

PREPARED BY:



DESIGN STUDIO

85 DEVONSHIRE STREET, 3RD FLOOR BOSTON, MA 02109 BRANDON KUNKEL (617) 412-4480

TOWN OF WAYLAND

IMPROVEMENTS TO LOKER CONSERVATION AND RECREATION AREA

TOWN OF WAYLAND, MASSACHUSETTS

LOKER CONSERVATION

AND RECREATION AREA

TOWN BUILDING
41 COCHITUATE RD
WAYLAND, MA 01778
BEN KEEFE
PUBLIC BUILDING DIRECTOR
(508) 358-3786

Locus Map





LOKER CONSERVATION AND RECREATION AREA



LOKER CONSEVATION AND RECREATION AREA 410 COMMONWEALTH RD, WAYLAND, MA 01778

BIDDING DOCUMENTS IFB #19-1054

FEBRUARY 28, 2019

Prepared By



85 Devonshire St, 3rd Floor, Boston, MA 02109 (617) 412-4480 (800) Sampson w w w . w e s t o n a n d s a m p s o n . c o m

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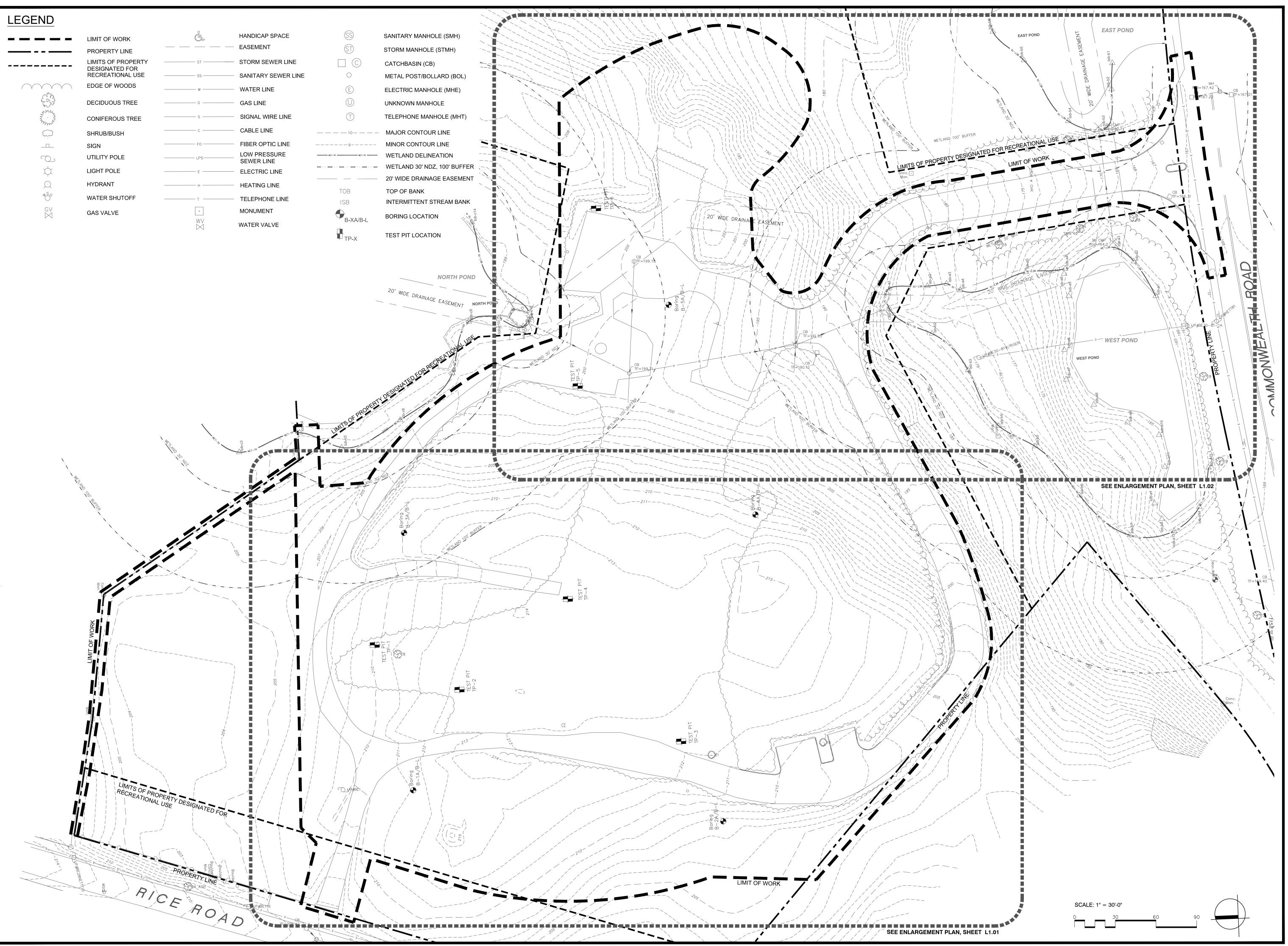
ADD ALTERNATE NO. 1

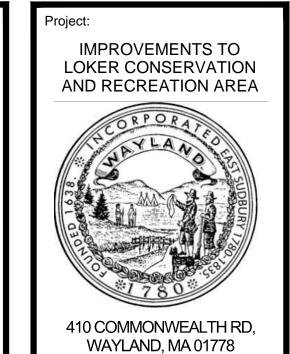
UNDER ADD ALTERNATE NO. 1 THE CONTRACTOR SHALL INSTALL THE SPECIFIED SPORTS LIGHTING POLES, FIXTURES, WIRING AND RELATED APPURTENANCES NEEDED TO HAVE A COMPLETE AND FULLY OPERATIONAL SYSTEM. WORK UNDER THE BASE BID SHALL INCLUDE THE INSTALLATION OF AN "EMPTY" SPORTS LIGHTING SYSTEM TO INCLUDE LIGHT POLE FOOTINGS/FOUNDATIONS, UNDERGROUND CONDUITS, HAND HOLES, PULL STRING AND ALL OTHER ELECTRICAL AND LIGHTING SYSTEM COMPONENTS THROUGHOUT THE PROJECT SITE AS INDICATED ON THE PLANS AND AS SPECIFIED.

ADD ALTERNATE NO. 2

UNDER ADD ALTERNATE NO. 2, THE CONTRACTOR SHALL CONSTRUCT THE DESIGNATED CAST IN PLACE CONCRETE STAIR AND HANDRAILS AS INDICATED ON THE PLANS AND AS SPECIFIED.







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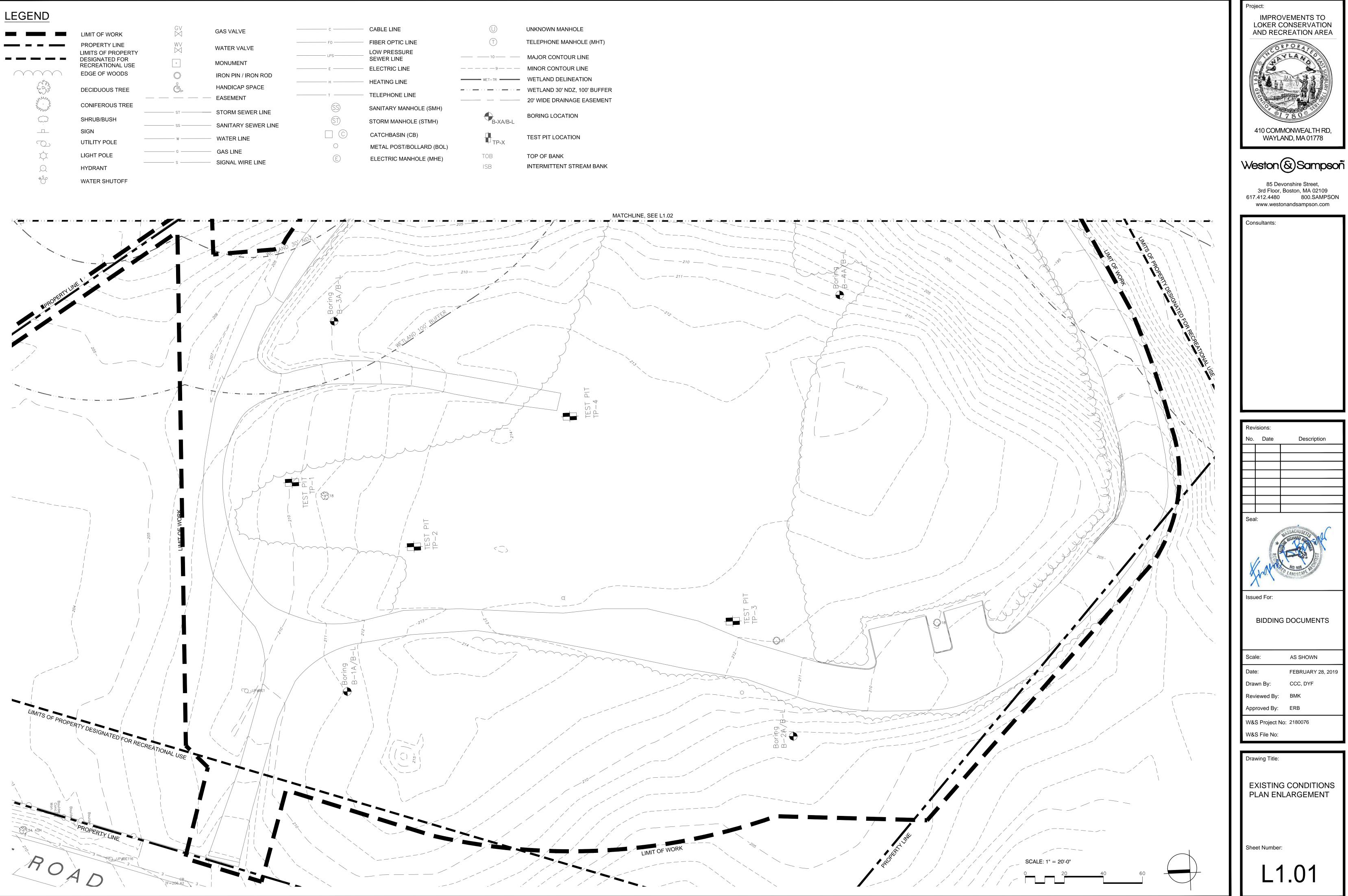
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OVERALL EXISTING CONDITIONS PLAN

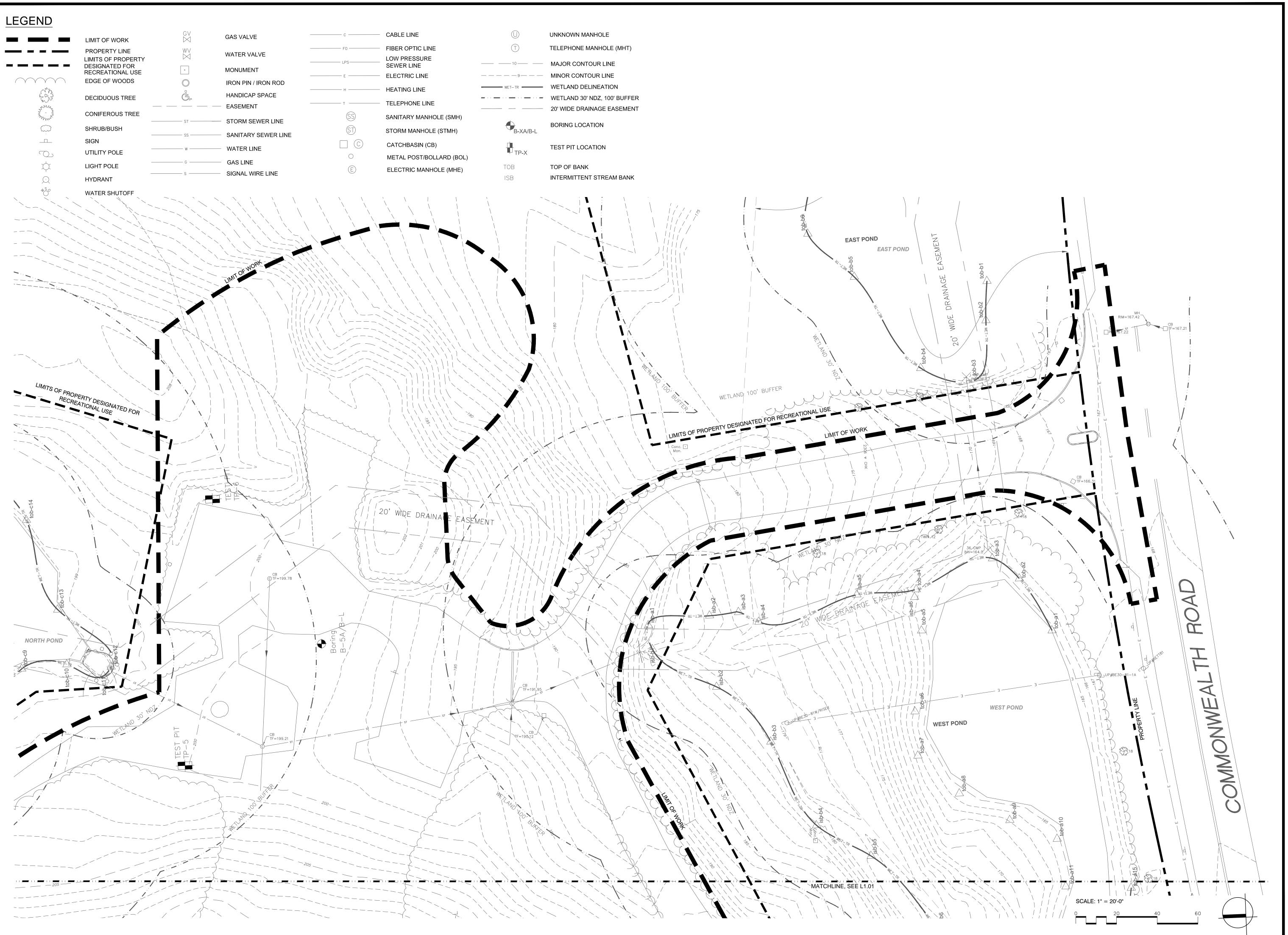
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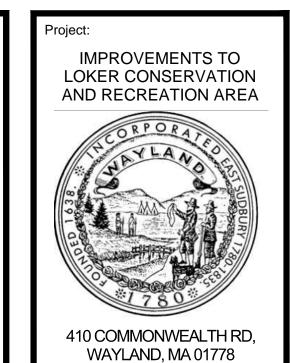
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PLAN ENLARGEMENT





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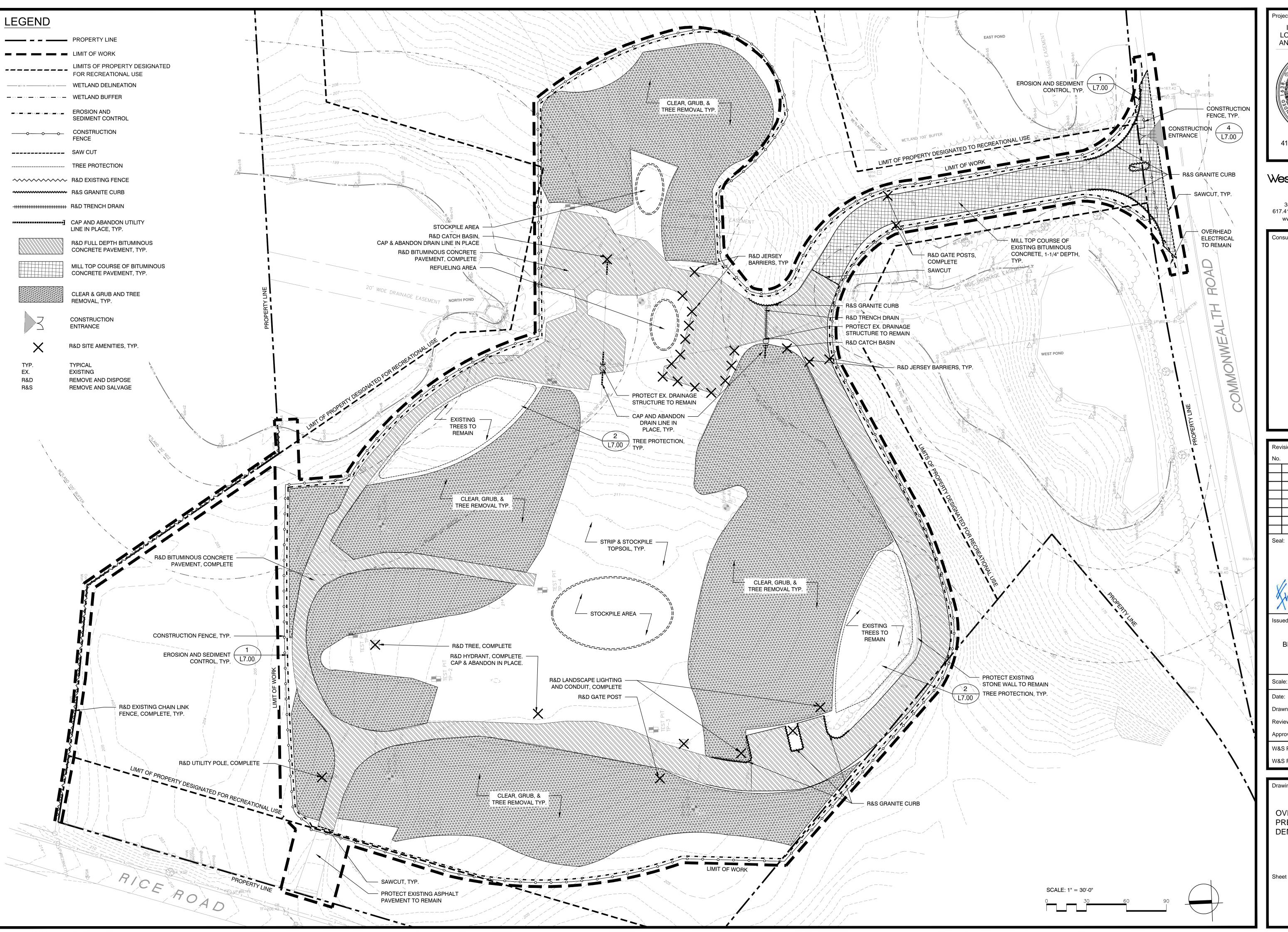
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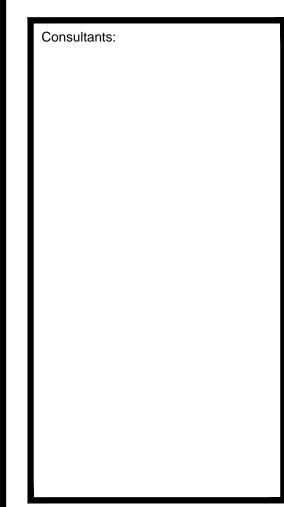
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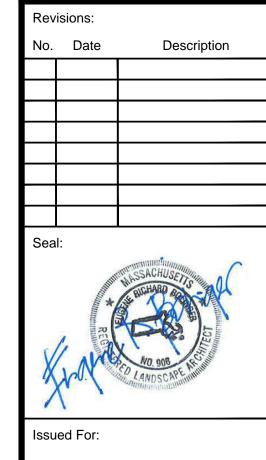
IMPROVEMENTS TO LOKER CONSERVATION AND RECREATION AREA

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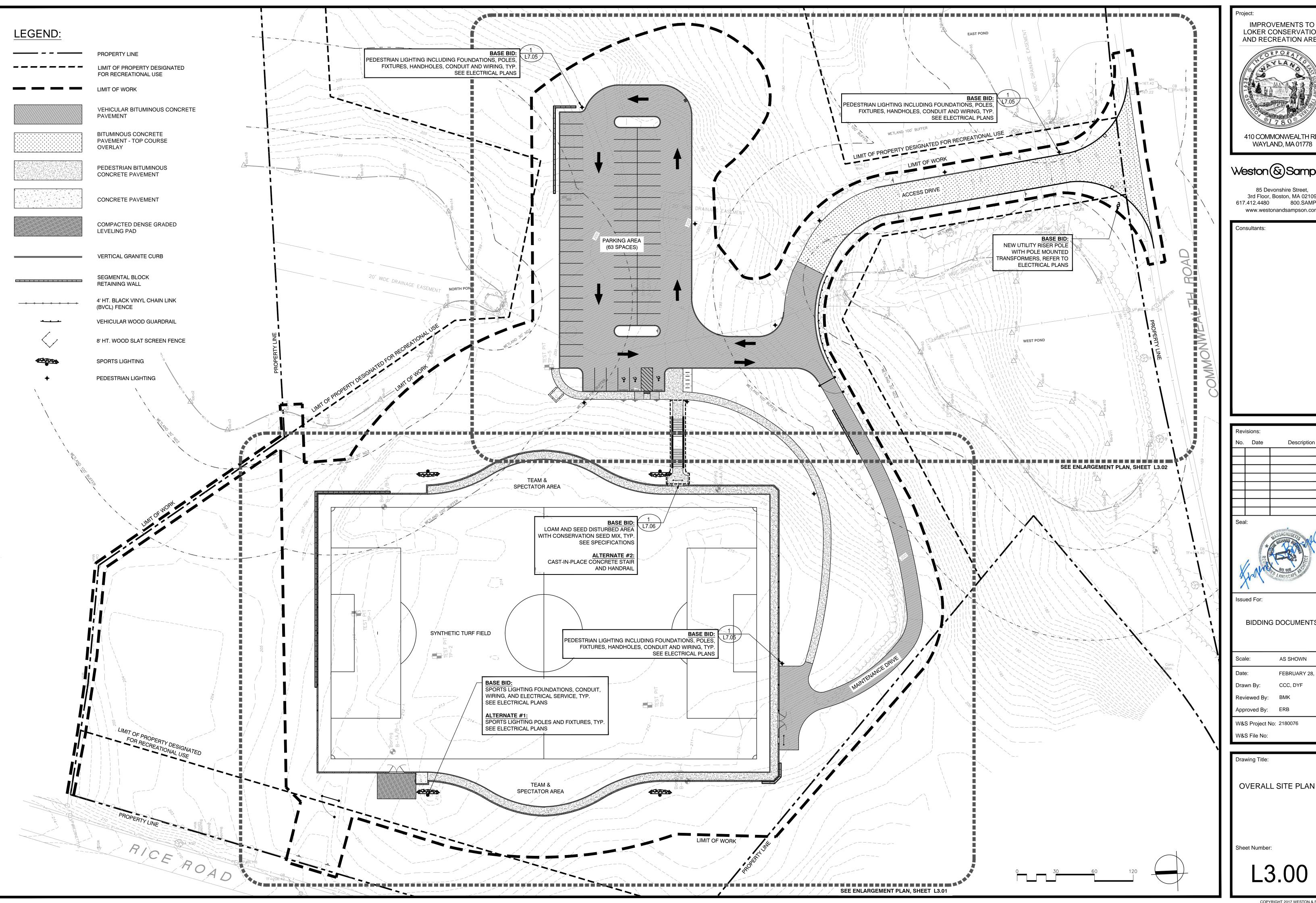
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PREPARATION AND DEMOLITION PLANS

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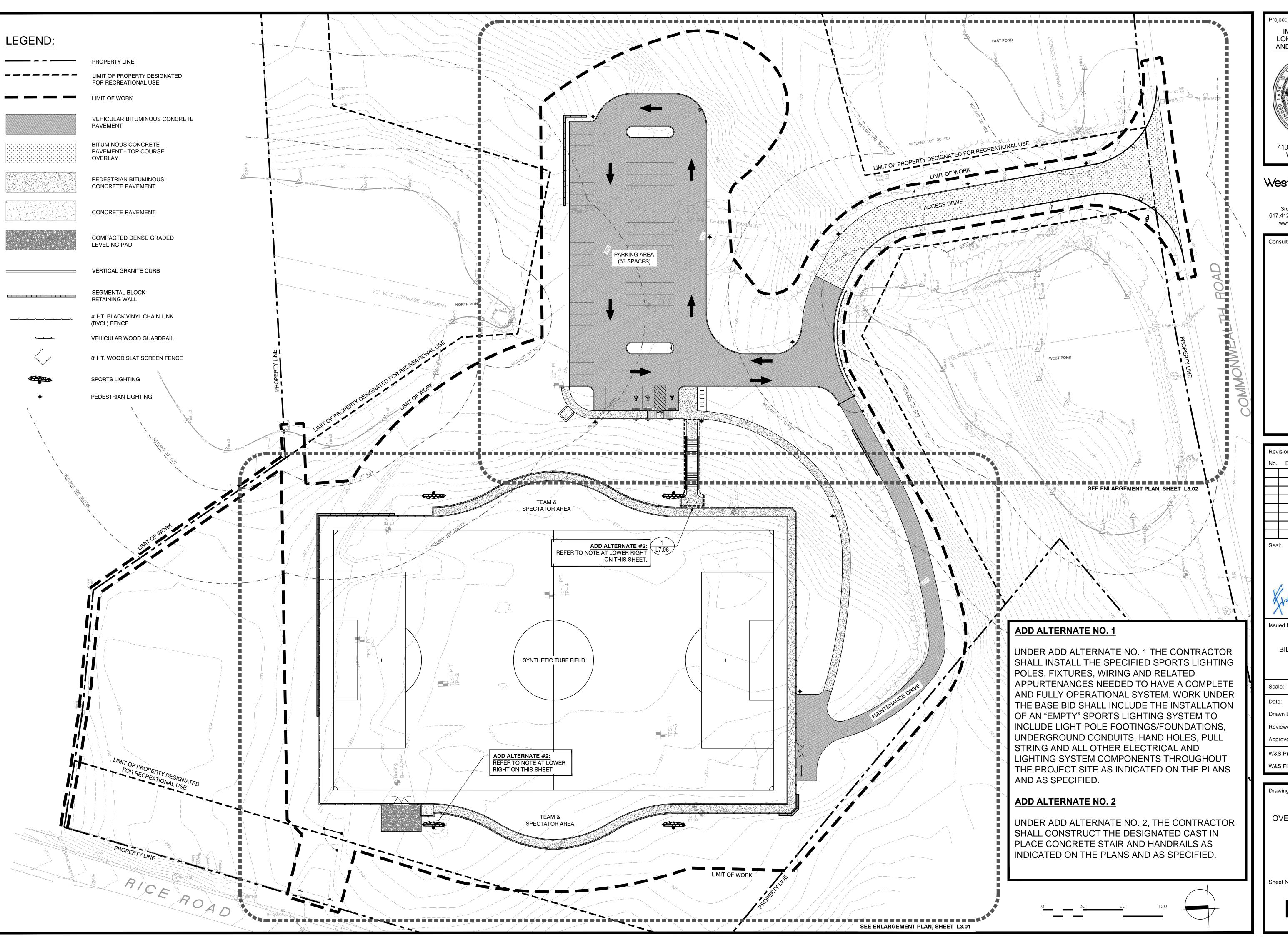
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OVERALL SITE PLAN



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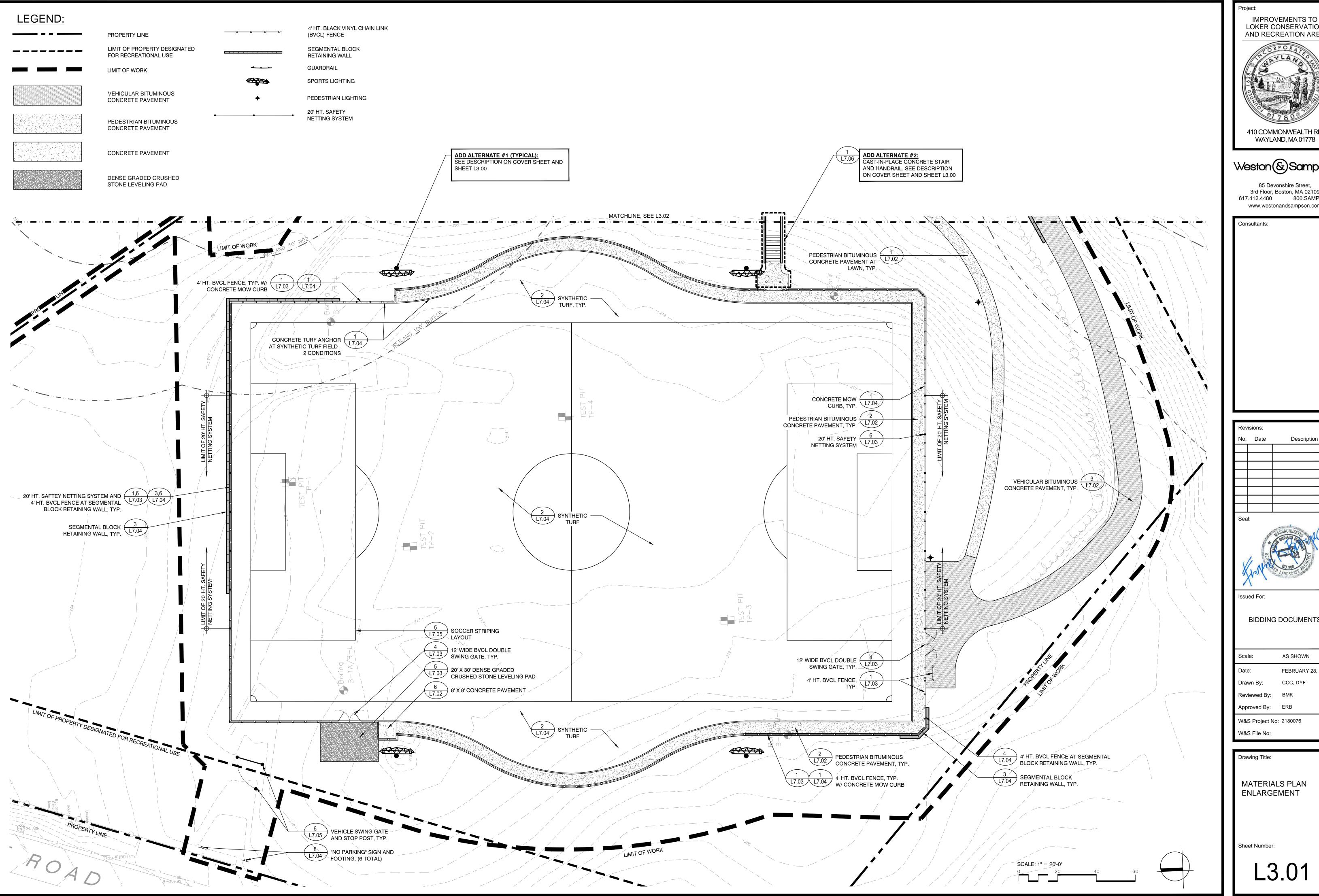
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OVERALL SITE PLAN

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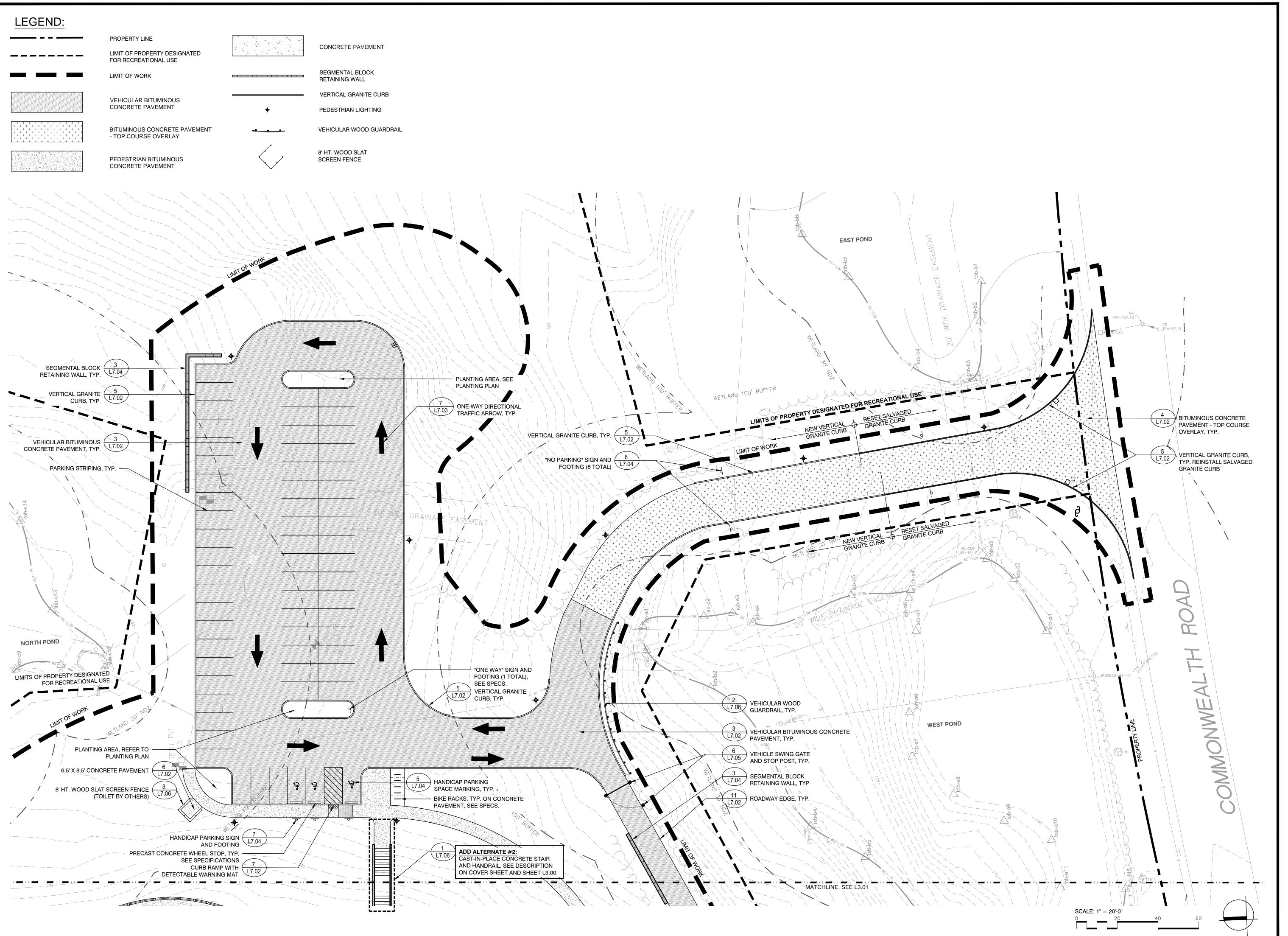
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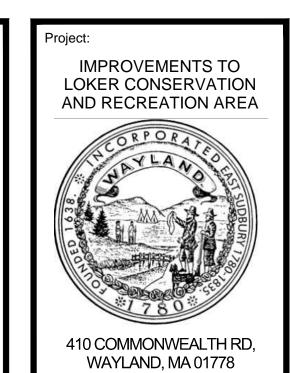
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ENLARGEMENT





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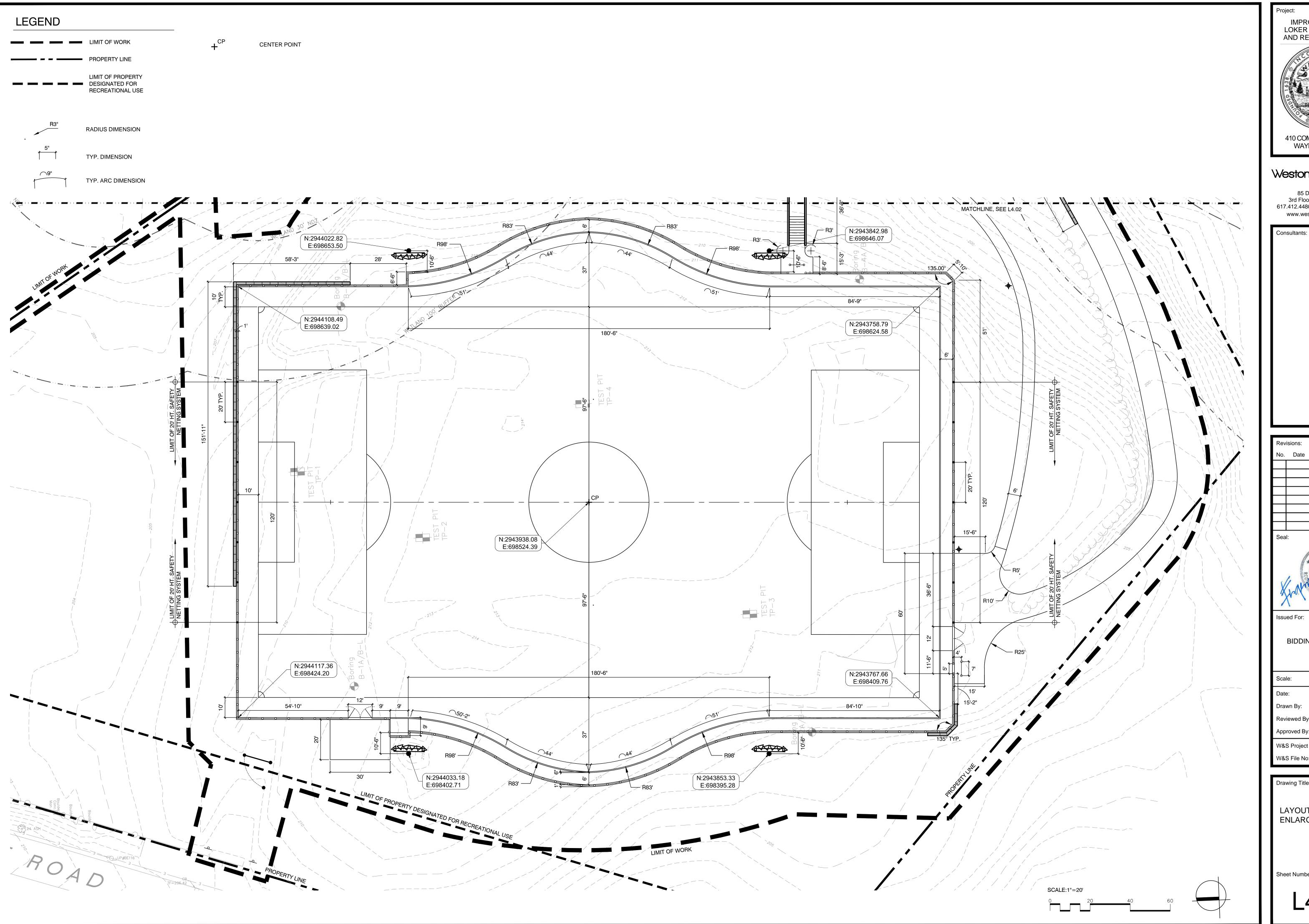
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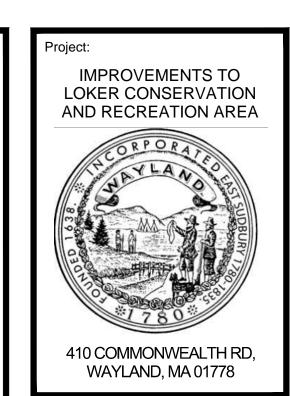
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MATERIALS PLAN ENLARGEMENT

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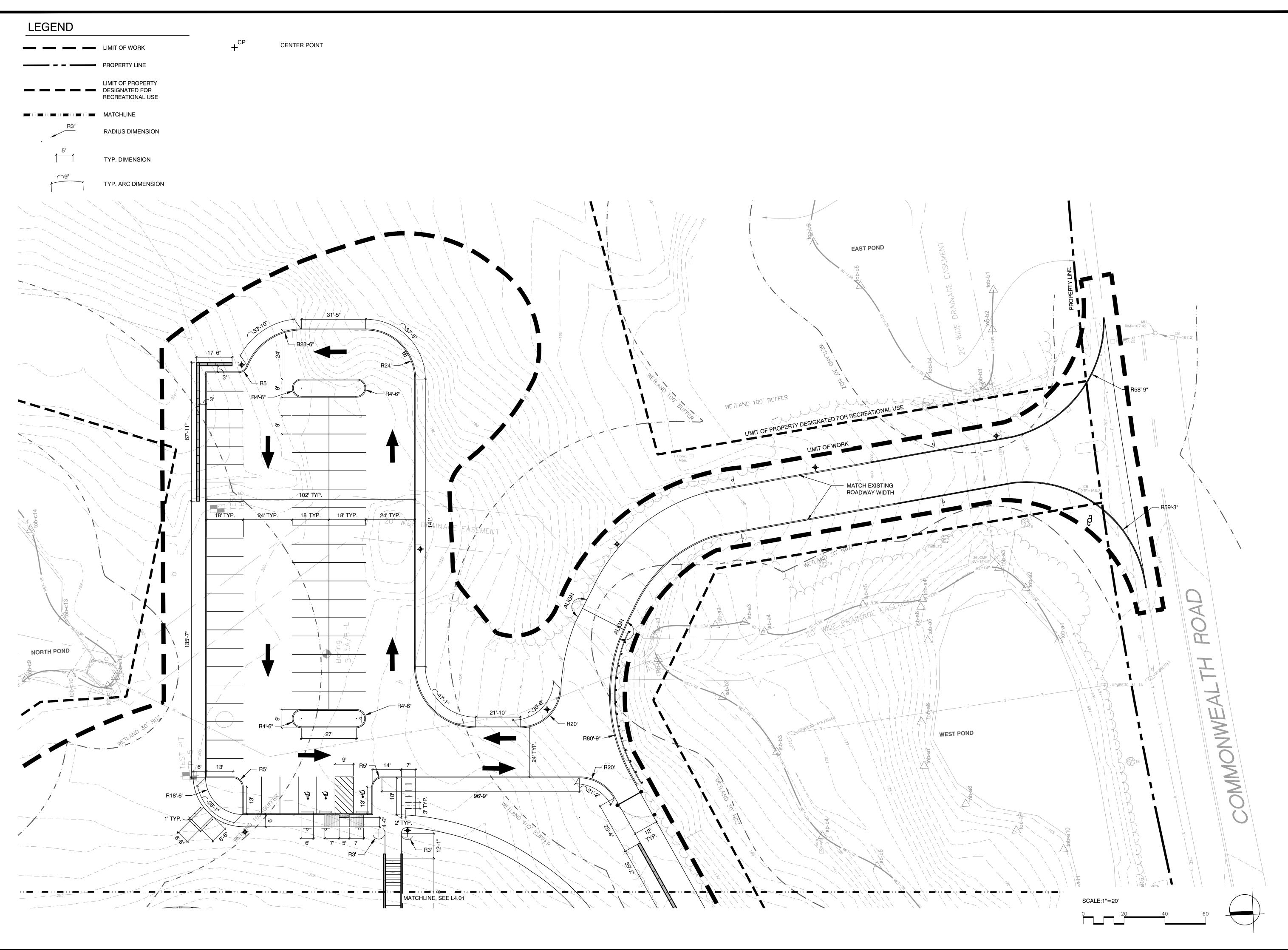
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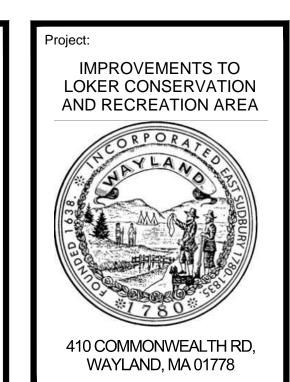
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LAYOUT PLANS ENLARGEMENT





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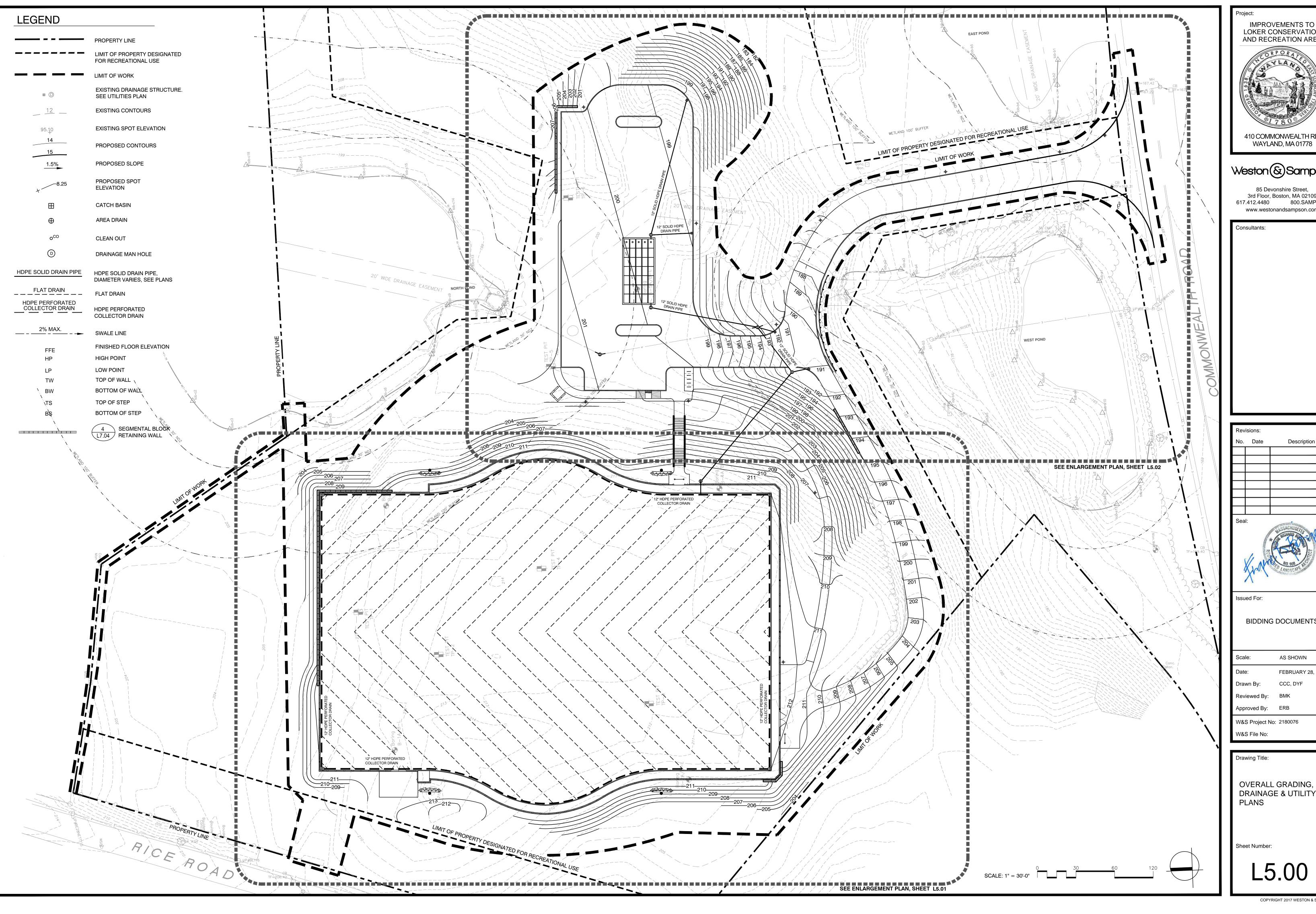
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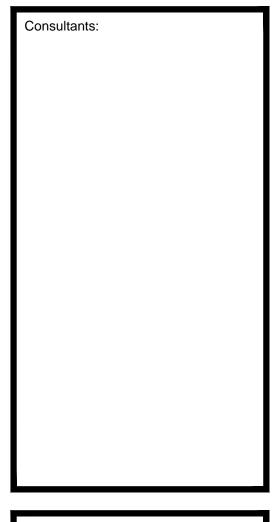
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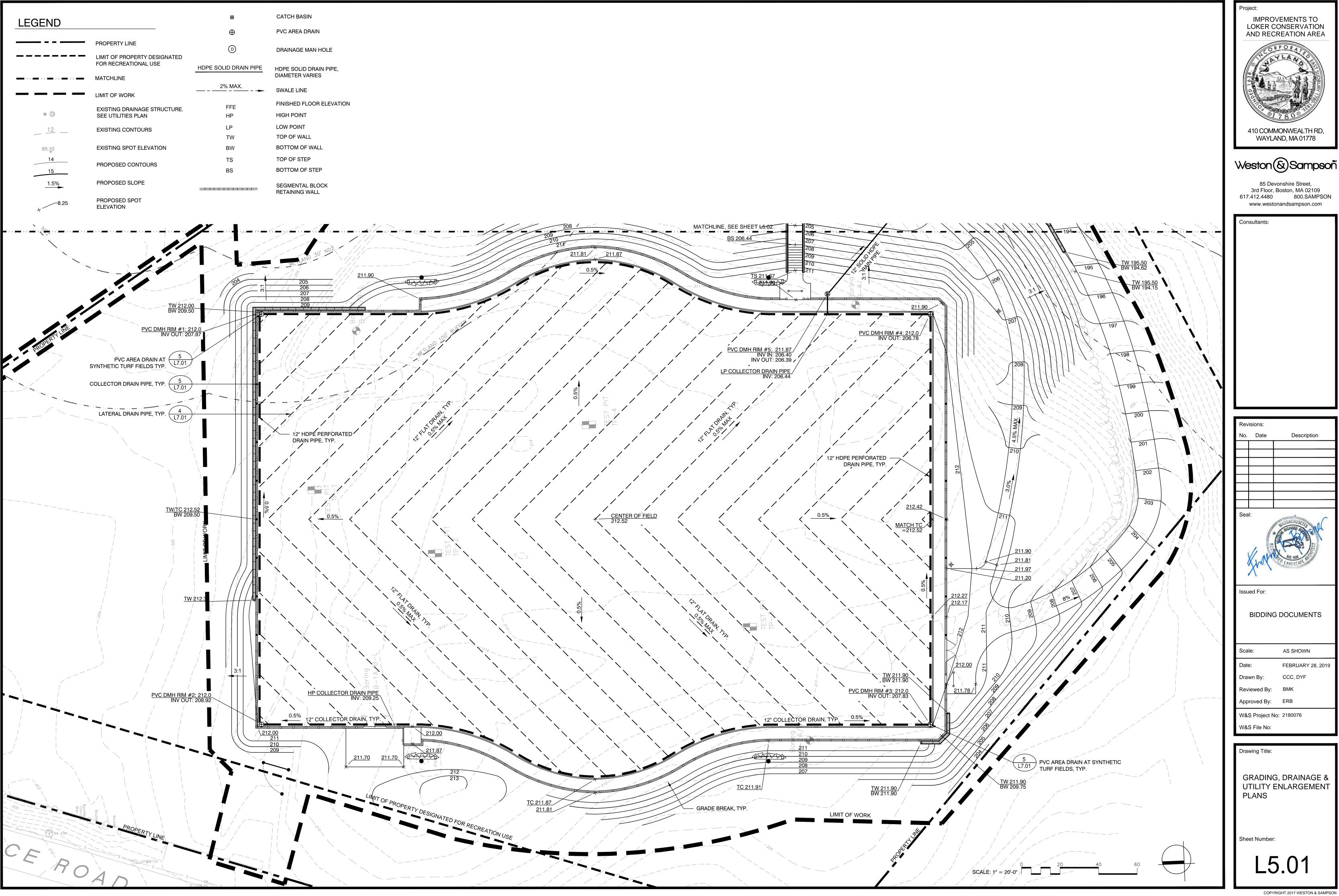


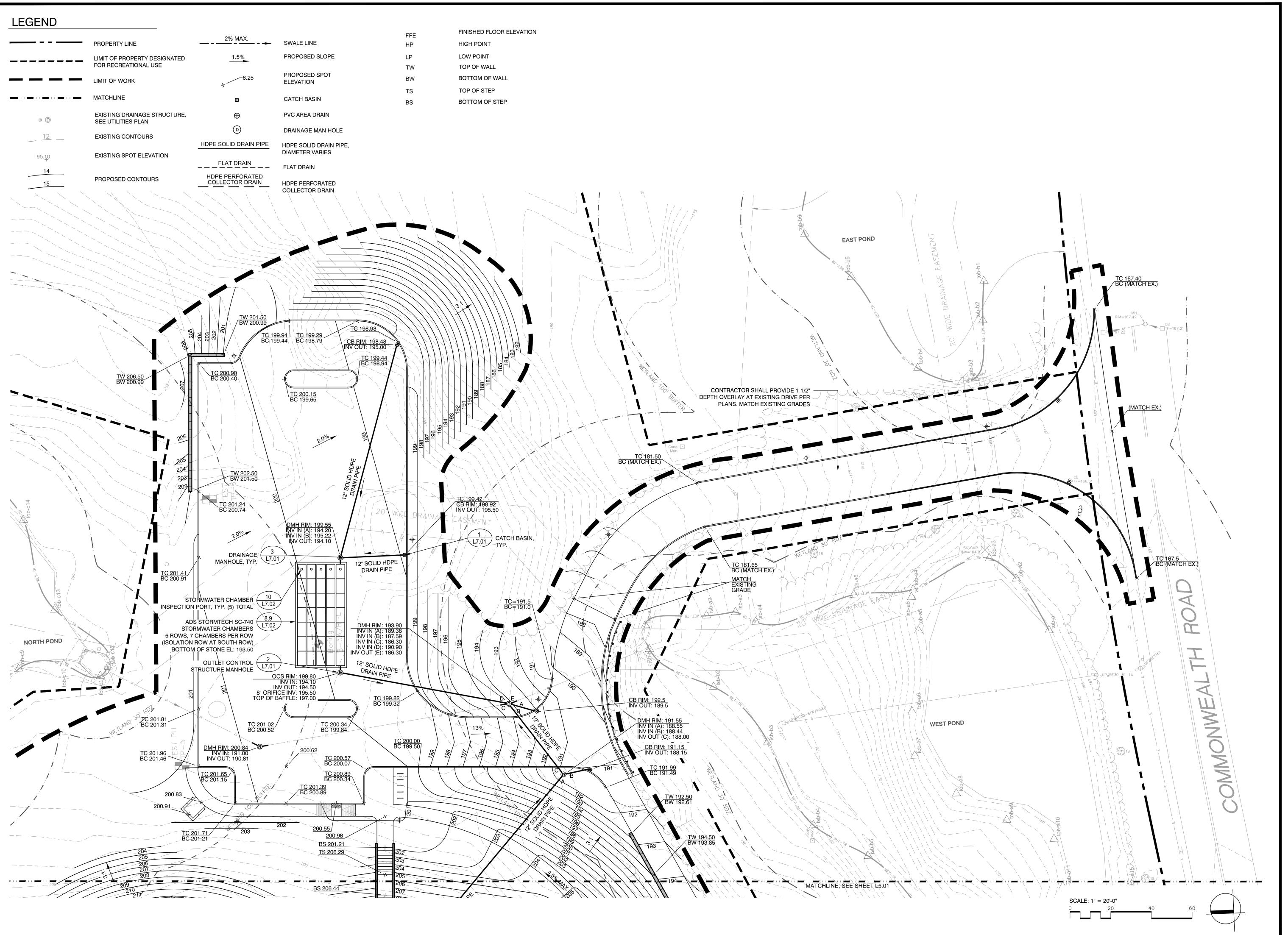
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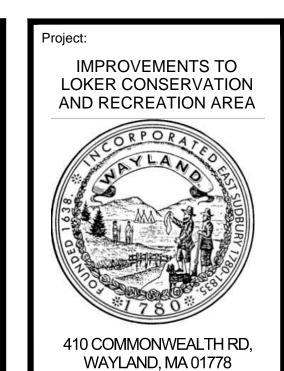
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OVERALL GRADING, DRAINAGE & UTILITY







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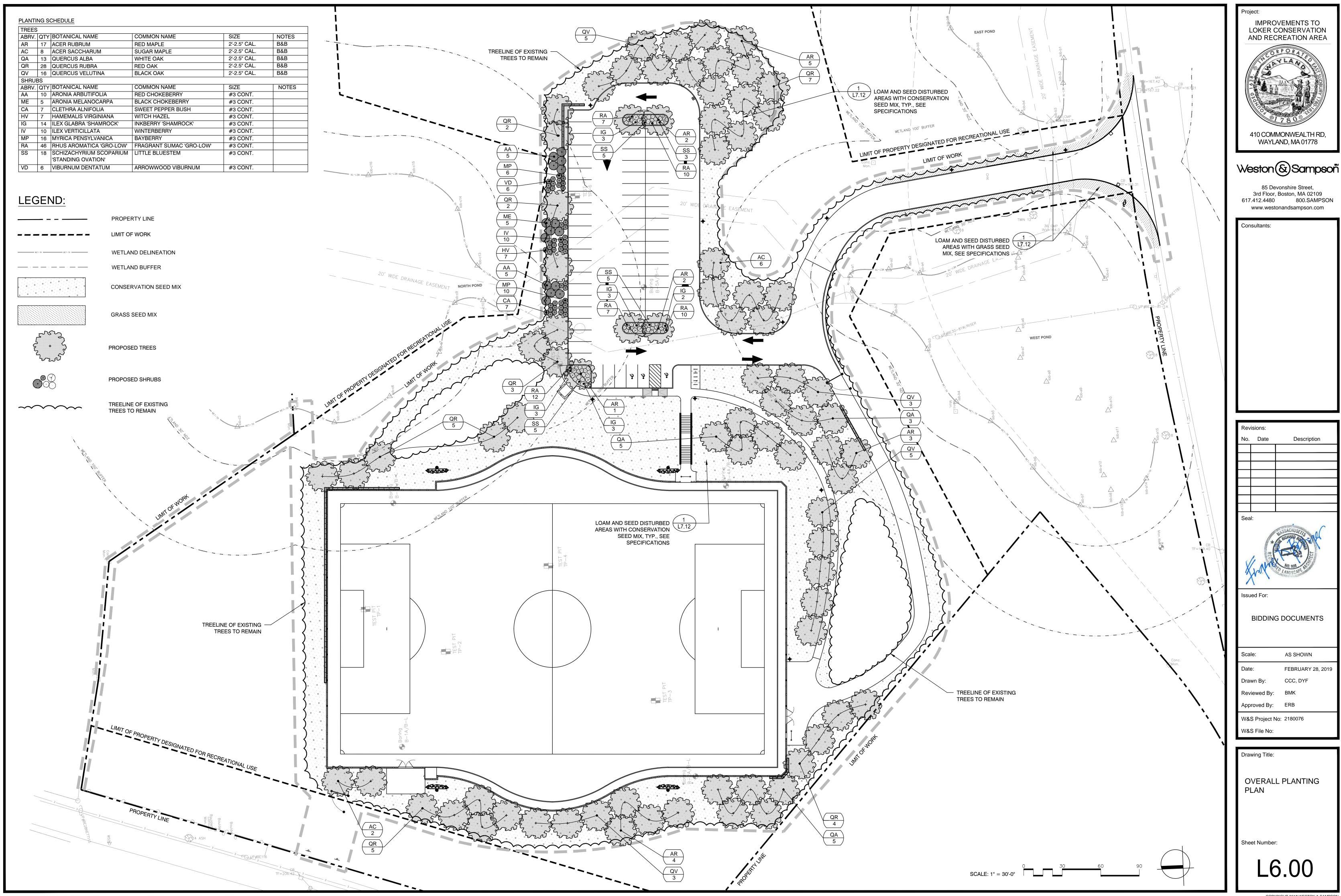
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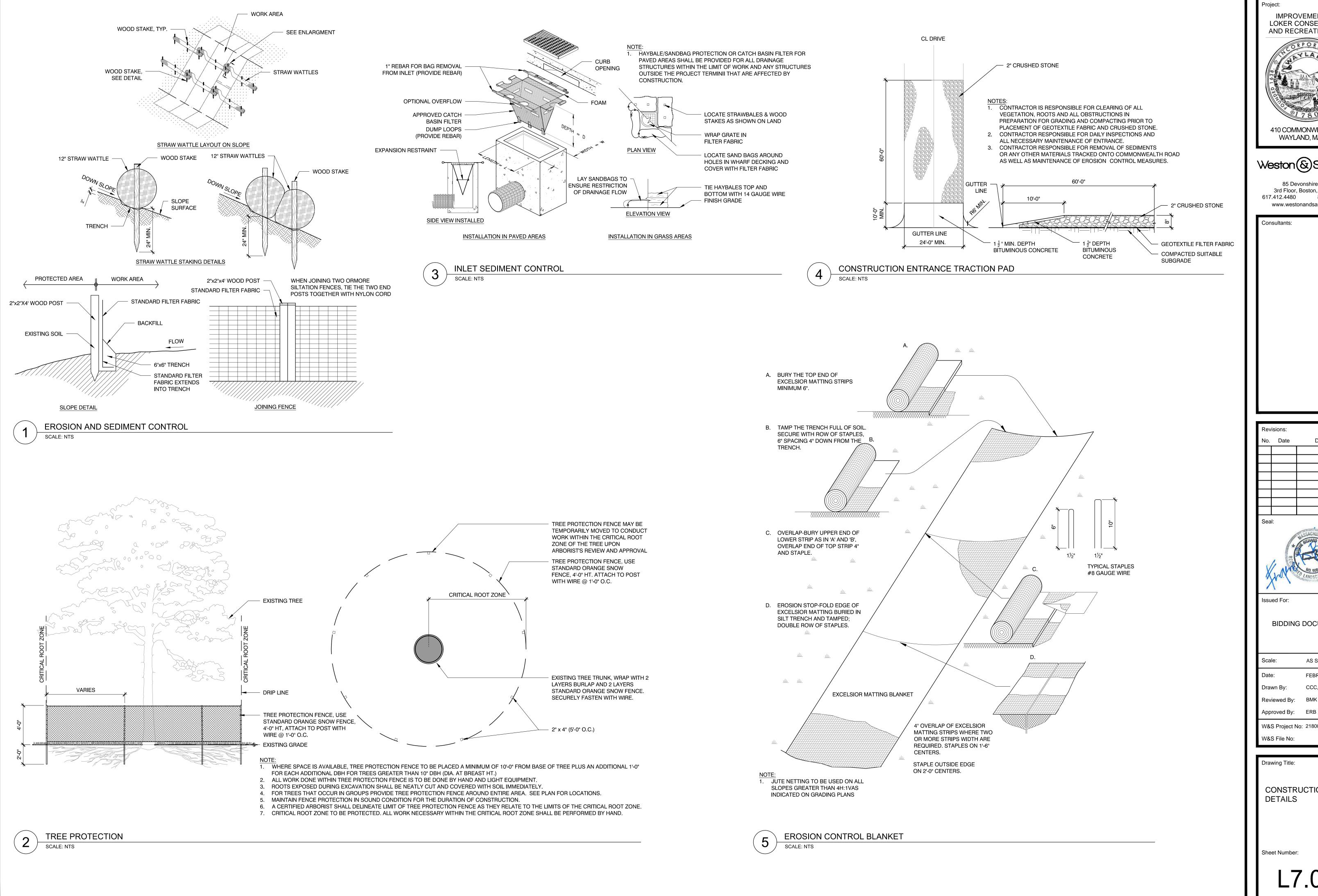
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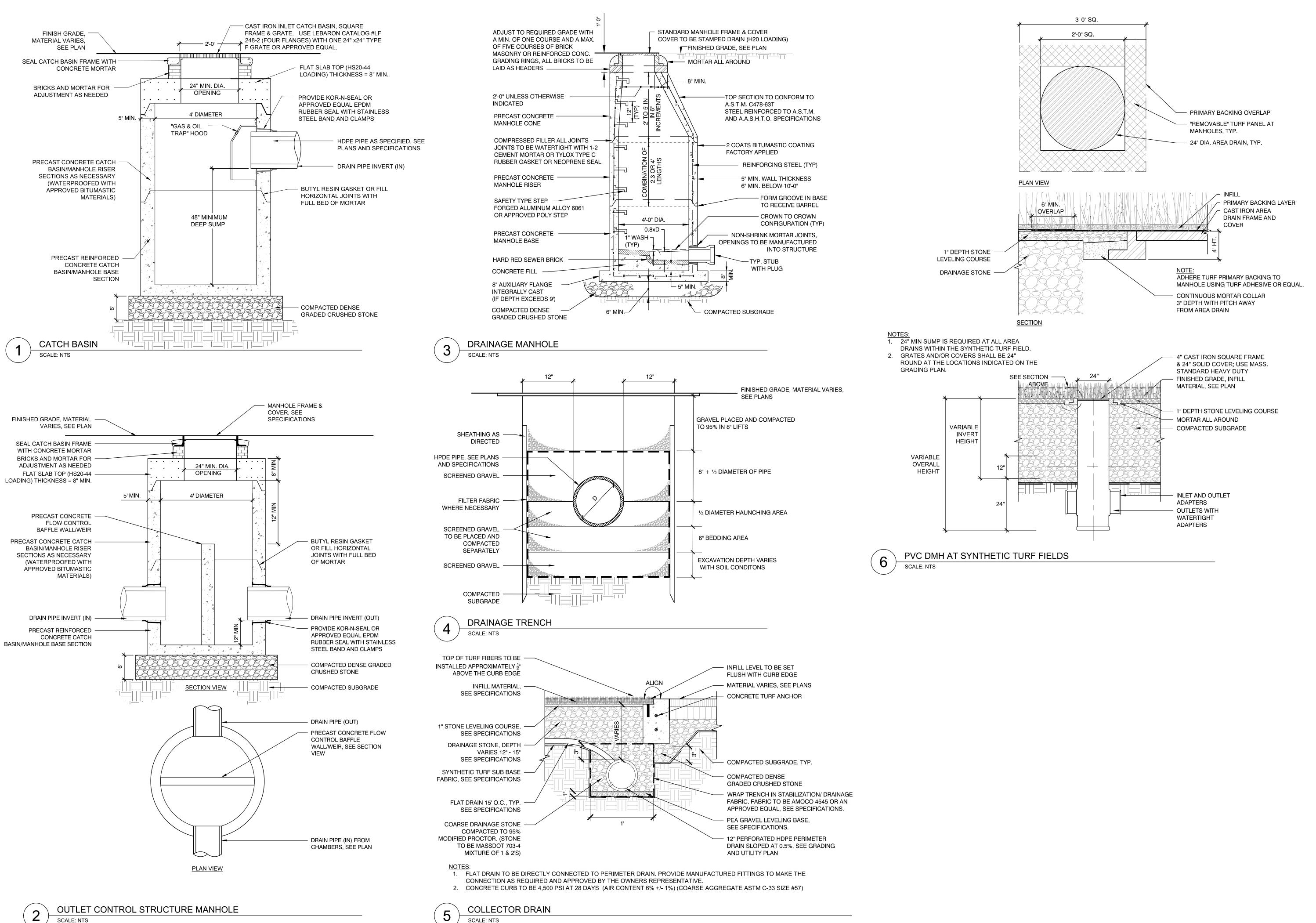
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CONSTRUCTION **DETAILS**



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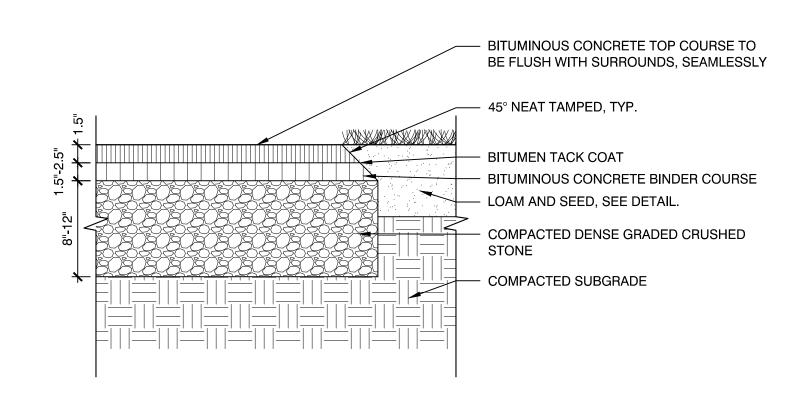
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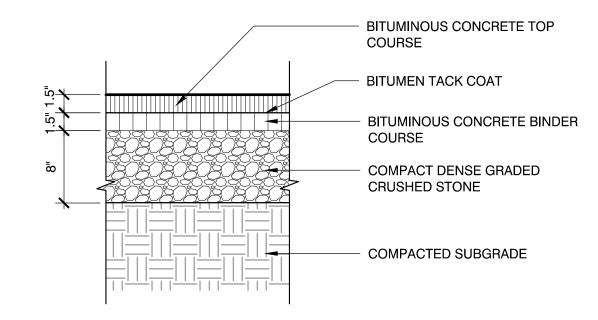
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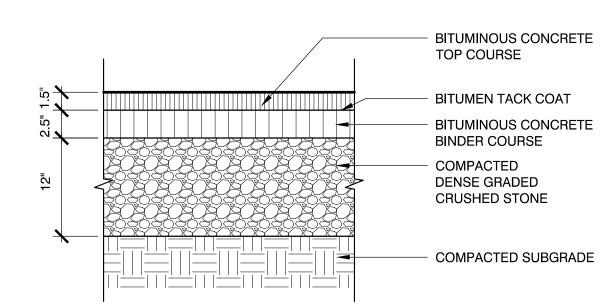
1 BITUMINOUS CONCRETE AT LAWN SCALE: NTS



NOTES:

1. CONTRACTOR TO PROVIDE SMOOTH TRANSITION WHERE NEW PAVEMENT ABUTS EXISTING PAVEMENT.

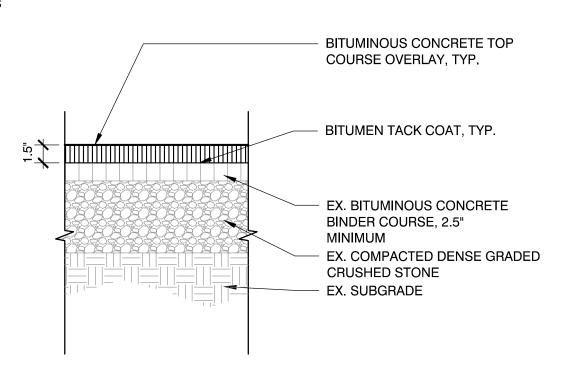
PEDESTRIAN BITUMINOUS CONCRETE PAVEMENT SCALE: NTS



NOTES:

1. CONTRACTOR TO PROVIDE SMOOTH TRANSITION WHERE NEW PAVEMENT ABUTS EXISTING PAVEMENT, TYP.

3 VEHICULAR BITUMINOUS CONCRETE PAVEMENT

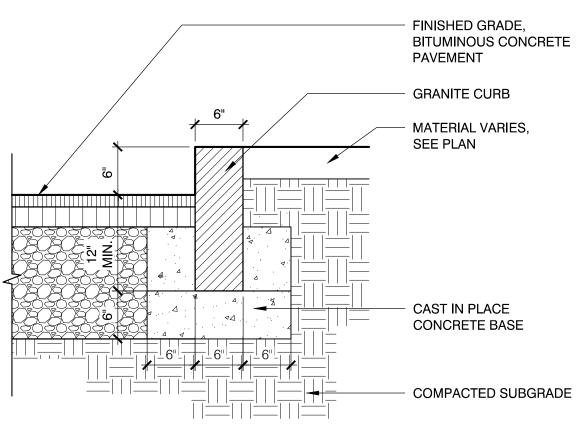


NOTES:

1. CONTRACTOR TO PROVIDE SMOOTH TRANSITION WHERE NEW PAVEMENT ABUTS EXISTING PAVEMENT, TYP.

BITUMINOUS CONCRETE PAVEMENT - TOP COURSE OVERLAY

SCALE: NTS



VERTICAL GRANITE CURB

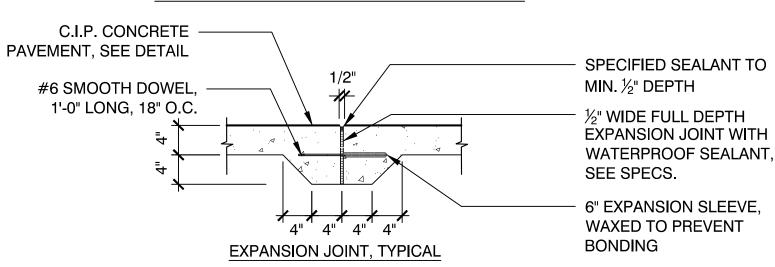
SCORE JOINTS, % WIDE x ¼ SLAB DEPTH. PATTERN AS SHOWN ON PLANS
EXPANSION JOINT, TYP.
SEE DETAIL BELOW
MEDIUM BROOM FINISH

CEMENT CONCRETE PAVEMENT, 4,000 PSI @ 28 DAYS

COMPACTED DENSE GRADED CRUSHED STONE

CAST-IN-PLACE CONCRETE PAVEMENT, TYPICAL

COMPACTED SUBGRADE

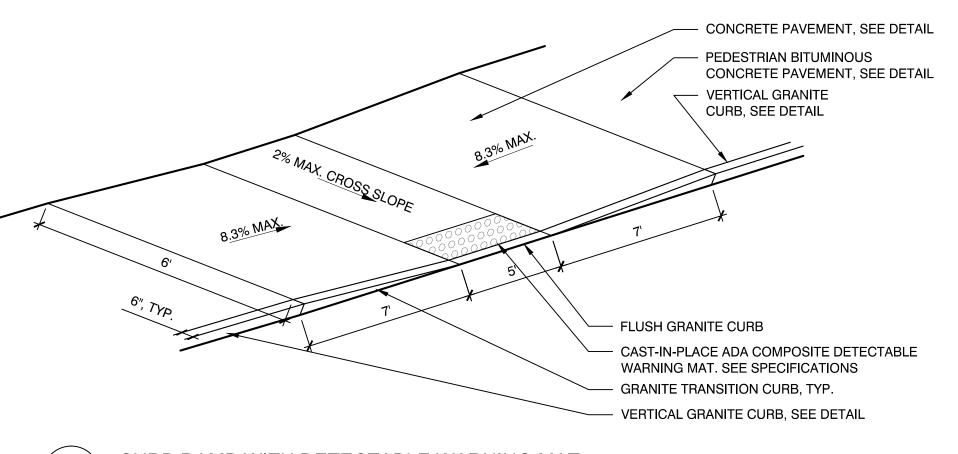


EXPANSION JOINT INSTALLATION NOTES:

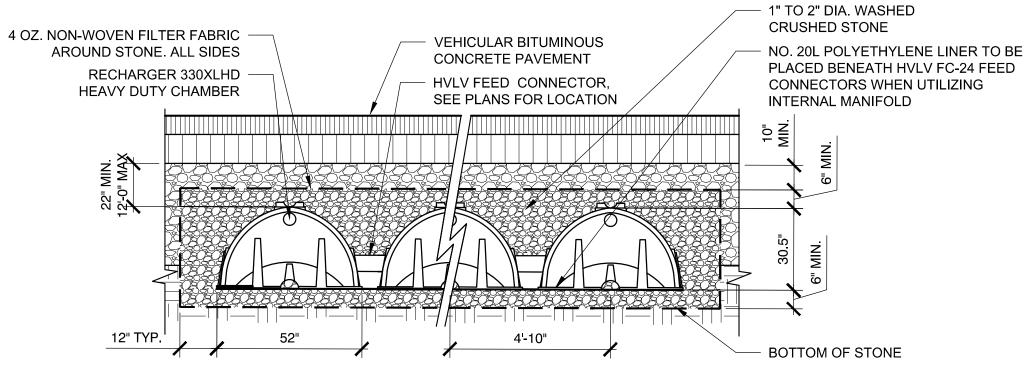
- 1. DOWEL IS TYPICAL AT ALL EXPANSION JOINTS (18" O.C.) WITHIN CONCRETE PAVING AND
- BETWEEN NEW CONCRETE PAVING AND EXISTING CONCRETE PAVING TO REMAIN.

 2. DELETE EXPANSION SLEEVE AND DOWEL WHERE JOINT ABUTS WALL, CURBS, OR OTHER VERTICAL SURFACES, UNLESS OTHERWISE NOTED.
- 3. EXPANSION JOINTS MAX. 25'-0" O.C. UNLESS SHOWN OTHERWISE.
- 4. EXPANSIONS JOINTS SHALL BE PLACED WHERE NEW CEMENT CONCRETE PAVEMENT MEETS
- EXISTING PAVEMENT OR WALLS TO REMAIN.
 5. ALL EXPANSION JOINTS SHALL BE SAW CUT.

6 CONCRETE PAVEMENT SCALE: NTS



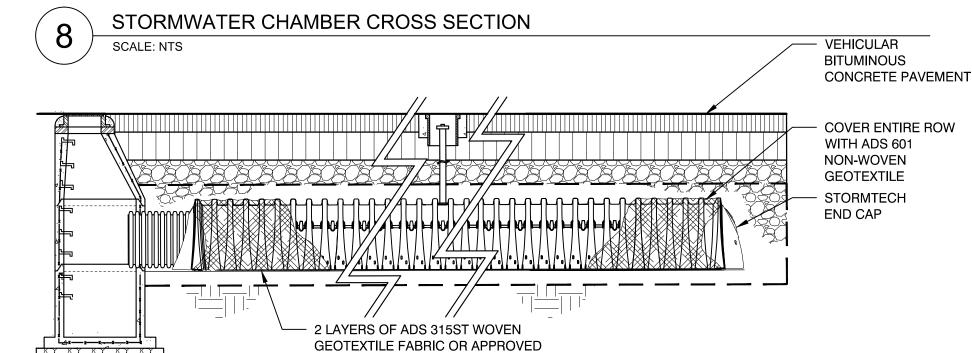
CURB RAMP WITH DETECTABLE WARNING MAT



NOTES: 1. STORAGE PROVIDED = SEE PLANS.

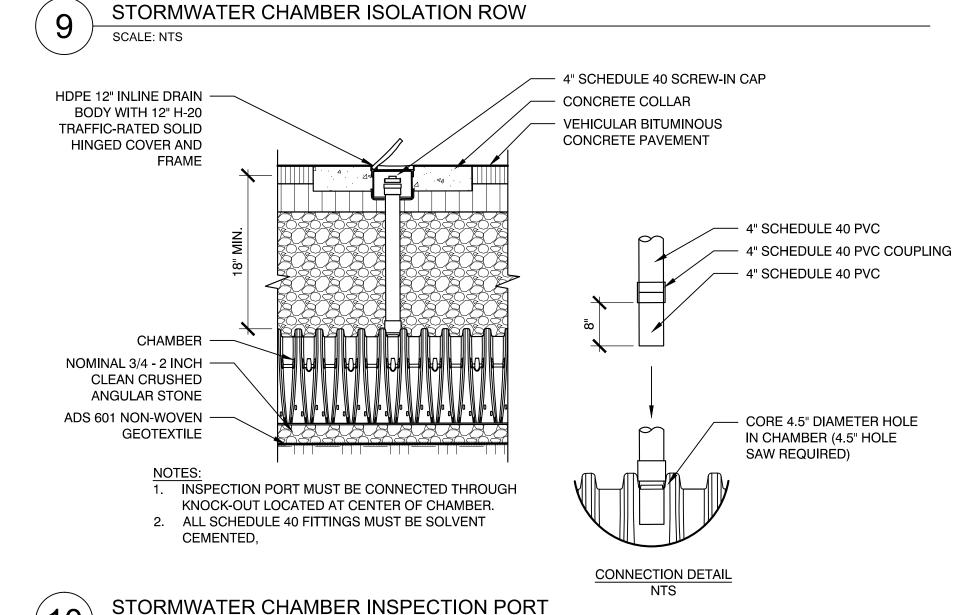
SCALE: NTS

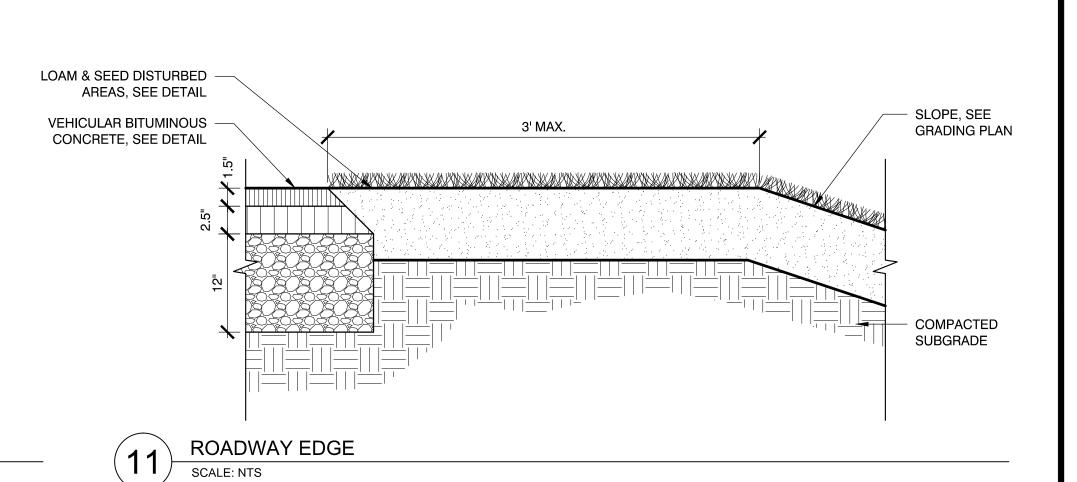
- 2. CHAMBER SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS.
- 3. USE 330XLHD HEAVY DUTY FOR TRAFFIC AND/OR H-25 APPLICATIONS OR APPROVED EQUAL. SEE SPECIFICATIONS. 4. ALL UNITS SHALL BE MARKED WITH A COLOR STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.
- 5. ALL CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
 6. PROVIDE ONE 6" INSPECTION PORT ON THE END OF EACH ROW PER MANUFACTURER DETAILS.

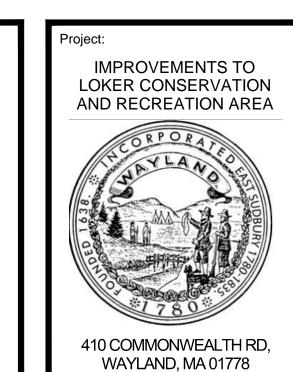


EQUAL BETWEEN FOUNDATION STONE

AND CHAMBERS

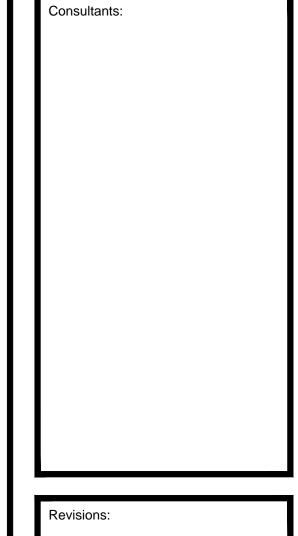


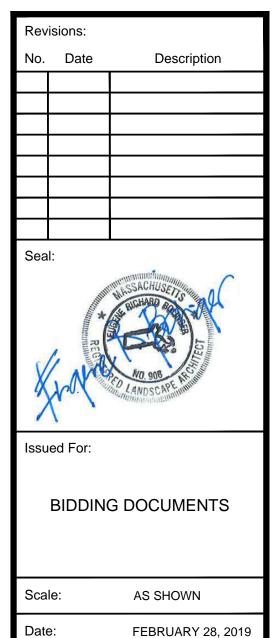




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CONSTRUCTION
DETAILS

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Reviewed By:

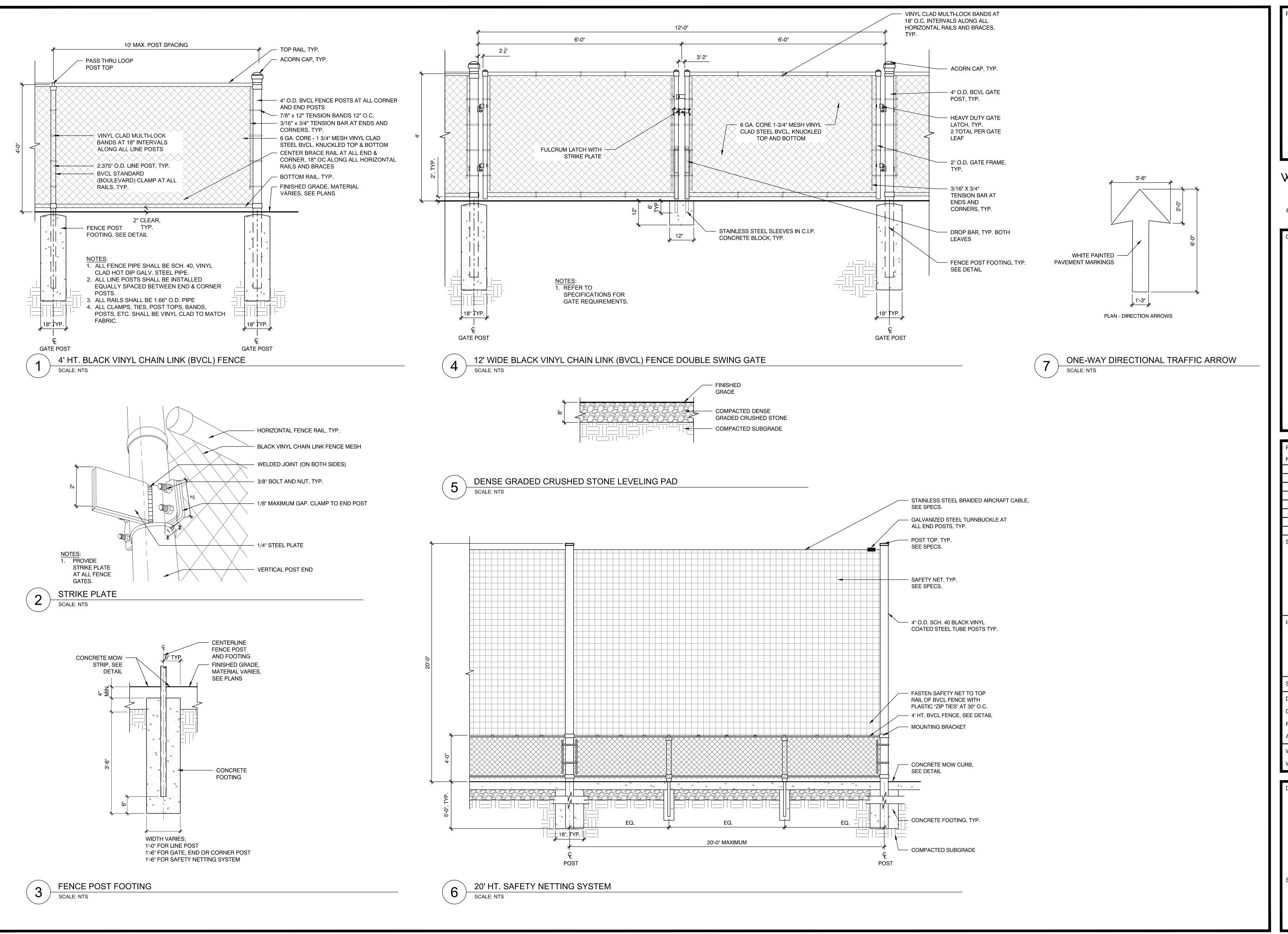
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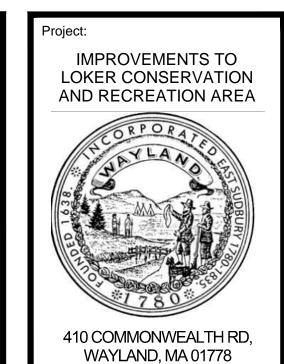
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Approved By: ERB

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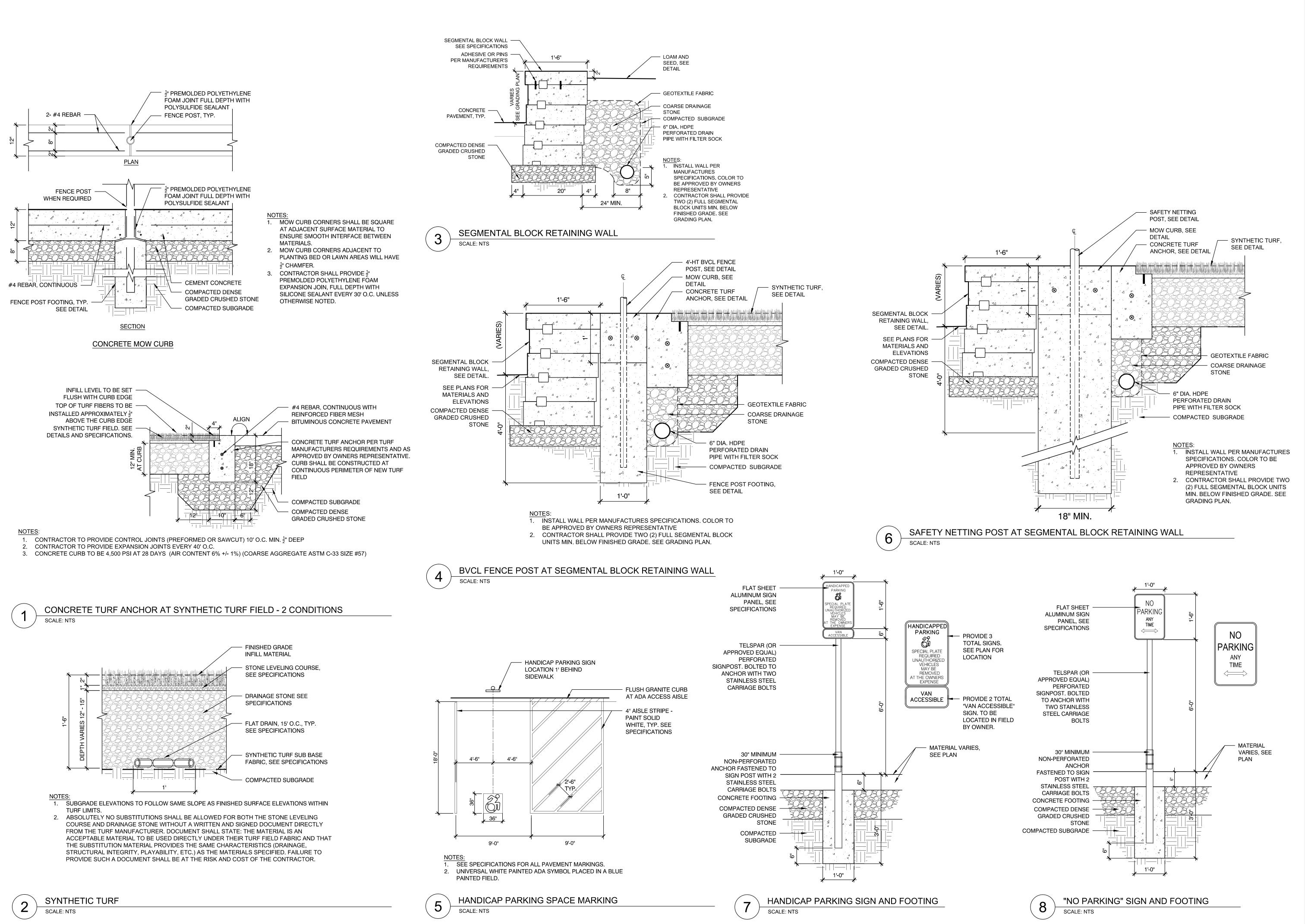
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CONSTRUCTION DETAILS

Sheet Number:

L7.03



Project:

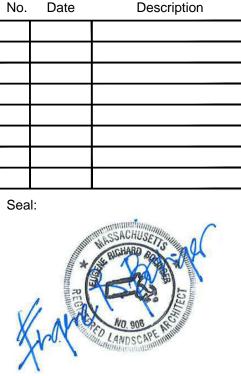
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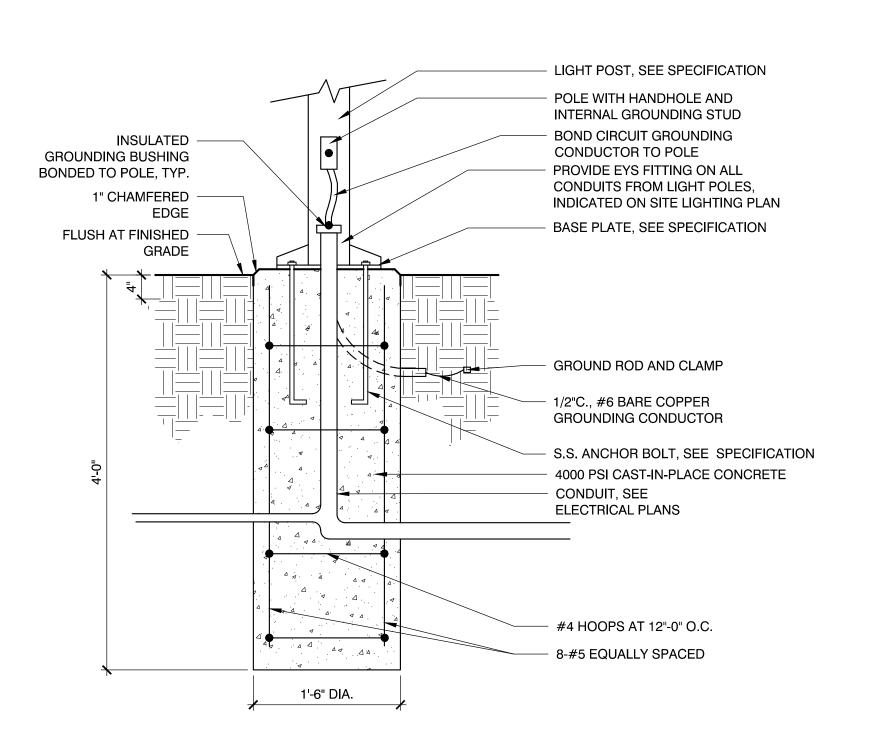
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CONSTRUCTION DETAILS

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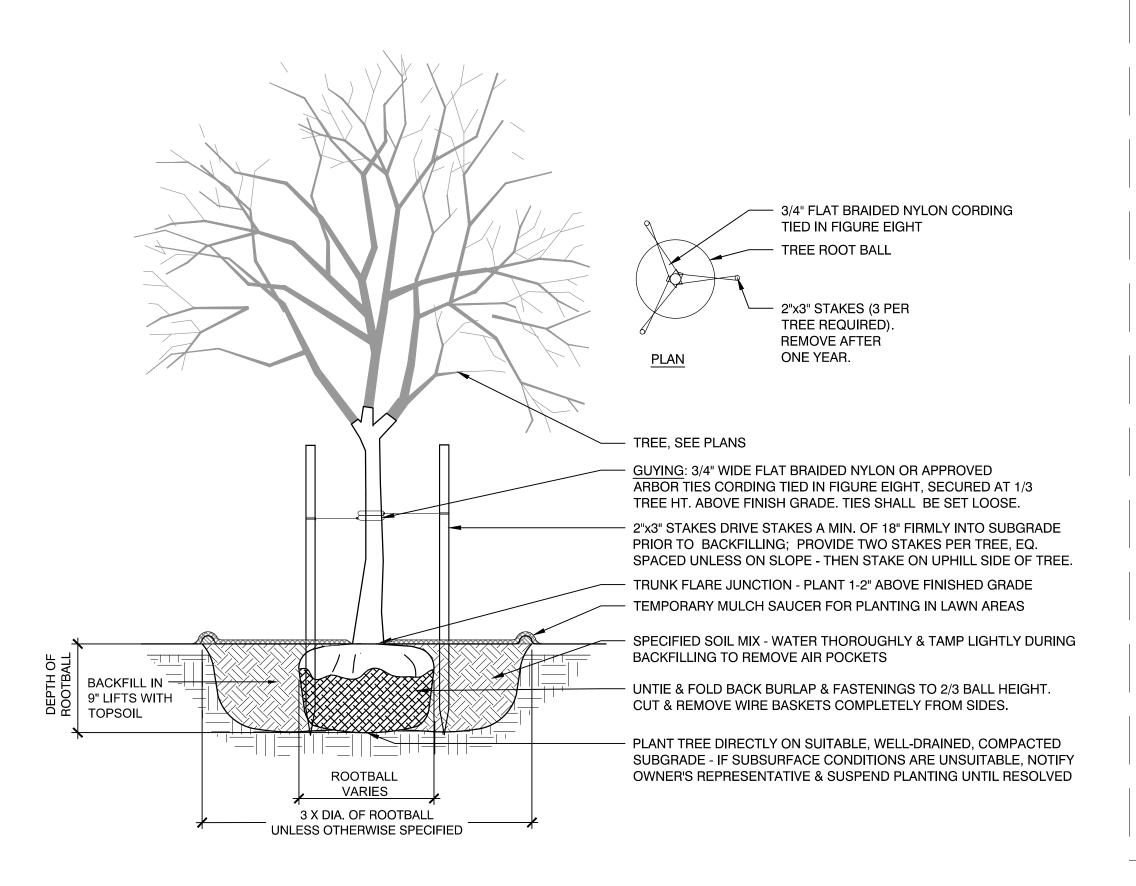


NOTES:

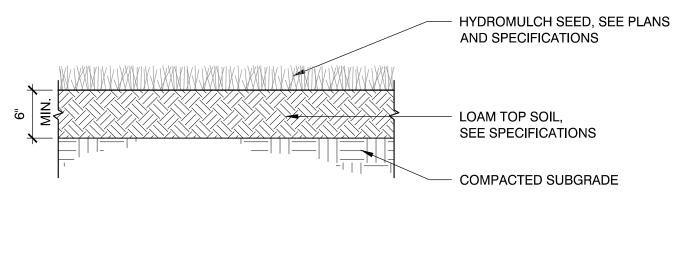
- 1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR.
- ALL EXCAVATION, BACKFILL, & CONCRETE SHALL BE BY GENERAL CONTRACTOR.

 2. REFER TO SPECIFICATIONS FOR MATERIALS.

BASE BID: PEDESTRIAN LIGHTING AND FOOTING

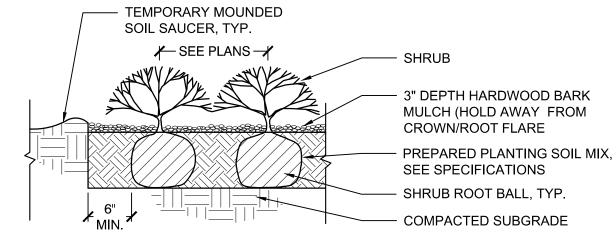






3 LOAM AND SEED SCALE: NTS

SCALE: NTS



NOTES:

1. ALL MULCH MUST BE DARK IN COLOR. PROVIDE SAMPLE PRIOR TO INSTALLATION TO BE APPROVED BY OWNER'S REPRESENTATIVE.

SHRUB PLANTING

GATE CAP (TYP.) — GATE POST (TYP.) -- GATE ARM AND SUPPORT BRACE HEAVY DUTY BOX/BUTT - STRONG ARM DOUBLE HINGE (3 TOTAL) (MODEL GATE LOCKING HATCH BHP-4 AS MANUFACTURED WITH PADLOCK BY HOVER FENCE CO. OR AN APPROVED EQUIVALENT) BITUMINOUS CONCRETE PAVEMENT, SEE DETAIL FINISHED GRADE ---FOOTING DIAMETER TO BE 4 X DIA. OF POST (12" DIA. MIN.)

POSTS:

SCHEDULE 40 GALVANIZED STEEL, SIX (6) INCH DIA.

GATE ARM AND SUPPORT BRACE:

SCHEDULE 40 GALVANIZED STEEL FOUR (4) INCH DIA.

HARDWARE:

HEAVY DUTY GALVANIZED STEEL

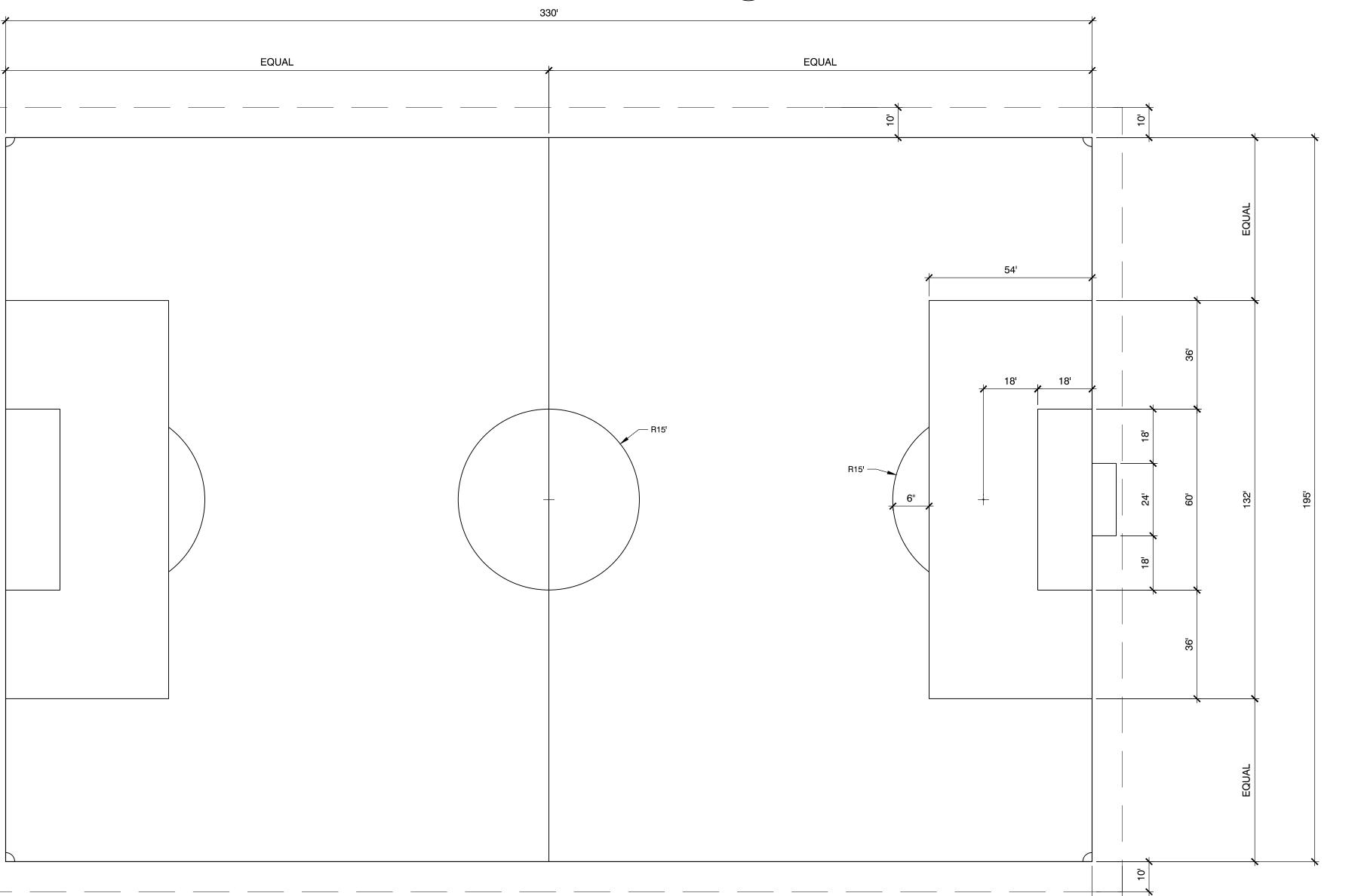
CONCRETE FOOTING:

NORMAL WEIGHT CONCRETE AIR ENTRAINED WITH NOT LESS THAN 4,500 PSI COMPRESSIVE STRENGTH (28 DAYS), THREE (3) INCH SLUMP, AND ONE (1) INCH MAXIMUM SIZE AGGREGATE.

NOTES:

1. THE CONTRACTOR SHALL PROVIDE ALL GATE COMPONENTS, HARDWARE, ETC. FOR THE COMPLETE INSTALLATION OF THE NEW GATE. INSTALL IN STRICT COMPLIANCE WITH THE MANUFACTURER'S WRITTEN RECOMMENDATIONS AND SPECIFICATIONS. ALL MATERIALS SHALL BE HEAVY DUTY RATED AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. ALL HARDWARE SHALL INSTALLED SO THAT THE GATE IS STRUCTURALLY SOUND AND DOES NOT SAG IN THE OPEN AND/OR CLOSED POSITION. COORDINATE LAYOUT AND LOCATION IN THE FIELD WITH THE ENGINEER PRIOR TO INSTALLATION.

6 VEHICLE SWING GATE
SCALE: NTS



5 SOCCER STRIPING LAYOUT

Project:

IMPROVEMENTS TO LOKER CONSERVATION AND RECREATION AREA

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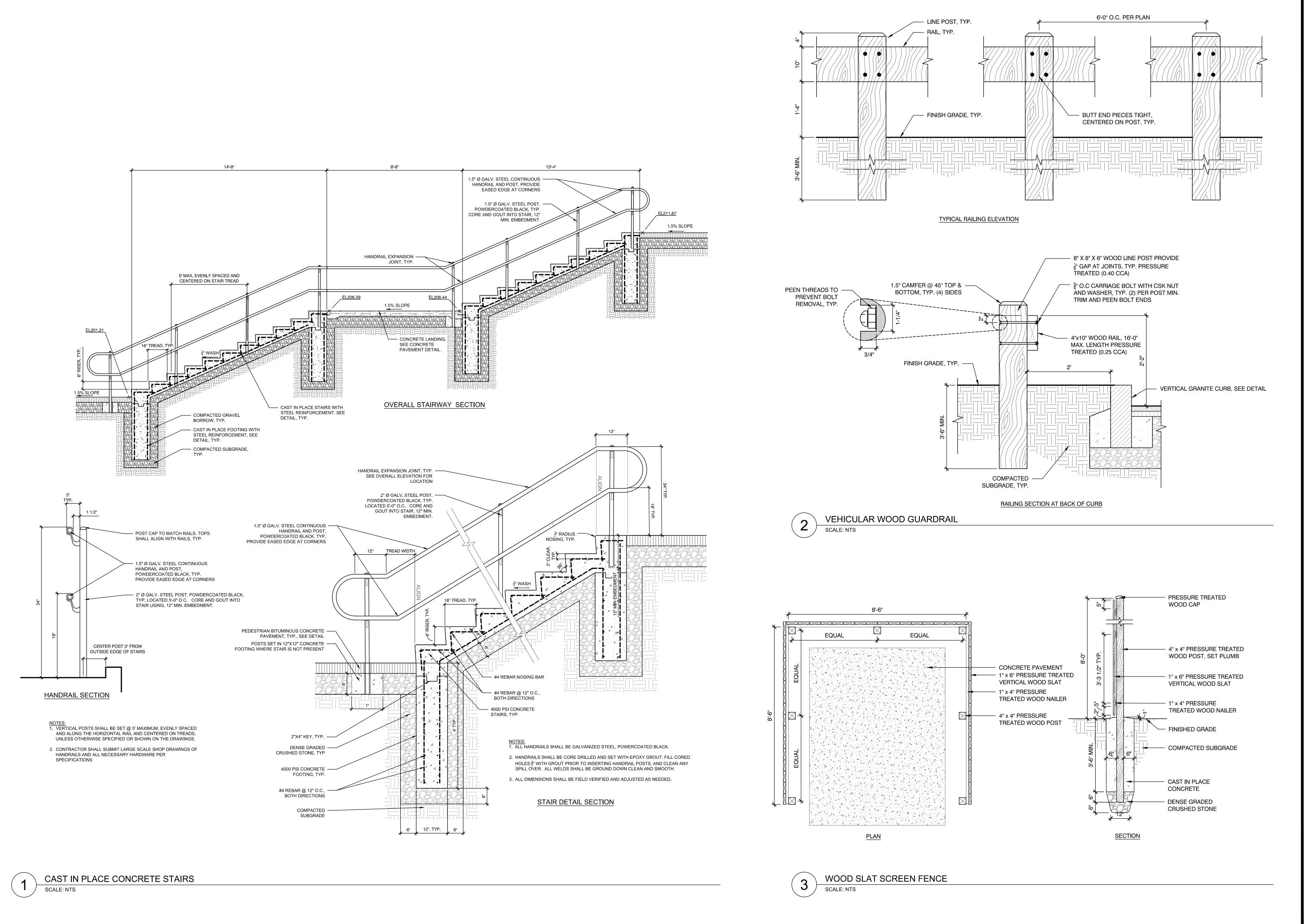
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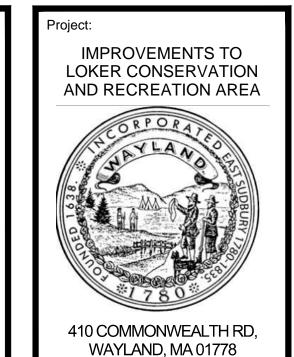
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Revi	ewed By:	ВМК			
Appr	oved By:	ERB			
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CONSTRUCTION
DETAILS

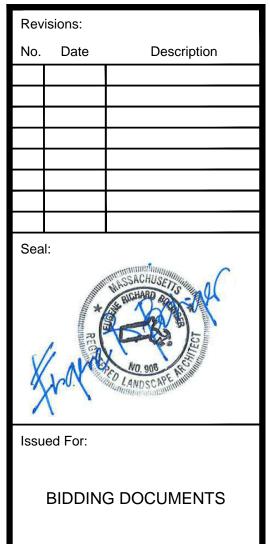
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Date: FEBRUARY 28, 2019
Drawn By: CCC, DYF
Reviewed By: BMK
Approved By: ERB

W&S Project No: 2180076

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Scale:

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CONSTRUCTION
DETAILS

L7.06

ABBREVIATIONS ABOVE FINISHED FLOOR ALTERNATING CURRENT AUTOMATIC TEMPERATURE CONTROLS ATS AUTOMATIC TRANSFER SWITCH BKR BREAKER CONDUIT CIRCUIT CIRCUIT BREAKER ELECTRICAL CONTRACTOR ELECTRIC METALLIC TUBING **EWC** ELECTRIC WATER COOLER EWH ELECTRIC WATER HEATER EXHAUST FAN FLA FULL LOAD AMPERE GENERAL CONTRACTOR GFI GROUND FAULT INTERRUPTER GND GROUND HOA HAND OFF AUTOMATIC HORSEPOWER ISOLATED GROUND JUNCTION BOX KILOVOLT AMPERES KILOWATT MCB MAIN CIRCUIT BREAKER MLO MAIN LUGS ONLY MECHANICAL CONTRACTOR MTD MOUNTED MTG MOUNTING NMC NON-METALLIC CONDUIT NORMALLY CLOSED NORMALLY OPEN NOT APPLICABLE NOT IN CONTRACT NTS NOT TO SCALE PNL PANELBOARD PVC POLYVINYL CHLORIDE CONDUIT RIGID GALVANIZED STEEL CONDUIT SUPPLY FAN SAFETY SWITCH TELEPHONE TRANSFORMER WATTS OR WIRE WEATHERPROOF 4-WIRE SOLID NEUTRAL

RECEPTACLE ABBREVIATIONS

PLUG INSERTED.

PERSONAL PROTECTION

GROUND FAULT CIRCUIT INTERUPTER,

WEATHERPROOF RECEPTACLE WITH

COVERPLATE LISTED FOR WET LOCATION WITH AN ATTACHMENT

ELECTRICAL LEGEND HOMERUN TO PANELBOARD, NUMBER OF TICKS INDICATES NUMBER OF 1,3 LP1B #12 AWG CONDUCTORS CONTAINED IN RACEWAY. TWO (2) #12 AWG SHALL NOT BE INDICATED BY TICKS, NUMERALS 1 AND 3 INDICATE CIRCUITS IN PANELBOARD. RACEWAYS LARGER THAN 1/2" AND CONDUCTORS LARGER THAN #12 AWG SHALL BE INDICATED ON THE DRAWINGS. PROVIDE AN INSULATED GREEN GROUND WIRE IN ALL RACEWAYS MINIMUM SIZE TO BE RACEWAY RUN ABOVE GROUND RACEWAY RUN UNDERGROUND PULL BOX. TYPE AS NOTED ON THE DRAWINGS OR AS REQUIRED BY N.E.C. DUPLEX CONVENIENCE OUTLET RATED 20A, 125V, U-SLOT GROUNDED TYPE MOUNTED 18" ABOVE FINISHED FLOOR TO CENTER LINE. ALL OTHER MOUNTING HEIGHTS SHALL BE AS NOTED ADJACENT TO THE SYMBOL. REFER TO RECEPTACLE ABBREVIATIONS FOR SPECIAL PURPOSE RECEPTACLES. SINGLE POLE SWITCH (120/277V) MOUNTED 4'-0" ABOVE FINISHED FLOOR. ALL OTHER MOUNTING HEIGHTS SHALL BE AS NOTED ON THE DRAWINGS. "a" SUBSCRIPT DENOTES CIRCUITS CONTROLLED. SPORTS LIGHT POLE - 'T1' INDICATES POLE NUMBER PEDESTRIAN LIGHT FIXTURE "PHH" POWER HAND HOLE "CHH" COMMUNICATIONS HAND HOLE

GENERAL NOTES

- 1. DRAWINGS ARE DIAGRAMMATIC ONLY. THE EXACT LOCATION, MOUNTING HEIGHTS, SIZE OF EQUIPMENT AND ROUTING OF RACEWAYS SHALL BE COORDINATED AND DETERMINED IN THE FIELD.
- 2. ALL STRAIGHT FEEDER, BRANCH CIRCUIT AND AUXILIARY SYSTEM CONDUIT RUNS SHALL BE PROVIDED WITH SUFFICIENT PULL BOXES TO LIMIT THE MAXIMUM LENGTH OF ANY SINGLE CABLE PULL TO 150 FEET. EXACT SIZES OF PULL BOXES AND LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ELECTRICAL CONTRACTOR.
- 3. SLEEVES ARE TO BE UTILIZED FOR PASSAGE OF CONDUITS THROUGH FLOORS OR WALLS. CONDUITS AND BOXES ARE TO BE SUPPORTED BY THE USE OF PRESET FASTENERS INSTALLED IN FLOORS, WALLS OR COLUMNS. CONDUITS AND BOXES ARE TO BE INSTALLED CONCEALED IN MASONRY WALLS AND ABOVE HUNG CEILINGS. ALL SLEEVES ARE TO BE SEALED WITH APPROVED FIRE STOPPING SEALANT.
- WORK SHALL CONFORM TO THE MASSACHUSETTS ELECTRICAL CODE, MASSACHUSETTS BUILDING CODE, NFPA AND REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION.
- 5. THE WORD "CONTRACTOR" AS USED IN THE "ELECTRICAL WORK" SHALL MEAN THE ELECTRICAL SUBCONTRACTOR
- 6. CONTRACTOR SHALL PAY FOR ALL PERMITS, INSURANCE AND TESTS, AND SHALL PROVIDE LABOR AND MATERIAL TO COMPLETE THE ELECTRICAL WORK SHOWN.
- 7. CONTRACTOR SHALL PAY ELECTRIC UTILITY COMPANY BACK CHARGES. UTILITY BACK CHARGES ARE \$11,863.
- ·
- 8. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL COORDINATION WITH THE UTILITY.
- 9. EXCEPT AS OTHERWISE NOTED, THE ELECTRICAL WORK SHALL INCLUDE DEMOLITION, PANELBOARDS, CIRCUIT BREAKERS, FEEDERS, WIRING, RACEWAYS, LIGHTING FIXTURES, DEVICES, SAFETY SWITCHES, TRANSFORMERS AND CONNECTION NECESSARY TO OPERATE MOTORS AND OTHER EQUIPMENT.
- 10. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY LIGHTING AND POWER AND THE GENERAL CONTRACTOR SHALL PAY ALL ENERGY CHARGES.
- 11. DURING CONSTRUCTION, THE ELECTRICAL CONTRACTOR SHALL KEEP HIS PORTION OF THE WORK NEAT, CLEAN AND ORDERLY.
- 12. ALL SYSTEMS SHALL BE TESTED FOR SHORT CIRCUIT AND GROUNDS PRIOR TO ENERGIZING AND ANY DEFECTS SHALL BE CORRECTED.
- 13. ALL CUTTING AND PATCHING REQUIRED FOR ELECTRICAL WORK SHALL BE INCLUDED AS PART OF THIS SECTION.
- 14. COMPLETE SHOP DRAWINGS SHALL BE SUBMITTED FOR ELECTRICAL EQUIPMENT. WHERE SPECIFIED ELECTRICAL EQUIPMENT IS SUBSTITUTED, THE ELECTRICAL CONTRACTOR SHALL SUBMIT COMPLETE SPECIFICATIONS ON THE SUBSTITUTE AS WELL AS THE ITEM ORIGINALLY SPECIFIED.
- 15. MATERIALS SHALL BE SPECIFICATION GRADE AND UL LISTED.
- 16. WHERE MATERIAL IS CALLED OUT IN THE LEGEND BY MANUFACTURER, TYPE OR CATALOG NUMBER, SUCH DESIGNATIONS ARE TO ESTABLISH STANDARDS OR DESIRED QUALITY. ACCEPTANCE OR REJECTIONS OF PROPOSED SUBSTITUTIONS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER.
- 17. WORK SHALL BE COORDINATED WITH THAT OF OTHER TRADES TO ELIMINATE INTERFERENCES.
- 18. EXACT LOCATIONS OF MECHANICAL EQUIPMENT, DEVICES, ETC. SHALL BE VERIFIED WITH THE GENERAL CONTRACTOR PRIOR TO ROUGHING FOR SAME.
- 19. ELECTRICAL CONTRACTOR SHALL OBTAIN SHOP DRAWINGS/SPECIFICATIONS OF ALL EQUIPMENT FROM THE GENERAL CONTRACTOR PRIOR TO PURCHASING AND INSTALLING ELECTRICAL EQUIPMENT FOR SAME. NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN ACTUAL EQUIPMENT INSTALLED AND CONTRACT DOCUMENTS.
- 20. ELECTRICAL WORK SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF WHICH SYSTEM IS PUT INTO SERVICE.
- 21. WORK SHALL BE GROUNDED IN ACCORDANCE WITH CODE REQUIREMENTS. COMPLETE EQUIPMENT (INSULATED GREEN WIRE) GROUNDING SYSTEM SHALL BE INSTALLED.
- 22. PANELBOARDS SHALL BE DEAD FRONT, THERMAL MAGNETIC BOLT-ON CIRCUIT BREAKER TYPE, DESIGNED FOR SURFACE OR FLUSH MOUNTING AS INDICATED ON PLAN, AND HAVING CONNECTIONS TO 120/208 OR 277/480 VOLT, 3 PHASE, 4 WIRE SERVICE. ALL BUS BARS SHALL BE COPPER. CABINETS SHALL BE MADE OF CODE GAUGE GALVANIZED SHEET STEEL, WITH A MINIMUM OF 4 INCH GUTTERS, DOOR IN DOOR CONSTRUCTION, LOCKED DOOR, AND FLUSH HINGES. TYPEWRITTEN INDEX SHALL BE MOUNTED ON DOOR INSIDE TRANSPARENT COVER INDICATING LOAD SERVED. PANELS SHALL INCLUDE SEPARATE EQUIPMENT GROUND BUS.
- 23. PANELBOARDS, DISCONNECT SWITCHES, AND CONTROLLERS SHALL HAVE NAMEPLATES OF BLACK LAMINATED PLASTIC WITH ENGRAVED WHITE LETTERS, SECURED WITH SELF-TAPPING SCREWS.
- 24. CONNECTIONS AT MOTORS SHALL BE MADE WITH 18" LENGTH OF 1/2 INCH FLEXIBLE LIQUID TIGHT CONDUIT.
- 25. CONTRACTOR SHALL PHASE BALANCE PANELBOARDS IN THE FIELD. LOAD ON EACH PHASE SHALL BE BALANCED WITHIN 10% OF EACH OTHER.
- 26. TOGGLE SWITCHES SHALL BE OF THE SINGLE POLE A.C. QUIET TOGGLE TYPE FOR MOUNTING IN A SINGLE-GANG SPACING. TOGGLE SWITCHES SHALL BE FULLY RATED 20 AMPERES AT 120/277 VOLT.
- 27. DUPLEX WALL RECEPTACLES SHALL BE 2 POLE, 3 WIRE, GROUNDING TYPE 20 AMPERE, 125 VOLT WITH METAL PLASTER EARS. RECEPTACLES SHALL BE NEMA STANDARD CONFIGURATION 5-20R.
- 28. FUSED OR UNFUSED SAFETY SWITCHES SHALL BE TOTALLY ENCLOSED, HEAVY DUTY TYPE. SWITCHES SHALL HAVE VOLTAGE, HORSEPOWER AND AMPERE RATING SUITABLE FOR THE APPLICATION. PROVIDE NUMBER OF
- 29. FUSES SHALL BE DUAL ELEMENT, TIME DELAY TYPE, AS MANUFACURED BY BUSSMAN, RELIANCE OR APPROVED

POLES AS REQUIRED. SWITCHES LOCATED EXTERIOR TO THE BUILDING OR IN DAMP/WET LOCATIONS SHALL BE IN

- 30. FURNISH AND INSTALL SLEEVES IN FLOORS, BEAMS, WALLS, ETC. REQUIRED FOR INSTALLING THIS WORK.
- 31. CONDUIT PASSING THROUGH FIRE RATED WALLS AND FLOORS SHALL BE PROVIDED WITH ALL NECESSARY MATERIALS TO ENSURE THAT THE FIRE RATED INTEGRITY IS MAINTAINED.
- 32. LFEEDER TAPS WILL NOT BE ALLOWED IN PANELBOARD GUTTERS.

A NEMA 3R ENCLOSURE.

- 33. CONTRACTOR SHALL CHECK EXISTING CONDITIONS TO DETERMINE EXACT EXTENT OF WORK TO BE PERFORMED PRIOR TO BIDDING. DIMENSIONS RELEVANT TO EXISTING WORK SHALL BE VERIFIED IN THE FIELD.
- 34. IN AREAS NOT AFFECTED BY THIS RENOVATION, THIS SUBCONTRACTOR SHALL MAINTAIN CONTINUITY OF ELECTRIC SERVICE.
- 35 WHERE CONNECTIONS ARE MADE IN EXISTING PANELS. THE PANEL INDEX SHALL BE REVISED TO INDICATE.
- 35. WHERE CONNECTIONS ARE MADE IN EXISTING PANELS, THE PANEL INDEX SHALL BE REVISED TO INDICATE THE NEW LOADS SERVED. NEW CIRCUIT BREAKERS ADDED TO EXISTING PANELS SHALL BE THE SAME FRAME SIZE, VOLTAGE RATING AND INTERRUPTING CAPACITY AS EXISTING PANEL AND CIRCUIT BREAKERS.
- 36. ELECTRICAL SHUTDOWN SHALL BE AT A TIME AND DATE APPROVED BY THE OWNER.
- 37. PROVIDE AS-BUILT "CADD" DRAWINGS AT THE COMPLETION OF THE PROJECT.

IMPROVEMENTS TO LOKER CONSERVATION AND RECREATION AREA



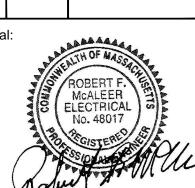
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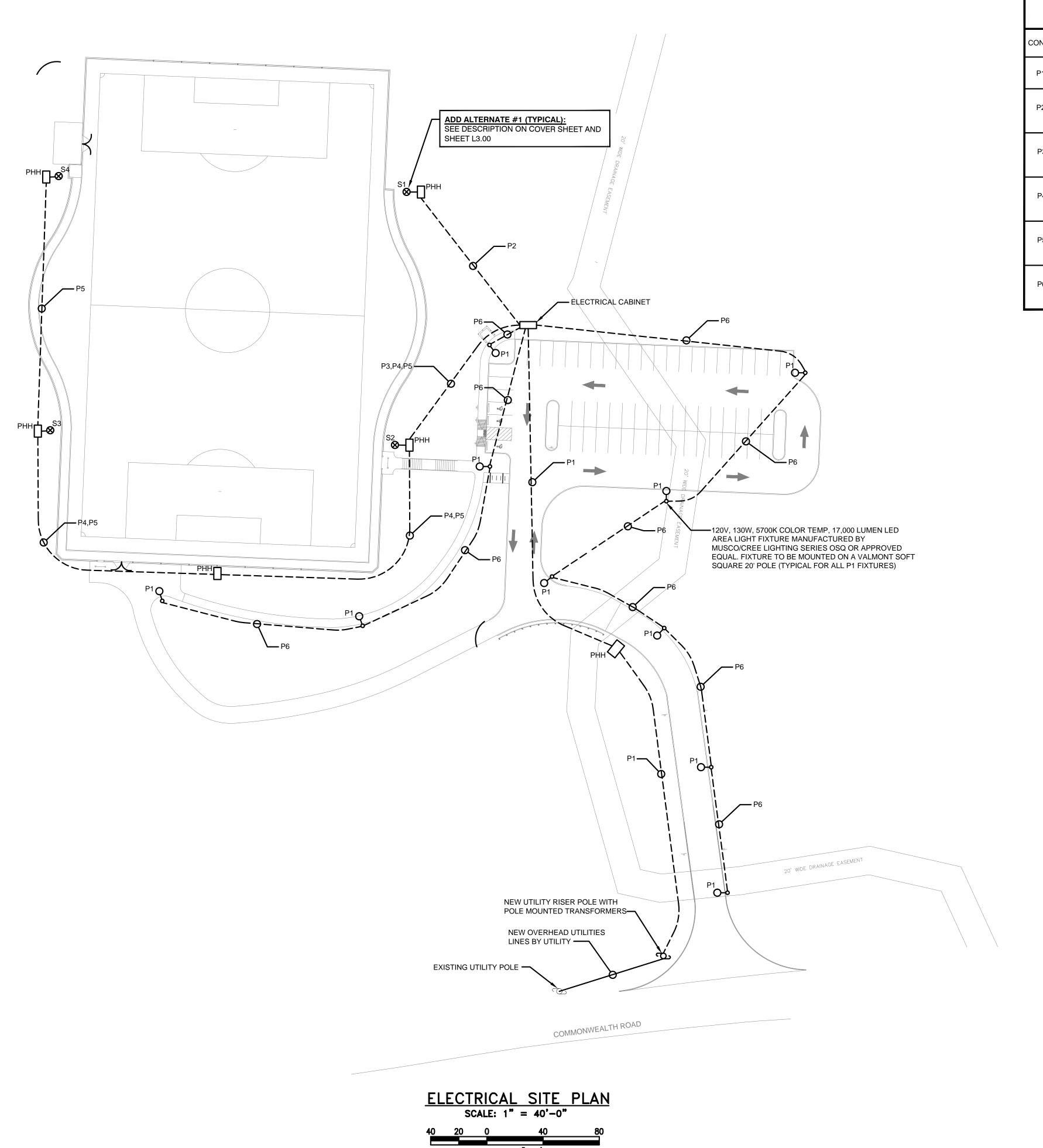
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Drawing Title:

ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES

Sheet Number:

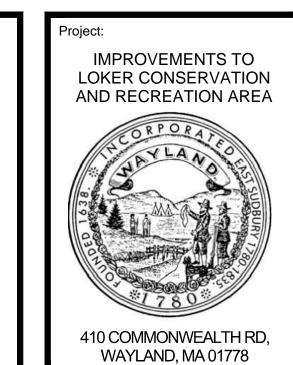
E0.01



	CONDUIT & WIRING SCHEDULE								
CONDUIT	FEEDER	FROM	CONTACTOR NUMBER	ТО	FIXTURES	LOAD	CONTACTOR SIZE	REMARKS	
P1	2"C., 4#1 & 1#4GND	UTILITY TRANSFORMER	-	PANEL PPH2	-	100A	-	UNDERGROUND	
P2	2"C., 3#10 & 1#10GND	MUSCO LIGHTING CONTROL CABINET NO.3 IN ELECTRICAL CABINET	C1	FIXTURE S1	6 @ 1150W	6.9 KW	30A		
P3	2"C., 3#10 & 1#10GND	MUSCO LIGHTING CONTROL CABINET NO.3 IN ELECTRICAL CABINET	C2	FIXTURE S2	6 @ 1150W	6.9 KW	30A		
P4	1"C., 3#8 & 1#8GND	MUSCO LIGHTING CONTROL CABINET NO.3 IN ELECTRICAL CABINET	С3	FIXTURE S3	6 @ 1150W	6.9 KW	30A		
P5	2"C., 3#8 & 1#8GND	MUSCO LIGHTING CONTROL CABINET NO.3 IN ELECTRICAL CABINET	C4	FIXTURE S4	6 @ 1150W	6.9 KW	30A		
P6	2"C., 2#6 & 1#8GND	PANEL PPL2 IN ELECTRICAL CABINET	-	PARKING LOT LIGHTING	-	-	-	VIA NEW TIME CLOCK ELECTRICAL CABINE	

DRAWING NOTES:

- REFER TO DRAWING E0.01 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DOWNSIZING FEEDERS AT ELECTRICAL DEVICES FOR CONNECTION IN FIELD. FEEDERS HAVE BEEN OVERSIZED FOR VOLTAGE DROP.
- 3. THE CONTRACTOR SHALL FURNISH & INSTALL A HANDHOLE AT EACH LIGHT POLE BASE FOR TRANSITIONING TO LIGHT POLE RISER CONDUIT. RUN CONDUIT UP POLE APPROXIMATELY 10' TO LIGHT POLE JUNCTION BOX. ADDITIONAL HANDHOLES SHALL BE INSTALLED AS REQUIRED TO FACILITATE THE INSTALLATION OF WIRING. HANDHOLES SHALL NOT BE INSTALLED ON FIELD.

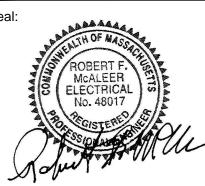




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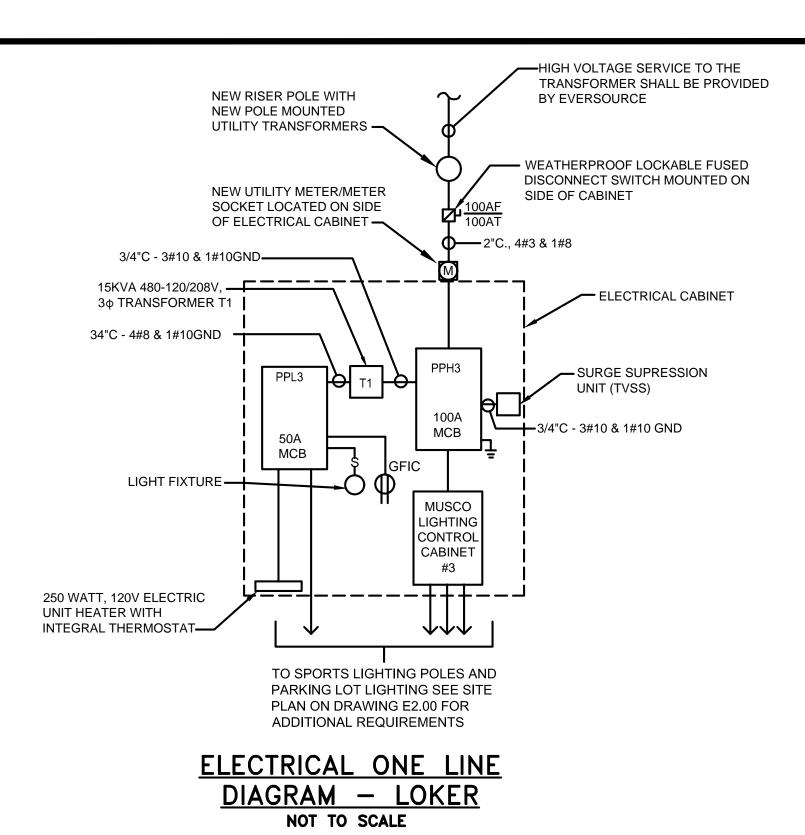
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ELECTRICAL SITE PLAN

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--- 1/2"C 2#12&1#12G 120V CONTROL POWER FROM PANEL PPL1 CIRCUIT #1. C1 FIXTURE S1 4-3/4"C EACH WITH 3#10&1#10G MUSCO FROM (4) 30A-3P BREAKERS C2 FIXTURE S2 LIGHTING INSTALLED IN PANEL "PPH1" — CONTROL C3 FIXTURE S3 CABINET #3 (LCC3) C4 FIXTURE S4

1. TYPICAL FOR CONTACTORS C1 THROUGH C4, CONTRACTOR SHALL RUN CONDUIT AND WIRING AS INDICATED IN SCHEDULE FROM EACH CONTACTOR TO DESIGNATED LIGHTING POLE. CONTRACTOR SHALL RUN CONDUIT TO 10'-0" AFG FOR CONNECTION TO POLE MOUNTED LIGHTING CONNECTION BOX.

SPORTS LIGHTING CONTROL CABINET DIAGRAM — LOKER NOT TO SCALE

PANELBOARD SCHEDULE - LOKER

DESIGNATION: PPH3 REMARKS: SERVICE ENTRANCE RATED S.C. RATING: 22,000A RMS SYM.

LOCATION: ELECTRICAL CABINET SERVICE: 277/480V, 3Ø, 4W

RATING: 100 AMPS MOUNTING: SURFACE

MAIN: 100 MCB

CKT.	LOAD	BREA	KER	Р	HASE	BR	EAKER	LOAD	СКТ.
NO.	DESIGNATION	TRIP	POLE	Α	ВС	POLE	TRIP	DESIGNATION	NO.
1	-	-	♣	1		₽	-	-	2
3	FIXTURE POLE S1/CONTACTOR C1	30	₩	H	$\overline{}$	₽	30	FIXTURE POLE S2/CONTACTOR C2	4
5	-	-	7	${\mathbb H}$	++	ک	-	-	6
7	-	-	$\frac{1}{2}$			}	-	-	8
9	FIXTURE POLE S3/CONTACTOR C3	30	ightharpoons	$oxed{+}$		<u></u>	30	FIXTURE POLE TS/CONTACTOR C4	10
11	-	-	\searrow	Н	+	├ ०	-	-	12
13	-	-	$\frac{1}{2}$			\$	20	SPARE	14
15	15KVA CABINET TRANSFORMER	50	├ �	Н	+	~	20	SPARE	16
17	-	-	├ �	Н		$+$ \sim $-$	20	SPARE	18
19	SPARE	20	8			₽	20	SPARE	20
21	SPARE	20	├	Н		$+$ \sim $-$	20	SPARE	22
23	SPARE	20	6	Н	+	₽	20	SPARE	24
25	SPARE	20	\$		+	ک	20	SPARE	26
27	SPARE	20	þ	H	lack	þ	20	SPARE	28
29	SPARE	20	þ	H	+ +	۶	20	SPARE	30

PANELBOARD SCHEDULE - LOKER

S.C. RATING: 10,000A RMS SYM. REMARKS:

LOCATION: ELECTRICAL CABINET SERVICE: 120/208V, 3Ø, 4W RATING: 100 AMPS MOUNTING: SURFACE

MAIN: 50A MCB

7 SPARE 9 SPARE

11 SPARE

DESIGNATION: PPL3

BREAKER PHASE BREAKER LOAD DESIGNATION LOAD DESIGNATION TRIP POLE A B C POLE TRIP 1 LIGHTING IN ELECTRICAL CABINET 3 RECEPTACLE IN ELECTRICAL CABINET 5 SPARE 10

20 - 20 SPARE



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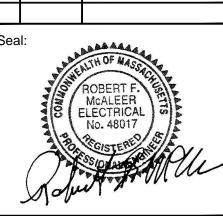
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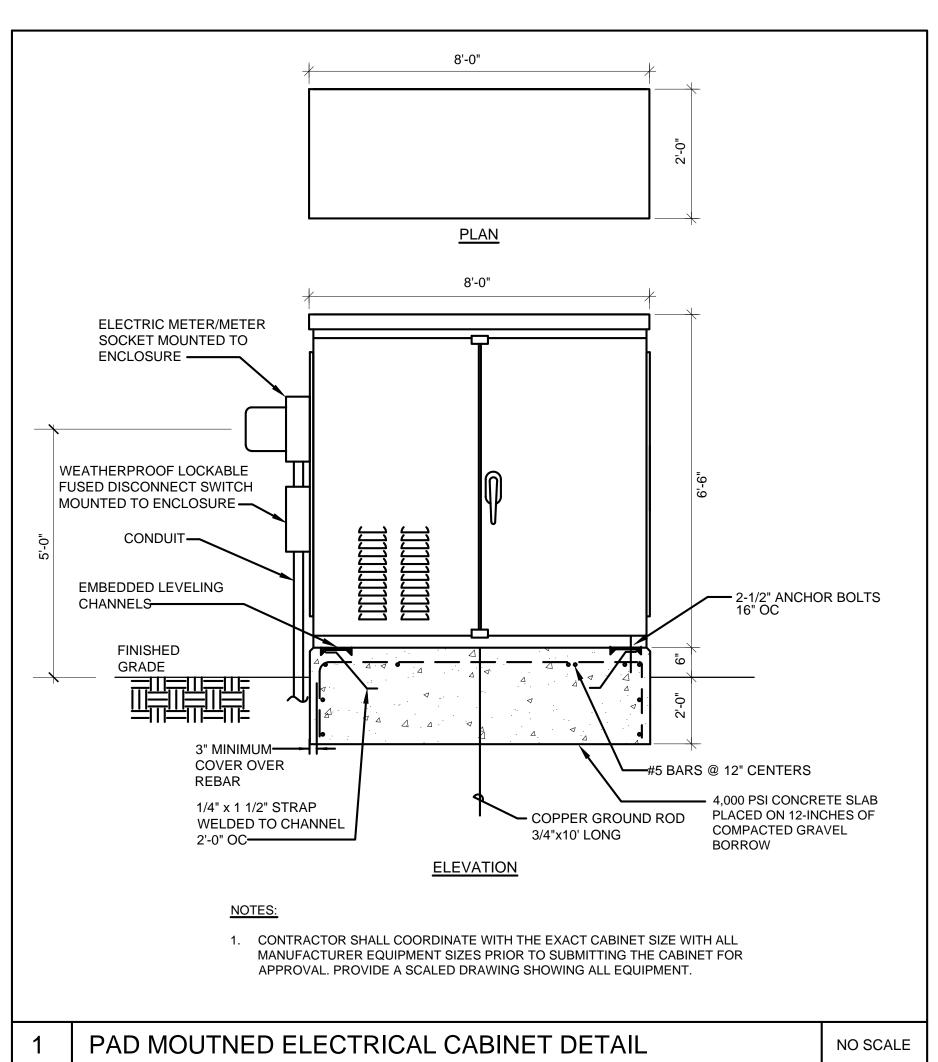
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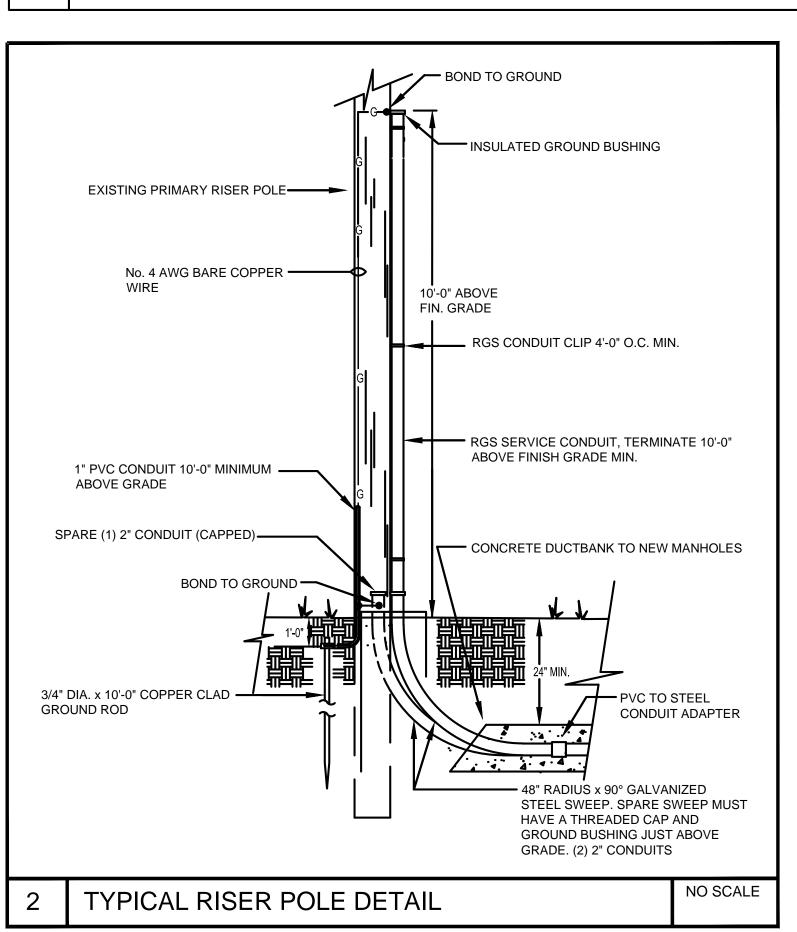
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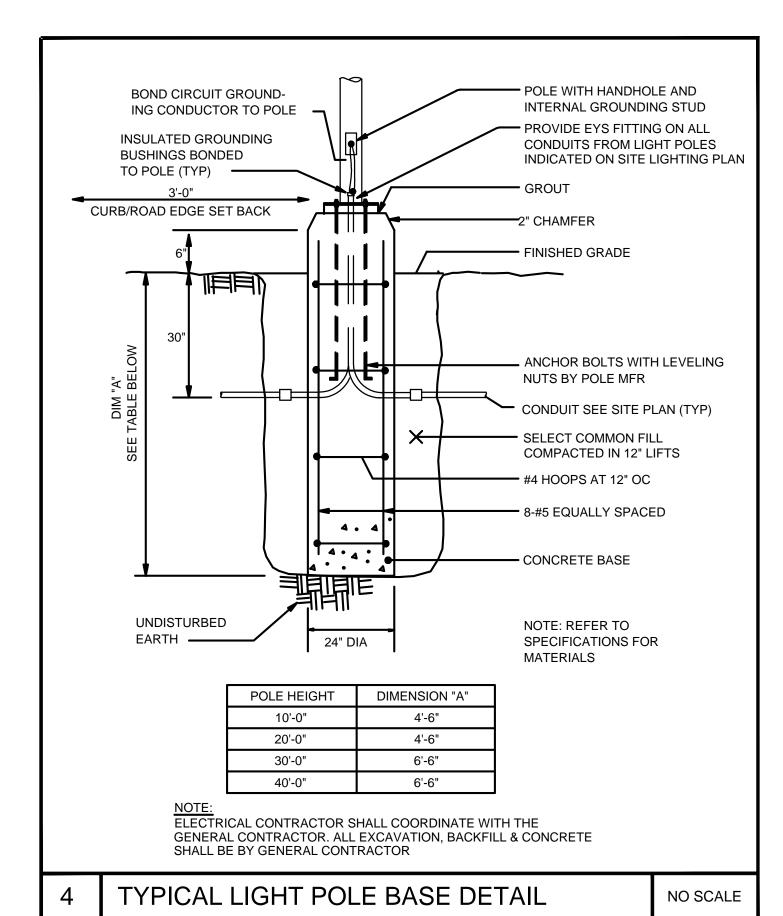
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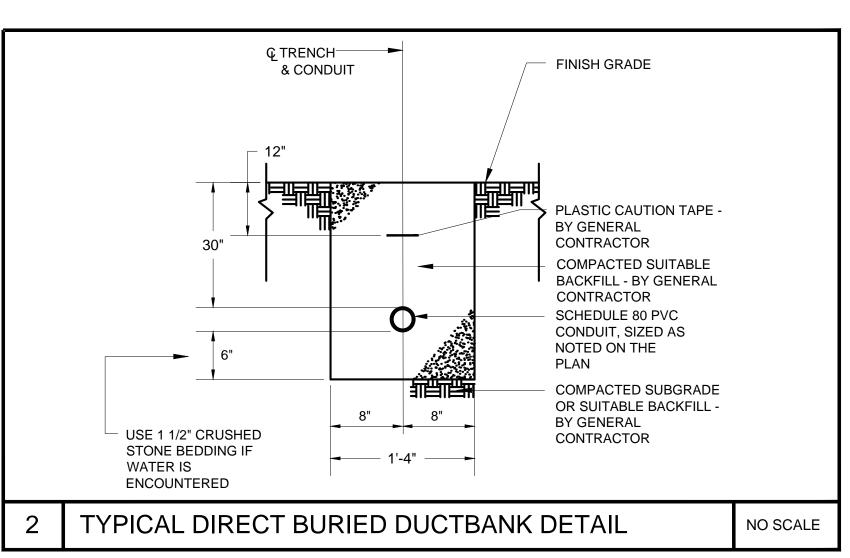
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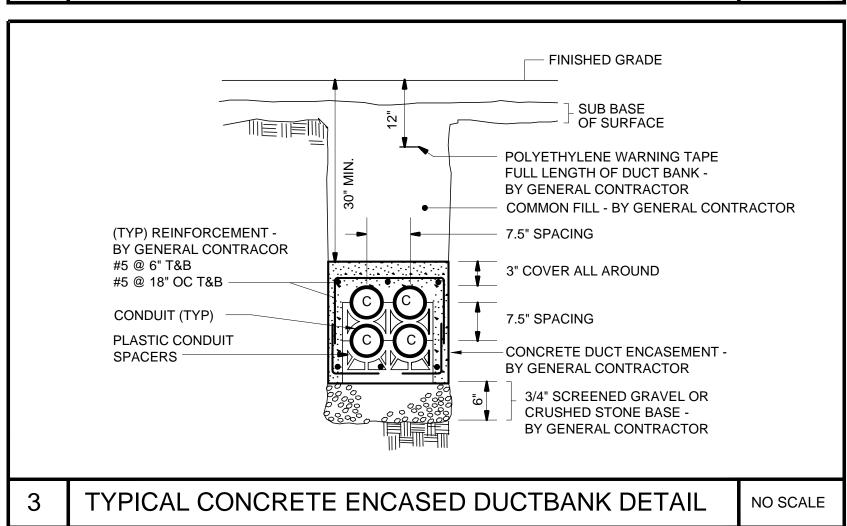
ELECTRICAL ONE LINE DIAGRAMS AND SCHEDULES

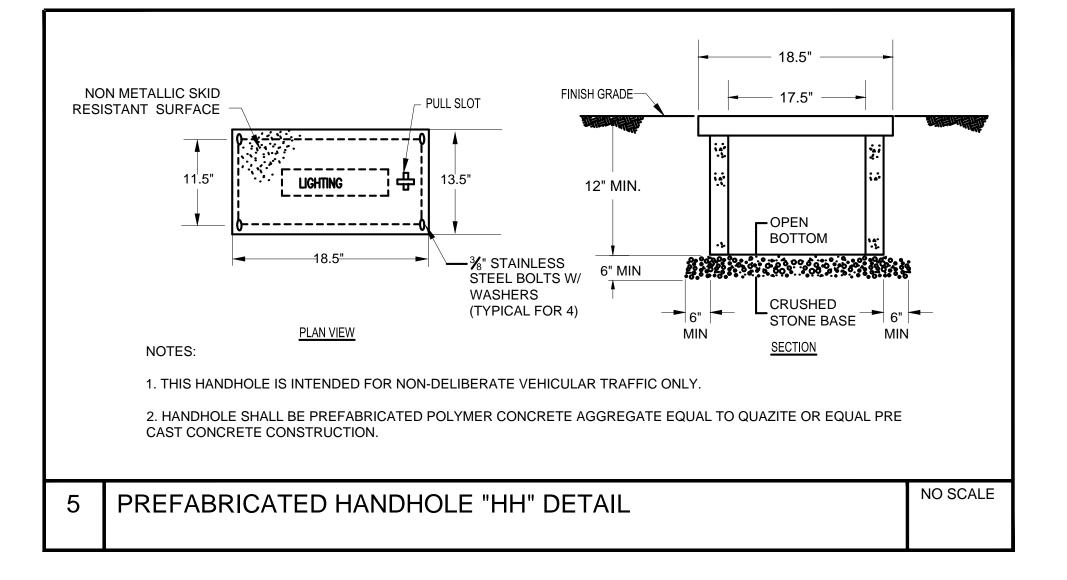


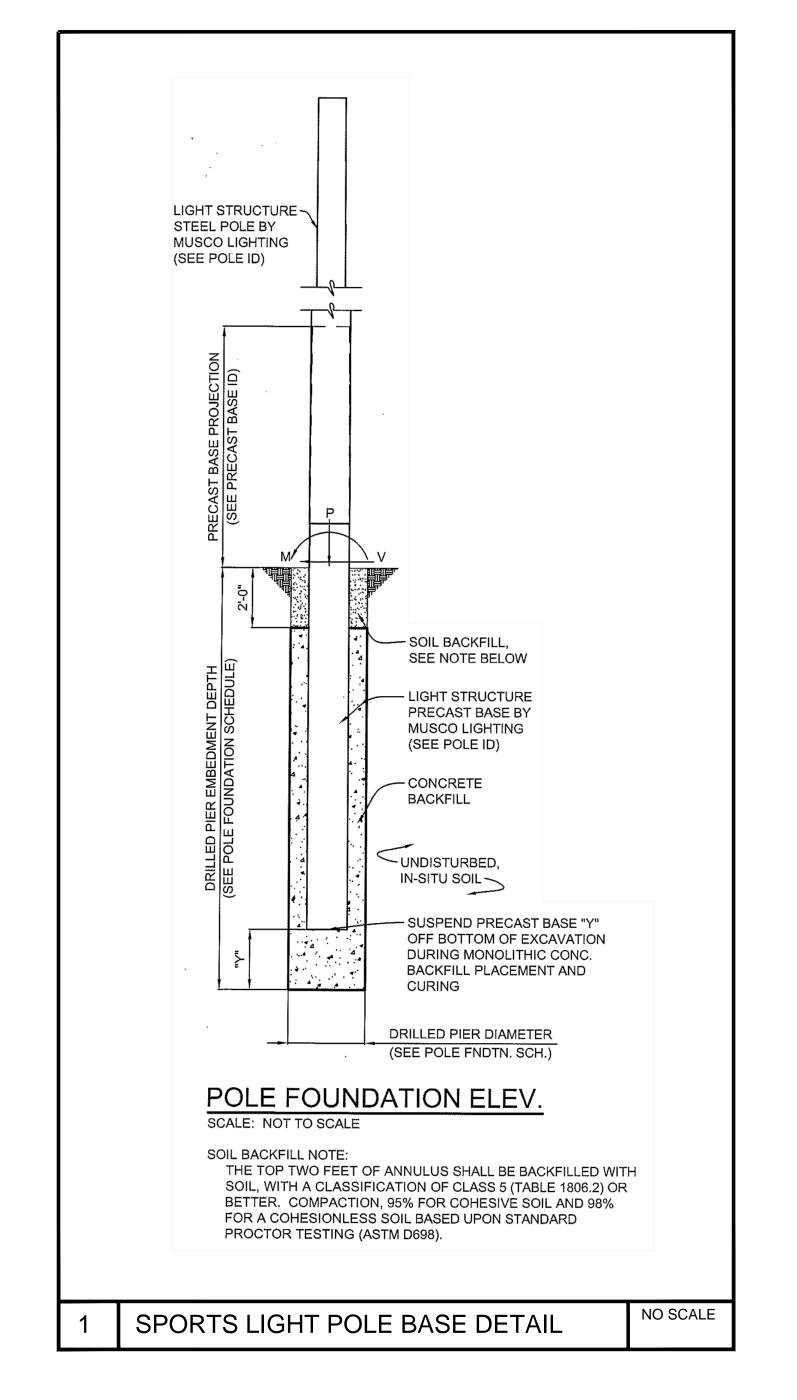


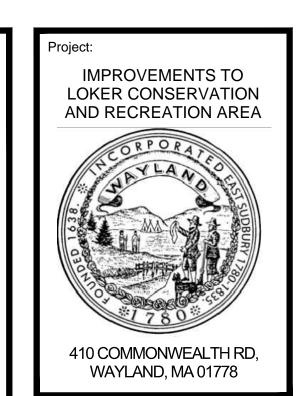




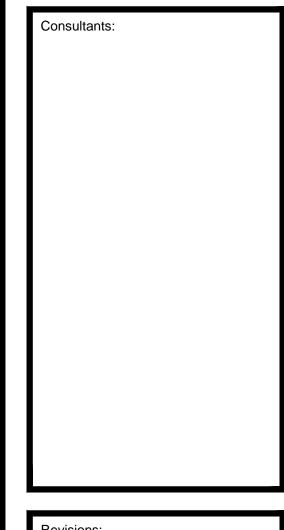








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ELECTRICAL
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W&S Project No: 2180076

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