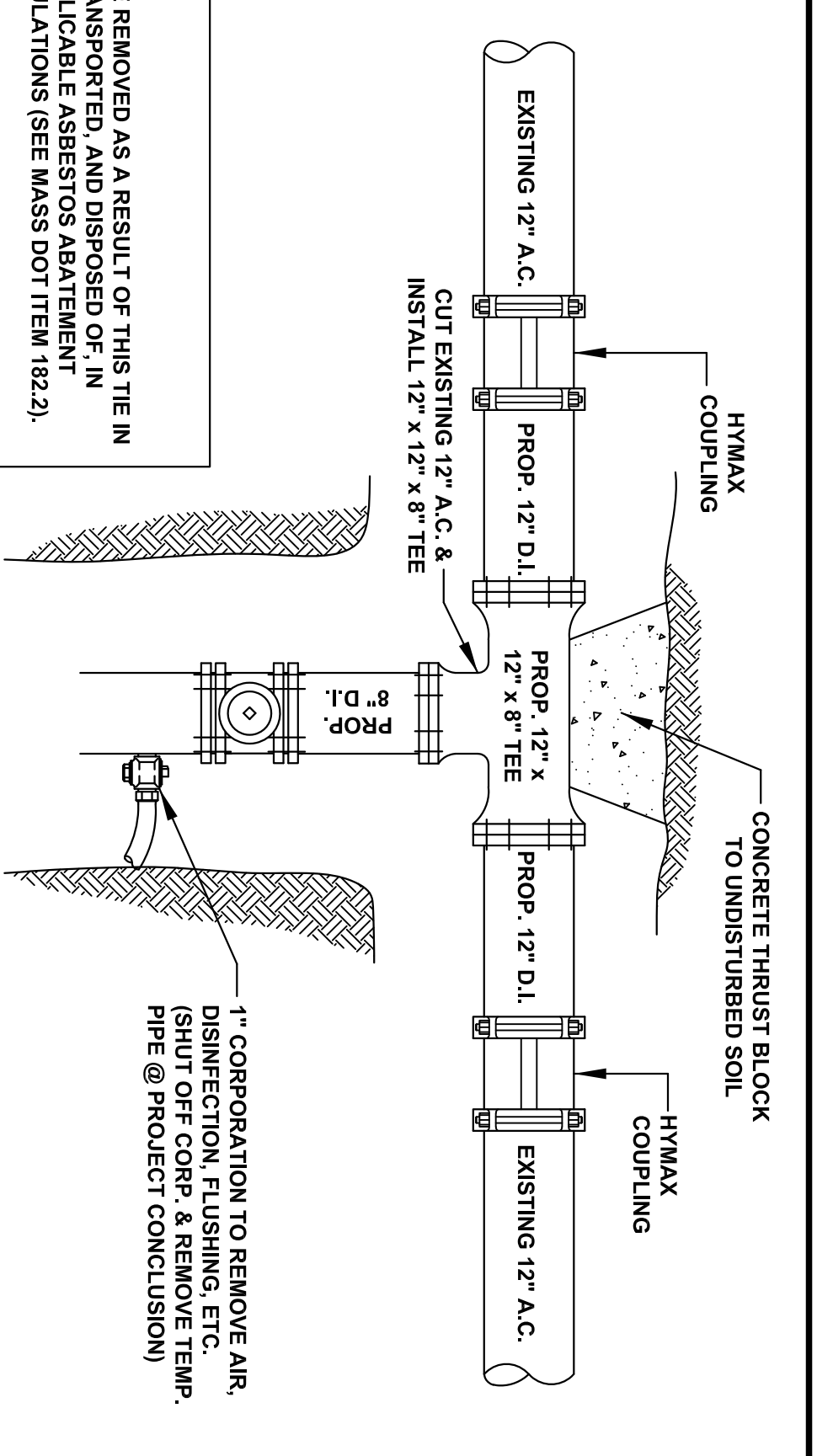
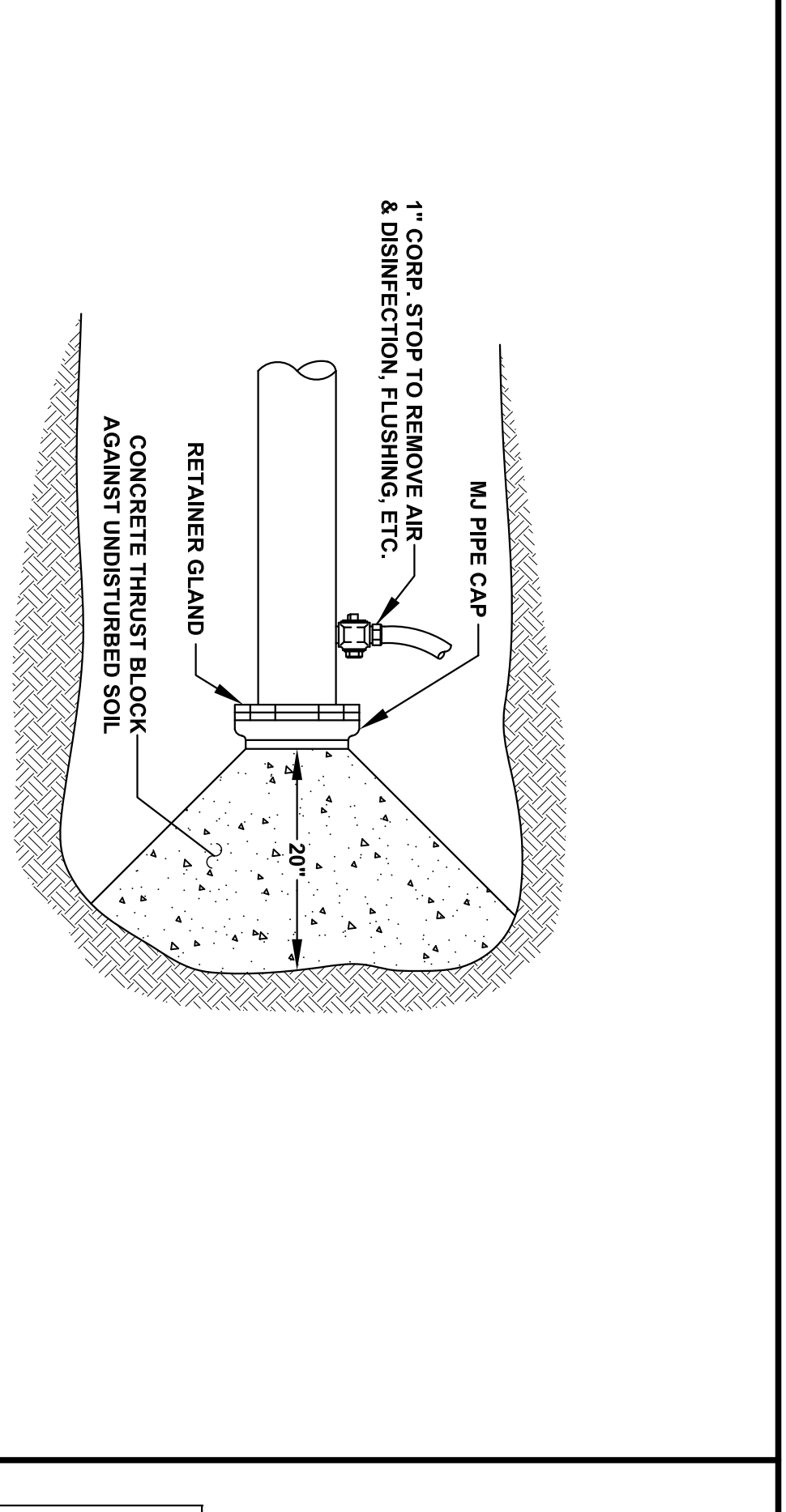
<sup>1</sup> SO FOLLOWING CONDITIONS APPLY:

SOIL LAYING CONDITIONS: TYPE 3

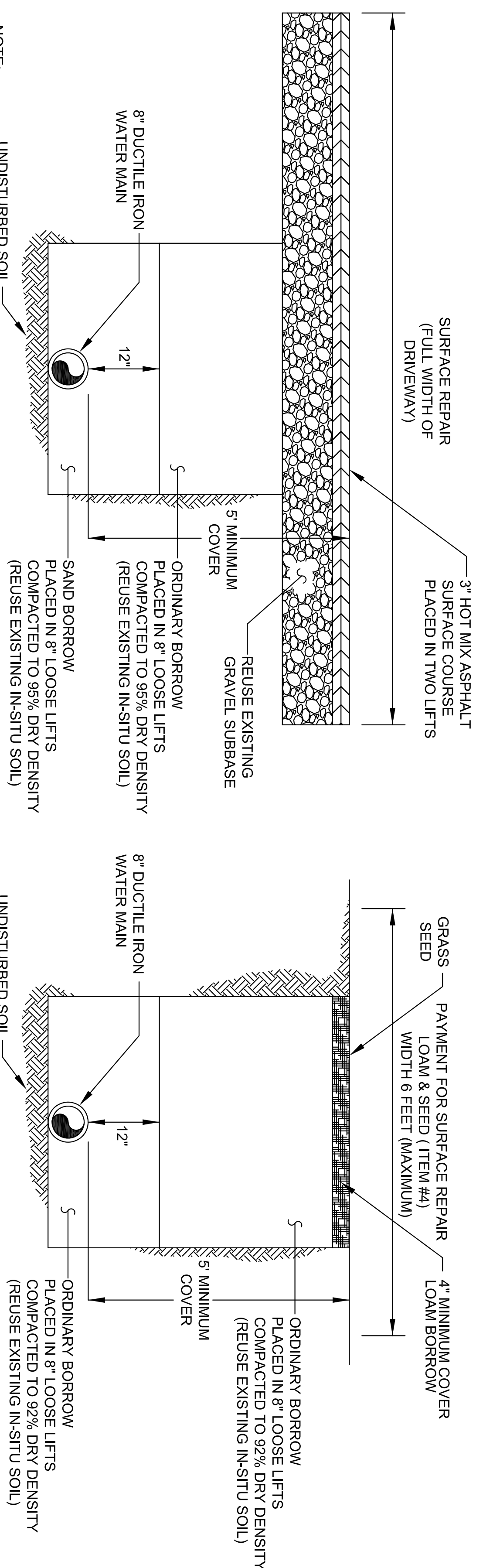
MAX. PRESSURE: 150 PSI

LAYING DEPTH: 5'-6"

FACTOR OF SAFETY: 1.50



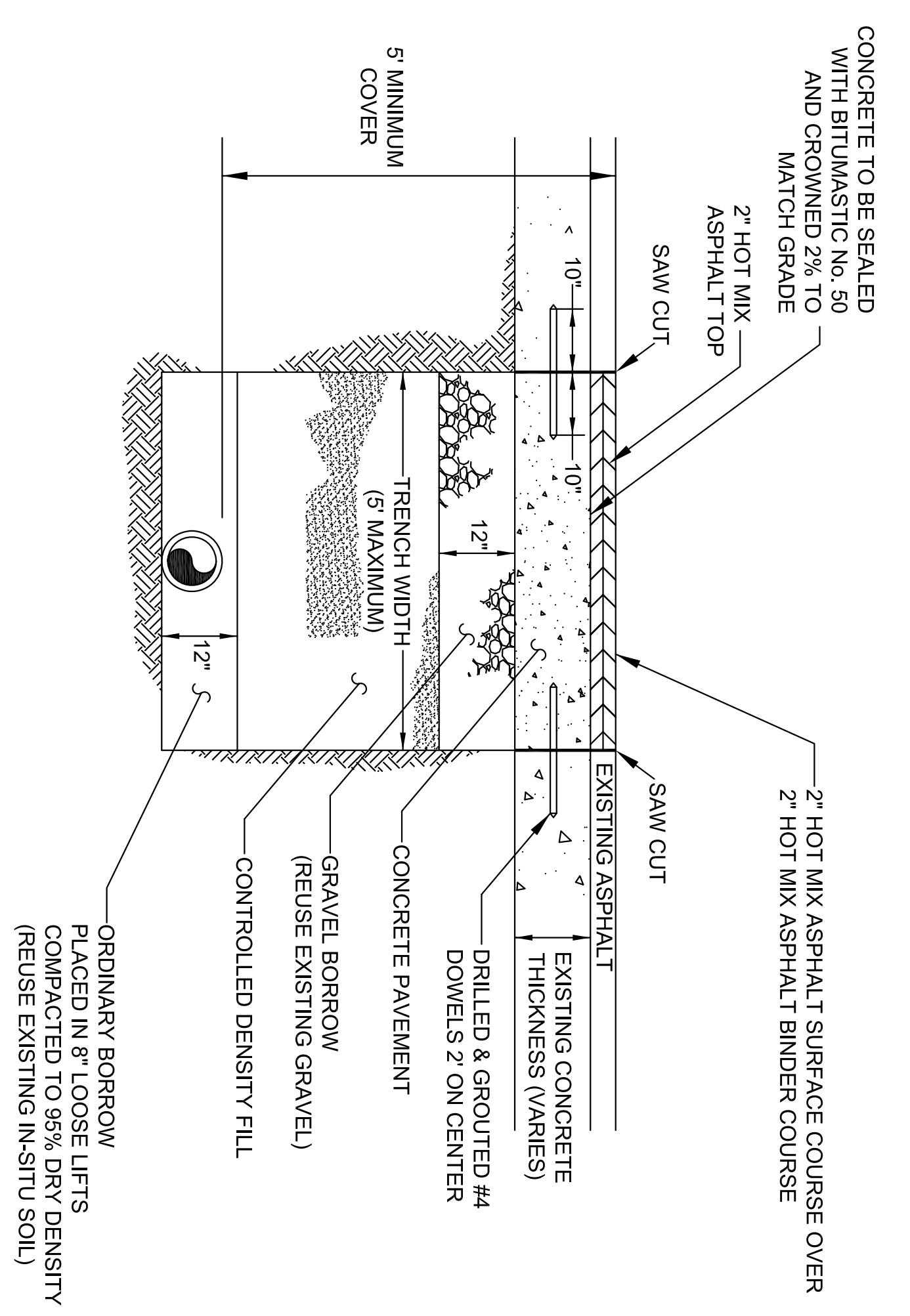
TOWN OF LONGMEADOW, MA FARLMLEA ROAD & KINGSBURY LANE WATER MAIN IMPROVEMENTS		REVISIONS	
		NO.	DATE
DATE: MARCH 2019		1	



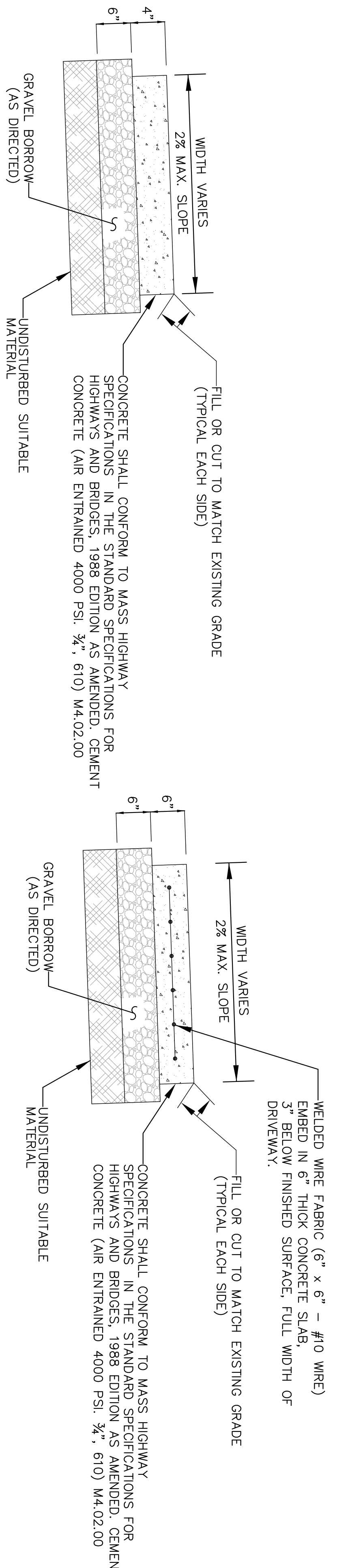
- NOTE:
1. DE-WATERING SHALL BE PROVIDED BY THE CONTRACTOR AND INCLUDED UNDER THE PIPE PAY ITEM.
  2. DURING EXCAVATION ACTIVITIES, CONTRACTOR SHALL SEPARATE AND STOCKPILE EXISTING GRAVEL SUBBASE FOR REUSE.
  3. PAYMENT LIMITS FOR LOAM AND SEED (ITEM #4) SHALL BE LIMITED TO 3 FEET BEYOND LIMITS OF PAVED SURFACES. AREAS BEYOND 3 FEET SHALL BE RESTORED AT EXPENSE OF CONTRACTOR.

TRENCH SECTION IN DRIVEWAY  
N.T.S.

TRENCH SECTION IN LAWN AREA  
N.T.S.

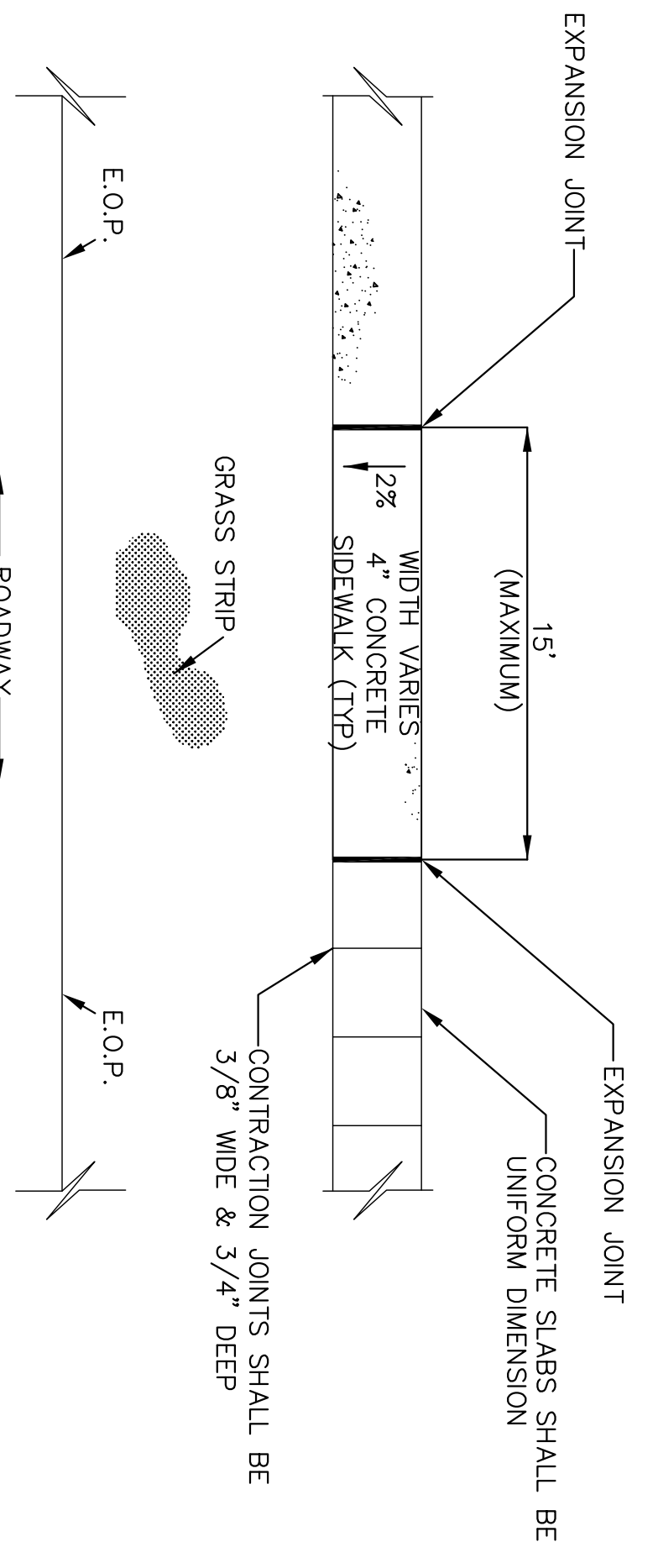


TRENCH SECTION IN CONCRETE ROADWAY (LONGMEADOW STREET)  
N.T.S.

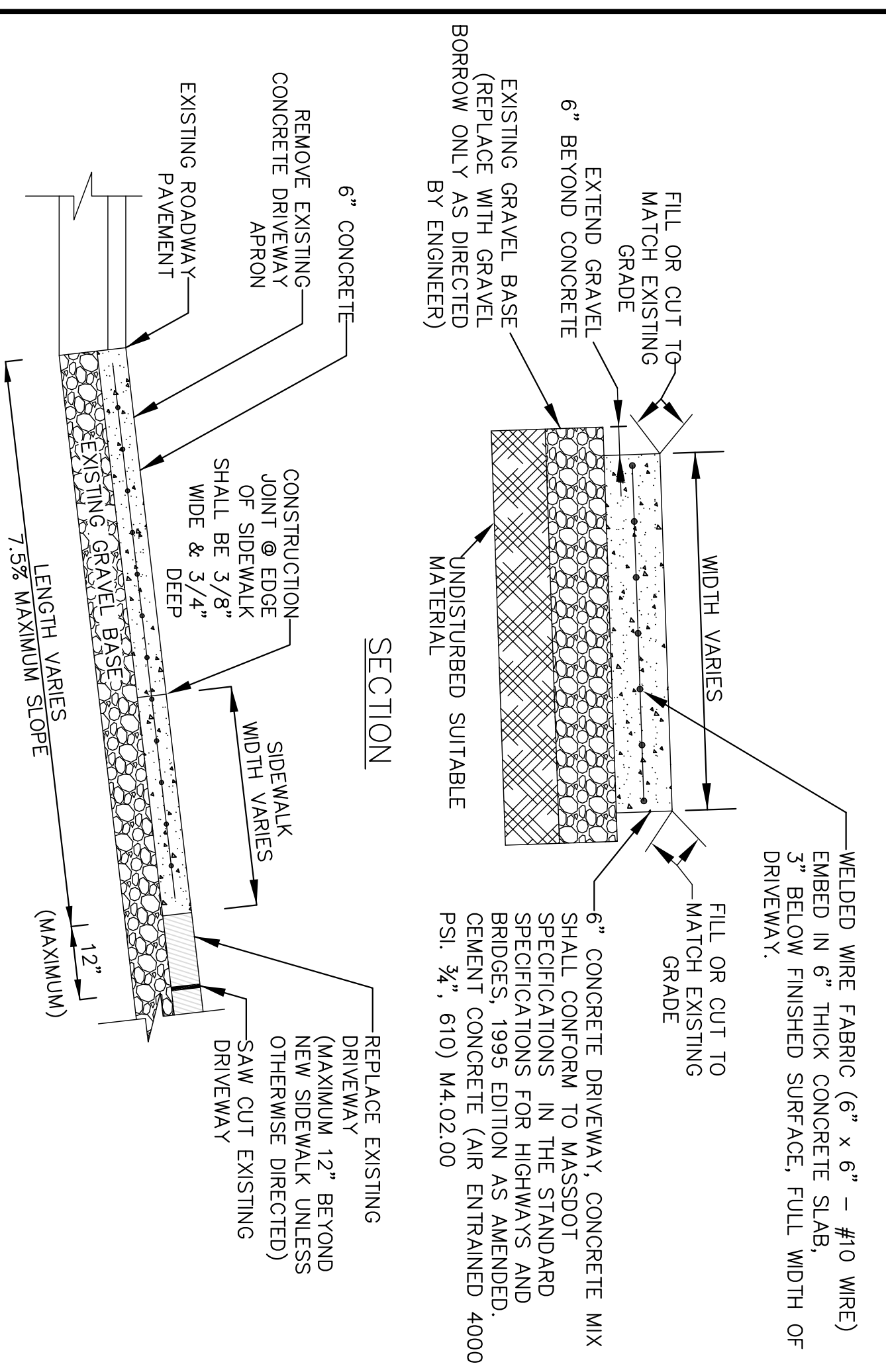


4\"/>

6\"/>



CONCRETE SIDEWALK  
N.T.S.



CONCRETE DRIVEWAY APRON/DRIVEWAY  
N.T.S.

- NOTES:
1. GRAVEL BORROW SHALL BE USED TO RAISE SIDEWALK ELEVATIONS, WHERE REQUIRED TO FACILITATE STORM DRAINAGE RUNOFF AS DIRECTED BY THE ENGINEER.
  2. PAYMENT LIMITS FOR LOAM AND SEED (ITEM #4) SHALL BE LIMITED TO 3 FEET BEYOND LIMITS OF SIDEWALK. AREAS BEYOND 3 FEET SHALL BE RESTORED AT EXPENSE OF CONTRACTOR.

DETAILS

NO.	DATE	REVISIONS
1		

TOWN OF LONGMEADOW, MA  
FARLMLEA ROAD &  
KINGSBURY LANE  
WATER MAIN IMPROVEMENTS

DATE: MARCH 2019