

COAL MINE BROOK

616 PLANTATION STREET WORCESTER, MASSACHUSETTS (Worcester County)



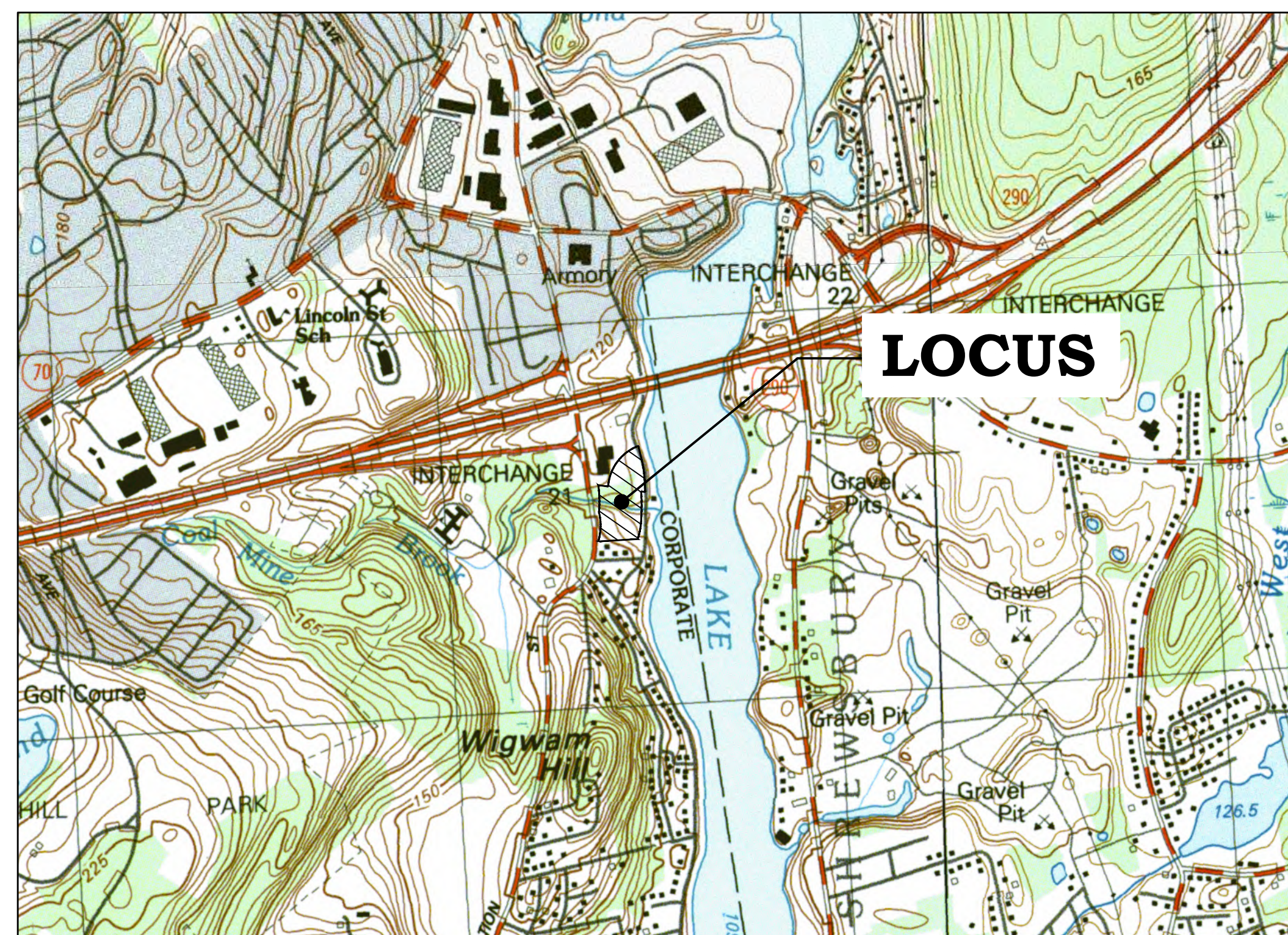
Edward M. Augustus, Jr.
City Manager

Jay J. Fink, P.E.
Commissioner
Department of Public Works & Parks

Robert C. Antonelli, Jr.
Assistant Commissioner

**CIVIL ENGINEER/SURVEYOR/
LANDSCAPE ARCHITECT AND
WETLAND SCIENTIST**

Beals and Thomas, Inc.
144 Turnpike Road
Southborough, Massachusetts 01772



Locus Map
Scale: 1" = 1000'



SHEET INDEX

	Cover Sheet
	C1.1 Notes, References and Legend Sheet
TP-1 - TP-5	Boundary and Topographic Plans
C2.1	Site Preparation Plan
C3.1	Layout and Materials Plan
C4.1	Grading Plan
C5.1	Utility Plan
C6.1	Landscape Plan
C7.1	Site Details #1
C7.2	Site Details #2
C7.3	Site Details #3
C7.4	Site Details #4
C7.5	Site Details #5
3 Sheets	Observation Platforms (Provided by Gill Engineering)
9 Sheets	Electrical Plans (Provided by Asplundh Engineering Services)

**Permit Plan Set - January 5, 2022
Issued For Bidding - April 26, 2022**

NOT ISSUED FOR
CONSTRUCTION

Job No.: 3228.00
Plan No.: 322800P002B-001
Sheet 1 of 29

LEGEND AND ABBREVIATIONS

EXISTING	PROPOSED

SEWER LINE/MANHOLE
DRAIN LINE/MANHOLE
CATCH BASIN
FLARED END/INVERT
GAS LINE/GATE
WATER LINE/GATE
HYDRANT
POST INDICATOR VALVE
TELEPHONE LINE/MANHOLE
ELECTRIC LINE/MANHOLE
OVERHEAD WIRE
LIGHT POLE
UTILITY POLE
GUY WIRE
SIGN
POST
BOLLARD POST
HAND HOLE
CHAIN LINK FENCE
GUARDRAIL/GUIDERAIL
CONCRETE CURB
GRANITE CURB
BITUMINOUS CONCRETE BERM
TREE
TREE LINE
STONE WALL
RIPRAP
BUILDING
No. OF PARKING SPACES IN ROW
BOUNDARY OF BORDERING VEGETATED WETLAND
APPROXIMATE BOUNDARY OF BORDERING VEGETATED WETLAND
APPROXIMATE GPS BOUNDARY OF BORDERING VEGETATED WETLAND
BANK/BANK FLAG
POTENTIAL VERNAL POOL/FLAG
100-YEAR FLOOD ELEVATION
SEDIMENTATION CONTROL BARRIER
100' BUFFER ZONE
MINOR CONTOUR
MAJOR CONTOUR
SPOT ELEVATION
EDGE OF WATER
AREA DRAIN
BITUMINOUS CONCRETE
BENCHMARK
CAPE COD BERM
CABLE TELEVISION
CEMENT LINED DUCTILE IRON
CONCRETE
CORRUGATED METAL PIPE
CORRUGATED POLYETHYLENE
DOOR
DOUBLE CATCH BASIN
DROP INLET
ELECTRIC METER
EDGE OF PAVEMENT
GAS METER
HEAD WALL
LOADING DOCK
OUTLET CONTROL STRUCTURE
POINT OF BEGINNING
POLYVINYL CHLORIDE
REINFORCED CONCRETE PIPE
ROOF DRAIN
RIGHT-OF-WAY
SLOPED GRANITE CURB
ELECTRIC TRANSFORMER
WATER QUALITY INLET
WING WALL
STONE BOUND
CONCRETE BOUND
DRILL HOLE
IRON PIN/IRON PIPE
IRON ROD
FOUND
ESCUTCHEON PIN, LEAD PLUG
LAND COURT DISK
MASSACHUSETTS HIGHWAY BOUND
STONE BOUND (TO BE SET)
CONCRETE BOUND (TO BE SET)
STAKE AND NAIL
SPIKE
PK NAIL

GENERAL NOTES

- THE CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND OBTAIN NECESSARY CONSTRUCTION PERMITS. THE CONTRACTOR SHALL PAY FEES AND POST BONDS ASSOCIATED WITH THE SAME, AND COORDINATE WITH THE ENGINEER AND ARCHITECT AS REQUIRED.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AND CONSTRUCTION MEANS AND METHODS.
- LIMIT OF WORK SHALL BE EROSION CONTROL BARRIERS, LIMIT OF GRADING, SITE PROPERTY LINES, AND/OR AS INDICATED ON DRAWINGS.
- PORTIONS OF THE ROADWAY, SIDEWALK, AND ROADSIDE AREA DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION PRIOR TO DISTURBANCE. ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO OWNER.
- ANY ALTERATION TO THESE DRAWINGS MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE CONTRACTOR ON RECORD DRAWINGS.
- EXISTING TREES AND SHRUBS OUTSIDE THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON PRIOR APPROVAL OF THE OWNER.
- CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN A TRENCH PERMIT PRIOR TO ANY TRENCHING ON SITE IN ACCORDANCE WITH 520 CMR 14.00.
- FOR DRAWING LEGIBILITY, ALL EXISTING TOPOGRAPHIC FEATURES, EXISTING UTILITIES, PROPERTY BOUNDARIES, EASEMENTS, ETC. MAY NOT BE SHOWN ON ALL DRAWINGS. REFER TO ALL REFERENCED DRAWINGS AND OTHER DRAWINGS IN THIS SET FOR ADDITIONAL INFORMATION.
- CONTRACTOR SHALL LAYOUT AND STAKE THE LIMIT OF THE OVERLOOKS/ OBSERVATION PLATFORMS AND THE PROPOSED PAVED AREA AT THE TRAILHEAD OFF OF LAKE AVENUE NORTH AND REVIEW WITH THE CITY PRIOR TO COMMENCING WORK.

EROSION CONTROL AND SEDIMENTATION NOTES

- A SEDIMENT CONTROL BARRIER SHALL BE INSTALLED ALONG THE EDGE OF PROPOSED WORK AS INDICATED ON THE PLANS PRIOR TO THE COMMENCEMENT OF DEMOLITION OR CONSTRUCTION.
- CONTRACTOR SHALL CLEAN AND MAINTAIN ALL SEDIMENT AND EROSION CONTROL MEASURES FOR THE DURATION OF CONSTRUCTION TO ENSURE THEIR CONTINUED FUNCTIONALITY.
- ADDITIONAL EROSION CONTROL MEASURES AND/OR SEDIMENT CONTROL BARRIERS SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
- EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A DAILY BASIS DURING CONSTRUCTION TO ENSURE THAT CHANNELS, DITCHES, AND PIPES REMAIN CLEAR OF DEBRIS AND THAT THE EROSION AND SEDIMENTATION CONTROL MEASURES ARE INTACT.
- ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC WAYS. ANY SEDIMENT TRACKED ONTO PUBLIC WAYS SHALL BE SWEEPED AT THE END OF EACH WORKING DAY.
- ALL STOCKPILE AREAS SHALL BE LOCATED WITHIN LIMIT OF WORK LINE AND STABILIZED TO PREVENT EROSION.
- ALL DEBRIS GENERATED DURING SITE PREPARATION ACTIVITIES SHALL BE LEGALLY DISPOSED OF OFF SITE.
- CONTRACTOR SHALL PROVIDE CRIBBING AS NECESSARY TO PROTECT EXISTING UTILITY LINES DURING CONSTRUCTION.
- SITE ELEMENTS TO REMAIN SHALL BE PROTECTED FOR THE DURATION OF CONSTRUCTION.
- ALL TOPSOIL ENCOUNTERED WITHIN THE LIMIT OF WORK SHALL BE STRIPPED TO ITS FULL DEPTH AND STOCKPILED FOR REUSE. EXCESS TOPSOIL SHALL BE DISPOSED OF ON SITE AS DIRECTED BY OWNER. TOPSOIL STOCKPILES SHALL REMAIN SEGREGATED FROM OTHER EXCAVATED SOIL MATERIALS.
- TEMPORARY DIVERSION DITCHES, PERMANENT DITCHES, CHANNELS, EMBANKMENTS, AND ANY DENuded SURFACE WHICH WILL BE EXPOSED FOR A PERIOD OF ONE MONTH OR MORE SHALL BE CONSIDERED CRITICAL VEGETATION AREAS. THESE AREAS SHALL BE MULCHED WITH STRAW. MULCH SHALL BE SPREAD UNIFORMLY IN A CONTINUOUS BLANKET OF SUFFICIENT THICKNESS TO COMPLETELY HIDE THE SOIL FROM VIEW.
- CONTRACTOR SHALL PROVIDE DUST CONTROL BY SPRINKLING OR OTHER APPROVED METHODS NECESSARY AND/OR AS DIRECTED BY THE OWNER OR THEIR REPRESENTATIVE.
- FILTER BAGS SHALL BE INSTALLED IN ALL EXISTING CATCH BASINS PRIOR TO COMMENCEMENT OF CONSTRUCTION. FILTER BAGS SHALL ALSO BE INSTALLED IN ALL NEWLY INSTALLED CATCH BASIN PRIOR TO PERMANENT PAVEMENT INSTALLATION TO CONTROL SILTATION.
- STRAW BALE CHECK DAMS SHALL BE PROVIDED ON TWO HUNDRED (200) FOOT SPACING WITHIN DRAINAGE SWALES AND DITCHES AND AT UPSTREAM ENDS OF DRAINAGE INLETS.
- RIPRAP SHALL BE PROVIDED AT ALL DRAIN/CULVERT OUTLETS.
- CONTRACTOR SHALL PREVENT ANY SOIL AND MATERIALS FROM ENTERING WETLANDS, STREAMS, AND OTHER RESOURCE AREAS.

LAYOUT AND MATERIALS NOTES

- ALL LINES AND DIMENSIONS ARE PARALLEL OR PERPENDICULAR TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.
- DIMENSIONS OF PARKING SPACES AND DRIVEWAYS ARE FROM FACE OF CURB.
- CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE OWNER AND OWNER'S REPRESENTATIVE FOR RESOLUTION.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN SITE PLAN DIMENSIONS AND BUILDING PLANS BEFORE PROCEEDING WITH ANY PORTION OF SITE WORK WHICH MAY BE AFFECTED SO THAT PROPER ADJUSTMENTS TO THE SITE LAYOUT CAN BE MADE IF NECESSARY.
- ACCESSIBLE RAMPS SHALL BE CONSTRUCTED PER MASSACHUSETTS STATE CODE AND THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES (WHICHEVER IS MORE STRINGENT).
- EACH HANDICAP PARKING SPACE SHALL BE IDENTIFIED BY A SIGN SIX (6) FEET IN HEIGHT LOCATED AT THE FACE OF THE CURB. THE SIGN SHALL CONTAIN THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AS DESCRIBED IN THE AMERICANS WITH DISABILITIES ACT, PUBLIC LAW 101-336, (SEE DETAIL).
- COORDINATE THE LOCATION OF ALL SITE LIGHTS WITH IMPROVEMENTS SHOWN ON THESE DRAWINGS.
- CONTRACTOR SHALL PROTECT EXISTING PROPERTY MONUMENTS AND ABUTTING PROPERTIES DURING CONSTRUCTION.

GRADING, DRAINAGE AND UTILITY NOTES

- UNDERGROUND UTILITIES WERE COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE AND ASSUMED. BEFORE COMMENCING SITE WORK CONTACT "DIG SAFE" AT 1-888-344-7233 TO LOCATE UNDERGROUND UTILITIES. ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES SHALL BE THE CONTRACTOR'S RESPONSIBILITY. NO EXCAVATION SHALL BE PERFORMED UNTIL UTILITY COMPANIES ARE PROPERLY NOTIFIED.
- SITE WORK SHALL MEET OR EXCEED THE SITE WORK SPECIFICATIONS PREPARED FOR THIS PROJECT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK WHICH COULD BE AFFECTED.
- WORK PERFORMED AND MATERIALS FURNISHED SHALL CONFORM WITH THE LINES, GRADES AND OTHER SPECIFIC REQUIREMENTS AND SPECIFICATIONS OF THE CITY OF WORCESTER DPW.
- AT LOCATIONS WHERE EXISTING CURBING OR PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAW CUT TO A CLEAN, SMOOTH EDGE. BLEND NEW PAVEMENT, CURBS AND EARTHWORK SMOOTHLY INTO EXISTING BY MATCHING LINES, GRADES AND JOINTS. PITCH EVENLY BETWEEN SPOT GRADES. GRADE ALL AREAS TO DRAIN.
- CONTRACTOR SHALL VERIFY EXISTING GRADES IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
- GRADES SHALL PITCH EVENLY BETWEEN SPOT ELEVATIONS. PAVED AREAS MUST PITCH TO DRAIN AT A MINIMUM OF 1/8" PER FOOT UNLESS SPECIFIED OTHERWISE. ANY DISCREPANCIES NOT ALLOWING THIS MINIMUM PITCH SHALL BE REPORTED TO THE ENGINEER PRIOR TO CONTINUING WORK.
- THE CONTRACTOR SHALL SCHEDULE WORK TO ALLOW THE FINISHED SUBGRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT FLOODING OR PONDING. SPECIFICALLY, ALLOW WATER TO ESCAPE WHERE PROPOSED CURB MAY RETAIN RUNOFF PRIOR TO APPLICATION OF THE FINISH GRADE AND/OR SURFACE PAVING. CONTRACTOR SHALL PROVIDE TEMPORARY POSITIVE DRAINAGE AS REQUIRED.
- THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE RESPECTIVE UTILITY COMPANIES FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, AND ANY OTHER PRIVATE UTILITIES, AS REQUIRED.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE OWNER AND ENGINEER FOR RESOLUTION.
- UTILITY COVERS, GRATES, ETC. SHALL BE ADJUSTED TO BE FLUSH WITH THE PAVEMENT FINISH GRADE UNLESS OTHERWISE NOTED. RIM ELEVATIONS OF DRAINAGE STRUCTURES AND SANITARY SEWER MANHOLES ARE APPROXIMATE.
- CONTRACTOR SHALL INSTALL UTILITIES (INCLUDING CONCRETE PADS) PER UTILITY COMPANY AND CITY OF WORCESTER DPW STANDARDS.
- DRAINAGE PIPE SHALL BE SMOOTH WALLED CORRUGATED POLYETHYLENE PIPE (ADS N-12 OR APPROVED EQUAL) EXCEPT WHERE NOTED OTHERWISE.
- RIPRAP APRONS SHALL BE PROVIDED AT DRAIN/CULVERT OUTLETS.
- CONTRACTOR SHALL PROTECT UNDERGROUND UTILITIES FROM EXCESSIVE VEHICULAR LOADS DURING CONSTRUCTION. ANY DAMAGE TO THE UTILITIES RESULTING FROM CONSTRUCTION LOADS SHALL BE RESTORED TO ORIGINAL CONDITION.
- GAS, ELECTRIC, TELEPHONE AND FIRE ALARM CONNECTION LOCATIONS AND ROUTING ARE SUBJECT TO REVIEW AND APPROVAL BY APPROPRIATE UTILITY COMPANIES AND FIRE DEPARTMENT. CONTRACTOR SHALL COORDINATE CONNECTION TO MUNICIPAL FIRE ALARM.
- EXCAVATION WITHIN THE PROXIMITY OF EXISTING UTILITY LINES SHALL BE PERFORMED BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
- UNLESS OTHERWISE INDICATED, EXISTING UTILITIES TO BE ABANDONED SHALL BE CAPPED AND ABANDONED IN PLACE UNLESS THEY CONFLICT WITH PROPOSED IMPROVEMENTS. CAP REMAINING PORTIONS WHERE PARTIALLY REMOVED.
- ABANDON EXISTING UTILITY SERVICES IN ACCORDANCE WITH UTILITY COMPANY AND CITY REQUIREMENTS.
- CONTRACTOR SHALL REMOVE ALL EROSION AND SEDIMENT CONTROL BARRIERS AFTER RE-VEGETATION AND STABILIZATION OF DISTURBED AREAS, FOLLOWING APPROVAL OF THE CONSERVATION COMMISSION AND WETLAND SPECIALIST.
- WETLANDS SHALL REMAIN UNDISTURBED; NO ENCROACHMENT PERMITTE

LIGHTING NOTES

- POLES SHALL BE FLUSH WITH GRADE UNLESS OTHERWISE NOTED.
- CUTOFF LUMINAIRE FIXTURES SHALL BE UTILIZED TO ENSURE NO OFF SITE GLARE IS CREATED.
- LIGHT POLES LOCATED IN PLANTING ISLANDS SHALL BE CENTERED BETWEEN EDGES OF PAVEMENT ON OPPOSITE SIDES OF THE POLE. LIGHT POLES IN PARKING AREAS SHALL BE CENTERED ON THE INTERSECTIONS OF PAINT STRIPES.

PLANTING NOTES

- PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED BY THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN HORTICULTURE INDUSTRY ASSOCIATION.
- ANY PROPOSED SUBSTITUTIONS OF PLANT MATERIAL SHALL BE MADE WITH MATERIAL EQUIVALENT TO THE DESIRED MATERIAL IN OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE. PROPOSED SUBSTITUTIONS WILL ONLY BE CONSIDERED IF SUBMITTED WITH ENUMERATED REASONS WHY SUBSTITUTIONS ARE PROPOSED.
- PLANTING BEDS SHALL BE FILLED WITH SOIL AND CROWNED ABOVE ADJACENT LAWN OR IMPROVED AREAS. PLANTING BEDS SHALL BE MULCHED WITH AGED PINE BARK MULCH TO A DEPTH OF THREE (3) INCHES.
- CAUTION SHALL BE USED NOT TO EXTEND MULCH LAYER ABOVE SOIL LEVEL AT TRUNKS/STEMS OF INSTALLED PLANT MATERIAL.
- PROVIDE FIVE (5) FOOT DIAMETER MULCH CIRCLE AROUND INDIVIDUAL TREE PLANTINGS AND CONTINUOUS MULCH BED AROUND SHRUB PLANTINGS UNLESS NOTED OTHERWISE.
- VERIFY ALL EXISTING UTILITY LINES PRIOR TO PLANTING AND REPORT ANY CONFLICTS TO THE OWNER OR OWNER'S REPRESENTATIVE.
- NO PLANT SHALL BE PLANTED BEFORE ACCEPTANCE OF ROUGH GRADING.
- PLANT MATERIALS SHALL BEAR SAME RELATIONSHIP TO GRADE AS THEY BORE TO GRADE IN THE NURSERY.
- PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.
- LOAM AND SEED DISTURBED AREAS UNLESS OTHERWISE INDICATED.
- REGRADE STOCKPILE AREA AFTER REMOVAL OF SURPLUS MATERIALS (SEE SITE WORK SPECIFICATIONS). LOAM AND SEED THE DISTURBED AREA.
- TOPSOIL STRIPPED FROM THE SITE AND PROPERLY STOCKPILED MAY, UPON APPROVAL OF THE ENGINEER, BE USED FOR PREPARATION OF LAWNS AND PLANTING BEDS. IT SHALL BE FREE OF LARGE (ONE (1) INCH OR GREATER) COBBLES, ROOTS, OLD SOO, TRASH, WOOD OR OTHER CONTAMINANTS AND BE OF A FRIABLE CONSISTENCY AND SUITABLE FOR PLANT GROWTH. IF NOT SUITABLE FOR PREPARATION OF LAWNS AND PLANTING BEDS, TOPSOIL MAY BE USED AS COMMON FILL.
- LANDSCAPE CONTRACTOR SHALL FURNISH TOPSOIL AS NEEDED. TOPSOIL SHALL BE FERTILE, FRIABLE, NATURAL AND PRODUCTIVE. TOPSOIL OF GOOD CLAY-LOAM TYPE. IT SHALL BE FREE OF WEED SEEDS. TOPSOIL SHALL BE WITHOUT ADMIXTURE OF SUBSOIL AND SHALL BE REASONABLY FREE OF STONES, LUMPS, ROOTS, STICKS AND OTHER FOREIGN MATTER. TOPSOIL SHALL NOT BE WORKED OR APPLIED IN A MUDDY OR WET CONDITION.
- TOPSOIL SHALL BE SPREAD TO A MINIMUM DEPTH OF FOUR (4) INCHES ON ALL STRIPPED PLANTED AREAS INCLUDING SLOPE STABILIZATION, LAWN AREAS, AND PLANTING BEDS AFTER EARTH FILLS HAVE PROPERLY SETTLED AND SUBGRADE HAS BEEN APPROVED BY THE OWNER. THE SETTLED TOPSOIL SHALL BE UP TO THE FINISHED GRADE AS REQUIRED ON THE DRAWINGS. SCARIFY SUBGRADE TO A DEPTH OF TWO (2) INCHES BEFORE PLACING TOPSOIL.
- REMOVE ALL ROCKS AND DEBRIS FROM SOIL SURFACE AND GRADE TO AN EVEN SURFACE.
- PLANTING SEED SHALL BE SOWN IN SEASONAL CONDITIONS AS APPROPRIATE FOR GOOD SEED SURVIVAL, OR AT SUCH TIMES AS APPROVED BY THE OWNER. PROVIDE SUFFICIENT HOSE AND SPRINKLER HEADS FOR ADEQUATE WATERING TO MAINTAIN A MOIST SEED BED AT ALL TIMES.
- AFTER SEEDING, THE SURFACE OF THE SOIL SHALL BE EVENLY RAKED WITH A FINE-TOOTHED RAKE AND THEN ROLLED WITH A HAND ROLLER WEIGHING NOT LESS THAN ONE HUNDRED (100) POUNDS PER FOOT OF WIDTH.
- WATER THE MULCH AND SEED BEDS THOROUGHLY AND IMMEDIATELY AFTER COMPLETION OF MULCHING AND SEEDING OPERATIONS. SOIL SHALL BE MOISTENED TO A DEPTH OF FOUR (4) INCHES. CONTRACTOR SHALL INSTRUCT OWNERS REPRESENTATIVE ON APPROPRIATE WATERING PROCEDURES DURING INITIAL ESTABLISHMENT.
- IF CERTAIN AREAS OF THE LAWN DO NOT SHOW A PROMPT "CATCH", THESE AREAS SHALL BE RESEEDD AT THE SAME RATE AND IN THE SAME MANNER IN TEN (10) DAY INTERVALS. THIS SEEDING PROCESS SHALL CONTINUE UNTIL A GROWTH OF GRASS IS ESTABLISHED OVER THE ENTIRE AREA.
- PROTECT NEWLY TOPSOILED, GRADED AND/OR SEEDED AREAS FROM TRAFFIC AND EROSION. KEEP AREAS FREE OF TRASH AND DEBRIS RESULTING FROM LANDSCAPE CONTRACTOR OPERATIONS.
- PLACE WARNING SIGNS IN SEEDED AREAS AND ERECT BARRICADES TO PREVENT DAMAGE BY PERSONS OR MACHINES; MAINTAIN THESE PROTECTIONS FOR AT LEAST THIRTY (30) DAYS.
- REPAIR AND RE-ESTABLISH GRADES IN SETTLED, ERODED, AND RUTTED AREAS TO THE SPECIFIED GRADE AND TOLERANCES.
- THE LANDSCAPE CONTRACTOR SHALL CLEAN UP AND REMOVE ANY DEBRIS FROM THE SITE CAUSED BY THE LANDSCAPE CONTRACTOR OR THEIR SUBCONTRACTORS.
- PLANT MATERIAL SHALL BE MAINTAINED BY THE LANDSCAPE CONTRACTOR FOR THE DURATION OF THE PROJECT.
- TREES ALONG SIDEWALKS SHALL HAVE A MINIMUM SIX (6) FOOT BRANCHING HEIGHT.
- TREES WITHIN THE FOUR HUNDRED (400) FOOT SIGHT LINE AT THE ENTRY DRIVE SHALL BE INSTALLED AND MAINTAINED WITH A MAXIMUM SIX (6) FOOT BRANCHING HEIGHT. SHRUBS WITHIN THE FOUR HUNDRED (400) FOOT SIGHT LINE AT THE ENTRY DRIVE SHALL BE INSTALLED AND MAINTAINED TO A MAXIMUM HEIGHT OF EIGHTEEN (18) INCHES.

PREPARED FOR:

CITY OF WORCESTER

DEPARTMENT OF PUBLIC WORKS AND PARKS

50 OFFICER MANNY FAMILIA WAY
WORCESTER, MASSACHUSETTS

NOT ISSUED FOR
CONSTRUCTION

COPYRIGHT (C) BY BEALS AND THOMAS, INC.
ALL RIGHTS RESERVED

PREPARED BY:

BEALS + THOMAS

BEALS AND THOMAS, INC.
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

5		
4		
3		
2		
1	04/26/2022	ISSUED FOR BIDDING
0	01/05/2022	PERMIT PLAN SET
ISSUE DATE		DESCRIPTION
NBB	NBB	DMG
DES	DWN	CHK'D
		DMG/DJL
		APP'D

PROJECT:

COAL MINE BROOK

616 PLANTATION STREET
WORCESTER, MASSACHUSETTS

SCALE: N/A DATE: JANUARY 5, 2021

NOTES, REFERENCES AND LEGEND

B+T JOB NO.3228.01

B+T PLAN NO.
322800P002B-002

C1.1

BEALS AND THOMAS, INC. SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES; OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF BEALS AND THOMAS, INC. EXCEPT THAT ANY REGULATORY AUTHORITY MAY REPRODUCE AND TRANSMIT COPIES AS REQUIRED IN CONJUNCTION WITH PERFORMANCE OF OFFICIAL BUSINESS UNDER ITS JURISDICTION. ANY MODIFICATIONS TO THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF BEALS AND THOMAS, INC. SHALL RENDER IT INVALID AND UNUSABLE.

NOTES

- 1) UNDERGROUND UTILITIES SHOWN ARE FROM OBSERVED SURFACE INDICATIONS AND COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. BEFORE CONSTRUCTION CALL "DIG SAFE" 1-888-344-7233.
- 2) THIS PLAN WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND USING TOTAL STATION METHODS ON OR BETWEEN SEPTEMBER 14 AND 23, 2020, FIELD CHECK ON NOVEMBER 19, 2020.
- 3) WETLAND RESOURCE AREAS DELINEATED BY BEALS AND THOMAS, INC. ON SEPTEMBER 15, 2020.
- 4) WETLAND RESOURCE AREA FLAGS LOCATED BY TOTAL STATION METHODS BY BEALS AND THOMAS, INC. ON SEPTEMBER 16, 2020 AND SEPTEMBER 22, 2020.
- 5) ALL ELEVATIONS REFER TO THE CITY OF WORCESTER SEWER BASE.
- 6) NAD83 HORIZONTAL COORDINATE SYSTEM ESTABLISHED BY GPS-VRS METHODS, NAD_83(2011)(EPOCH2010).
- 7) THE PARCEL SHOWN IS LOCATED IN ZONE A (SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD; NO BASE FLOOD ELEVATIONS DETERMINED), AS SHOWN ON "FLOOD INSURANCE RATE MAP, WORCESTER COUNTY, MASSACHUSETTS (ALL JURISDICTIONS) PANEL 620 OF 1075", MAP NUMBER 25027C0620E, EFFECTIVE DATE JULY 4, 2011. 100-YEAR FLOOD LINE ADDED BY GRAPHIC METHODS.



SHEET 2

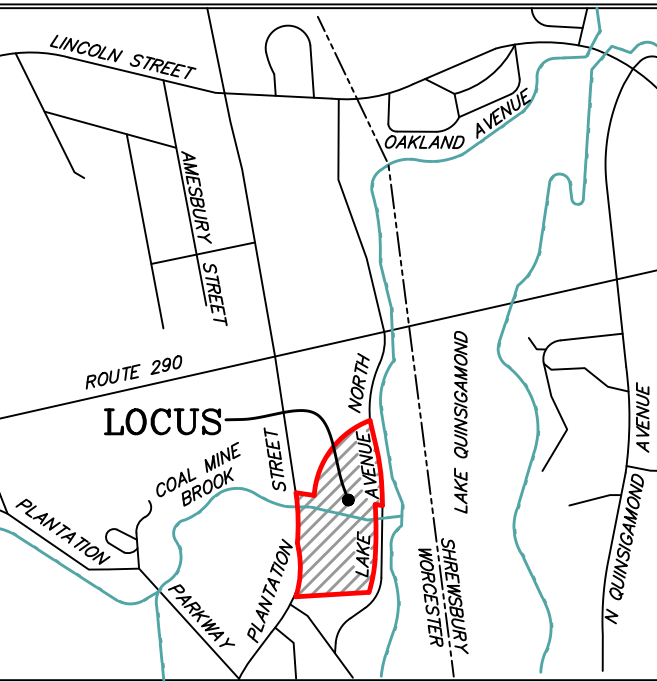
SHEET 3

SHEET 4

SHEET 5

PREPARED FOR:
CITY OF WORCESTER
DEPARTMENT OF PUBLIC WORKS AND PARKS
50 SKYLINE DRIVE
WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
4675/539
(PARCEL 1)
PLAN BOOK 300, PLAN 108
(AREA OF TAKING)
PLAN BOOK 300, PLAN 109
[46-044-00001]



5			
4			
3			
2			
1			
0	12/01/2020	INITIAL ISSUE	
	ISSUE DATE	DESCRIPTION	
SDR	MEB	BAL/MEB	MEB
FLD	CALC	DWN	CHK'D



BOUNDARY AND TOPOGRAPHIC PLAN
COAL MINE BROOK PARK
WORCESTER, MA
(WORCESTER COUNTY)

PREPARED BY:
BEALS + THOMAS
Civil Engineers | Landscape Architects |
Land Surveyors | Planners |
Environmental Specialists

BEALS AND THOMAS, INC.
Reservoir Corporate Center
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

DATE: DECEMBER 1, 2020
SCALE: 1" = 40'
METERS
FEET

B+T JOB NO. 3228.00
B+T PLAN NO. 322800P001A-001
SHEET No. 1 OF 5
TP-1

MASSACHUSETTS STATE PLANE (NAD83)

TECONNETT PATH
(PRIVATE-20' WIDE)

#602
[46-016-00025]
N/F
RUSSELL T. SHAYS
56441/384

#604
[46-016-26-28]
N/F
COREY M.
O'CONNOR AND
MARISSA J.
O'CONNOR
49445/173

#603
[46-016-29-31]
N/F
JOSEPH J. O'GRADY
45731/368

#600
[46-016-00032]
N/F
FLORENCE LESLIE REALTY TRUST
9173/81

TECONNETT PATH
(PRIVATE-20' WIDE)

PLANTATION STREET
(PUBLIC-VARIABLE WIDTH)
(CITY L.O. BOX 415-4093)
(CITY L.O. H-11227)
(1966 S.H.L.O. 5615)
(PLAN BOOK 670 PLAN 27)

LOCUS AREA
238,654 ± S.F.
or 5.479 ± AC.

[46-044-00001]
N/F
CITY OF WORCESTER
DEPARTMENT OF PUBLIC WORKS
AND PARKS
4675/539 (PARCEL 1)
PLAN BOOK 300, PLAN 108

PREPARED FOR:

CITY OF
WORCESTER

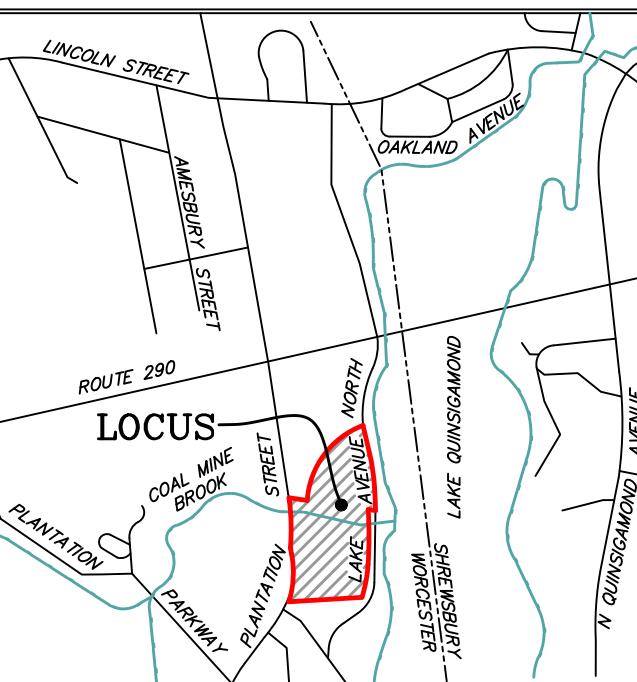
DEPARTMENT OF PUBLIC WORKS
AND PARKS

50 SKYLINE DRIVE
WORCESTER, MA 01605

RECORD OWNER:

CITY OF
WORCESTER

4675/539
(PARCEL 1)
PLAN BOOK 300, PLAN 108
(AREA OF TAKING)
PLAN BOOK 300, PLAN 109
[46-044-00001]



5			
4			
3			
2			
1			
0	12/01/2020	INITIAL ISSUE	
	ISSUE DATE	DESCRIPTION	
SDR	MEB	BAL/MEB	MEB
FLD	CALC	DWN	CHK'D



Mark E. Benson
12/1/2020

BOUNDARY AND
TOPOGRAPHIC PLAN

COAL MINE BROOK PARK
WORCESTER, MA
(WORCESTER COUNTY)

PREPARED BY:

BEALS + THOMAS
Civil Engineers | Landscape Architects |
Land Surveyors | Planners |
Environmental Specialists

BEALS AND THOMAS, INC.
Reservoir Corporate Center
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

DATE: DECEMBER 1, 2020 METERS
0 5 10 15 20 25 30 35 40 45 50 55 60
SCALE: 1" = 20' FEET

B+T JOB NO. 3228.00

B+T PLAN NO.
322800P001A-002

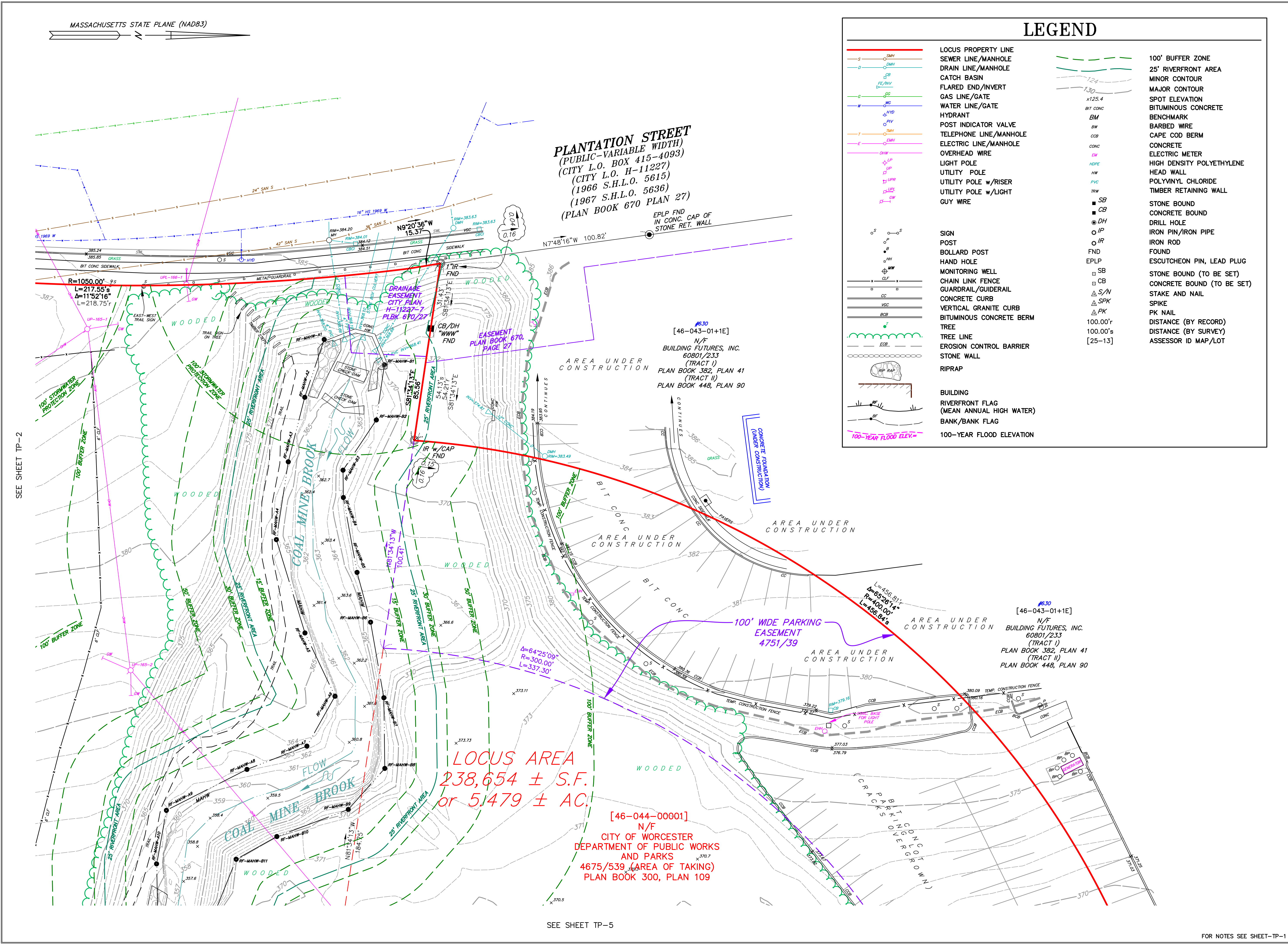
SHEET No. 2 OF 5

TP-2

FOR NOTES SEE SHEET-TP-1
FOR LEGEND SEE SHEET TP-3

SEE SHEET TP-4

SEE SHEET TP-3

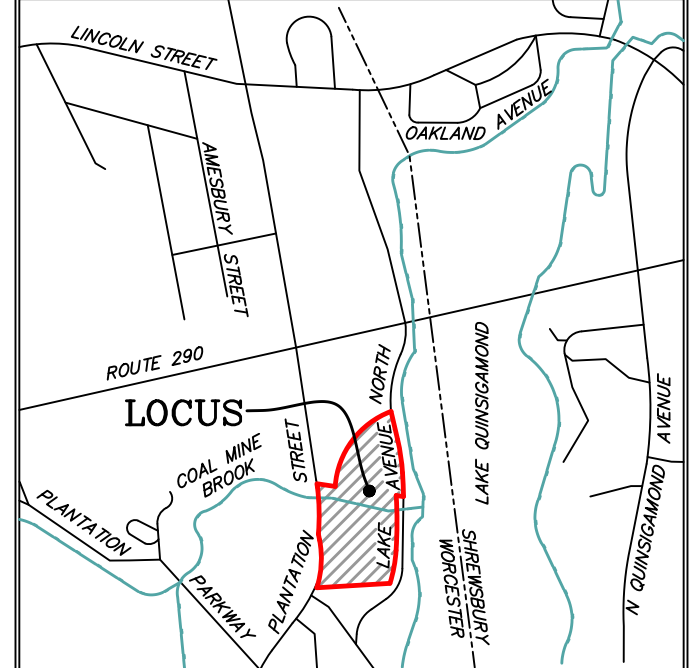


LEGEND

- LOCUS PROPERTY LINE
- SEWER LINE/MANHOLE
- DRAIN LINE/MANHOLE
- CATCH BASIN
- FLARED END/INVERT
- GAS LINE/GATE
- WATER LINE/GATE
- HYDRANT
- POST INDICATOR VALVE
- TELEPHONE LINE/MANHOLE
- ELECTRIC LINE/MANHOLE
- OVERHEAD WIRE
- LIGHT POLE
- UTILITY POLE
- UTILITY POLE w/RISER
- UTILITY POLE w/LIGHT
- GUY WIRE
- SIGN
- POST
- BOLLARD POST
- HAND HOLE
- MONITORING WELL
- CHAIN LINK FENCE
- GUARDRAIL/GUIDERAIL
- CONCRETE CURB
- VERTICAL GRANITE CURB
- BITUMINOUS CONCRETE BERM
- TREE
- TREE LINE
- EROSION CONTROL BARRIER
- STONE WALL
- RIPRAP
- BUILDING
- RIVERFRONT FLAG (MEAN ANNUAL HIGH WATER)
- BANK/BANK FLAG
- 100-YEAR FLOOD ELEVATION

PREPARED FOR:
CITY OF WORCESTER
DEPARTMENT OF PUBLIC WORKS AND PARKS
50 SKYLINE DRIVE
WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
4675/539
(PARCEL 1)
PLAN BOOK 300, PLAN 108
(AREA OF TAKING)
PLAN BOOK 300, PLAN 109
[46-044-00001]



5			
4			
3			
2			
1			
0	12/01/2020	INITIAL ISSUE	
	ISSUE DATE	DESCRIPTION	
SDR	MEB	BAL/MEB	MEB
FLD	CALC	DWN	CHK'D

Mark E. Benson
12/1/2020

BOUNDARY AND TOPOGRAPHIC PLAN
COAL MINE BROOK PARK
WORCESTER, MA
(WORCESTER COUNTY)

PREPARED BY:
BEALS + THOMAS
Civil Engineers | Landscape Architects |
Land Surveyors | Planners |
Environmental Specialists

BEALS AND THOMAS, INC.
Reservoir Corporate Center
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

DATE: DECEMBER 1, 2020
SCALE: 1" = 20'
B+T JOB NO. 3228.00
B+T PLAN NO. 322800P001A-003
SHEET No. 3 OF 5

TP-3

FOR NOTES SEE SHEET-TP-1

MASSACHUSETTS STATE PLANE (NAD83)

SEE SHEET TP-2

LOCUS AREA
238,654 ± S.F.
or 5.479 ± AC.

[46-044-00001]
N/F
CITY OF WORCESTER
DEPARTMENT OF PUBLIC WORKS
AND PARKS
4675/539 (PARCEL 1)
PLAN BOOK 300, PLAN 108

[46-016-29-31]
N/F
JOSEPH J. O'GRADY
45731/368

[46-016-00032]
N/F
FLORENCE LESLIE REALTY TRUST
9173/81

[46-016-00038]
N/F
97 COBURN REALTY LLC.
26551/78

[46-017-00013]
N/F
DUANE K. SHAW
8388/161

[46-017-14+15]
N/F
CITY OF WORCESTER
WATER DEPARTMENT
4675/539
(PARCEL 2)
PLAN BOOK 300, PLAN 108

[46-017-14+15]
N/F
CITY OF WORCESTER
WATER DEPARTMENT
4675/539
(PARCEL 3)
PLAN BOOK 300, PLAN 108

(THESE CITY OWNED PARCELS
HAVE NOT BEEN SURVEYED)

LAKE AVENUE NORTH
(PUBLIC-VARIABLE WIDTH)

(CITY L.O. 344 1472)
(PLAN BOOK 300 PLAN 108, 109)
(PLAN BOOK 382 PLAN 41)
(PLAN BOOK 448 PLAN 90)

LAKE QUINSIGAMOND

PREPARED FOR:

CITY OF
WORCESTER

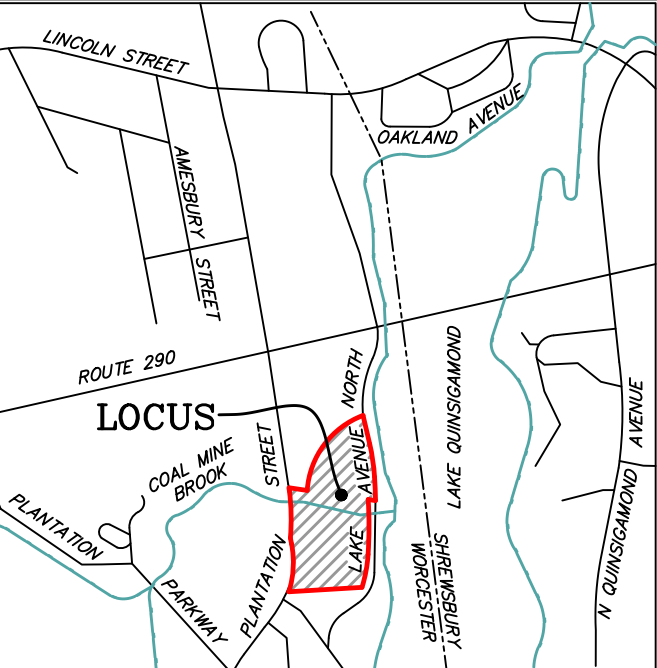
DEPARTMENT OF PUBLIC WORKS
AND PARKS

50 SKYLINE DRIVE
WORCESTER, MA 01605

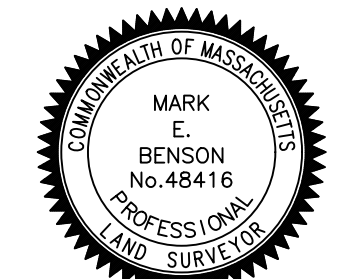
RECORD OWNER:

CITY OF
WORCESTER

4675/539
(PARCEL 1)
PLAN BOOK 300, PLAN 108
(AREA OF TAKING)
PLAN BOOK 300, PLAN 109
[46-044-00001]



5		
4		
3		
2		
1		
0	12/01/2020	INITIAL ISSUE
	ISSUE DATE	DESCRIPTION
SDR	MEB	BAL/MEB
FLD	CALC	DWN
		CHK'D



Mark E. Benson
12/1/2020

BOUNDARY AND
TOPOGRAPHIC PLAN

COAL MINE BROOK PARK
WORCESTER, MA
(WORCESTER COUNTY)

PREPARED BY:

BEALS + THOMAS
Civil Engineers | Landscape Architects |
Land Surveyors | Planners |
Environmental Specialists

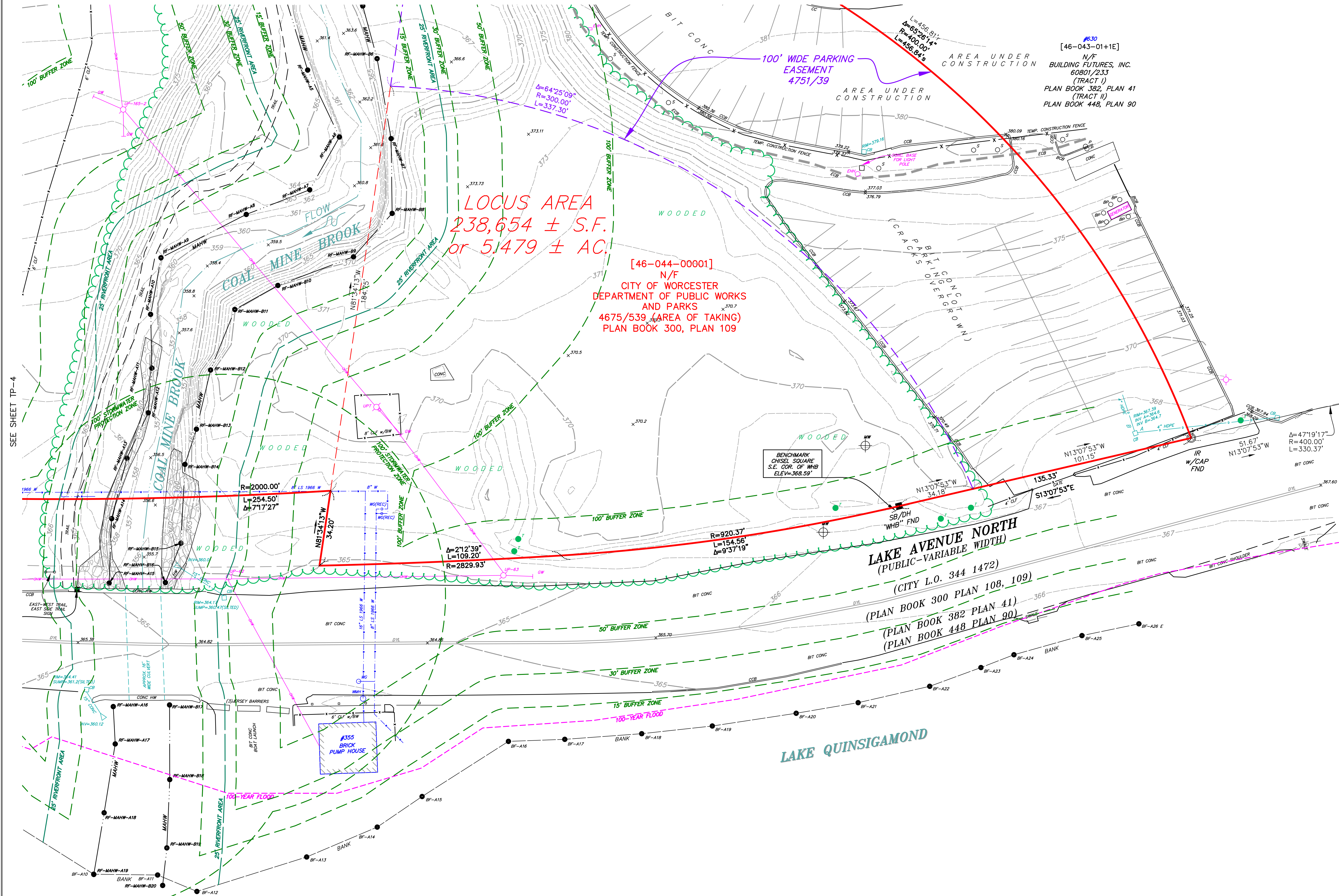
BEALS AND THOMAS, INC.
Reservoir Corporate Center
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

DATE: DECEMBER 1, 2020
SCALE: 1" = 20'

B+T JOB NO. 3228.00
B+T PLAN NO. 322800P001A-004
SHEET No. 4 OF 5

TP-4

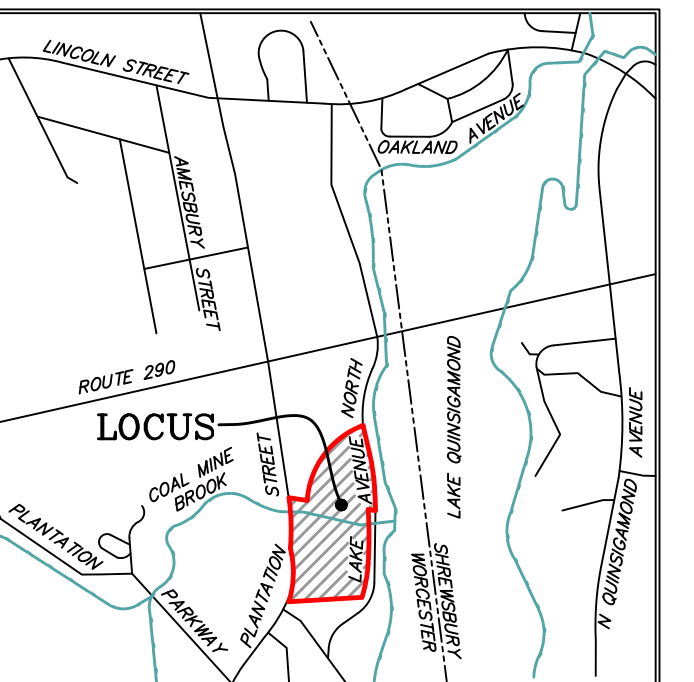
FOR NOTES SEE SHEET-TP-1
FOR LEGEND SEE SHEET TP-3



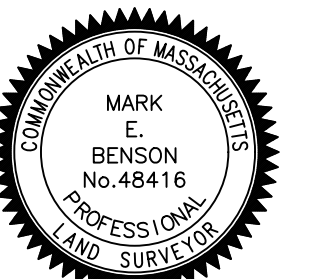
PREPARED FOR:

**CITY OF
WORCESTER**DEPARTMENT OF PUBLIC WORKS
AND PARKS50 SKYLINE DRIVE
WORCESTER, MA 01605

RECORD OWNER:

**CITY OF
WORCESTER**4675/539
(PARCEL 1)
PLAN BOOK 300, PLAN 108
(AREA OF TAKING)
PLAN BOOK 300, PLAN 109
[46-044-00001]

5			
4			
3			
2			
1			
0	12/01/2020	INITIAL ISSUE	
	ISSUE DATE	DESCRIPTION	
SDR	MEB	BAL/MEB	MEB
FLD	CALC	DWN	CHK'D

Mark E. Benson
12/1/2020**BOUNDARY AND
TOPOGRAPHIC PLAN****COAL MINE BROOK PARK
WORCESTER, MA
(WORCESTER COUNTY)**

PREPARED BY:

BEALS + THOMAS
Civil Engineers | Landscape Architects |
Land Surveyors | Planners |
Environmental SpecialistsBEALS AND THOMAS, INC.
Reservoir Corporate Center
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.comDATE: DECEMBER 1, 2020
SCALE: 1" = 20'
METERS
0 5 10 15 20 30 40 50 60
FEET

B+T JOB NO. 3228.00

B+T PLAN NO.
322800P001A-005

SHEET No. 5 OF 5

TP-5FOR NOTES SEE SHEET-TP-1
FOR LEGEND SEE SHEET TP-3

FOR NOTES, REFERENCES AND LEGEND SEE SHEET C1.1.

BEALS AND THOMAS, INC. SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES; OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF BEALS AND THOMAS, INC. EXCEPT THAT ANY REGULATORY AUTHORITY MAY REPRODUCE AND TRANSMIT COPIES AS REQUIRED IN CONJUNCTION WITH PERFORMANCE OF OFFICIAL BUSINESS UNDER ITS JURISDICTION. ANY MODIFICATIONS TO THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF BEALS AND THOMAS, INC. SHALL RENDER IT INVALID AND UNUSABLE.

CONSTRUCTION FENCE (TYP.). EXACT LOCATION TO BE CONFIRMED BY CONTRACTOR IN THE FIELD.

EXISTING EAST-WEST TRAIL SIGN TO REMAIN; CONTRACTOR SHALL PROTECT DURING CONSTRUCTION

EXISTING UTILITY POLE AND OVERHEAD WIRES TO BE RELOCATED BY UTILITY COMPANY

EXISTING UTILITY POLE AND OVERHEAD WIRES TO BE REMOVED BY UTILITY COMPANY

PLANTATION STREET
(PUBLIC-VARIABLE WIDTH)
(CITY L.O. BOX 415-4093)
(CITY L.O. H-11227)
(1966 S.H.L.O. 5615)
(PLAN BOOK 670 PLAN 27)

CONTRACTOR SHALL INSTALL FILTER BAG IN EXISTING CATCH BASIN

CONSTRUCTION FENCE (TYP.). EXACT LOCATION TO BE CONFIRMED BY CONTRACTOR IN THE FIELD.

CONTRACTOR SHALL PROTECT EXISTING SEWER LINE DURING CONSTRUCTION (TYP.)

SEDIMENTATION CONTROL BARRIER (SCB)

SAW-CUT EXISTING PAVEMENT

CONSTRUCTION ENTRANCE (TYP.)

CONSTRUCTION ENTRANCE GATE

CONTRACTOR SHALL INSTALL FILTER BAG IN EXISTING CATCH BASIN

CONTRACTOR SHALL INSTALL FILTER BAG IN EXISTING CATCH BASIN

REMOVE AND DISPOSE OF EXISTING TREE

PROPOSED TREE LINE

CONSTRUCTION FENCE TO BE RELOCATED AS NEEDED FOR CONSTRUCTION

CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING CHAINLINK FENCE (TYP.)

CONTRACTOR SHALL PROTECT EXISTING WATER LINE DURING CONSTRUCTION (TYP.)

CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING BIT. CONC. PAVING (TYP.)

CONTRACTOR TO COORDINATE WITH WORCESTER DPW AND RESET EXISTING SMH COVER

CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING BIT. CONC. AND CCB

CONSTRUCTION FENCE (TYP.). EXACT LOCATION TO BE CONFIRMED BY CONTRACTOR IN THE FIELD.

PROPOSED TREE LINE

CONTRACTOR TO CUT/ DROP DEAD OR LEANING TREES ALONG SOUTHERLY PROPERTY LINE. DROPPED TREES TO REMAIN ON-SITE. CONTRACTOR TO COORDINATE WITH CITY.

CONTRACTOR SHALL PRESERVE AND PROTECT EXISTING WOOD DECK

CONTRACTOR SHALL REMOVE PORTION OF ENCROACHING FENCE

CONTRACTOR TO CUT/ DROP DEAD OR LEANING TREES ALONG EXISTING TRAIL AND ENSURE TRAIL IS FREE OF OBSTRUCTIONS. DROPPED TREES TO REMAIN ON-SITE. CONTRACTOR TO COORDINATE WITH CITY.

CONTRACTOR TO CUT/ DROP DEAD OR LEANING TREES ALONG SOUTH SIDE OF BROOK. DROPPED TREES TO REMAIN ON-SITE. CONTRACTOR TO COORDINATE WITH CITY.

CONTRACTOR TO CUT/ DROP DEAD OR LEANING TREES ALONG SOUTH SIDE OF BROOK. DROPPED TREES TO REMAIN ON-SITE. CONTRACTOR TO COORDINATE WITH CITY.

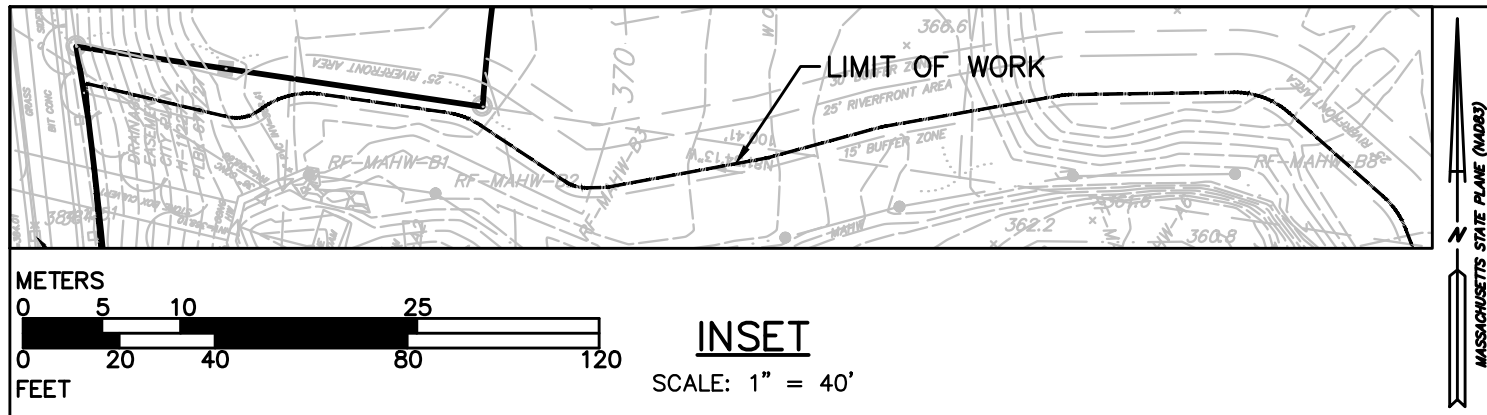
CONTRACTOR SHALL CUT EXISTING INVASIVE VINES & TARP THE AREA TO ERADICATE INVASIVE VINES. COORDINATE WITH CITY.

CONSTRUCTION FENCE (TYP.). EXACT LOCATION TO BE CONFIRMED BY CONTRACTOR IN THE FIELD.

CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING BIT. CONC. PAVING (TYP.)

CONTRACTOR SHALL PROTECT EXISTING WATER LINES DURING CONSTRUCTION (TYP.)

SEE INSET



PREPARED FOR:

CITY OF WORCESTER

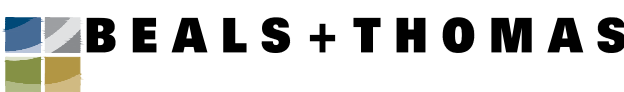
DEPARTMENT OF PUBLIC WORKS AND PARKS

50 OFFICER MANNY FAMILIA WAY
WORCESTER, MASSACHUSETTS

NOT ISSUED FOR CONSTRUCTION

COPYRIGHT (C) BY BEALS AND THOMAS, INC. ALL RIGHTS RESERVED

PREPARED BY:



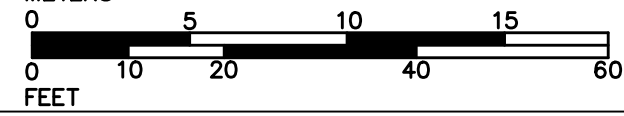
BEALS AND THOMAS, INC.
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

5		
4		
3		
2		
1	04/26/2022	ISSUED FOR BIDDING
0	01/05/2022	PERMIT PLAN SET
ISSUE DATE DESCRIPTION		
NBB	NBB	DMG
DES	DWN	CHK'D
		APP'D

PROJECT:

COAL MINE BROOK
616 PLANTATION STREET
WORCESTER, MASSACHUSETTS

SCALE: 1" = 20' DATE: JANUARY 5, 2022



SITE PREPARATION PLAN

B+T JOB NO.3228.01

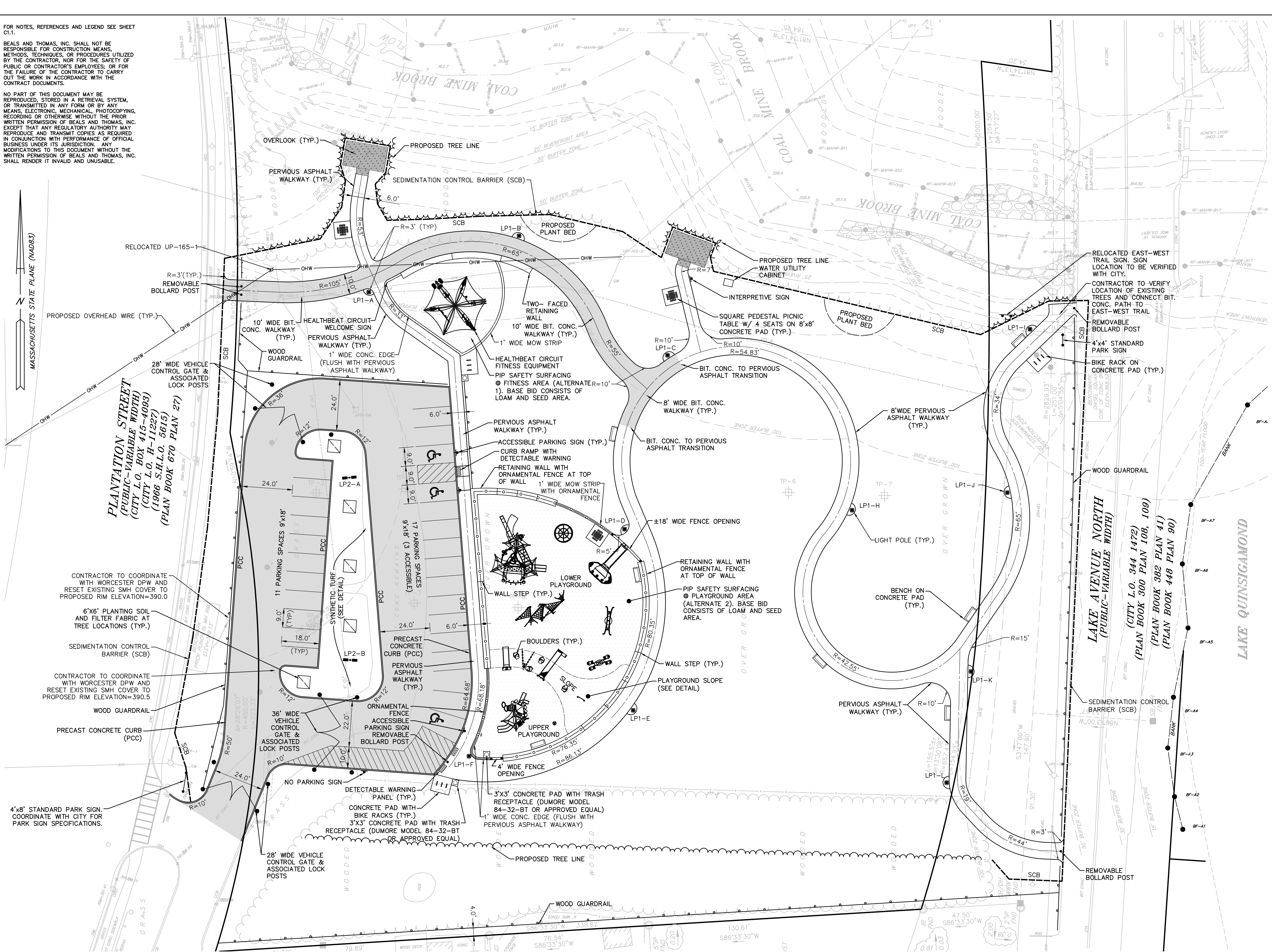
B+T PLAN NO. 322800P003B-001

C2.1

FOR NOTES, REFERENCES AND LEGEND SEE SHEET C1.1.

BEALS AND THOMAS, INC. SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES, OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF BEALS AND THOMAS, INC. EXCEPT THAT ANY REGULATORY AUTHORITY MAY REPRODUCE AND TRANSMIT COPIES AS REQUIRED IN CONJUNCTION WITH PERFORMANCE OF OFFICIAL BUSINESS UNDER ITS JURISDICTION. ANY MODIFICATIONS TO THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF BEALS AND THOMAS, INC. SHALL RENDER IT INVALID AND UNUSABLE.



PREPARED FOR:

CITY OF WORCESTER

DEPARTMENT OF PUBLIC WORKS AND PARKS

50 OFFICER MANNY FAMILIA WAY
WORCESTER, MASSACHUSETTS

NOT ISSUED FOR
CONSTRUCTION

COPYRIGHT (C) BY BEALS AND THOMAS, INC.
ALL RIGHTS RESERVED

PREPARED BY:



BEALS AND THOMAS, INC.
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

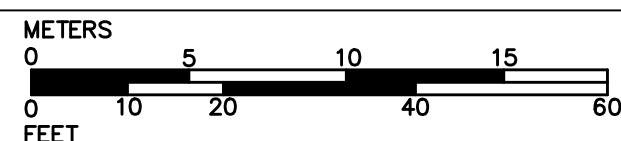
5		
4		
3		
2		
1	04/26/2022	ISSUED FOR BIDDING
0	01/05/2022	PERMIT PLAN SET
ISSUE DATE		DESCRIPTION
NBB	NBB	DMG
DES	DWN	CHK'D
		APP'D

PROJECT:

COAL MINE BROOK

616 PLANTATION STREET
WORCESTER, MASSACHUSETTS

SCALE: 1" = 20' DATE: JANUARY 5, 2022

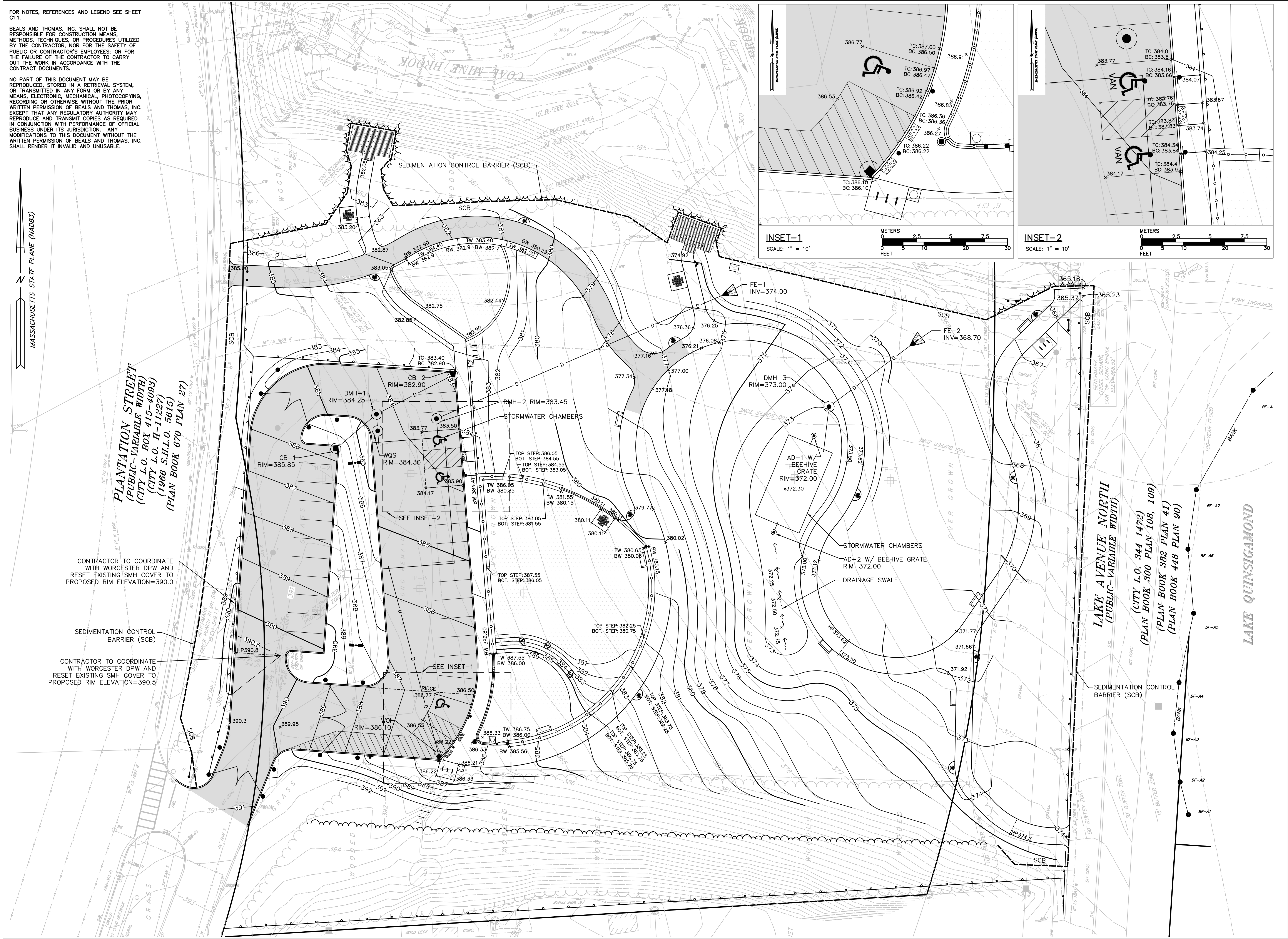


LAYOUT AND MATERIALS PLAN

B+T JOB NO.3228.01

B+T PLAN NO.
322800P003B-002

C3.1



PREPARED FOR:

CITY OF WORCESTER
DEPARTMENT OF PUBLIC WORKS AND PARKS
50 OFFICER MANNY FAMILIA WAY
WORCESTER, MASSACHUSETTS

NOT ISSUED FOR CONSTRUCTION

COPYRIGHT (C) BY BEALS AND THOMAS, INC. ALL RIGHTS RESERVED

PREPARED BY:

BEALS + THOMAS

BEALS AND THOMAS, INC.
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

ISSUE DATE	DESCRIPTION
01/04/2022	ISSUED FOR BIDDING
01/05/2022	PERMIT PLAN SET

NBB	NBB	DMG	DMG/DJL
DES	DWN	CHK'D	APP'D

PROJECT:

COAL MINE BROOK
616 PLANTATION STREET
WORCESTER, MASSACHUSETTS

SCALE: 1" = 20' DATE: JANUARY 5, 2022

METERS
0 5 10 15 20
FEET

GRADING PLAN

B+T JOB NO.3228.01

B+T PLAN NO. 322800P038-003

C4.1

NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF BEALS AND THOMAS, INC. EXCEPT THAT ANY REGULATORY AUTHORITY MAY REPRODUCE AND TRANSMIT COPIES AS REQUIRED IN CONJUNCTION WITH PERFORMANCE OF OFFICIAL BUSINESS AND NECESSARY REGULATORY MODIFICATIONS TO THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF BEALS AND THOMAS, INC. SHALL RENDER IT INVALID AND UNUSABLE.

50 OFFICER MANNY FAMILIA WAY
WORCESTER, MASSACHUSETTS

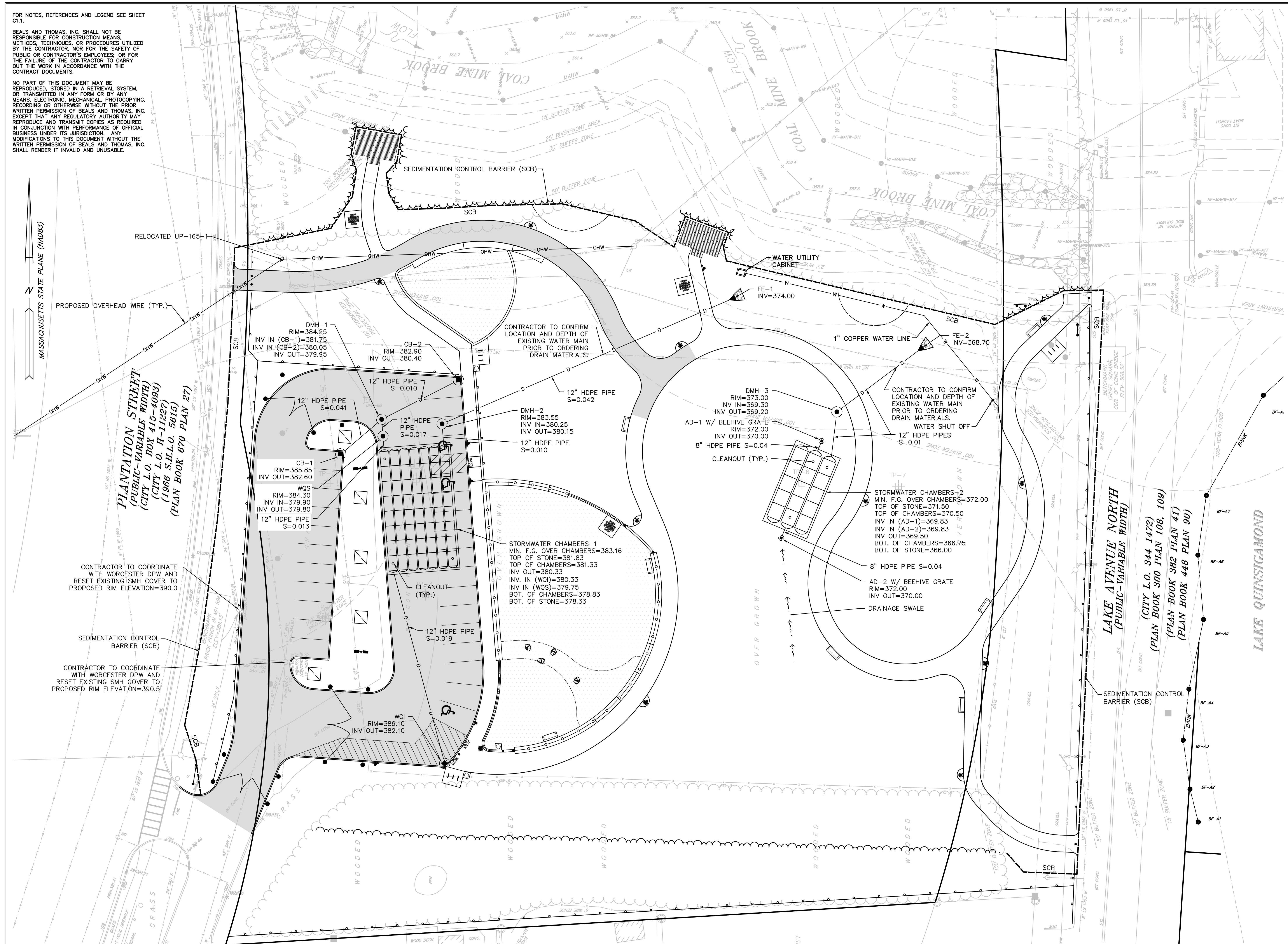
NOT ISSUED FOR
CONSTRUCTION

COPYRIGHT (C) BY BEALS AND THOMAS, INC.
ALL RIGHTS RESERVED

BEALS AND THOMAS, INC.
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

5			
4			
3			
2			
1	04/26/2022	ISSUED FOR BIDDING	
0	01/05/2022	PERMIT PLAN SET	
	ISSUE DATE	DESCRIPTION	
	NBB	NBB	DMG
	DES	DWN	CHK'D
			APP'D

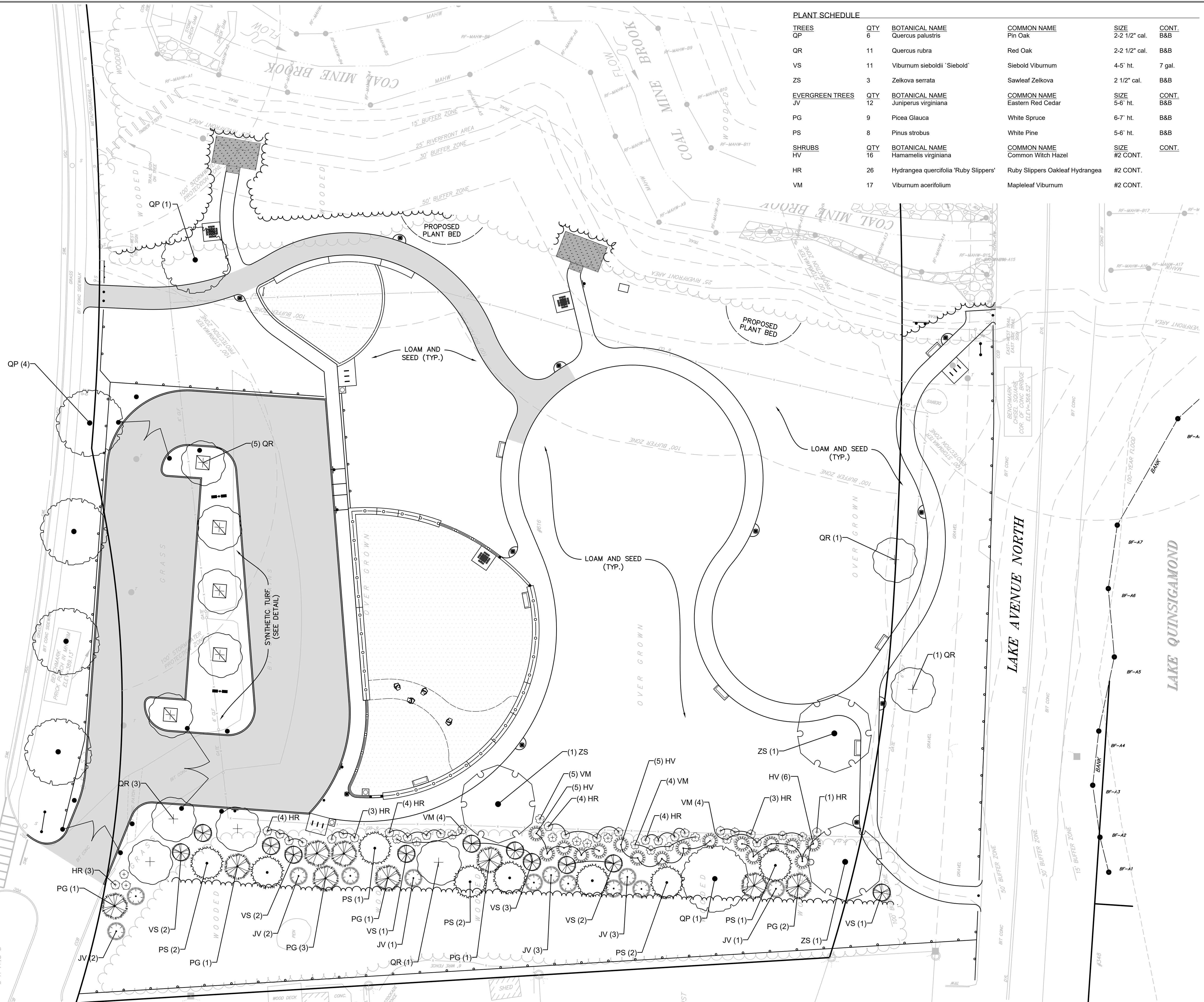
C5.1



BEALS AND THOMAS, INC. SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES; OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

MASSACHUSETTS STATE PLANE (NAD83)

PLANTATION STREET



<u>TREES</u>	<u>QTY</u>	<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>	<u>SIZE</u>	<u>CONT.</u>
QR	6	Quercus palustris	Pin Oak	2-2 1/2' cal.	B&B
QP	11	Quercus rubra	Red Oak	2-2 1/2' cal.	B&B
VS	11	Viburnum sieboldii 'Siebold'	Siebold Viburnum	4-5' ht.	7 gal.
ZS	3	Zeikova serrata	Sawleaf Zeikova	2 1/2' cal.	B&B
<u>EVERGREEN TREES</u>					
JV	12	Juniperus virginiana	Eastern Red Cedar	5-6' ht.	B&B
PG	9	Picea Glauca	White Spruce	6-7' ht.	B&B
PS	8	Pinus strobus	White Pine	5-6' ht.	B&B
<u>SHRUBS</u>					
HV	16	Hamamelis virginiana	Common Witch Hazel	#2 CONT.	<u>CONT.</u>
HR	26	Hydrangea quercifolia 'Ruby Slippers'	Ruby Slippers Oakleaf Hydrangea	#2 CONT.	
VM	17	Viburnum acerifolium	Mapleleaf Viburnum	#2 CONT.	

CITY OF
WORCESTER

50 OFFICER MANNY FAMILIA WAY
WORCESTER, MASSACHUSETTS

NOT ISSUED FOR
CONSTRUCTION

COPYRIGHT (C) BY BEALS AND THOMAS, INC.
ALL RIGHTS RESERVED

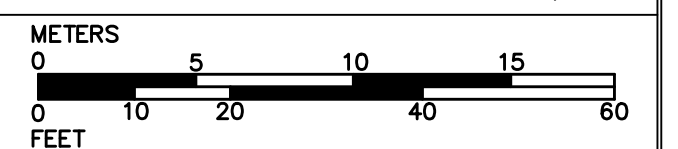

BEALS + THOMAS

BEALS AND THOMAS, INC.
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

5			
4			
3			
2			
1	04/26/2022	ISSUED FOR BIDDING	
0	01/05/2022	PERMIT PLAN SET	
	ISSUE DATE	DESCRIPTION	
	LAC	LAC	DJL
	DES	DWN	APP'D

COAL MINE BROOK

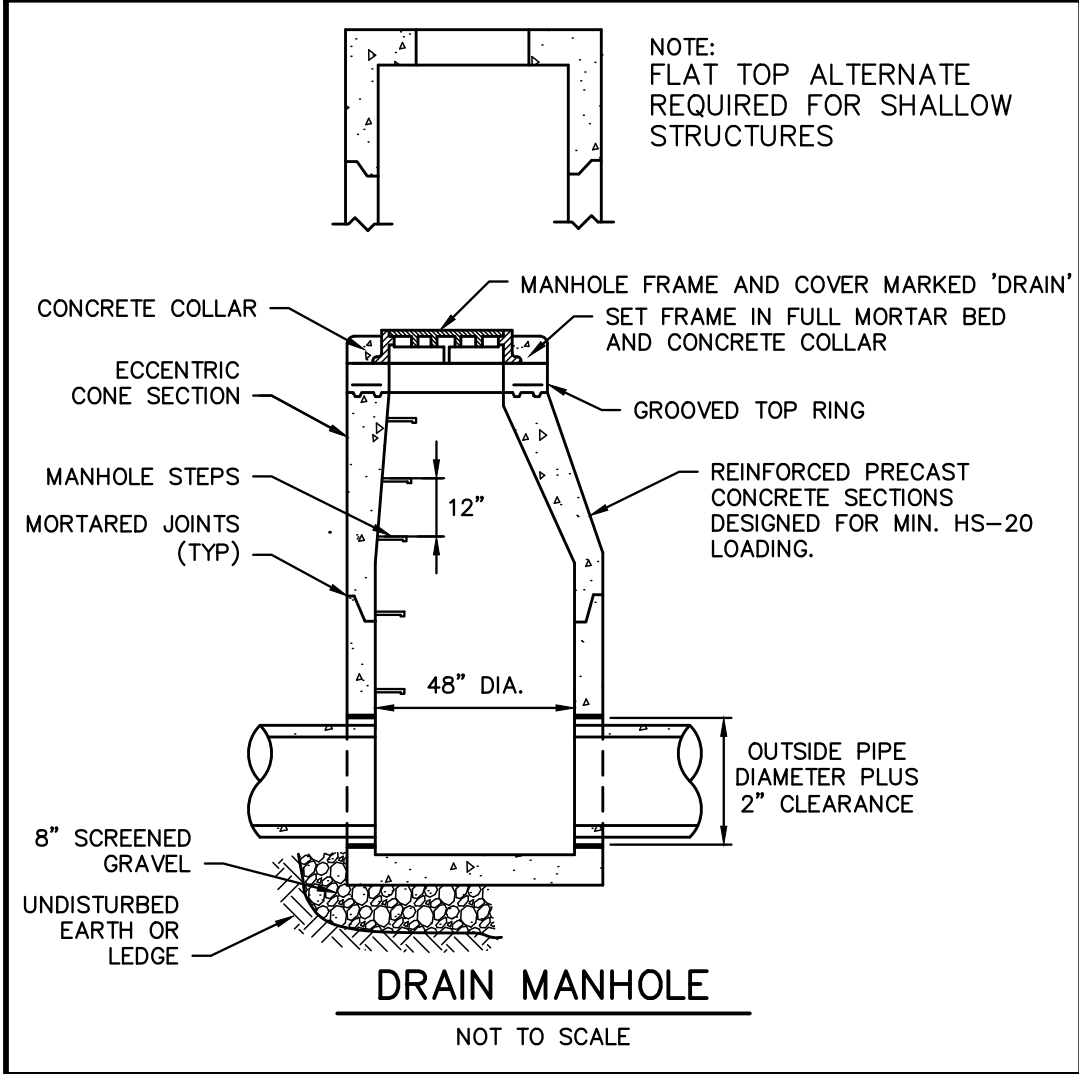
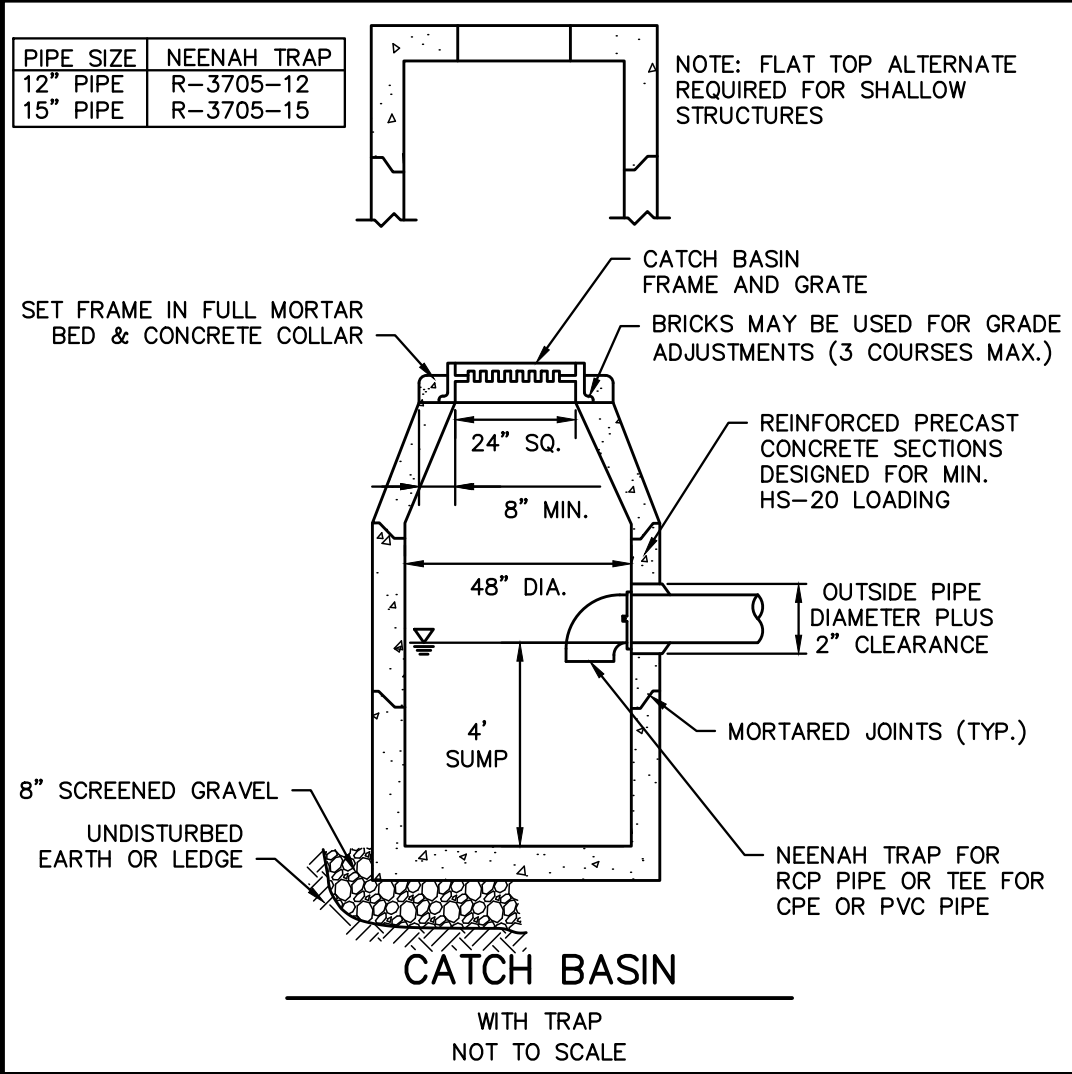
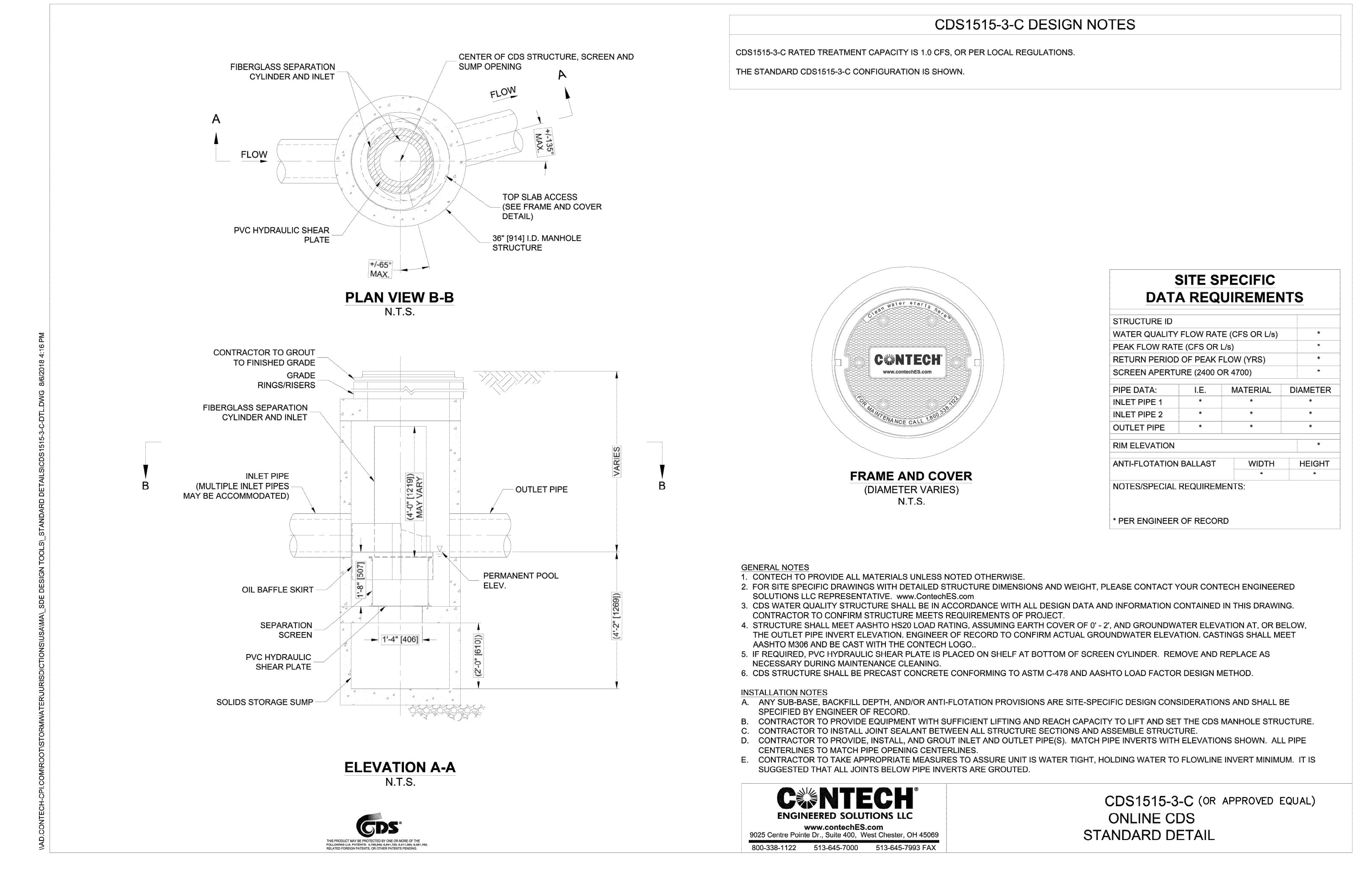
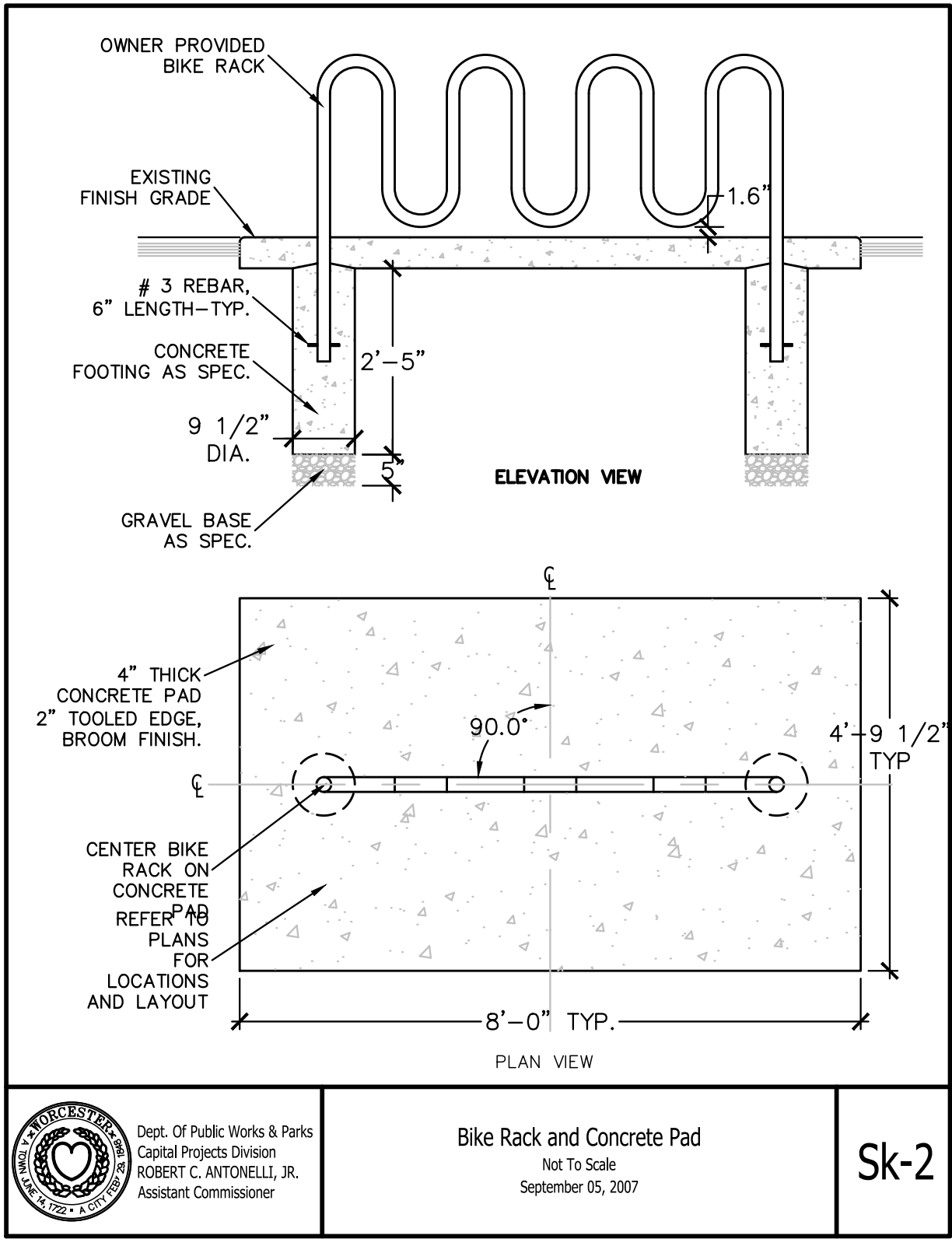
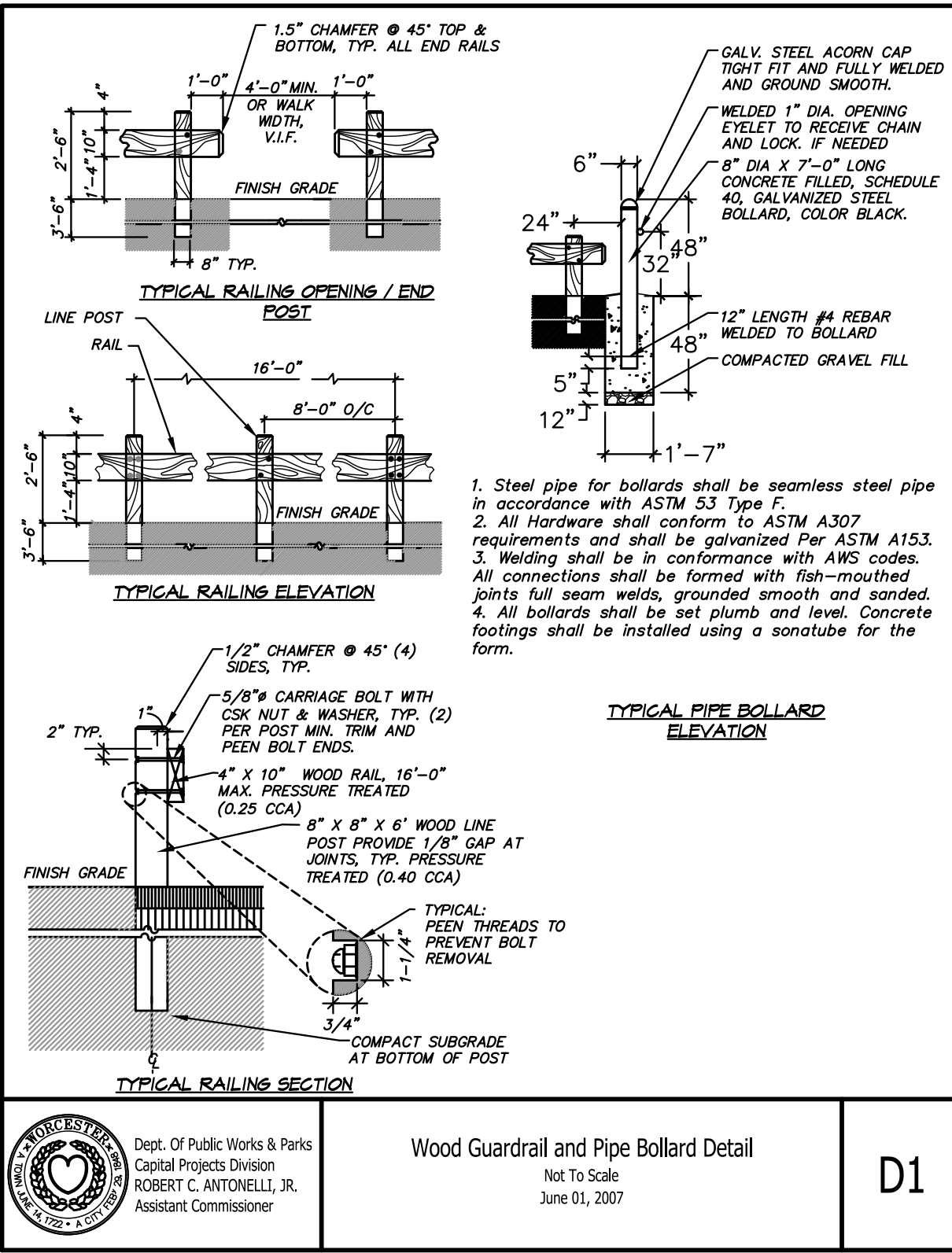
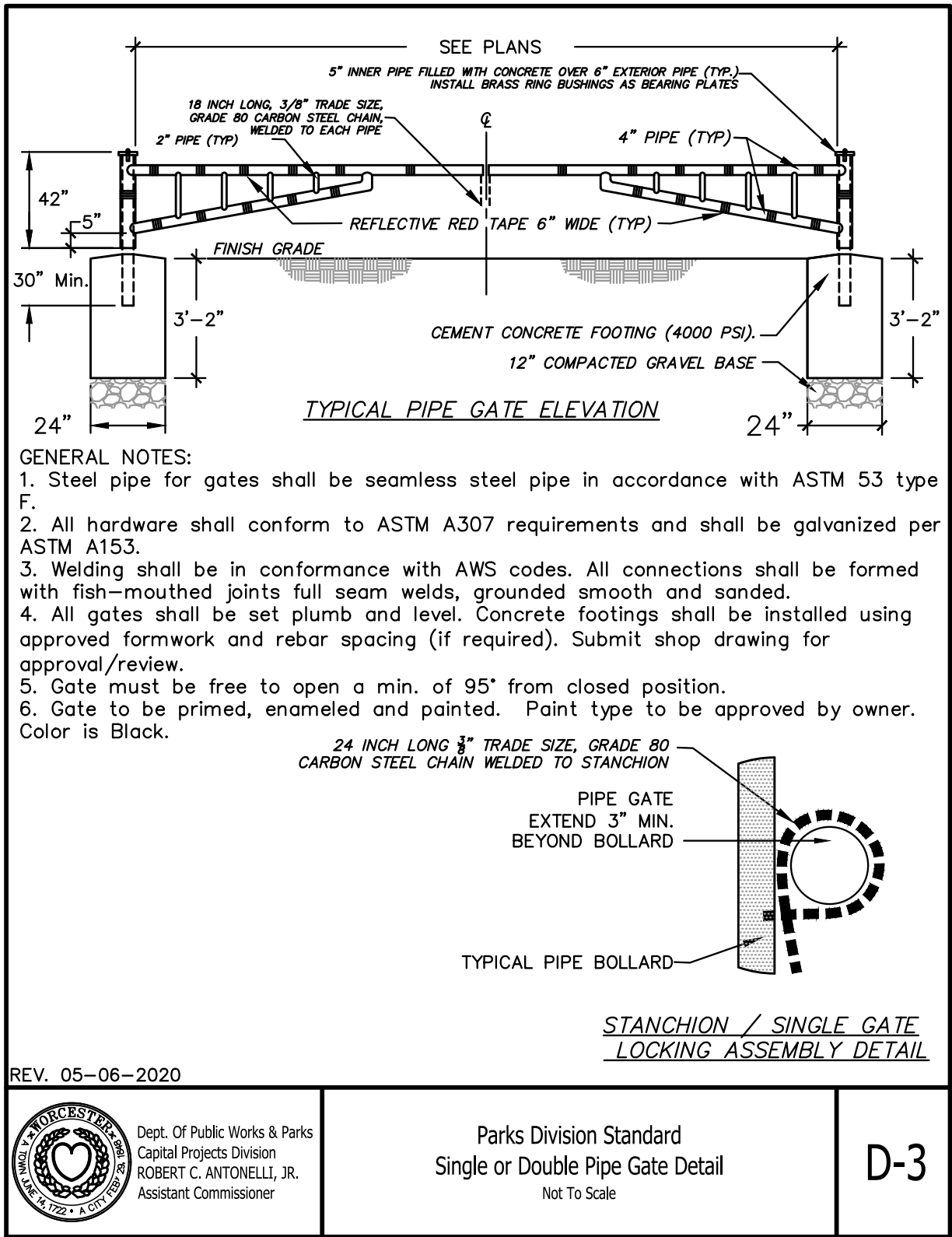
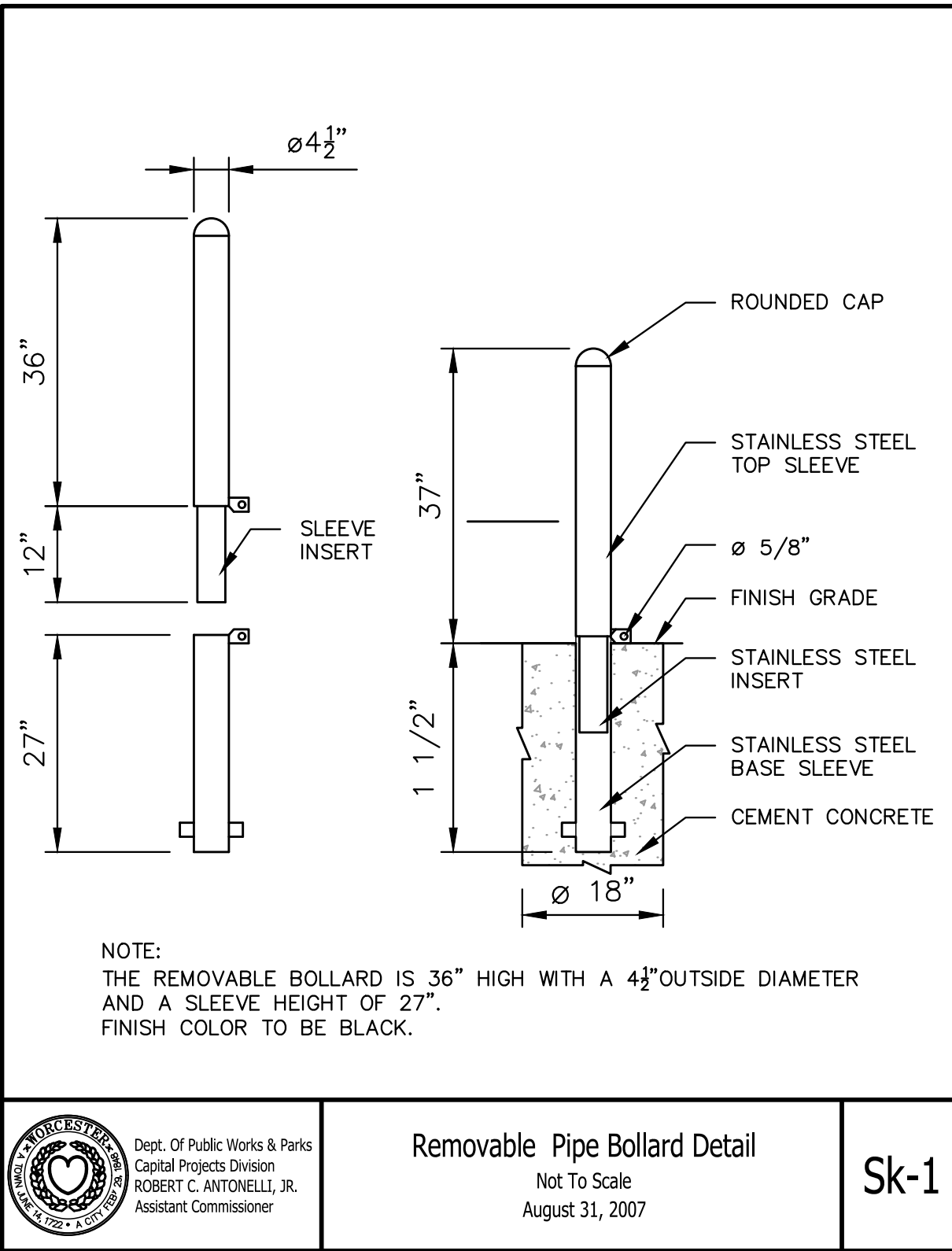
SCALE: 1" = 20' DATE: JANUARY 5, 2022



LANDSCAPE PLAN

B+T PLAN NO.
322800P003B-005

C6.1



FOR NOTES, REFERENCES AND LEGEND SEE SHEET C1.1.

BEALS AND THOMAS, INC. SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES; OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF BEALS AND THOMAS, INC. EXCEPT THAT ANY REGULATORY AUTHORITY MAY REPRODUCE AND TRANSMIT COPIES AS REQUIRED IN CONJUNCTION WITH PERFORMANCE OF OFFICIAL BUSINESS UNDER ITS JURISDICTION. ANY MODIFICATIONS TO THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF BEALS AND THOMAS, INC. SHALL RENDER IT INVALID AND UNUSABLE.

PREPARED FOR:

CITY OF
WORCESTER
DEPARTMENT OF PUBLIC WORKS
AND PARKS
50 OFFICER MANNY FAMILIA WAY
WORCESTER, MASSACHUSETTS

NOT ISSUED FOR
CONSTRUCTION

COPYRIGHT (C) BY BEALS AND THOMAS, INC.
ALL RIGHTS RESERVED

PREPARED BY:

BEALS + THOMAS

BEALS AND THOMAS, INC.
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

5		
4		
3		
2		
1	04/26/2022	ISSUED FOR BIDDING
0	01/05/2022	PERMIT PLAN SET
ISSUE DATE DESCRIPTION		
NBB	NBB	DMG
DES	DWN	CHK'D
		APP'D

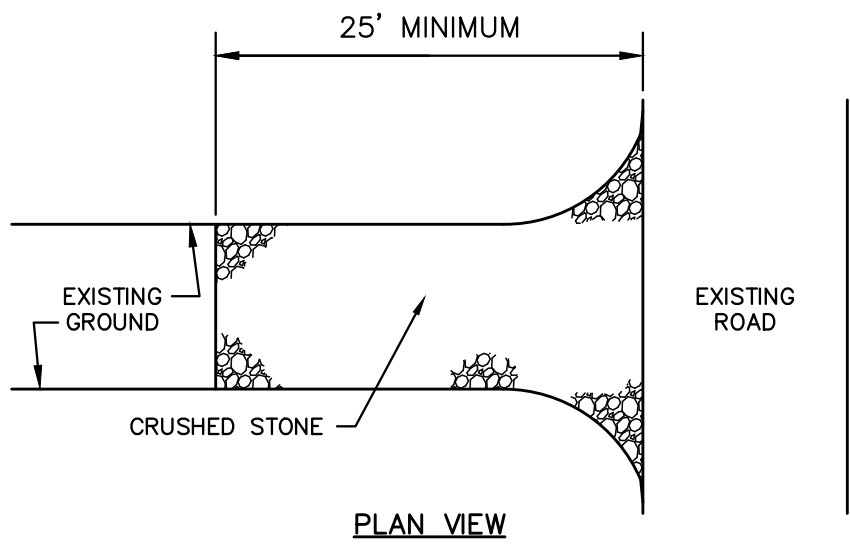
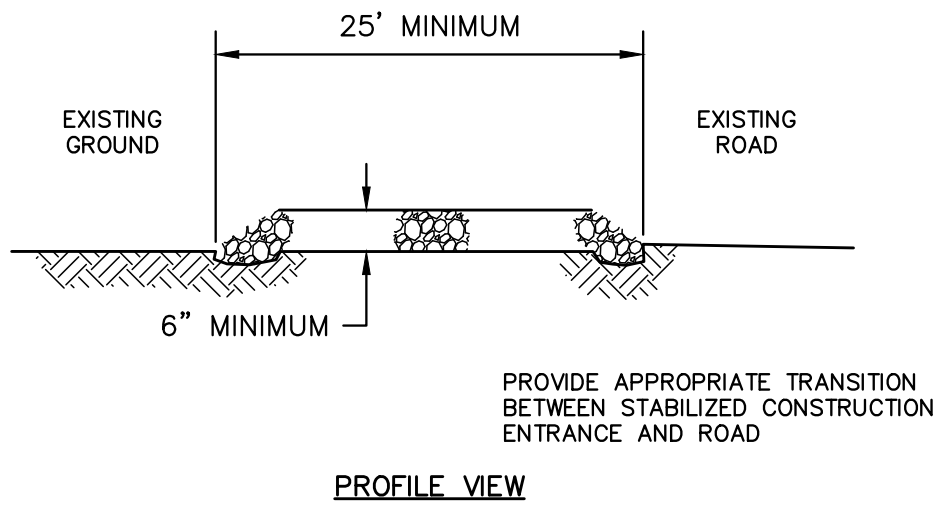
PROJECT:

COAL MINE
BROOK
616 PLANTATION STREET
WORCESTER, MASSACHUSETTS

SCALE: AS NOTED DATE: JANUARY 5, 2021

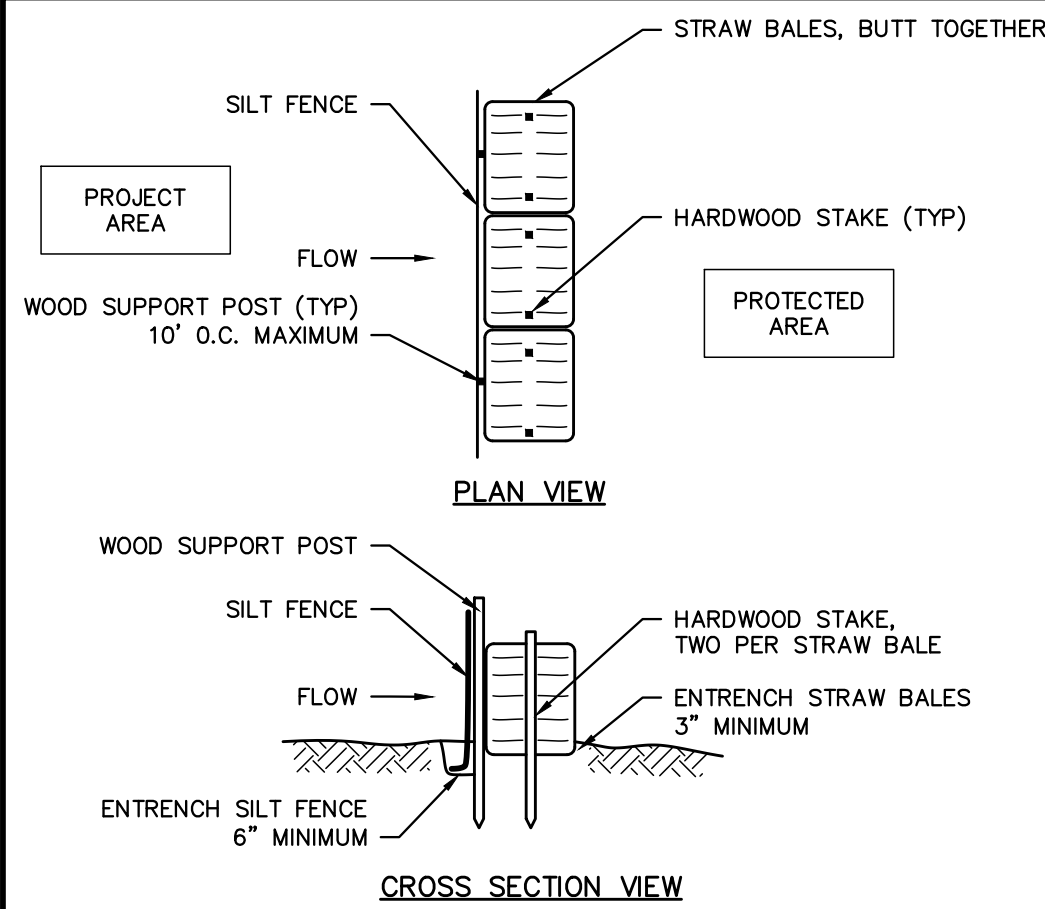
SITE DETAILS #3

B+T JOB NO.3228.01	C7.3
B+T PLAN NO. 322800P002B--005	

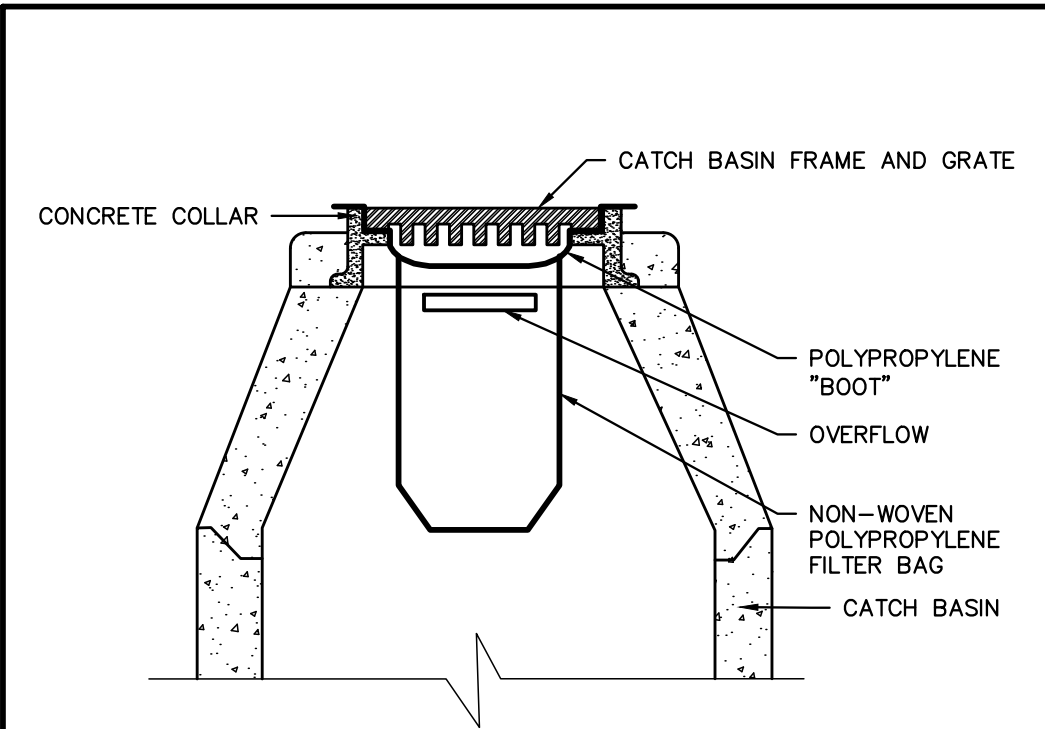


THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO EXISTING ROAD. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO EXISTING ROAD SHALL BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

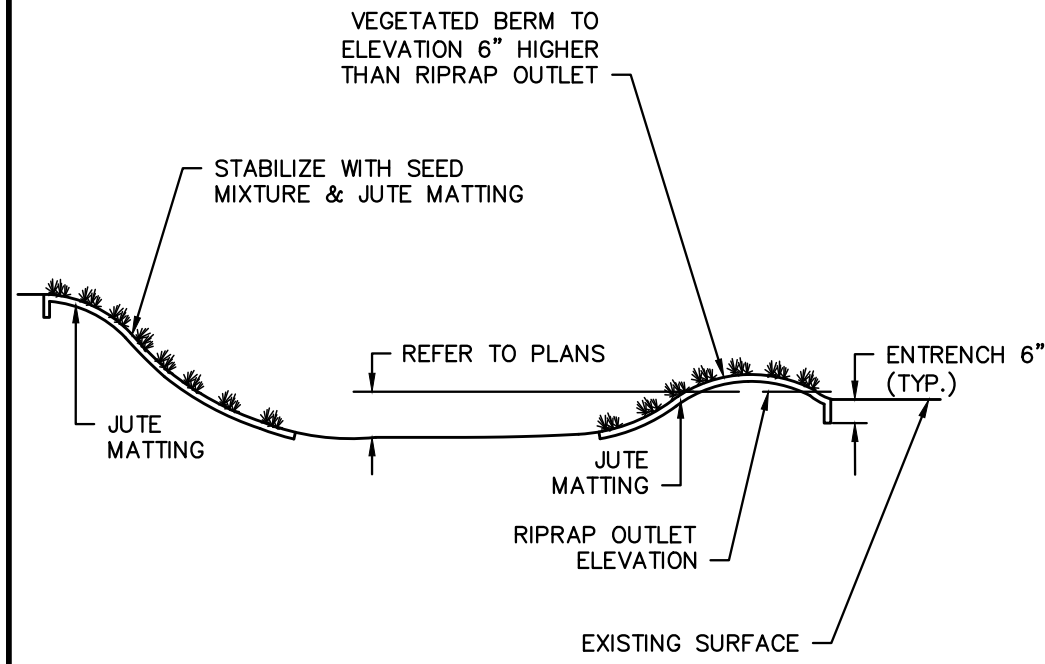


SEDIMENTATION CONTROL BARRIER (SCB)
NOT TO SCALE

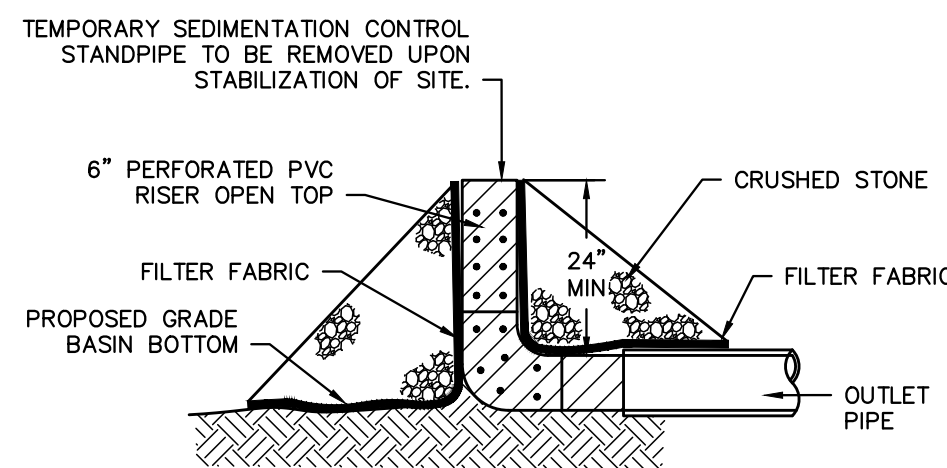


NOTES:
1. TO BE INSTALLED IN CATCH BASINS IN TRAFFIC AREAS UNTIL COMPLETION OF CONSTRUCTION.
2. BOOT ADAPTER MAY BE TRIMMED TO SIZE.

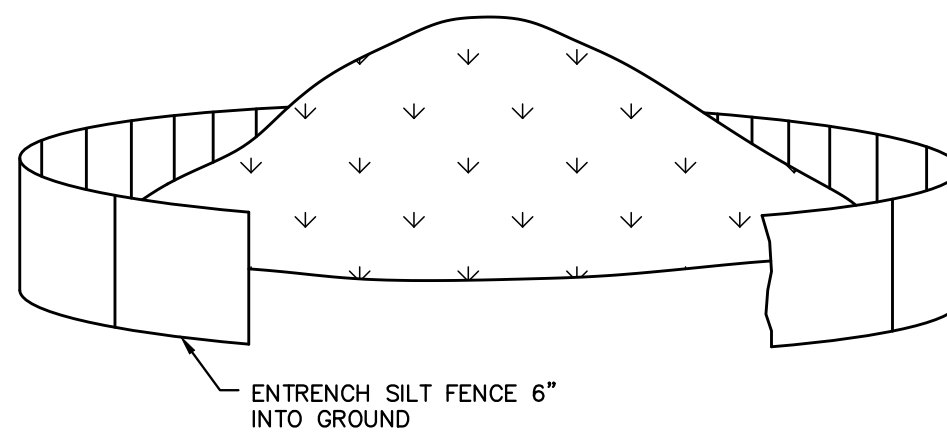
FILTER BAG
NOT TO SCALE



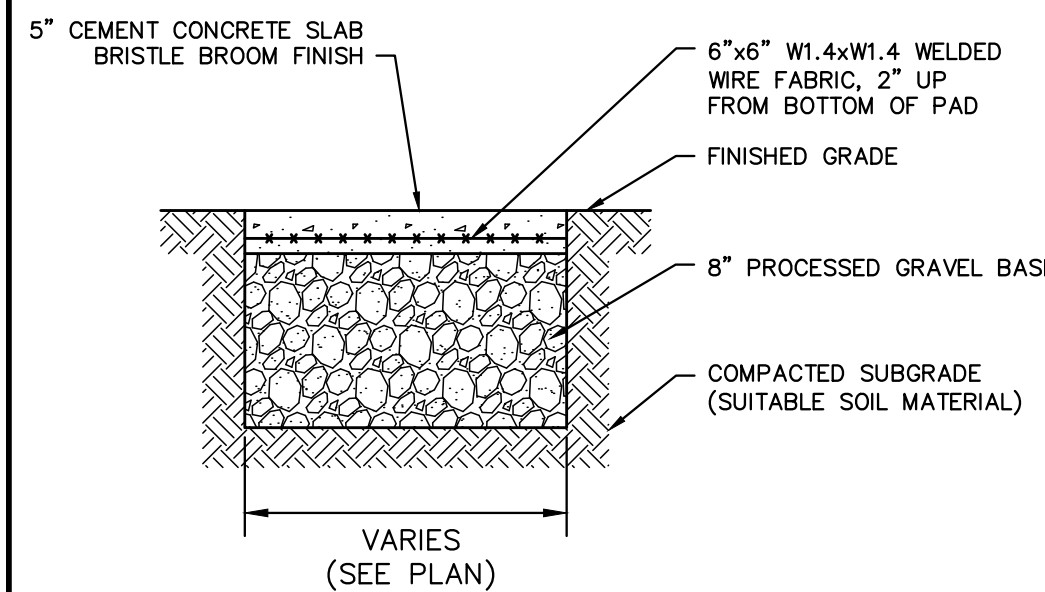
TEMPORARY SEDIMENT BASIN CROSS SECTION
NOT TO SCALE



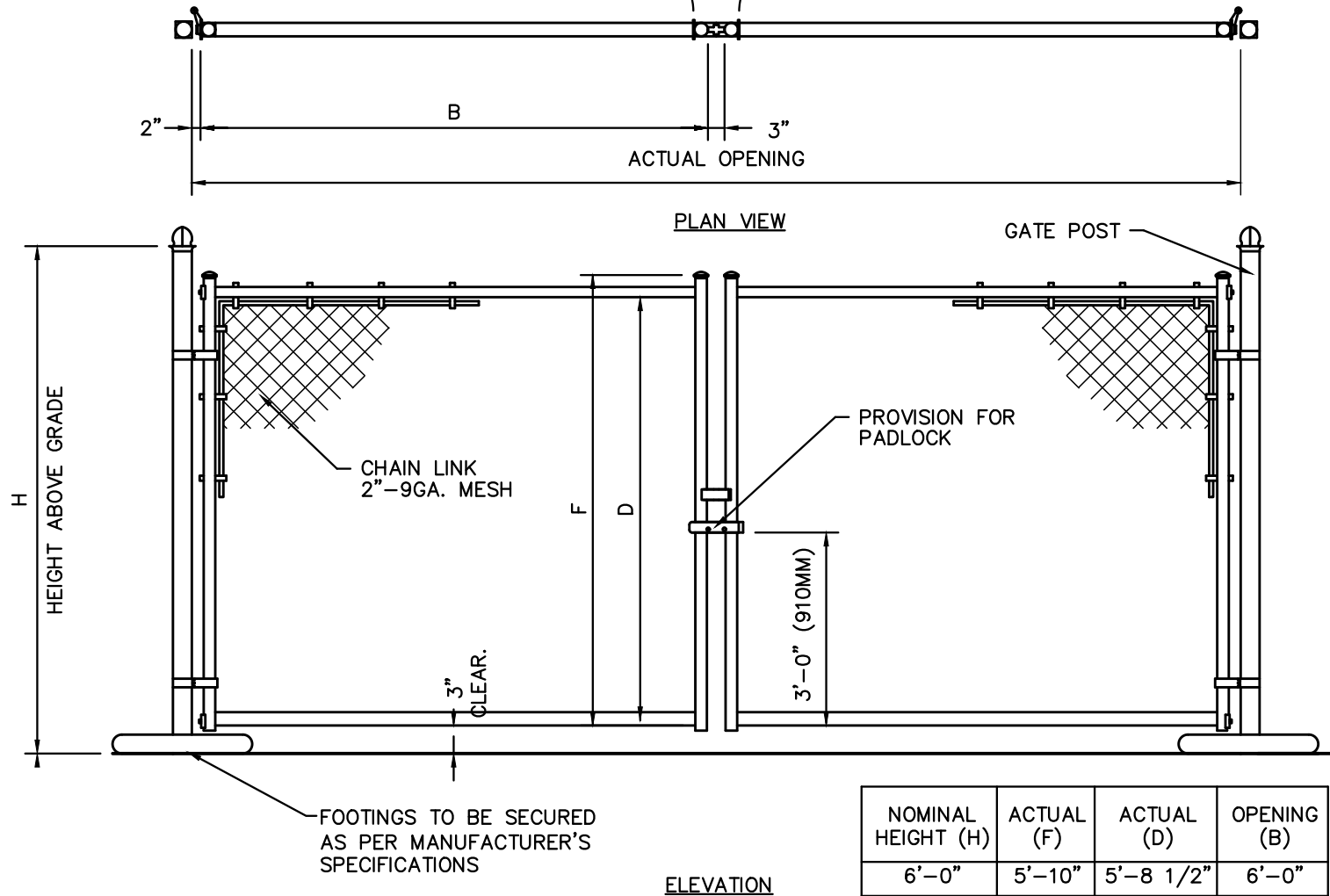
TEMPORARY SEDIMENT BASIN OUTLET
NOT TO SCALE



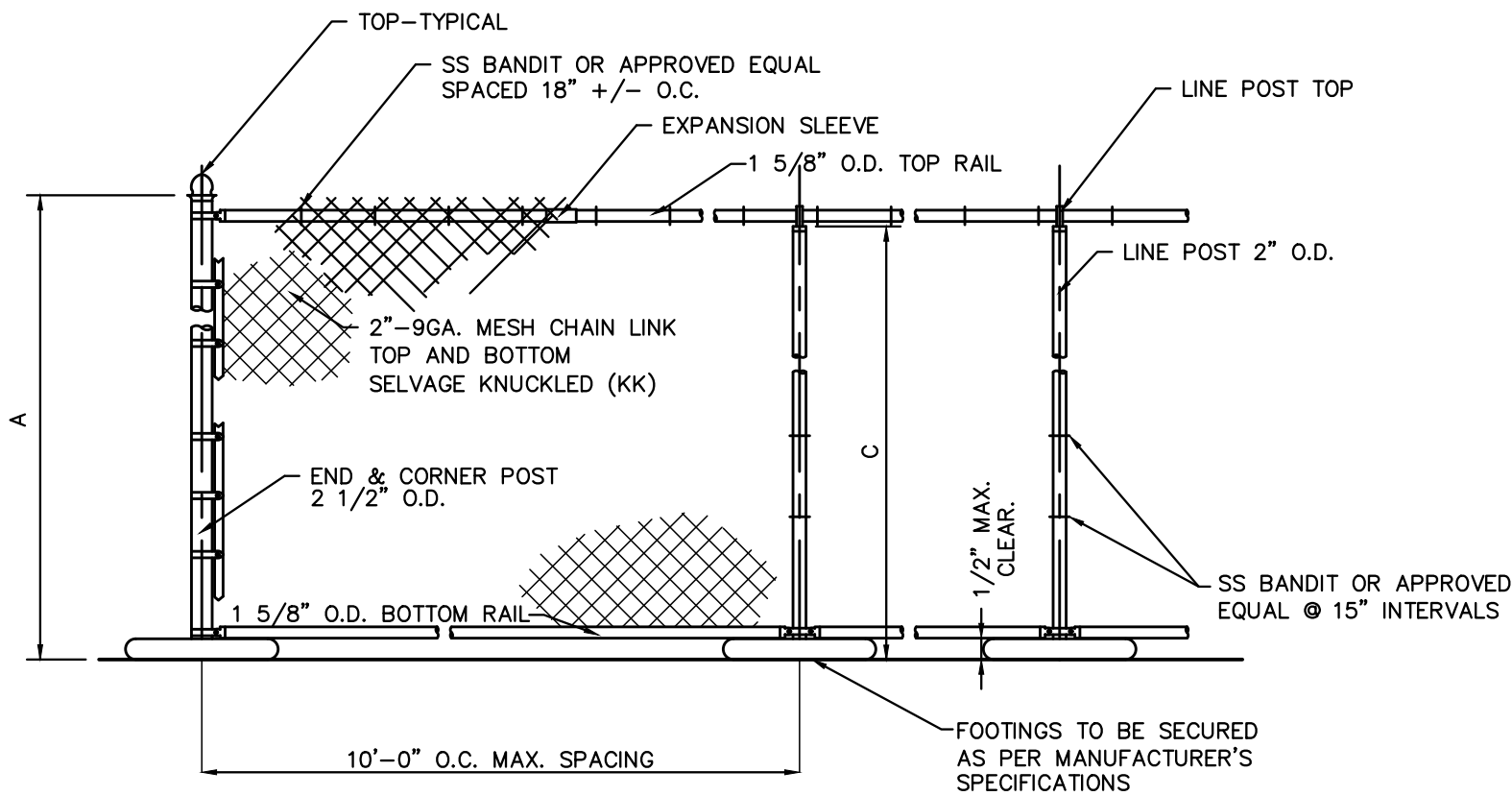
SOIL STOCKPILE
NOT TO SCALE



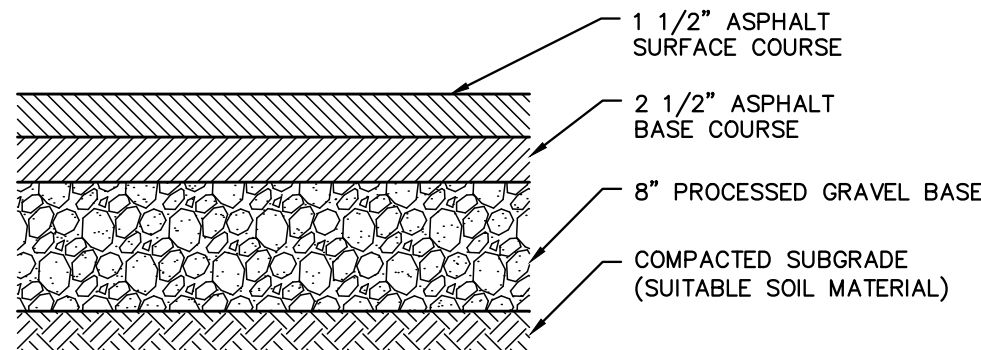
CEMENT CONCRETE PAD
NOT TO SCALE



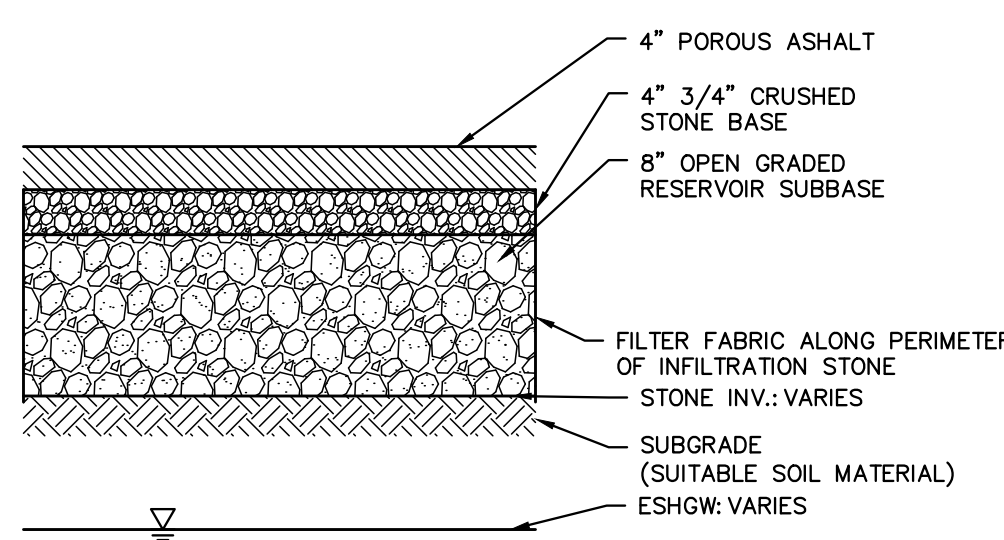
TEMPORARY CONSTRUCTION FENCE
DOUBLE GATE
NOT TO SCALE



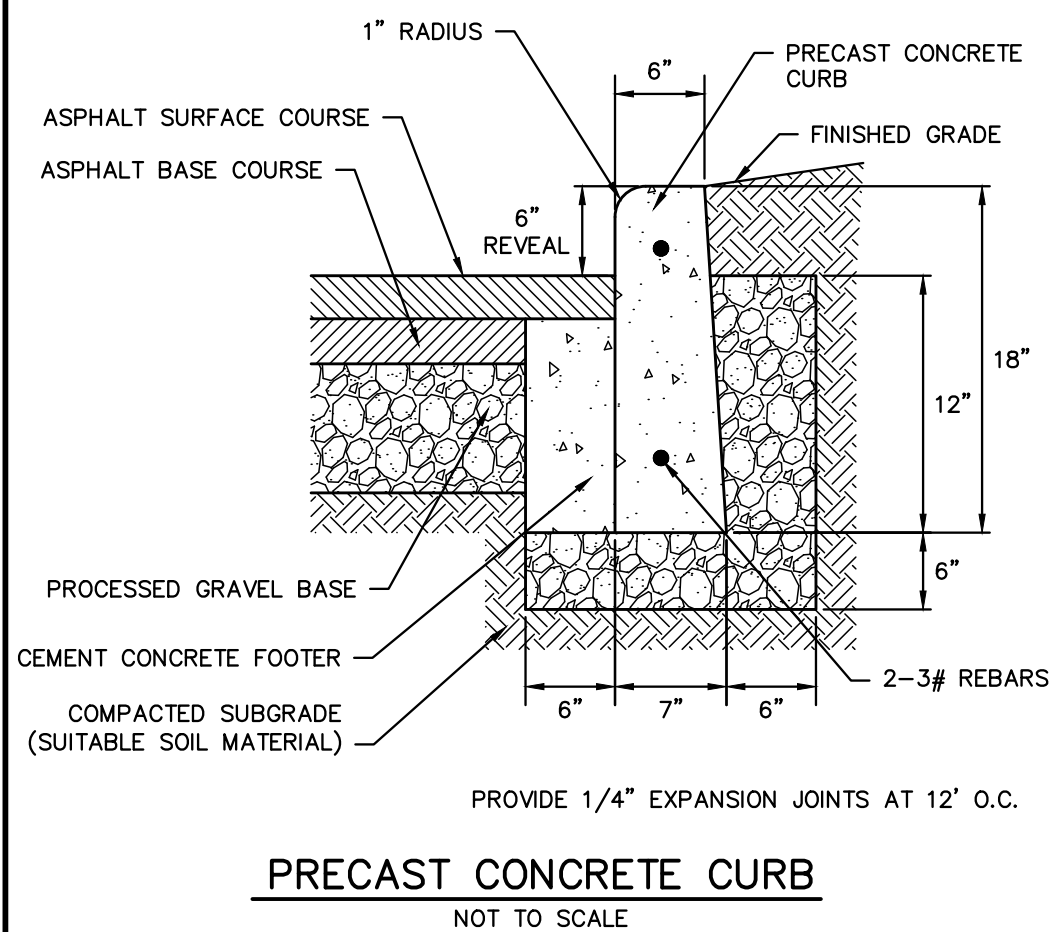
TEMPORARY CONSTRUCTION FENCE
NOT TO SCALE



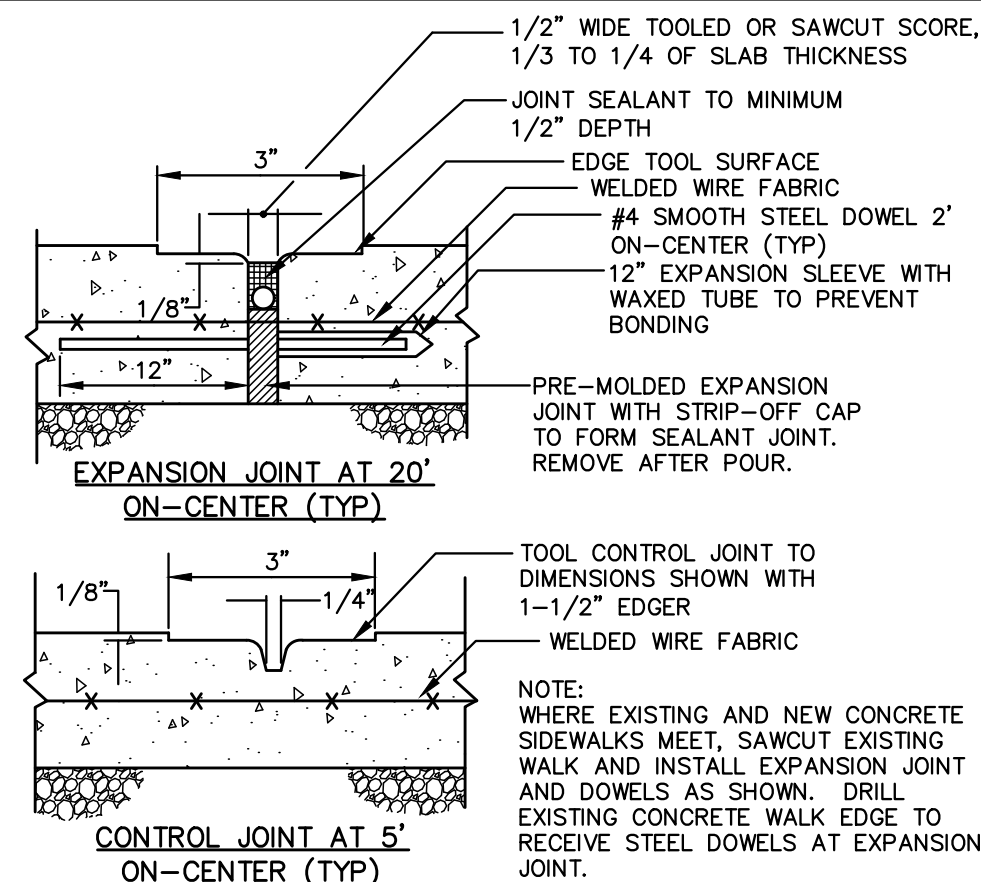
ASPHALT PAVEMENT
NOT TO SCALE



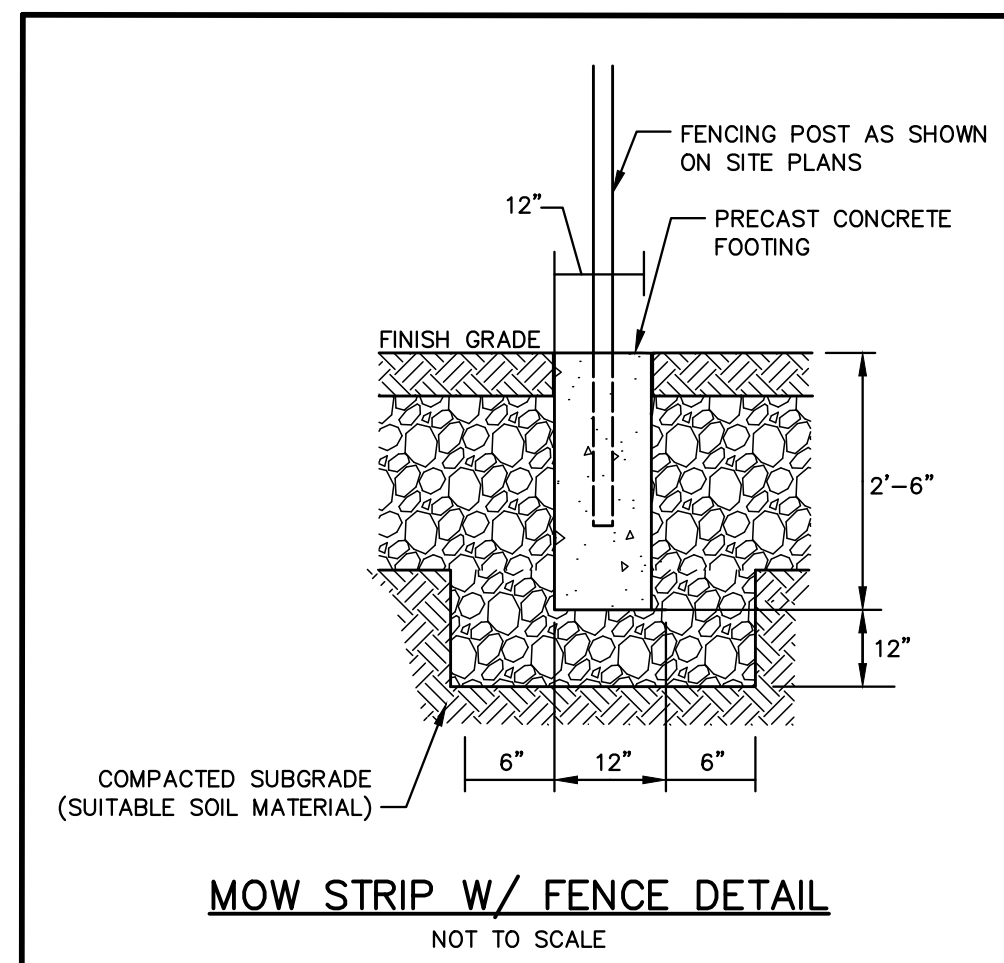
POROUS ASPHALT WALKWAY
NOT TO SCALE



PRECAST CONCRETE CURB
NOT TO SCALE



EXPANSION AND CONTROL JOINTS
NOT TO SCALE



MOW STRIP W/ FENCE DETAIL
NOT TO SCALE

FOR NOTES, REFERENCES AND LEGEND SEE SHEET C1.1.

BEALS AND THOMAS, INC. SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES; OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF BEALS AND THOMAS, INC. EXCEPT THAT ANY REGULATORY AUTHORITY MAY REPRODUCE AND TRANSMIT COPIES AS REQUIRED IN CONJUNCTION WITH PERFORMANCE OF OFFICIAL BUSINESS UNDER ITS JURISDICTION. ANY MODIFICATIONS TO THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF BEALS AND THOMAS, INC. SHALL RENDER IT INVALID AND UNUSABLE.

PREPARED FOR:

CITY OF WORCESTER
DEPARTMENT OF PUBLIC WORKS AND PARKS

50 OFFICER MANNY FAMILIA WAY
WORCESTER, MASSACHUSETTS

NOT ISSUED FOR CONSTRUCTION

COPYRIGHT (C) BY BEALS AND THOMAS, INC.
ALL RIGHTS RESERVED

PREPARED BY:

BEALS + THOMAS

BEALS AND THOMAS, INC.
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

5		
4		
3		
2		
1	04/26/2022	ISSUED FOR BIDDING
0	01/05/2022	PERMIT PLAN SET
ISSUE DATE		DESCRIPTION
NBB	NBB	DMG
DES	DWN	CHK'D
		APP'D

PROJECT:

COAL MINE BROOK
616 PLANTATION STREET
WORCESTER, MASSACHUSETTS

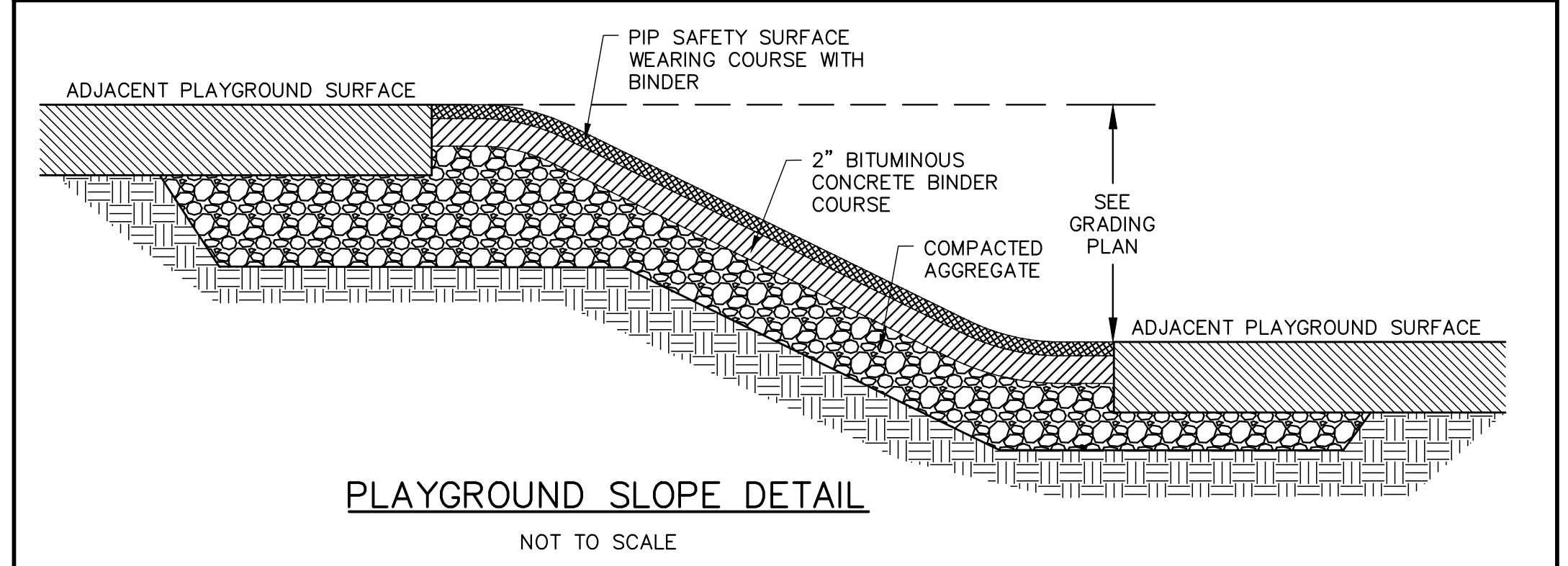
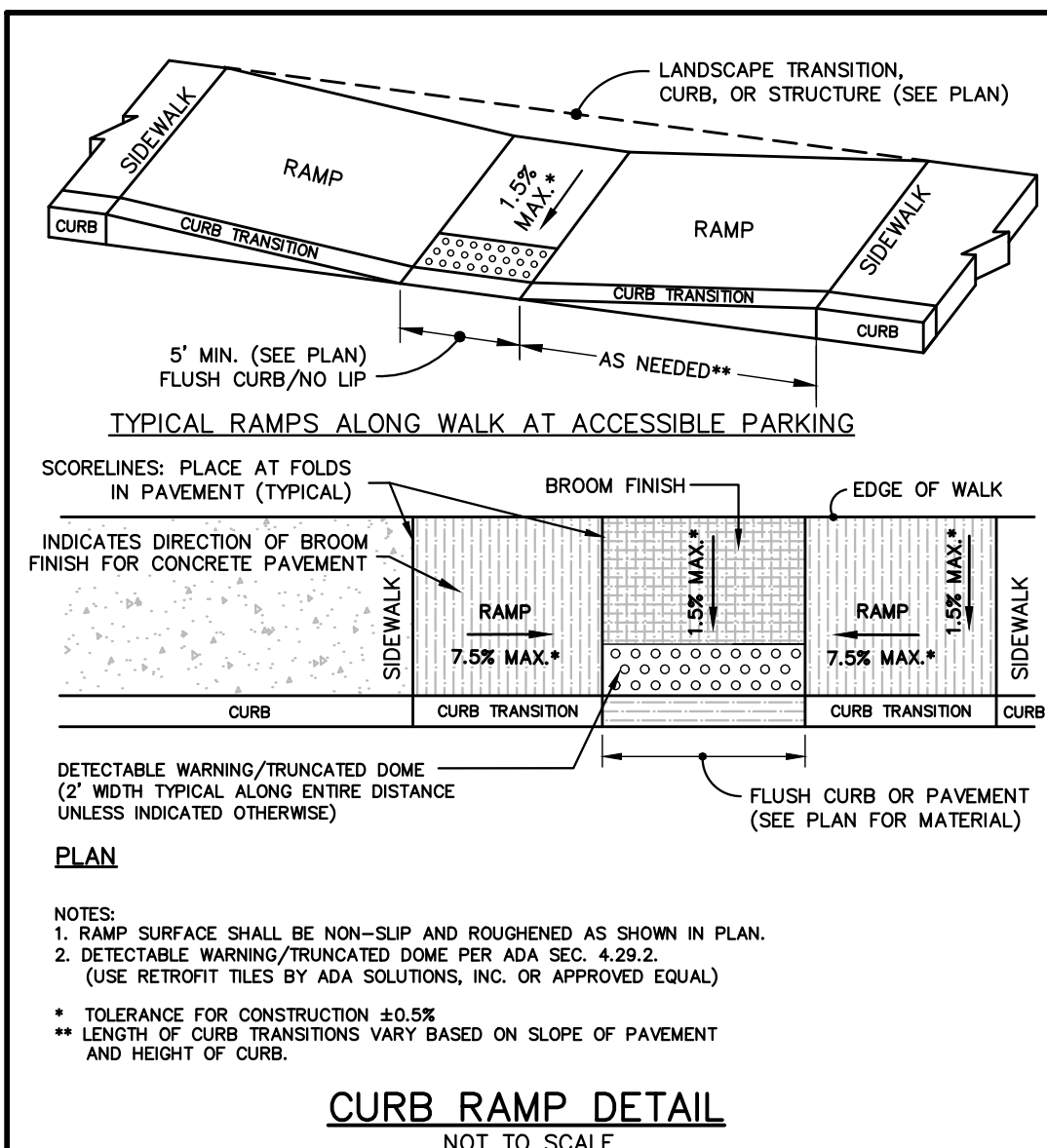
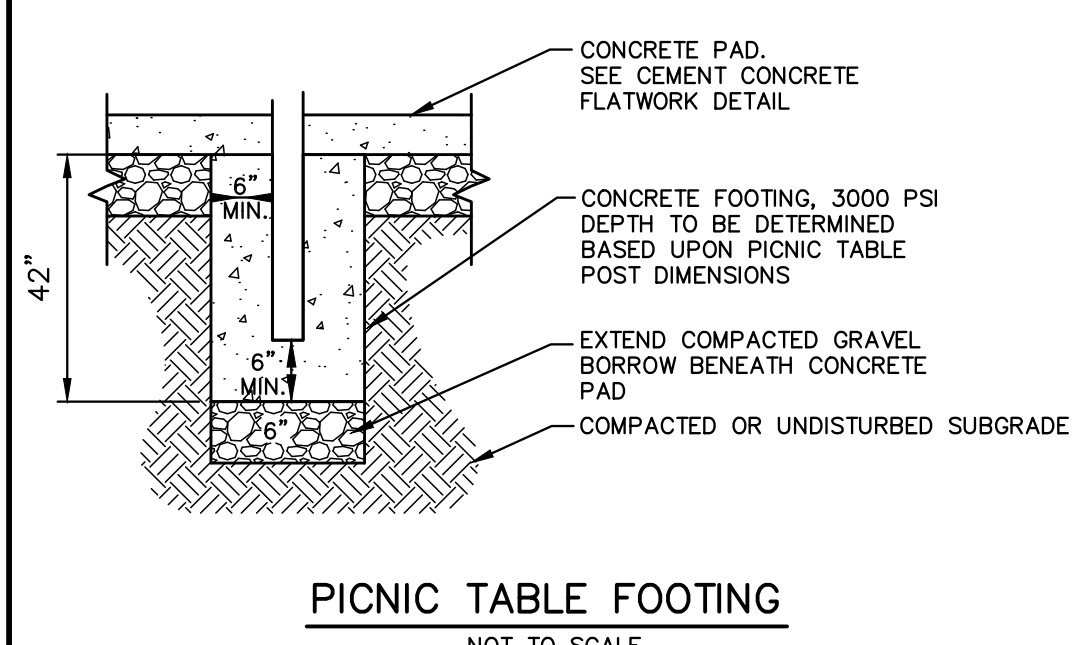
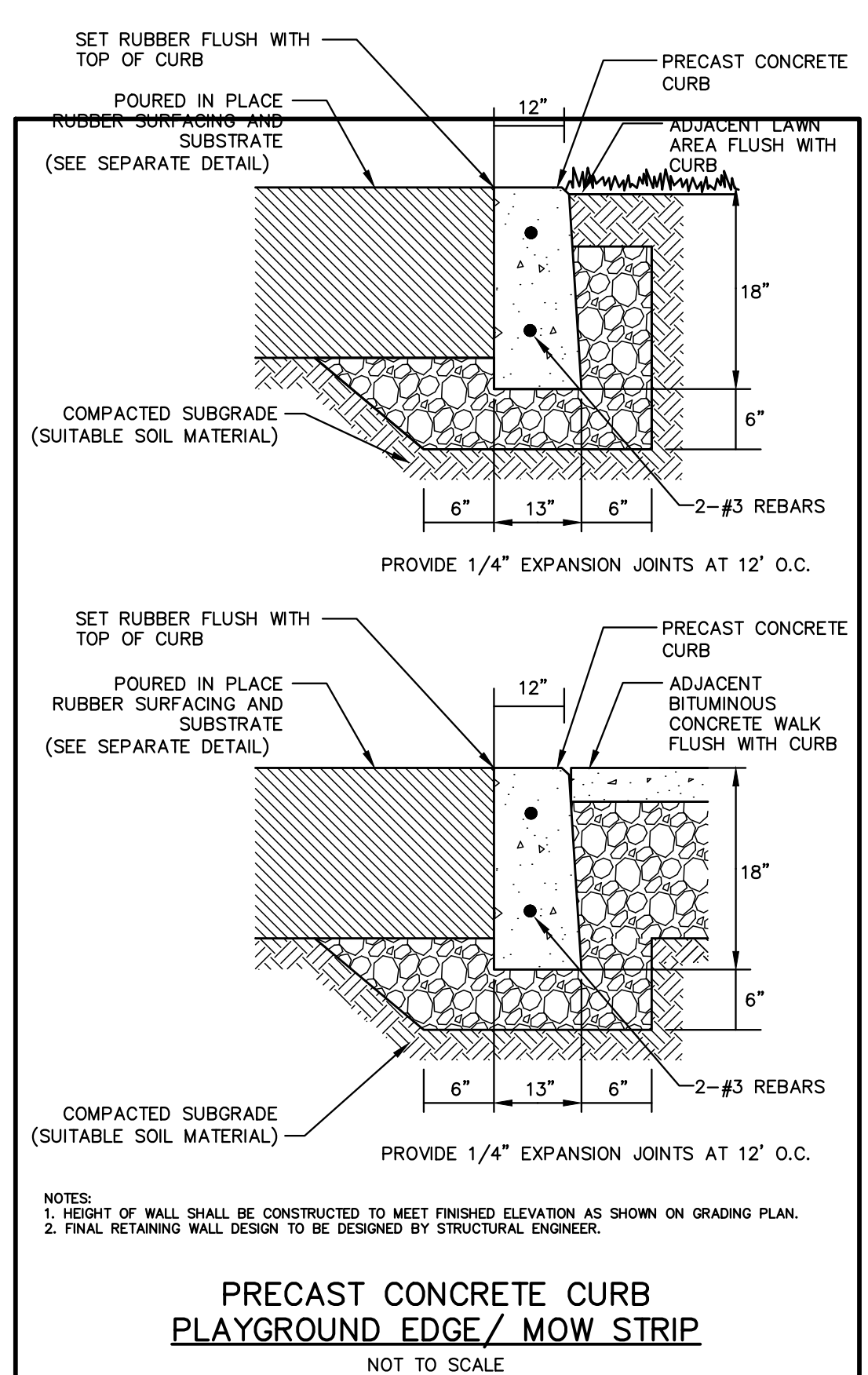
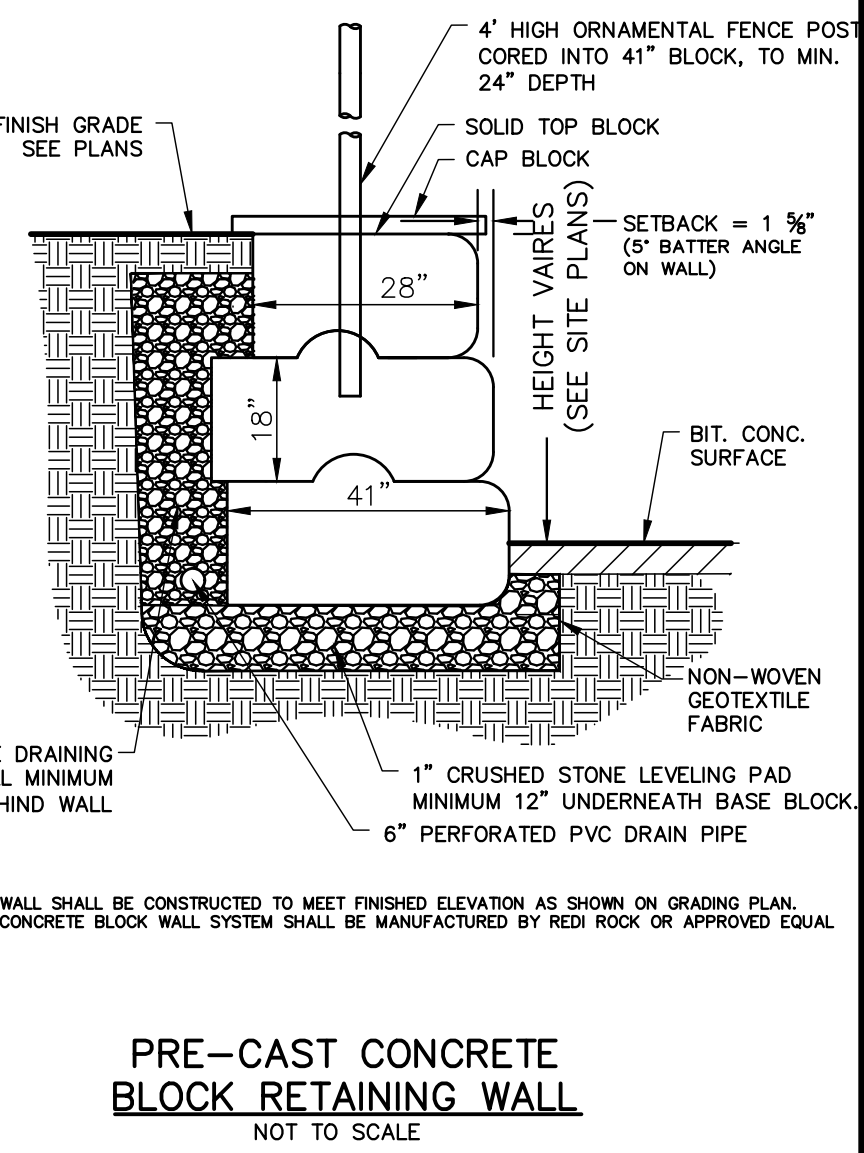
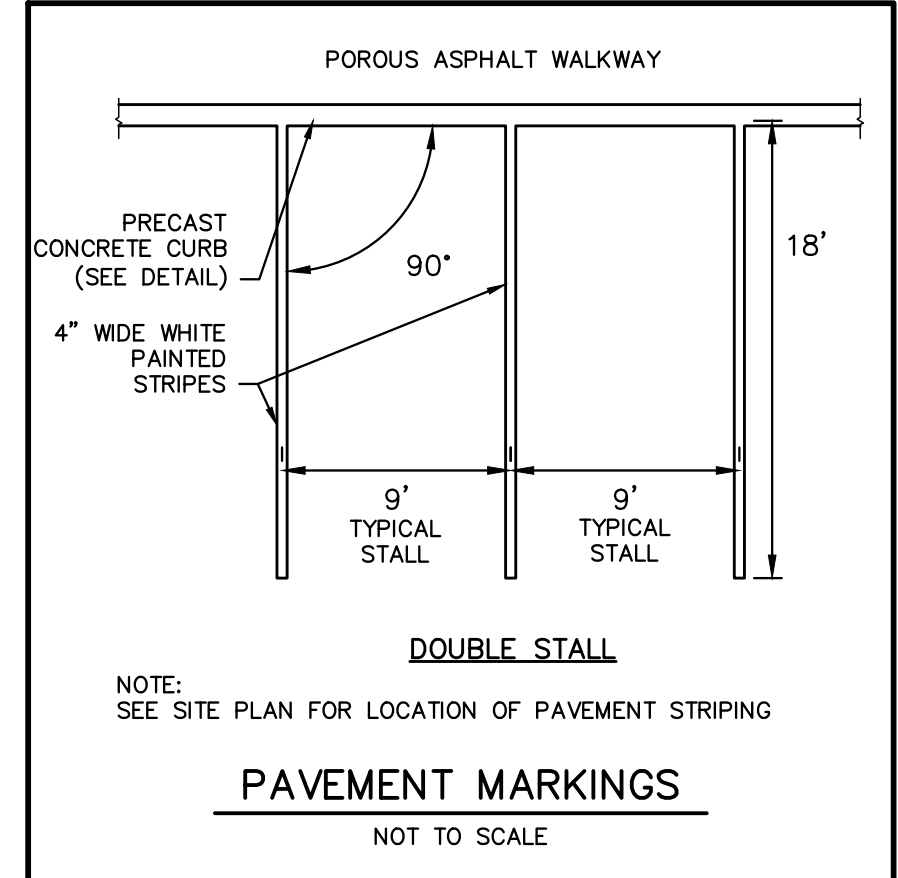
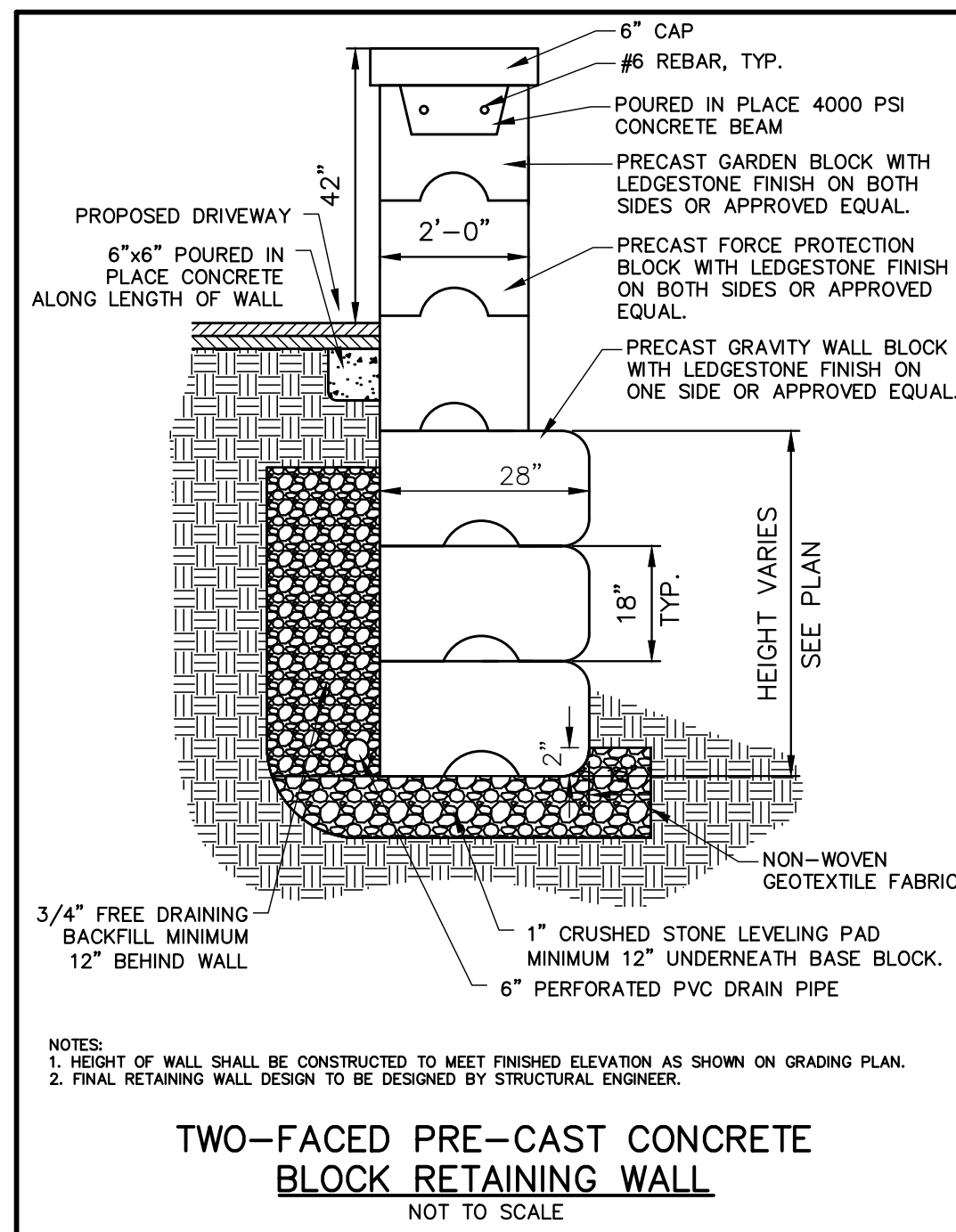
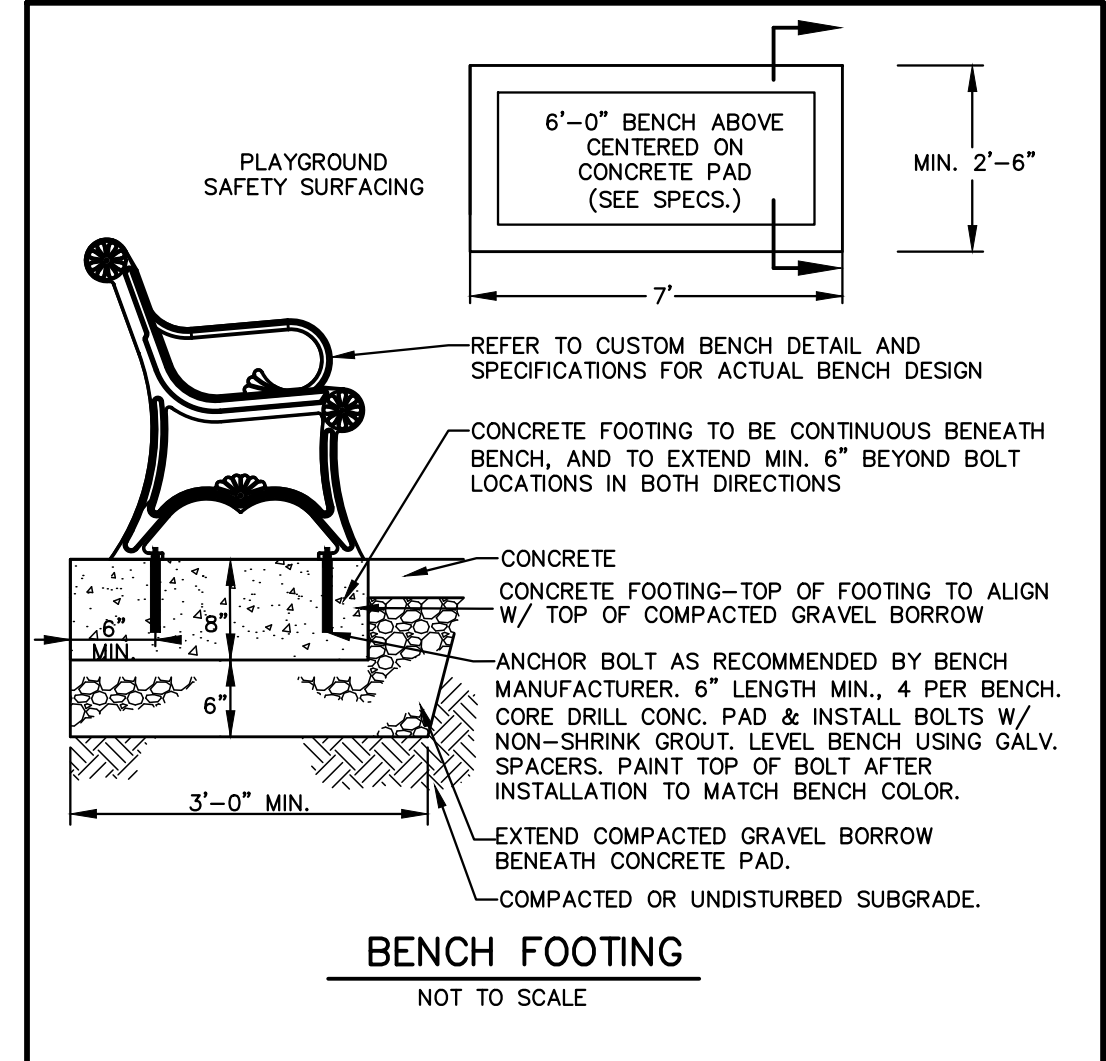
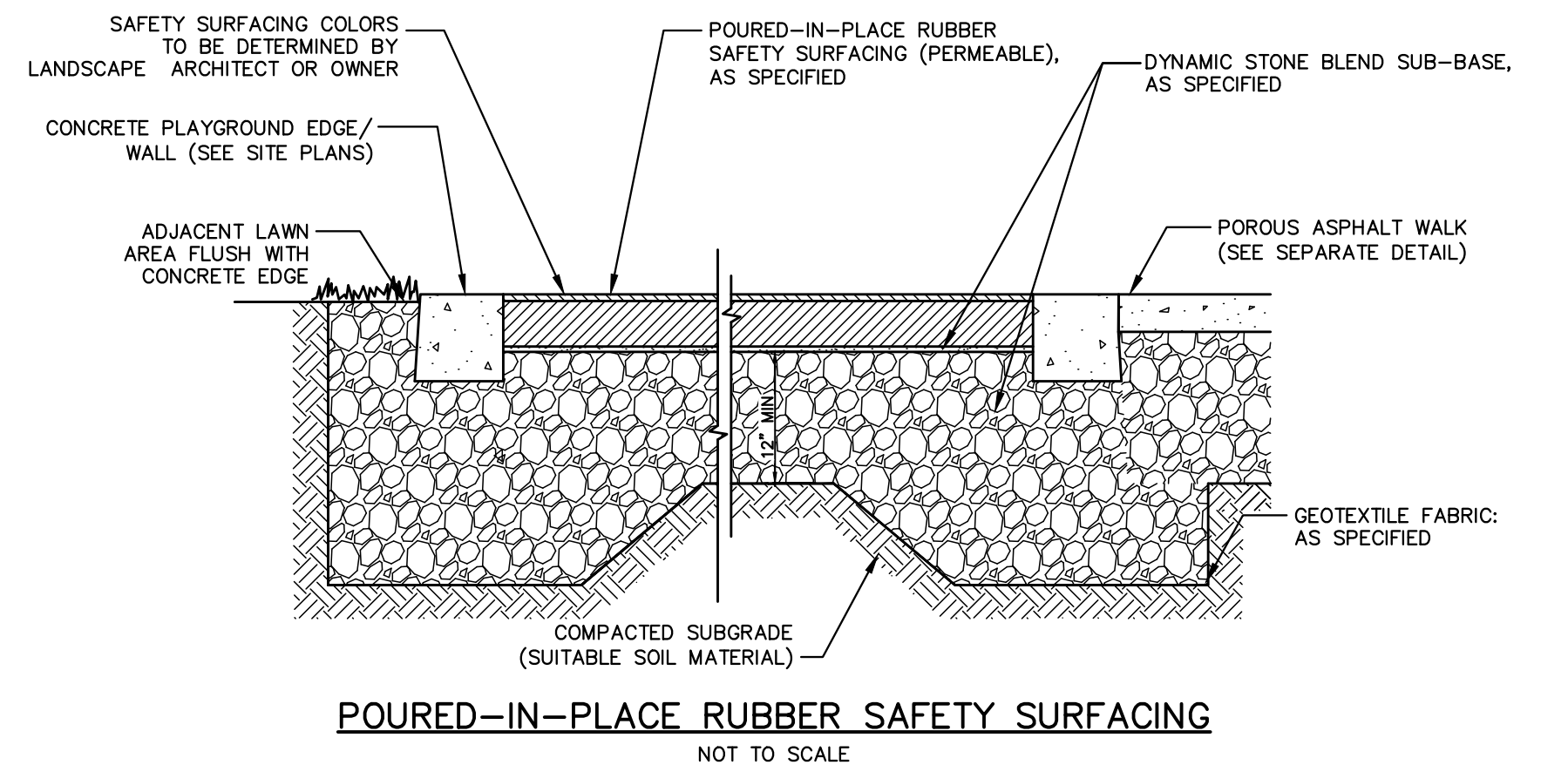
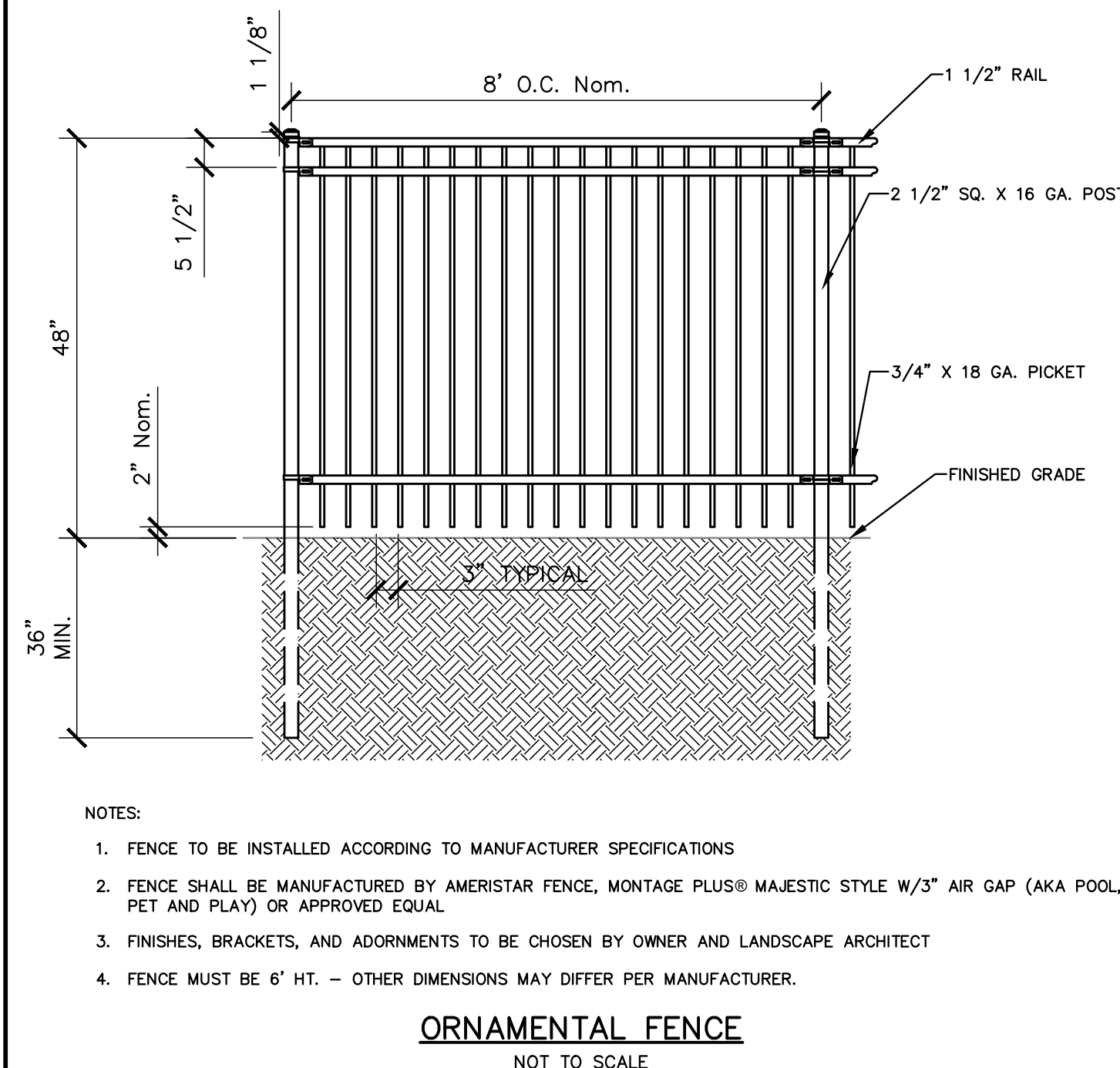
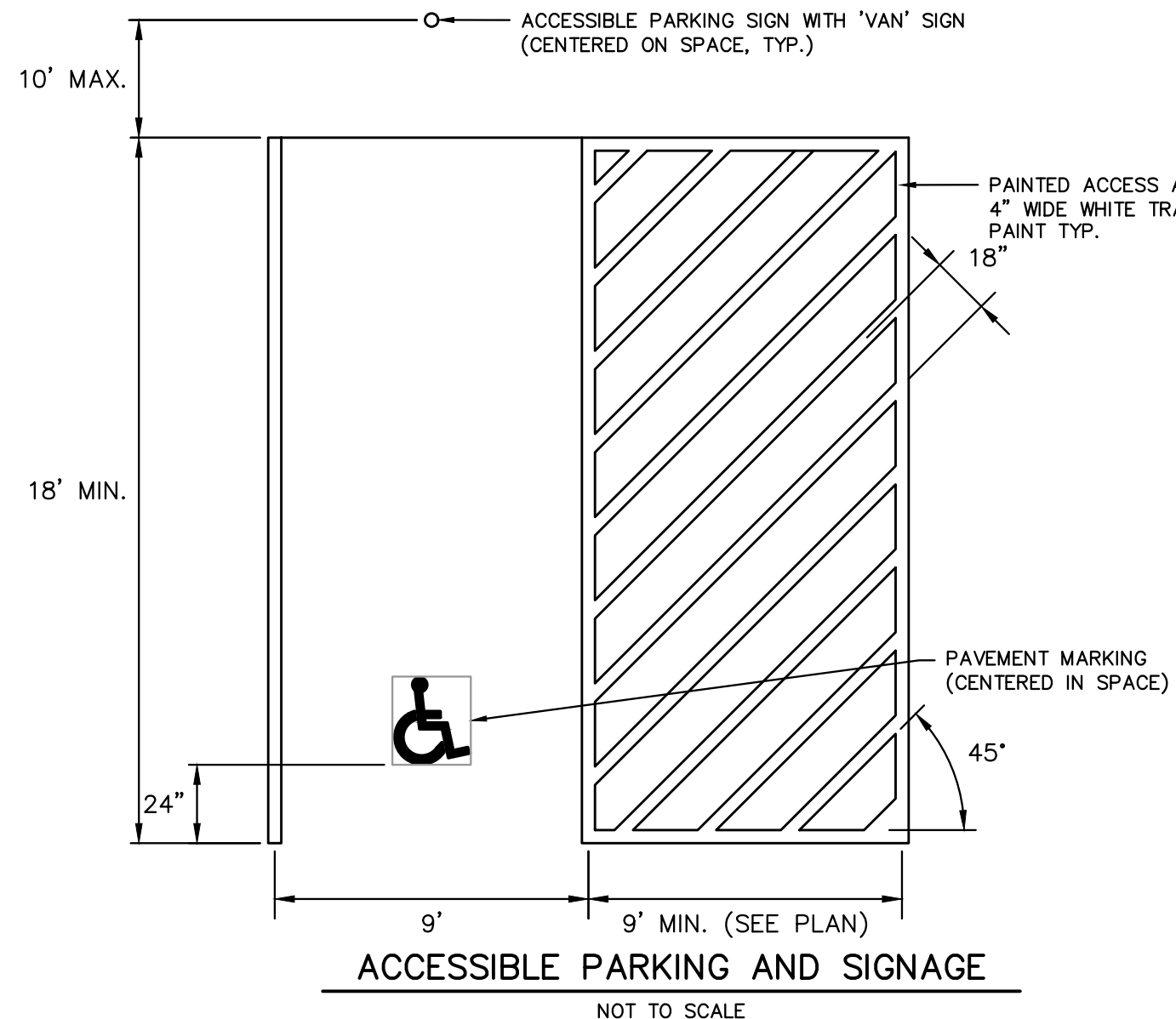
SCALE: AS NOTED DATE: JANUARY 5, 2021

SITE DETAILS #1

B+T JOB NO.3228.01
B+T PLAN NO. 322800P002B-003

C7.1

-
- Diagram illustrating the dimensions for a wheelchair symbol (International Accessible Parking Symbol) for pavement marking. The symbol is shown in black on a white background. The dimensions are as follows:
- Overall height: 27"
 - Overall width: 26"
 - Wheel diameter: 18"
 - Seat height: 5"
 - Seat width: 6"
 - Backrest height: 6"
 - Backrest width: 2"
 - Front footrest height: 8"
 - Front footrest width: 5"
- INTERNATIONAL ACCESSIBLE PARKING SYMBOL
(WHITE TRAFFIC PAINT UNLESS INDICATED OTHERWISE)



NOT ISSUED FOR
CONSTRUCTION

COPYRIGHT (C) BY BEALS AND THOMAS, INC.
ALL RIGHTS RESERVED

BEALS AND THOMAS, INC.
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

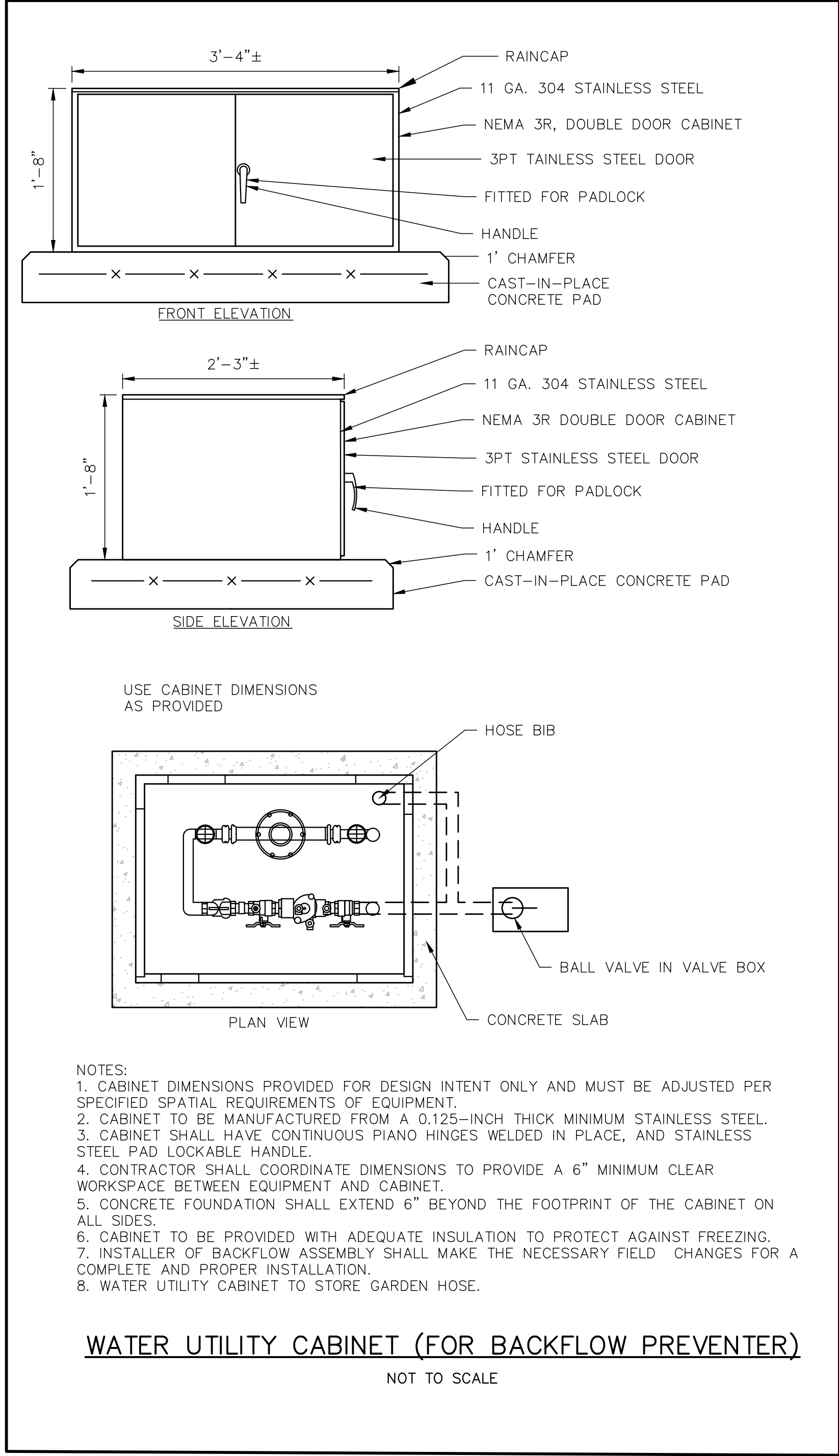
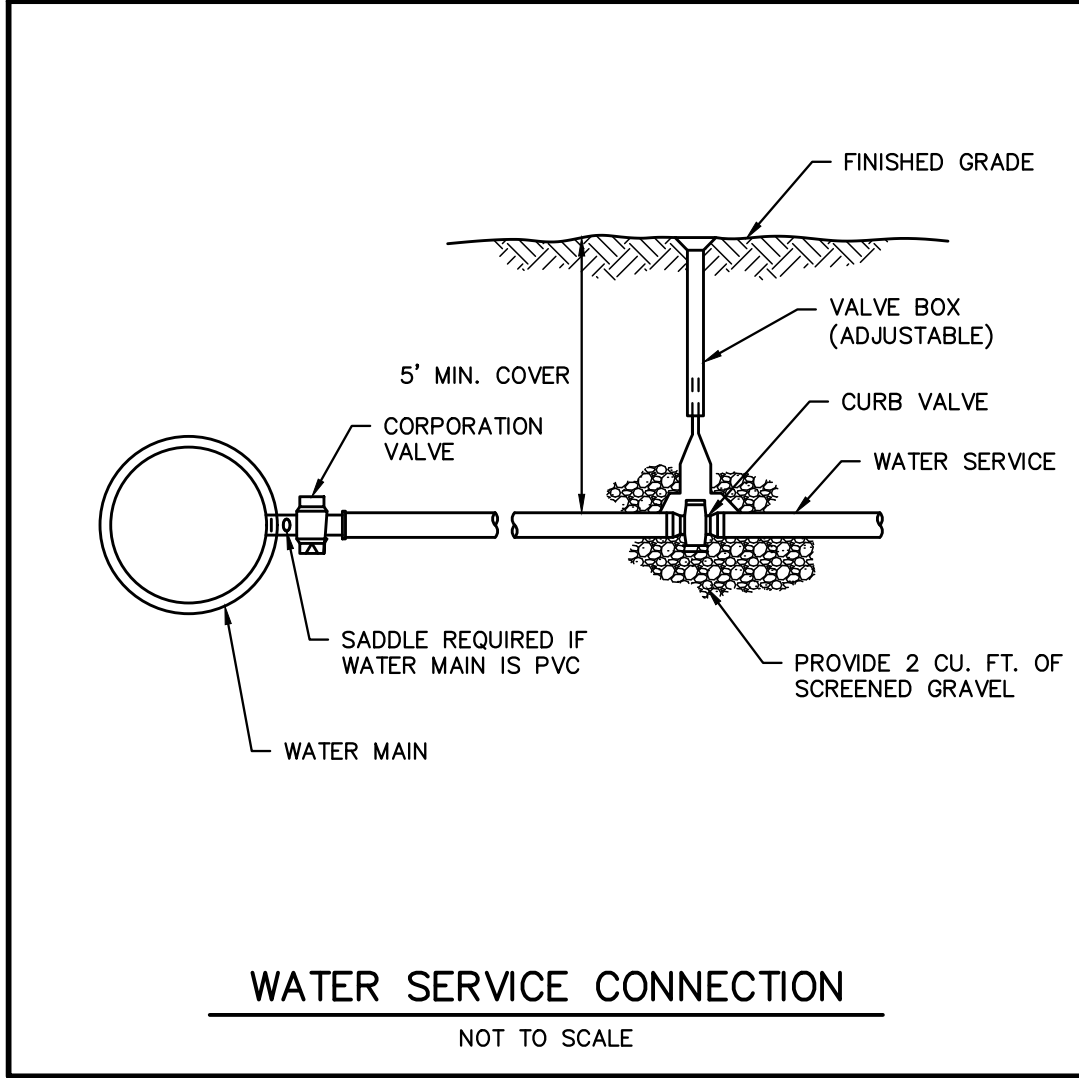
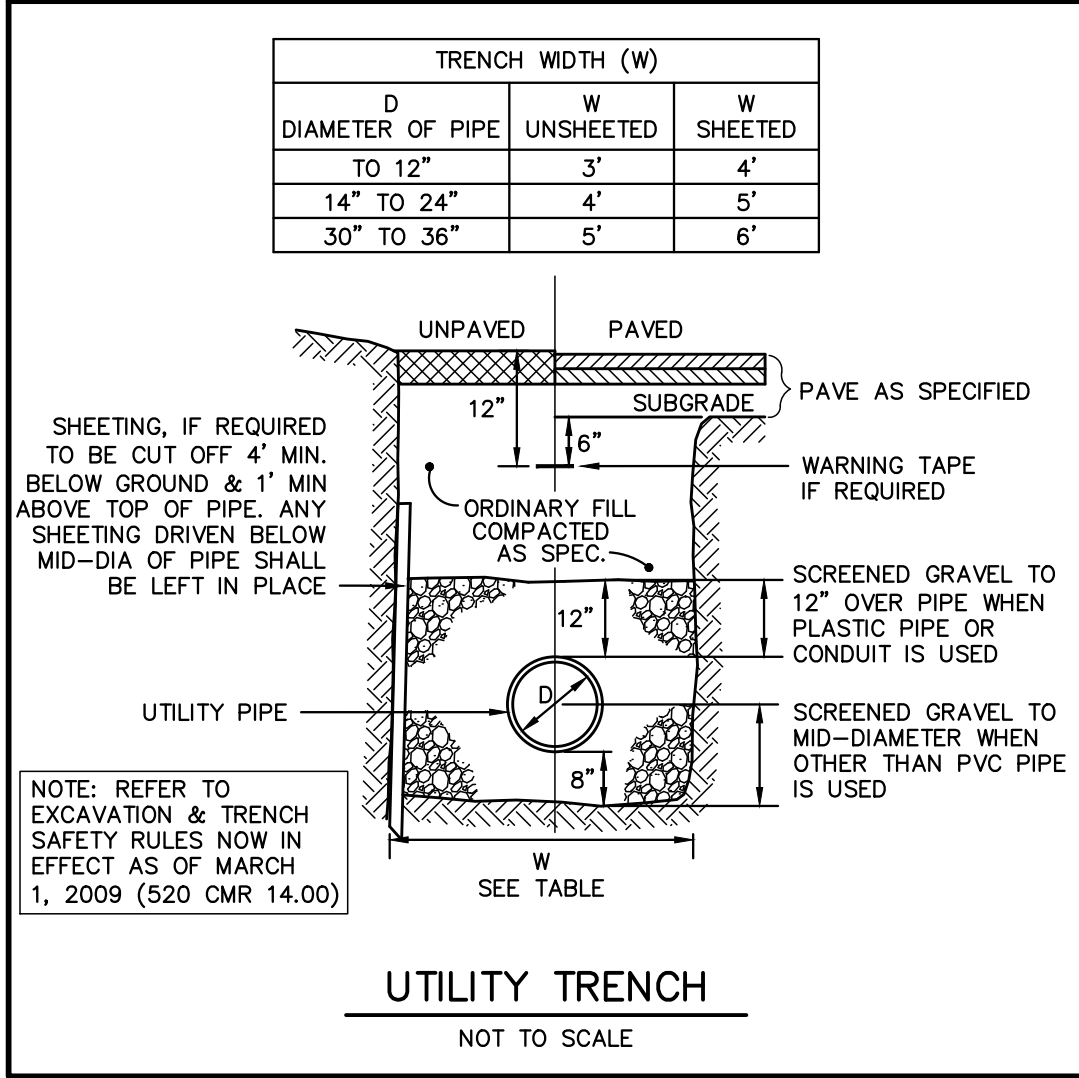
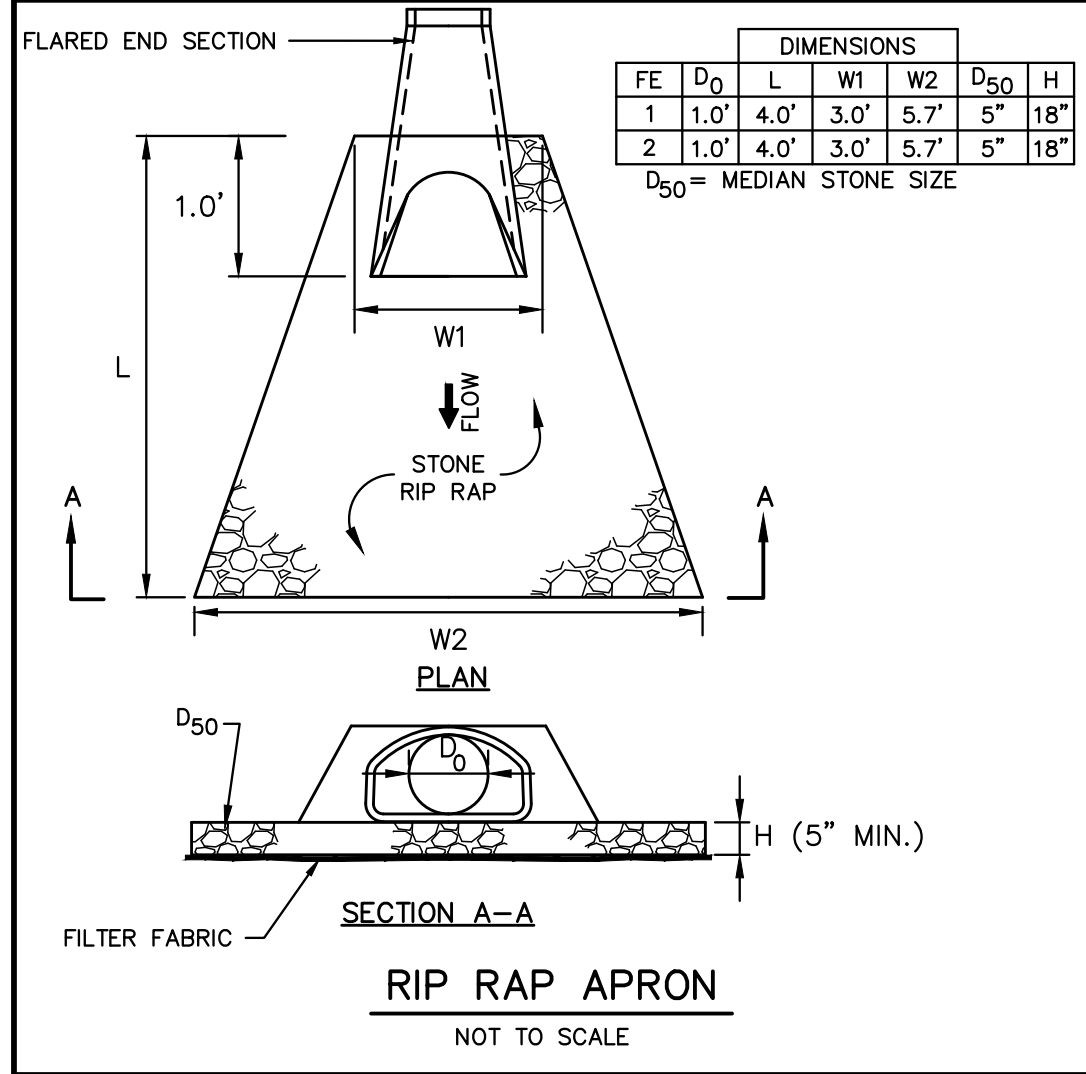
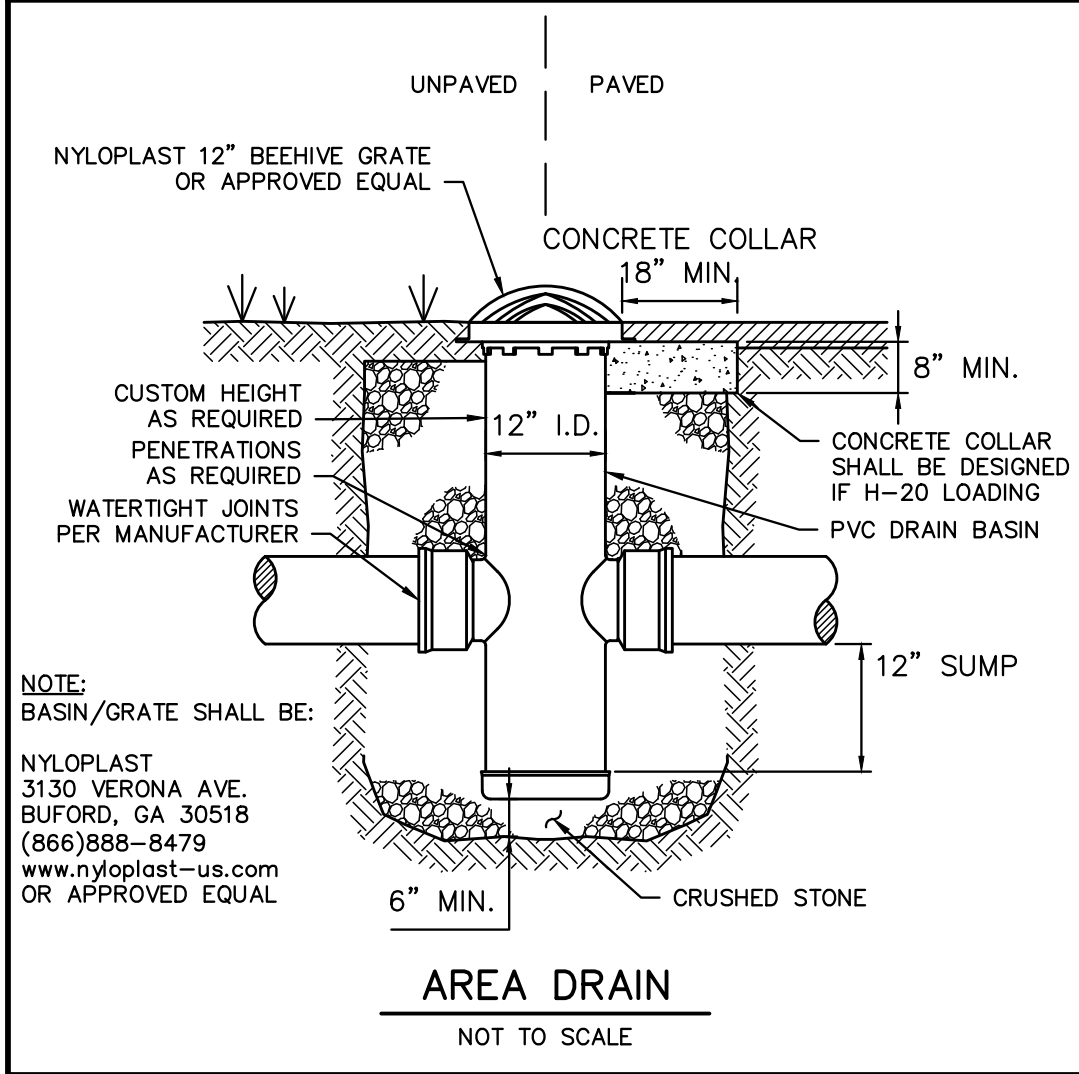
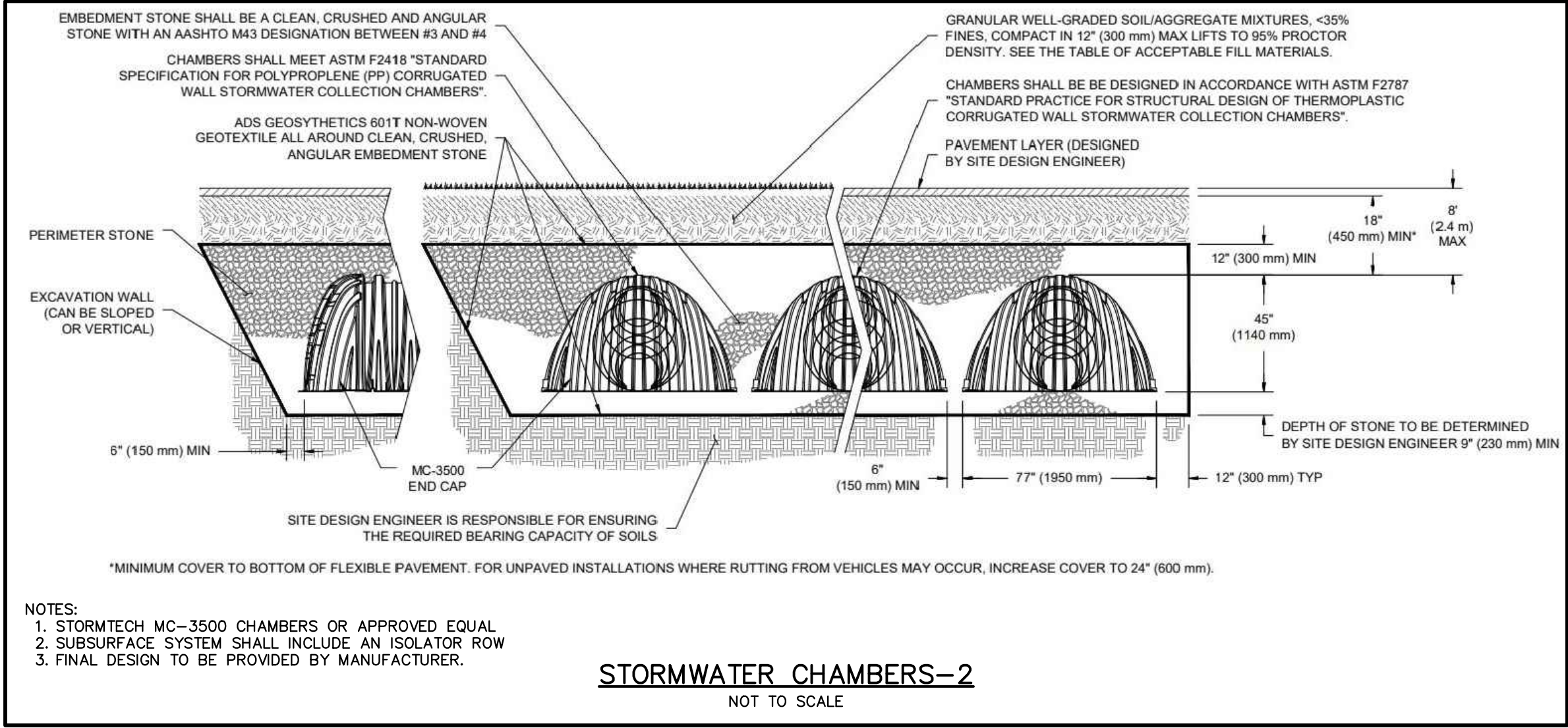
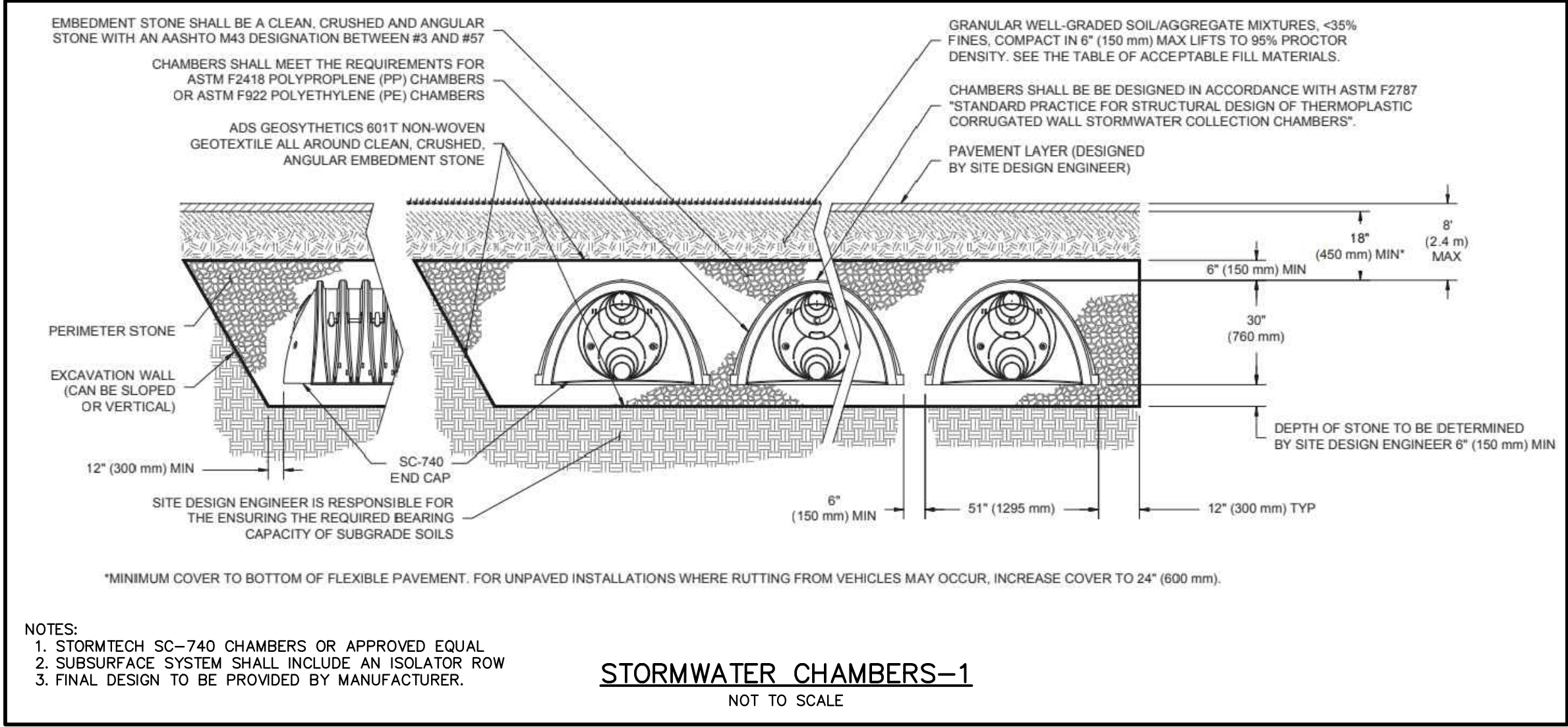
5			
4			
3			
2			
1	04/26/2022	ISSUED FOR BIDDING	
0	01/05/2022	PERMIT PLAN SET	
	ISSUE DATE	DESCRIPTION	
	NBB	NBB	DMG
	DES	DWN	CHK'D
			DMG/DJL
			APP'D

C7.2

FOR NOTES, REFERENCES AND LEGEND SEE SHEET C.1.

BEALS AND THOMAS, INC. SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION, MEANS, METHODS, TECHNIQUES, OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES; OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, TRANSMITTED IN ANY MANNER BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF BEALS AND THOMAS, INC. EXCEPT THAT ANY REGULATORY AUTHORITY MAY REPRODUCE AND TRANSMIT THIS DOCUMENT AS REQUIRED BY ANY FEDERAL, STATE, OR LOCAL GOVERNMENT BUSINESS UNDER ITS JURISDICTION. ANY MODIFICATIONS TO THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF BEALS AND THOMAS, INC. SHALL



PREPARED FOR:

CITY OF WORCESTER

DEPARTMENT OF PUBLIC WORKS AND PARKS

50 OFFICER MANNY FAMILIA WAY
WORCESTER, MASSACHUSETTS

NOT ISSUED FOR
CONSTRUCTION

COPYRIGHT (C) BY BEALS AND THOMAS, INC.
ALL RIGHTS RESERVED

PREPARED BY:

BEALS + THOMAS

BEALS AND THOMAS, INC.
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

5		
4		
3		
2		
1	04/26/2022	ISSUED FOR BIDDING
0	01/05/2022	PERMIT PLAN SET
	ISSUE DATE	DESCRIPTION
NBB	NBB	DMG
DES	DWN	CHK'D
		APP'D

PROJECT:

COAL MINE BROOK

616 PLANTATION STREET
WORCESTER, MASSACHUSETTS

SCALE: AS NOTED DATE: JANUARY 5, 2021

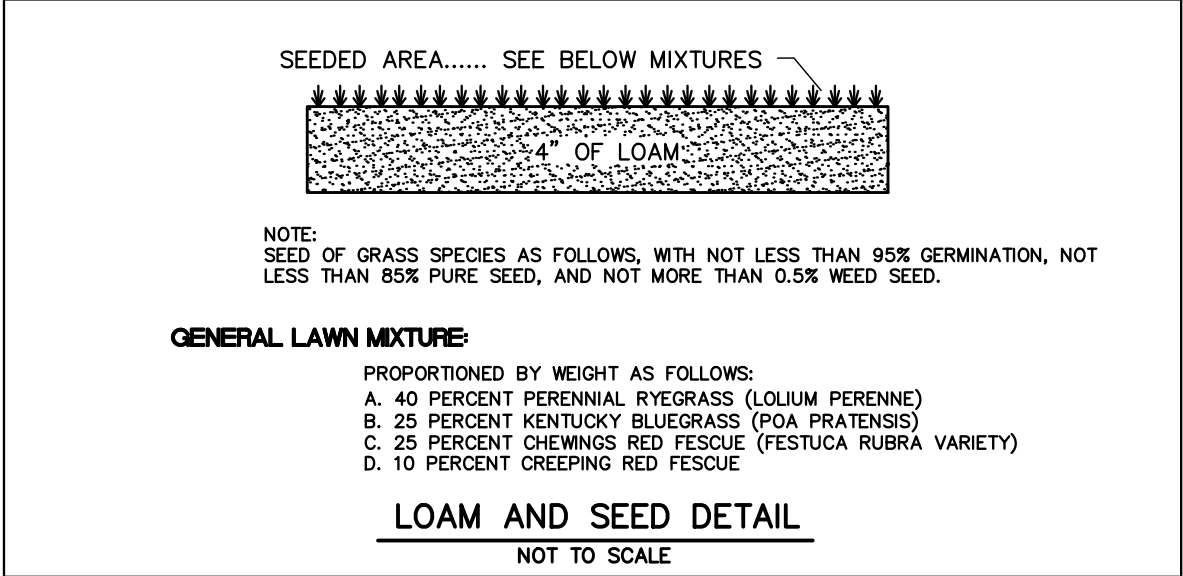
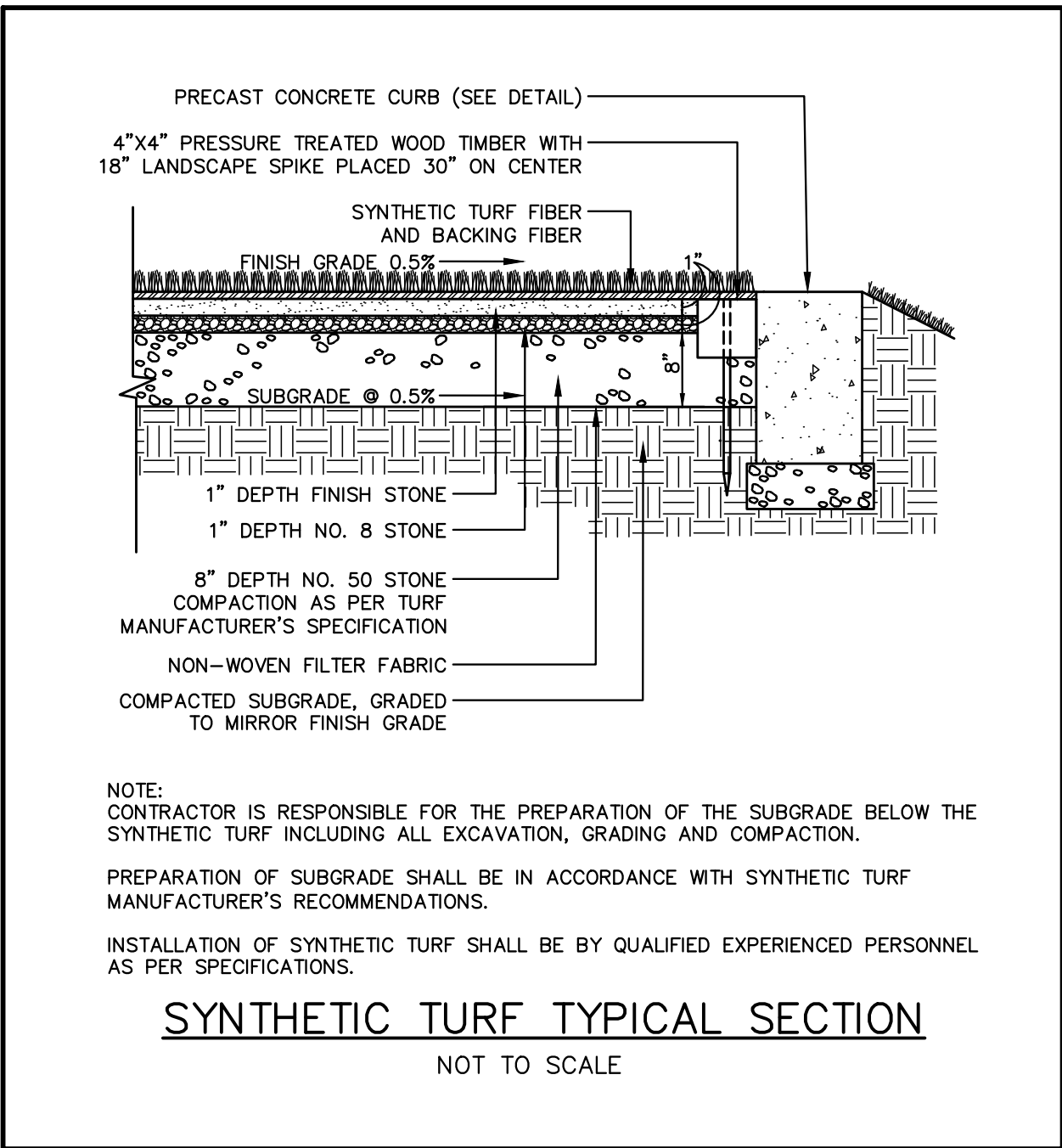
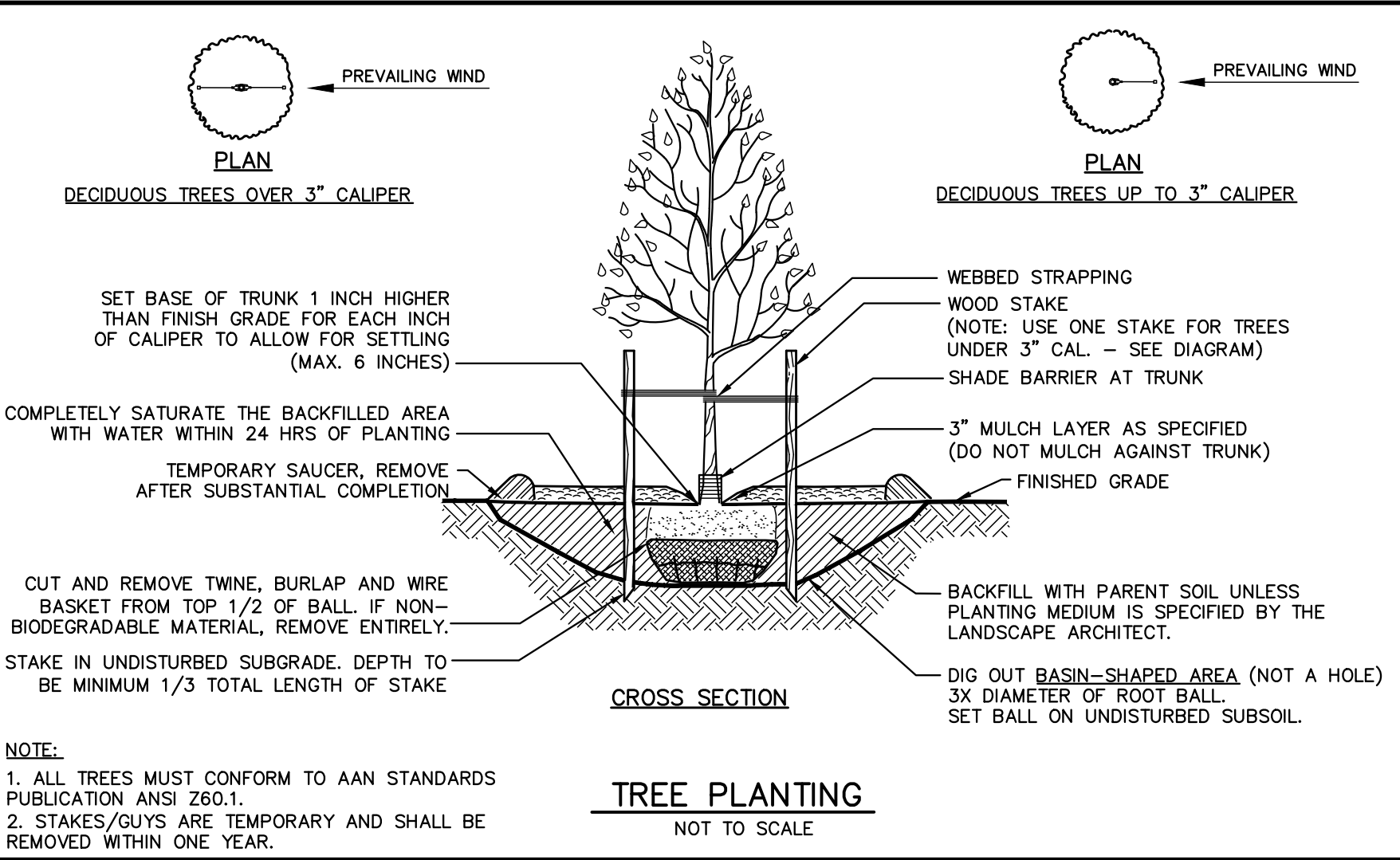
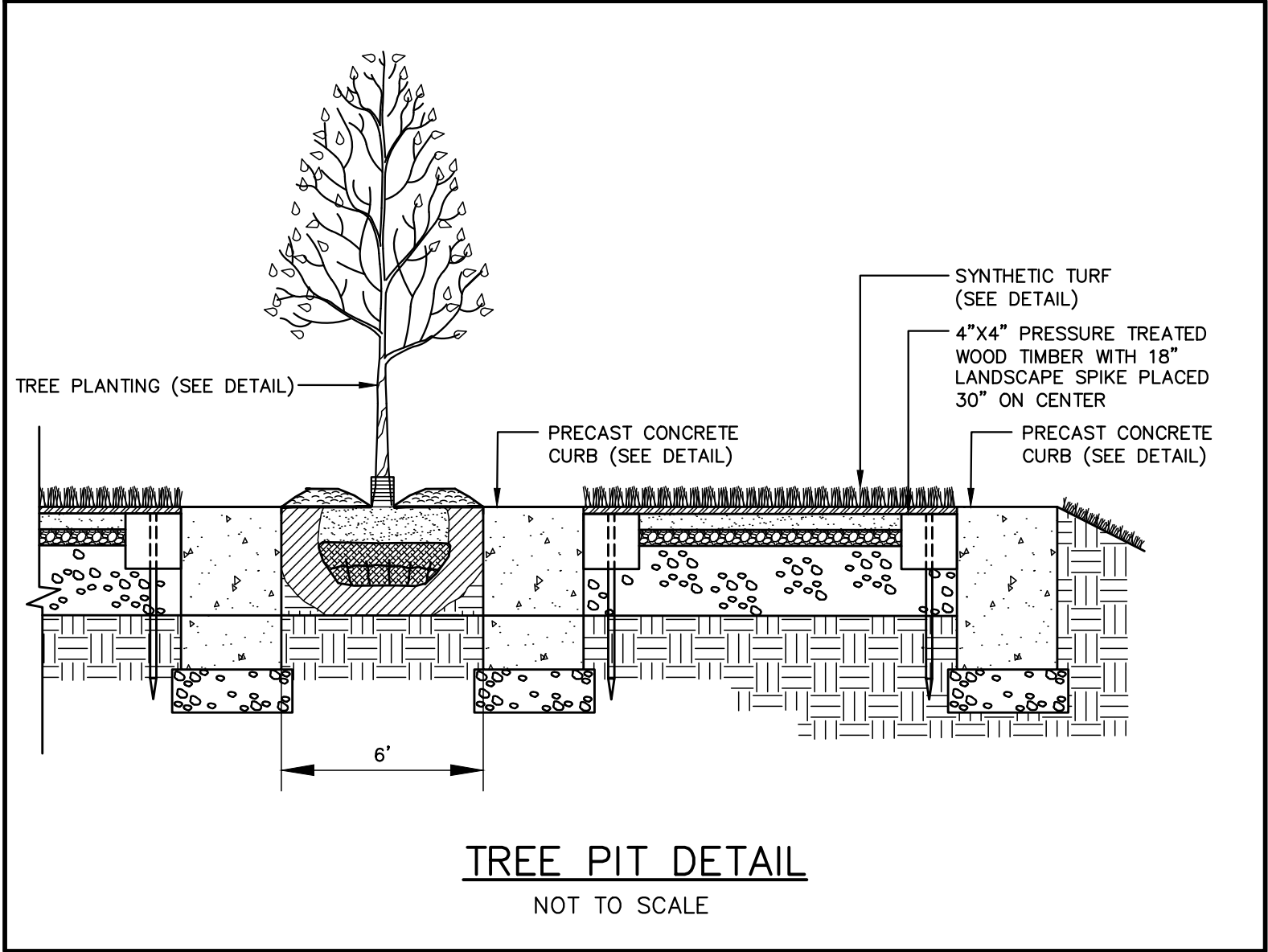
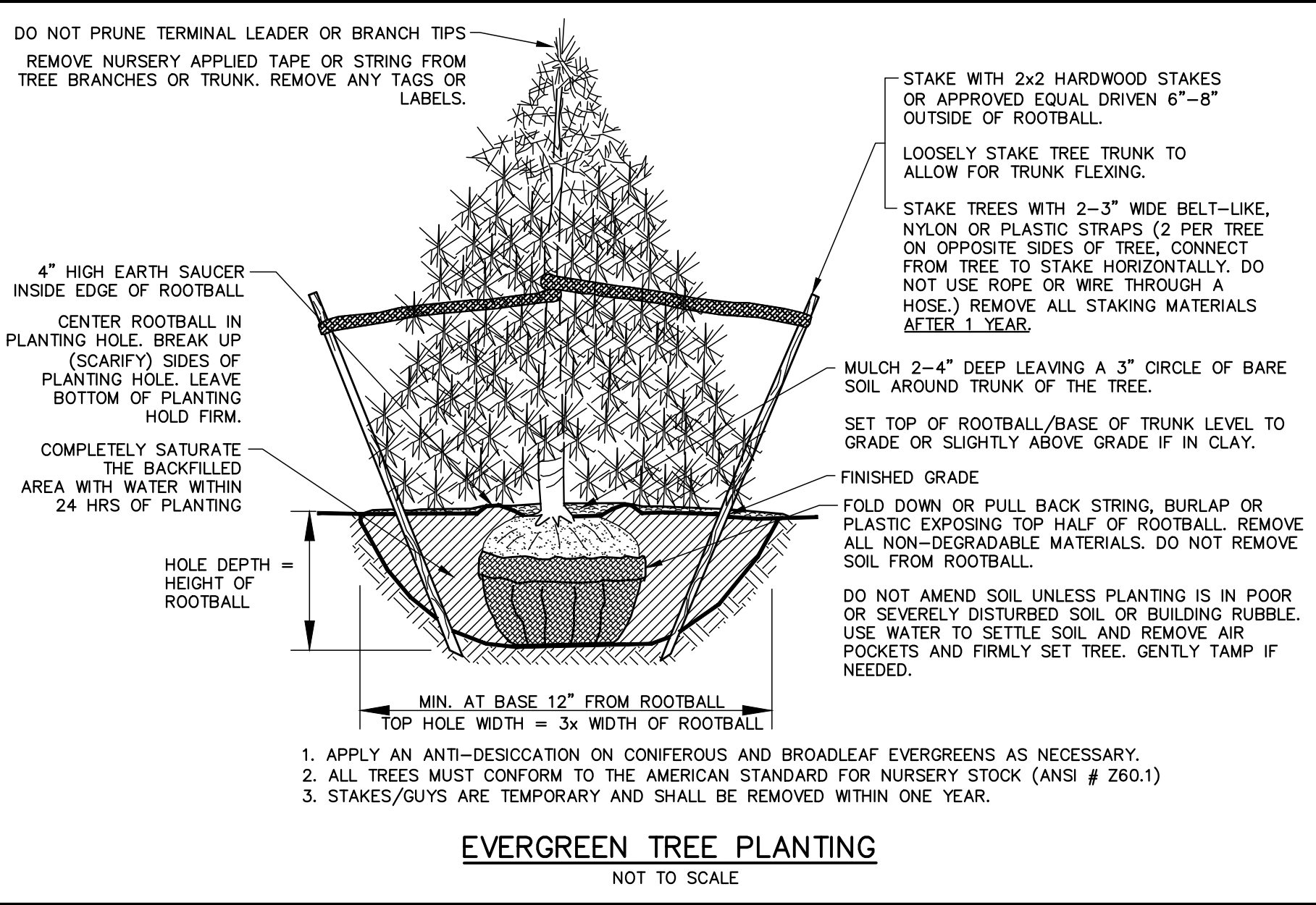
SITE DETAILS #4

B+T JOB NO.3228.01	C7.4
B+T PLAN NO. 322800P002B-006	

FOR NOTES, REFERENCES AND LEGEND SEE SHEET C1.1.

BEALS AND THOMAS, INC. SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES, OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF BEALS AND THOMAS, INC. EXCEPT THAT ANY REGULATORY AUTHORITY MAY REPRODUCE AND TRANSMIT COPIES AS REQUIRED IN CONJUNCTION WITH PERFORMANCE OF OFFICIAL BUSINESS UNDER ITS JURISDICTION. ANY MODIFICATIONS TO THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF BEALS AND THOMAS, INC. SHALL RENDER IT INVALID AND UNUSABLE.



FOR NOTES, REFERENCES AND LEGEND SEE SHEET C1.1.

BEALS AND THOMAS, INC. SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, OR
PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES, OR FOR
THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM
OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN
PERMISSION OF BEALS AND THOMAS, INC. EXCEPT THAT ANY REGULATORY AUTHORITY MAY REPRODUCE AND TRANSMIT
COPIES AS REQUIRED IN CONJUNCTION WITH PERFORMANCE OF OFFICIAL BUSINESS UNDER ITS JURISDICTION. ANY
MODIFICATIONS TO THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF BEALS AND THOMAS, INC. SHALL RENDER IT
INVALID AND UNUSABLE.

PREPARED FOR:

**CITY OF
WORCESTER**
DEPARTMENT OF PUBLIC WORKS
AND PARKS

50 OFFICER MANNY FAMILIA WAY
WORCESTER, MASSACHUSETTS

**NOT ISSUED FOR
CONSTRUCTION**

COPYRIGHT (C) BY BEALS AND THOMAS, INC.
ALL RIGHTS RESERVED

PREPARED BY:

BEALS + THOMAS

BEALS AND THOMAS, INC.
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

5		
4		
3		
2		
1	04/26/2022	ISSUED FOR BIDDING
0	01/05/2022	PERMIT PLAN SET
ISSUE DATE		DESCRIPTION
NBB	NBB	DMG
DES	DWN	CHK'D
		APP'D

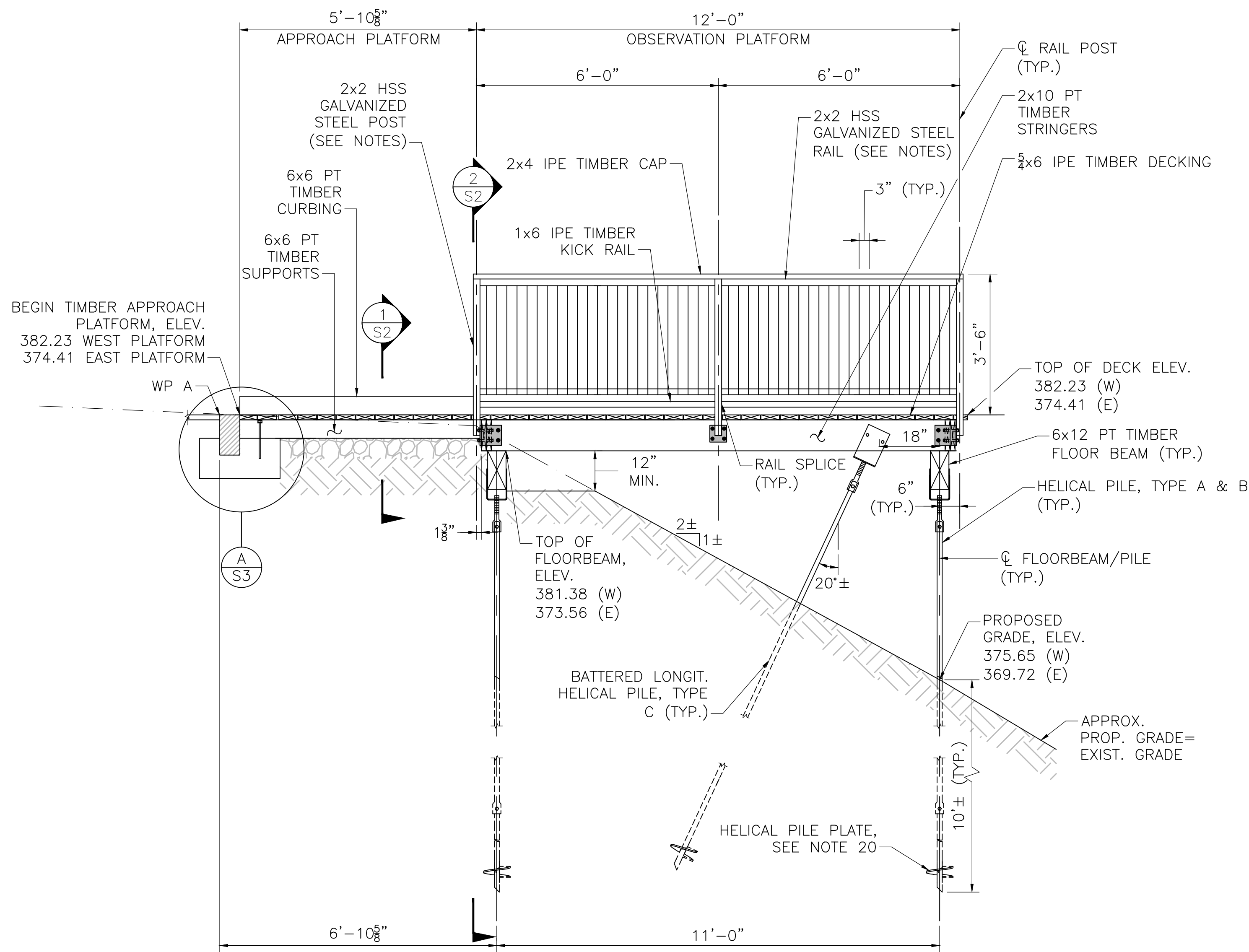
PROJECT:

**COAL MINE
BROOK**
616 PLANTATION STREET
WORCESTER, MASSACHUSETTS

SCALE: AS NOTED DATE: JANUARY 5, 2021

SITE DETAILS #5

B+T JOB NO.3228.01	C7.5
B+T PLAN NO. 322800P002B--007	



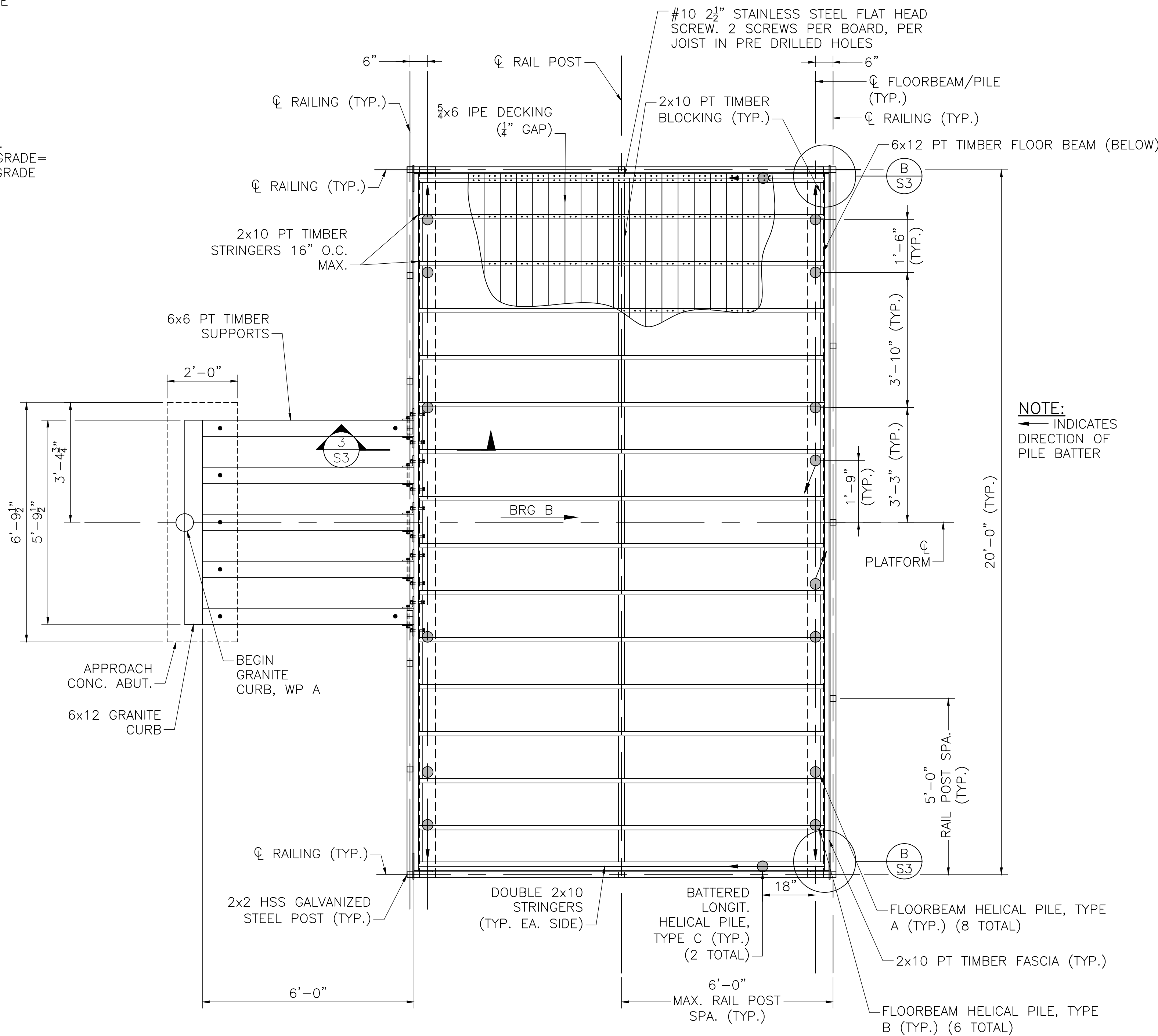
TYPICAL ELEVATION
SCALE: 1/2" = 1'-0"

	WEST PLATFORM		EAST PLATFORM	
	NORTH	EAST	NORTH	EAST
WP A	2931099.54	585819.24	2931051.93	585971.47
BRG B	N9°57'44"E		N20°28'28"E	

MINIMUM WORKING LOAD PER HELICAL PILE (KIPS)		
PILE LOCATION & TYPE	COMPRESSION	TENSION
TYPE A – FLOORBEAM VERTICAL	12 KIPS	–
TYPE B – PIER TRANSVERSE BATTERED	–	1 KIP
TYPE C – PIER LONGITUDINAL BATTERED	–	2 KIPS

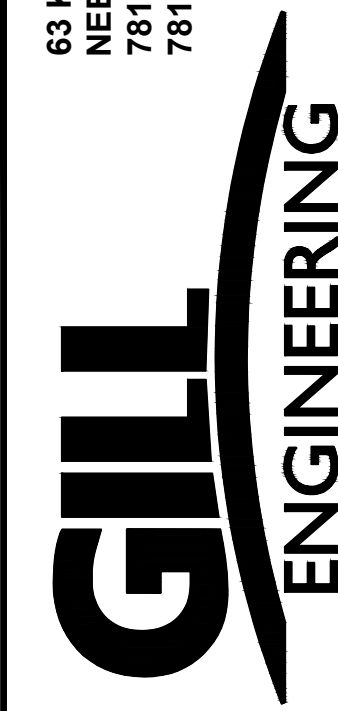
GENERAL AND MATERIAL NOTES:

- DESIGN IN ACCORDANCE WITH ASCE 7-15, MASSACHUSETTS STATE BUILDING CODE 8th EDITION, NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION, 2018.
- DESIGN LIVE LOAD = 100 PSF, SNOW LOAD = 55PSF
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH LATEST EDITION OF NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION.
- ALL BOLTS BELOW DECKING INCLUDING ANCHOR BOLTS SHALL BE 5/8"Ø A307 GALV. U.O.N.
- ALL DECKING, RAIL CAPS, KICK RAILS TO BE IPE TIMBER.
- ALL RAILS, POSTS, TO BE 2x2x1/4" HSS GALVANIZED STEEL CONFORMING TO ASTM A500.
- RAIL CABLE PICKETS AND HARDWARE SHALL BE STAINLESS STEEL.
- ALL SCREWS, WHERE INDICATED ARE #10 2 1/2" STAINLESS STEEL, 16" SPACING, 2 PER CONNECTED MEMBER, MINIMUM, U.O.N.
- CONNECT JOISTS TO FLOOR BEAMS WITH SIMPSON-TIE LTS12 TWIST STRAPS OR EQUIVALENT. TOE NAIL BLOCKING AND JOIST AT ABUTMENT WITH 4 GALV. 12D NAILS PER STRINGER.
- ALL STRUCTURAL MEMBERS TO BE PRESSURE-TREATED SOUTHERN YELLOW PINE SELECT STRUCTURAL OR BETTER.
- ALL BOARDWALK WOOD DIMENSIONS ARE NOMINAL.
- ALL DOUBLE JOISTS SHALL BE FULLY GLUED AND NAILED W/ 3 8d NAILS @ 12" PITCH ALTERNATE SIDES.
- HELICAL ANCHOR BEAM CONNECTION FOR VERTICAL, BRACING, AND INCLINED ANCHORS SHALL BE A CONCENTRICALLY LOADED SADDLE TYPE BRACKET, HAVING COMPRESSION AND/OR TENSION CAPACITIES AS INDICATED IN TABLE. BRACKET SHALL BE CONNECTED TO TIMBER BEAM WITH 2 - 3/4"Ø BOLTS. BOLTS SHALL HAVE A MINIMUM EDGE DISTANCE OF 3" TO EDGE OF BEAM AND A MINIMUM SPACING OF 5".
- PROVIDE INSTALLATION PROCEDURE FOR DETERMINING REQUIRED HELICAL ANCHOR CAPACITIES ALONG WITH SHOP DRAWINGS OF THE HELICAL ANCHORS TO ENGINEER FOR APPROVAL.
- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF $f_c' = 4000$ PSI AND SHALL BE AIR-ENTRAINED. MIX DESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM 615-81, PROVIDE 2" CLEAR COVER FROM FACE OF CONCRETE UNLESS NOTED OTHERWISE ON PLANS.
- POST INSTALLED ANCHOR BOLTS SHALL BE SET IN NON-SHRINK GROUT OR EPOXY RESIN.
- SHOP DRAWINGS FOR RAILINGS SHALL BE PREPARED BASED ON FIELD MEASURED DIMENSIONS OF THE AS-BUILT BOARDWALK, AND SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
- ALL MISCELLANEOUS HARDWARE, INCLUDING PLATES AND CONNECTIONS ANGLES, SHALL CONFORM TO ASTM A36 AND SHALL BE GALVANIZED.
- HELICAL PILE PLATE DIAMETERS AND EMBEDMENT DEPTHS SHALL BE DETERMINED BY THE CONTRACTOR. ALL ESTIMATES ARE FOR DESIGN PURPOSES.



BOARDWALK TYPICAL FRAMING PLAN
SCALE: 1/2" = 1'-0"

63 KENDRICK STREET
NEEDHAM, MA 02494
781-355-7100
781-355-7101 (FAX)



DATE 3/31/22

DRW BY LCS

CALC BY LCS

APPRV BY KTN

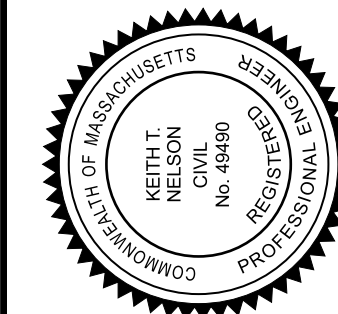
ISSUE FOR CONSTRUCTION

DESCRIPTION

DATE

REGISTERED PROFESSIONAL ENGINEER

DATE



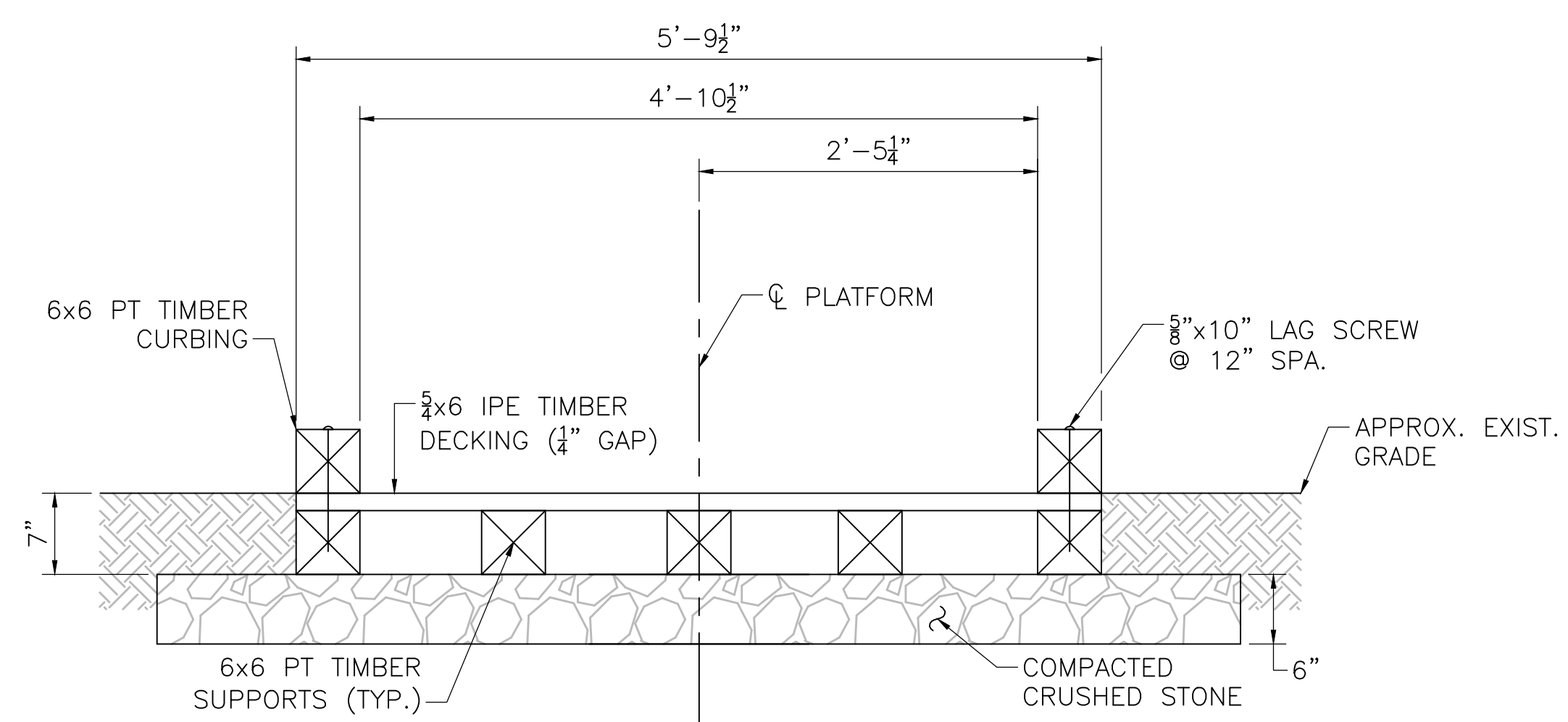
COAL MINE BROOK

BEALS AND THOMAS

OBSERVATION PLATFORMS FOR COAL MINE BROOK
WORCESTER, MA

PLAN &
ELEVATION

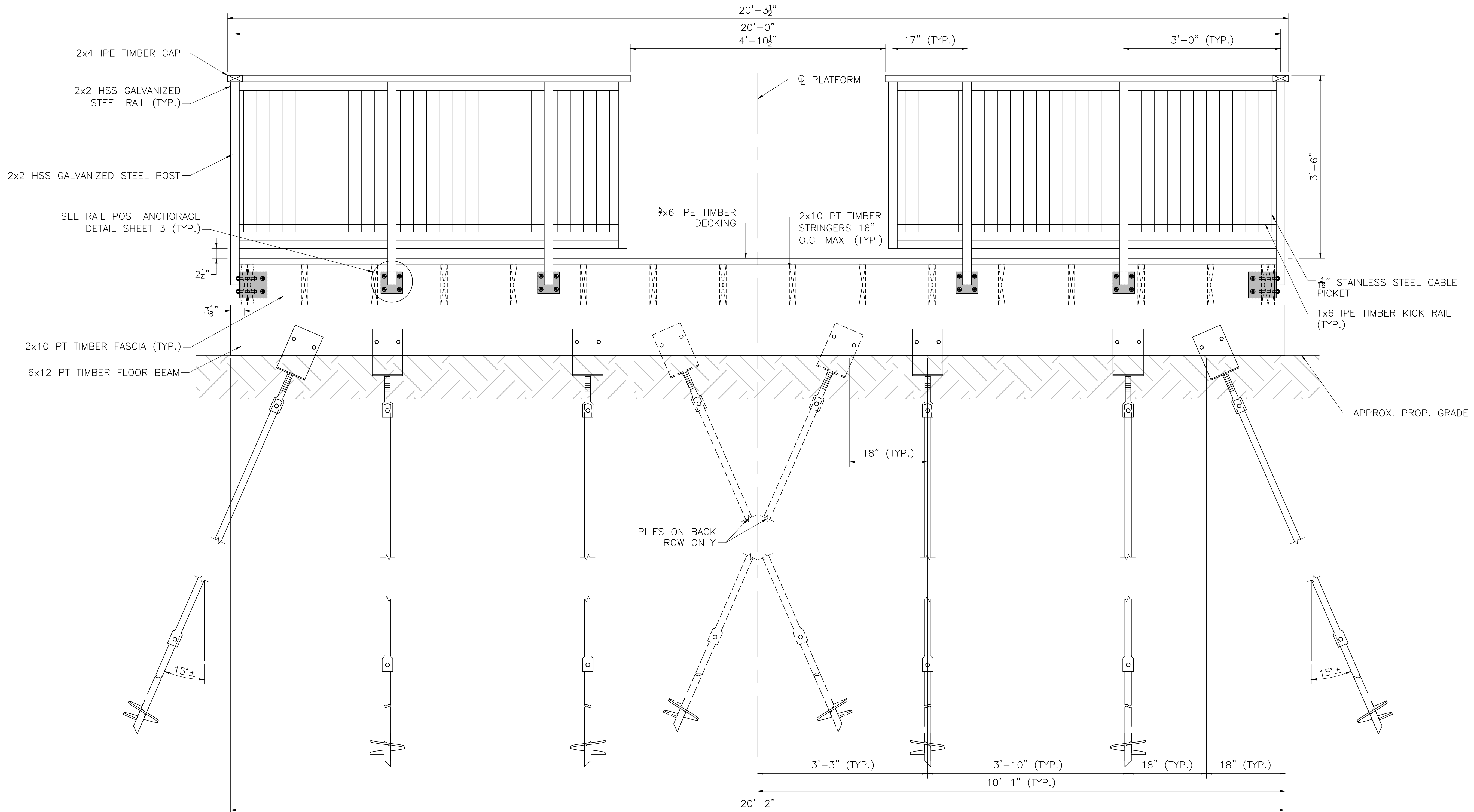
SHEET 1 OF 3



APPROACH SECTION

SCALE: 1" = 1'-0"

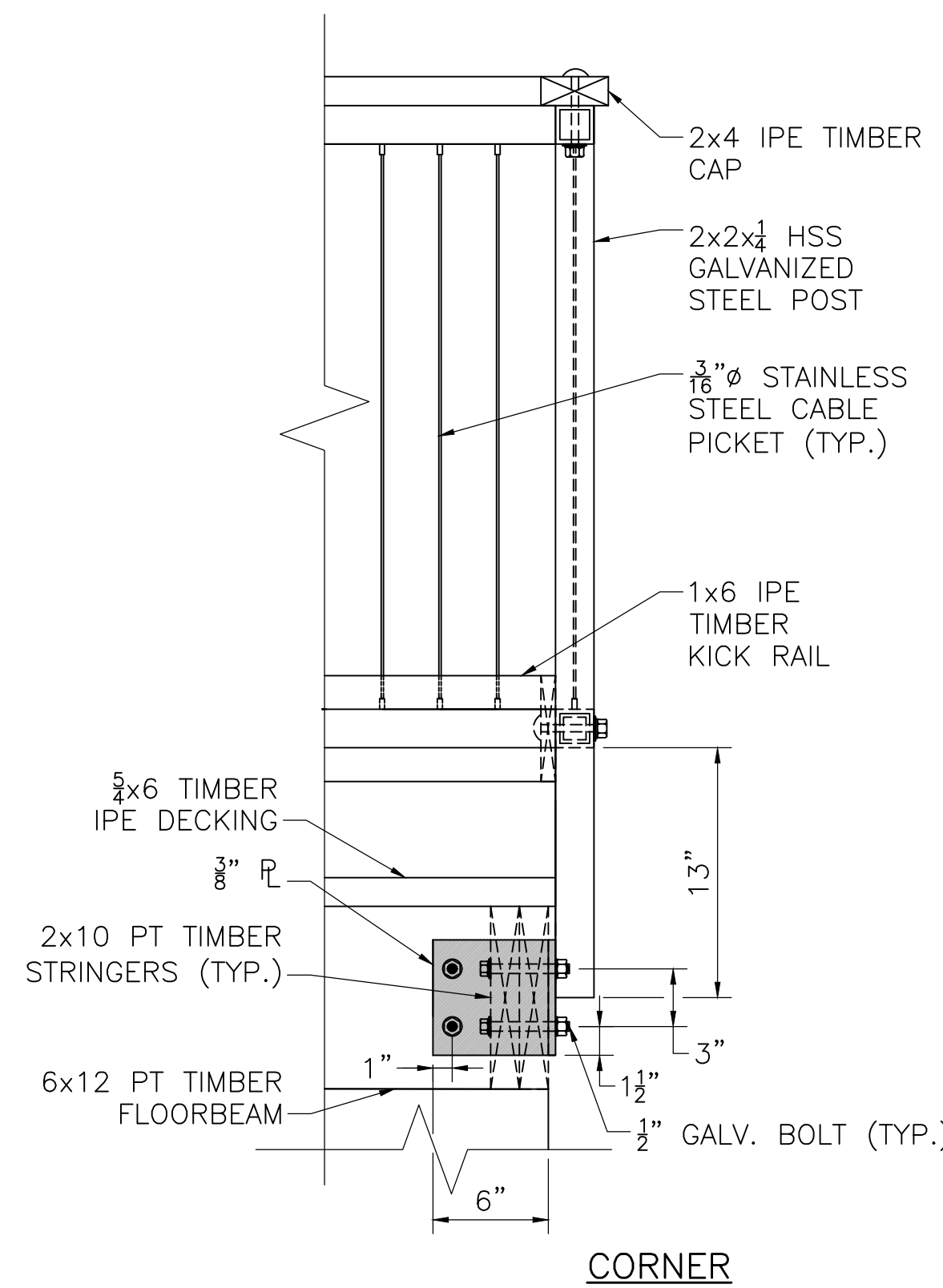
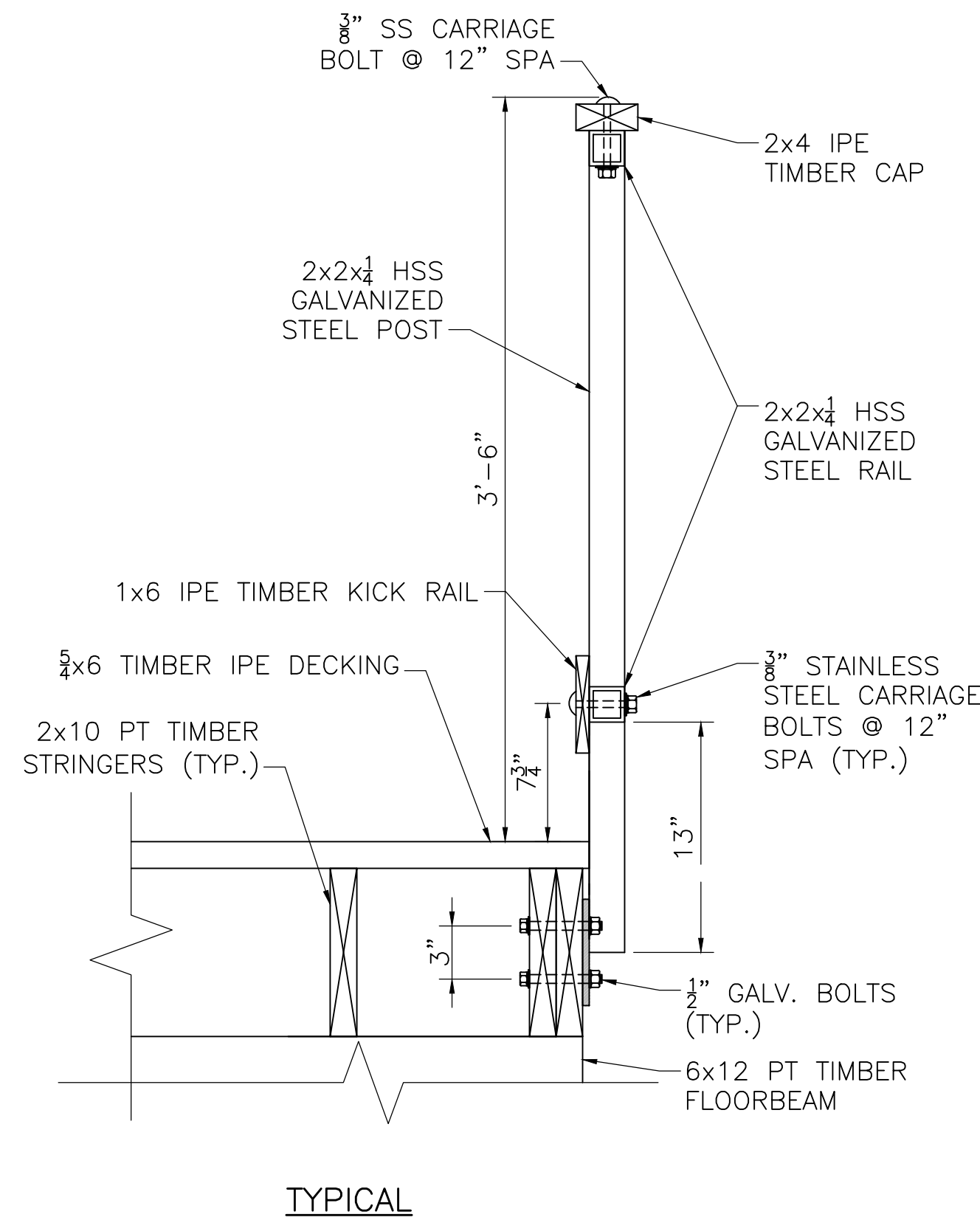
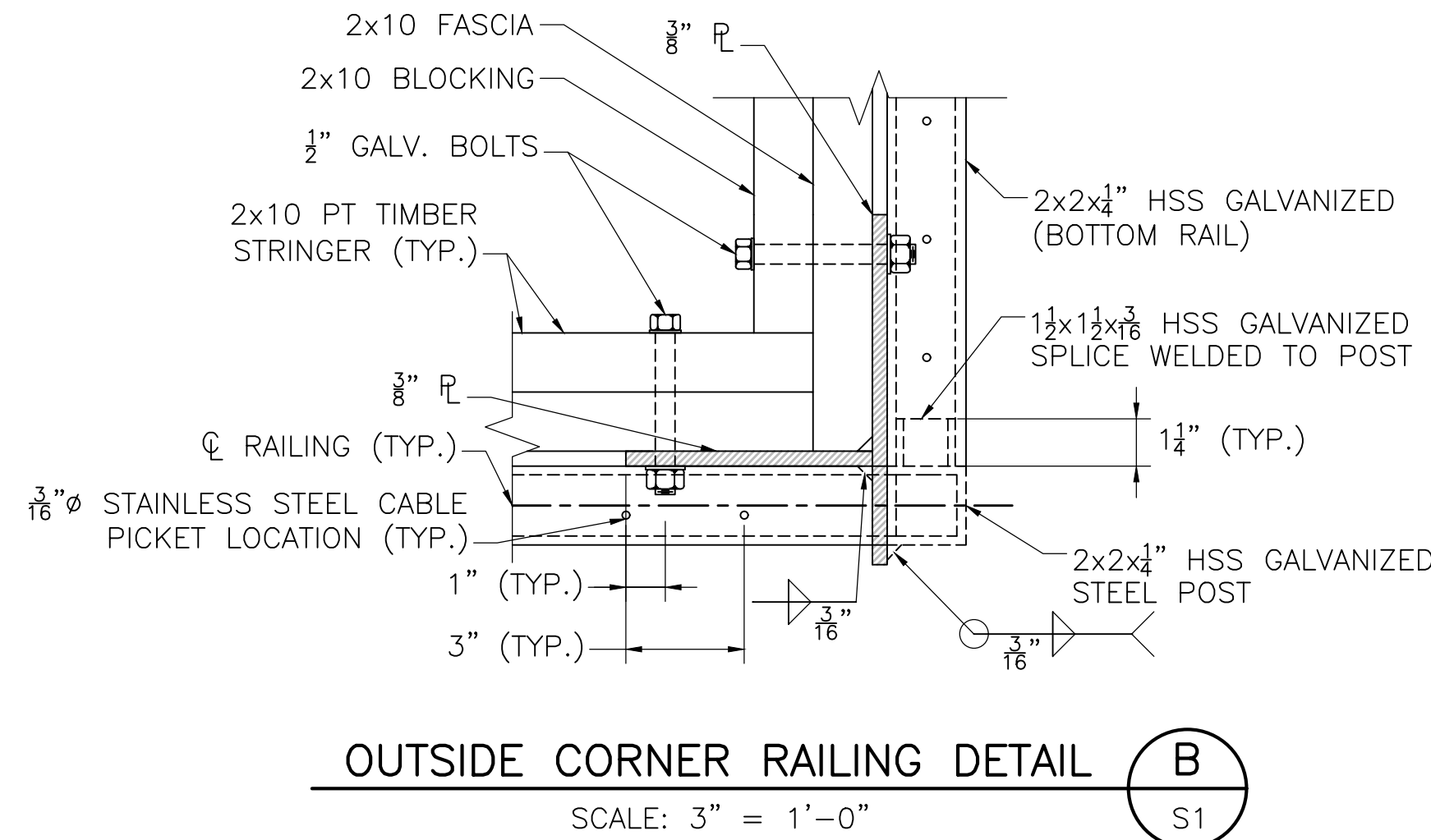
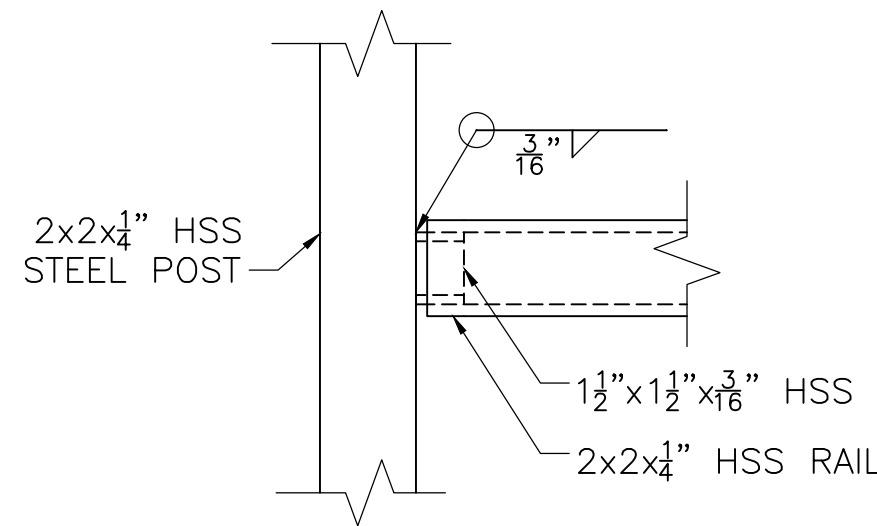
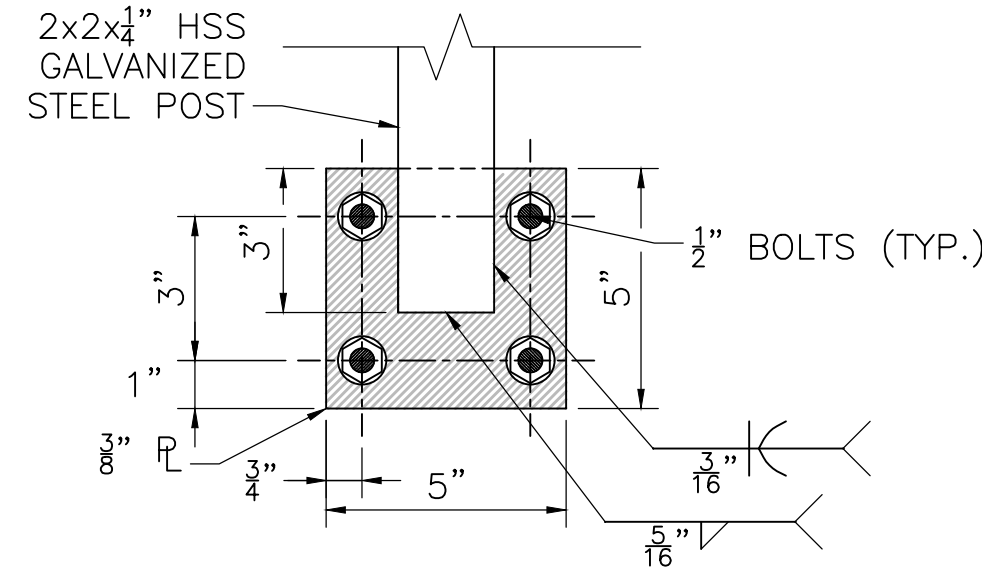
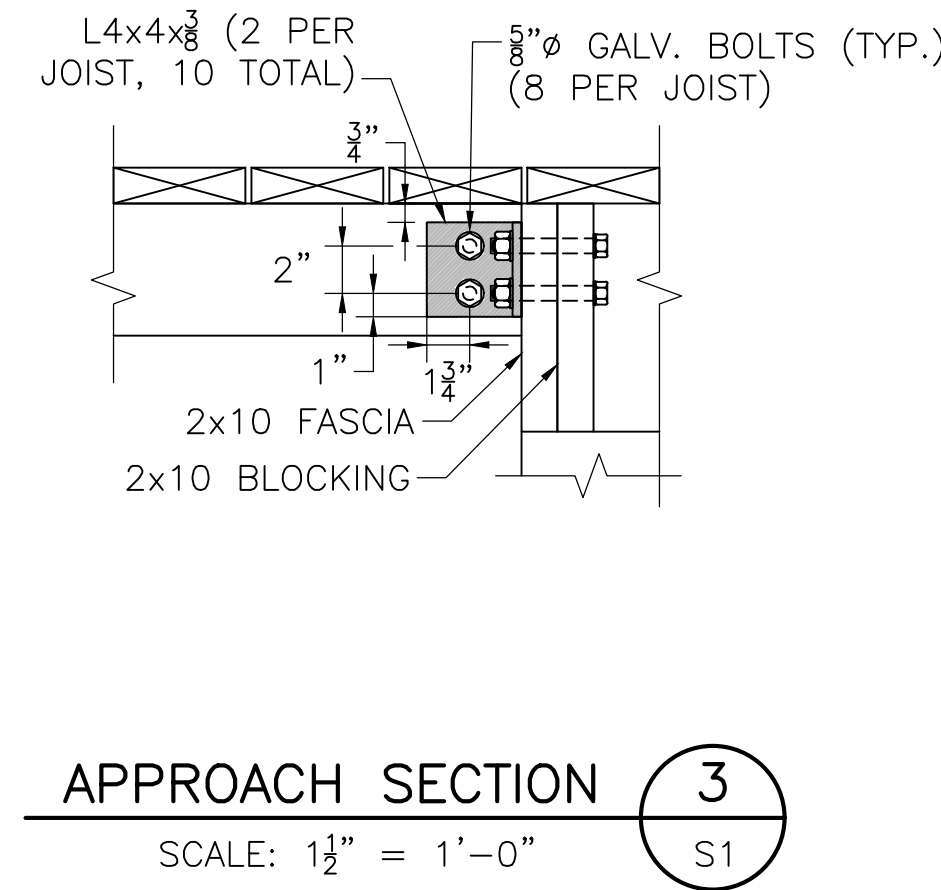
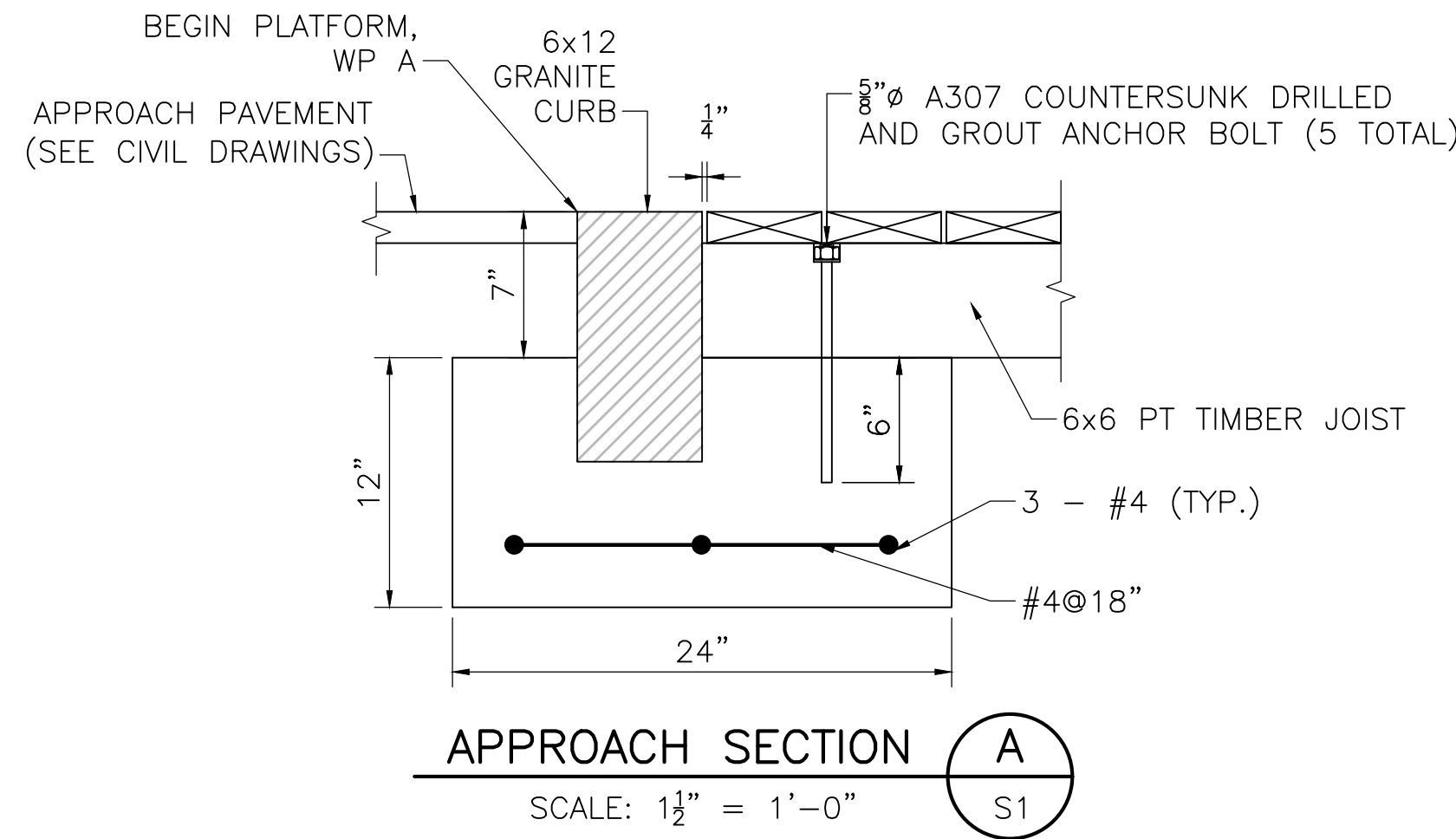
1
S1



OBSERVATION DECK SECTION

SCALE: 1" = 1'-0"

2
S1



RAILING SECTION

SCALE: 1½" = 1'-0"

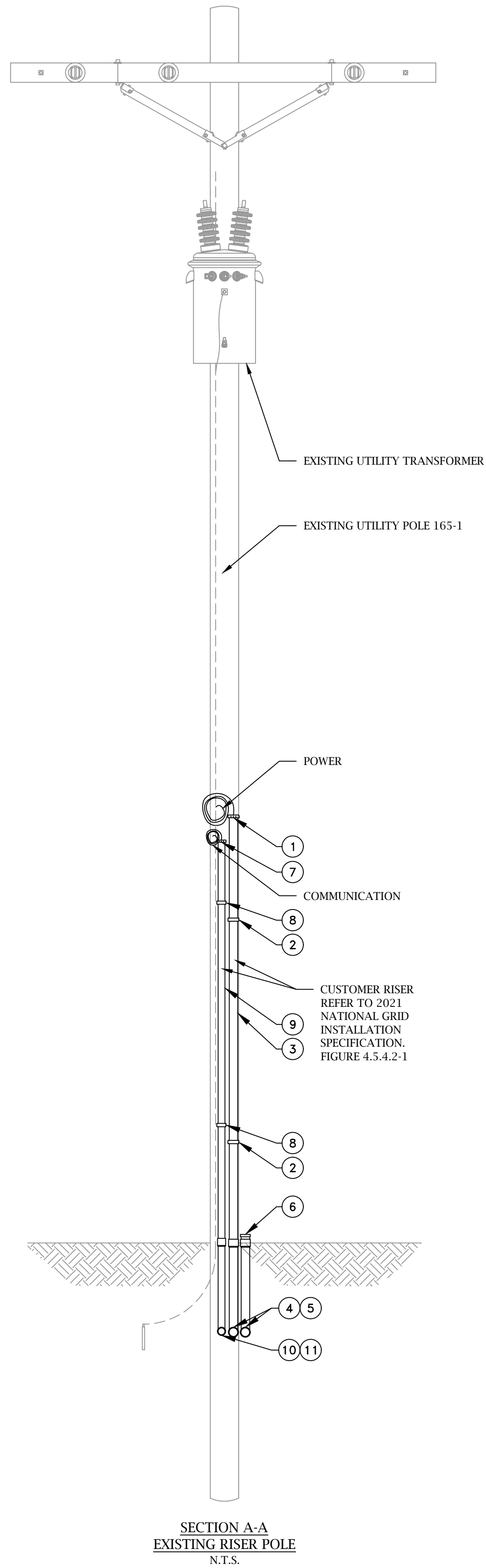
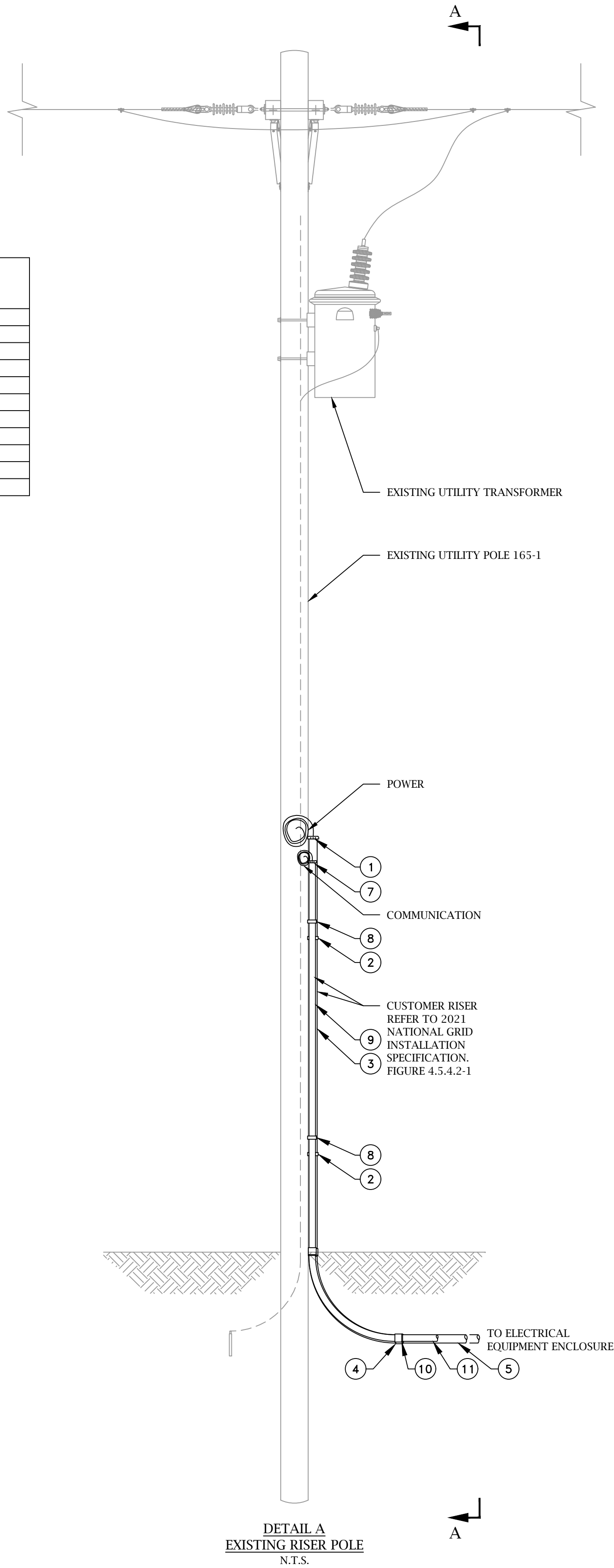
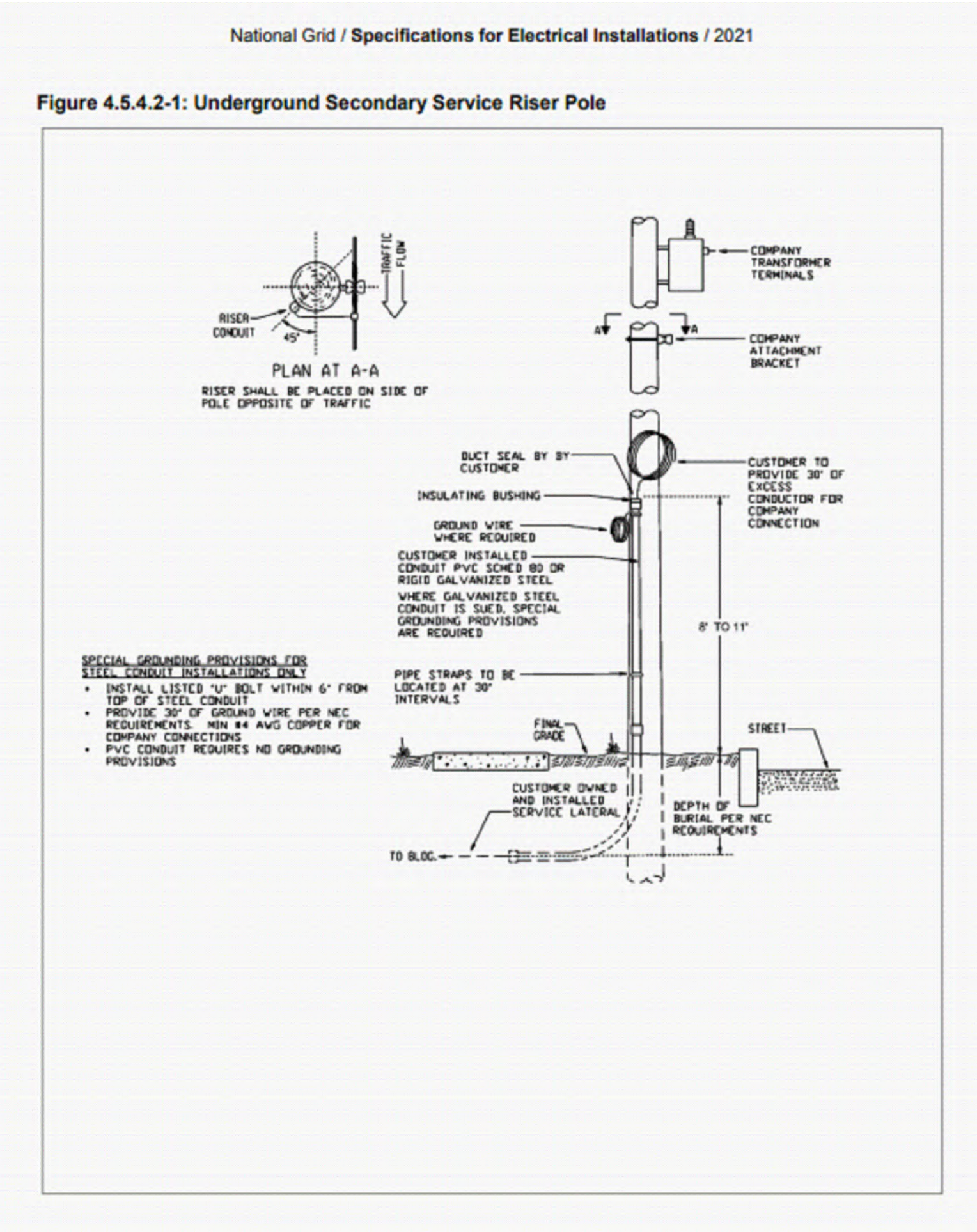


ASPLUNDH
ENGINEERING SERVICES

NEW ENGLAND OFFICE
25 FORBES BLVD., SUITE 1 FOXBORO, MA 02035
PHONE: 781-821-0121

1 of 1
PROJECT: COAL MINE BROOK PARK
DWG #: E-2
Copyright © 2021. All Rights Reserved. All documents prepared by Asplundh Engineering Services, as well as information depicted on documents are instruments of service with respect to the project for which they were specifically designed and for the listed applicant. Such documents and information are not intended or represented to be suitable for reuse by the listed applicant or others on extensions or modifications of the project or on any project. Any reproduction or reuse of said documents and/or information without the prior written approval or adaptation by Asplundh Engineering Services, shall be considered a violation of both the copyright and the instrument of service. Asplundh Engineering Services, from any and all claims, damages, losses and expenses arising out of or resulting from the said unauthorized reproduction, misuse, or misappropriation of said documents and/or information and the listed applicant and/or owner shall indemnify and hold harmless Asplundh Engineering Services.

POLE LINE MATERIAL LIST				
ITEM NO.	MANUFACTURER	CATALOGUE NO.	DESCRIPTION	NOTES
1	CROUSE HINDS	-----	2" BONDING BUSHING	
2	CROUSE HINDS	-----	2" CONDUIT CLAMP	
3	WHEATLAND TUBE	-----	2" RIGID STEEL CONDUIT	
4	WHEATLAND TUBE	-----	2" RIGID STEEL CONDUIT 90° BEND W/ 24" RAD	
5	-----	-----	2" PVC CONDUIT - SCHEDULE 40	
6	-----	-----	2" CONDUIT CAP (FOR PART #4 SPARE CONDUIT)	
7	CROUSE HINDS	-----	1 1/2" BONDING BUSHING	
8	CROUSE HINDS	-----	1 1/2" CONDUIT CLAMP	
9	WHEATLAND TUBE	-----	1 1/2" RIGID STEEL CONDUIT	
10	WHEATLAND TUBE	-----	1 1/2" RIGID STEEL CONDUIT 90° BEND W/ 24" RAD	
11	-----	-----	1 1/2" HDPE COMMUNICATIONS CONDUIT	



FOR CONSTRUCTION

DESIGNED FOR:
BEALS + THOMAS

BEALS AND THOMAS, INC.
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

REV.	DATE	REVISION DESCRIPTION	DRAWN	ENG'R	CHKD	APVD
D	04/05/22	ISSUED FOR CONSTRUCTION	PB	CPO	CPO	CPO
C	03/01/22	ISSUED FOR PERMITTING/CAMERA REVISION	PB	CPO	CPO	CPO
B	01/07/22	ISSUED FOR PERMITTING	PB	CPO	CPO	CPO
A	08/05/21	ISSUED FOR CONCEPTUAL DESIGN REVIEW	PB	CPO	DM	CPO

Electrical
STATE LIC. No. 37843

ASPLUNDH
ENGINEERING SERVICES

NEW ENGLAND OFFICE
25 FORBES BLVD., SUITE 1 FOXBORO, MA 02035
PHONE: 781-821-0121

COAL MINE BROOK PARK
616 PLANTATION ST., WORCESTER, MASSACHUSETTS
RISER POLE DETAILS

PROJ. NO.	E215440	DWG. NO.	E-2
SCALE	NTS	SIZE	D
SHEET	1	of	1

A

B

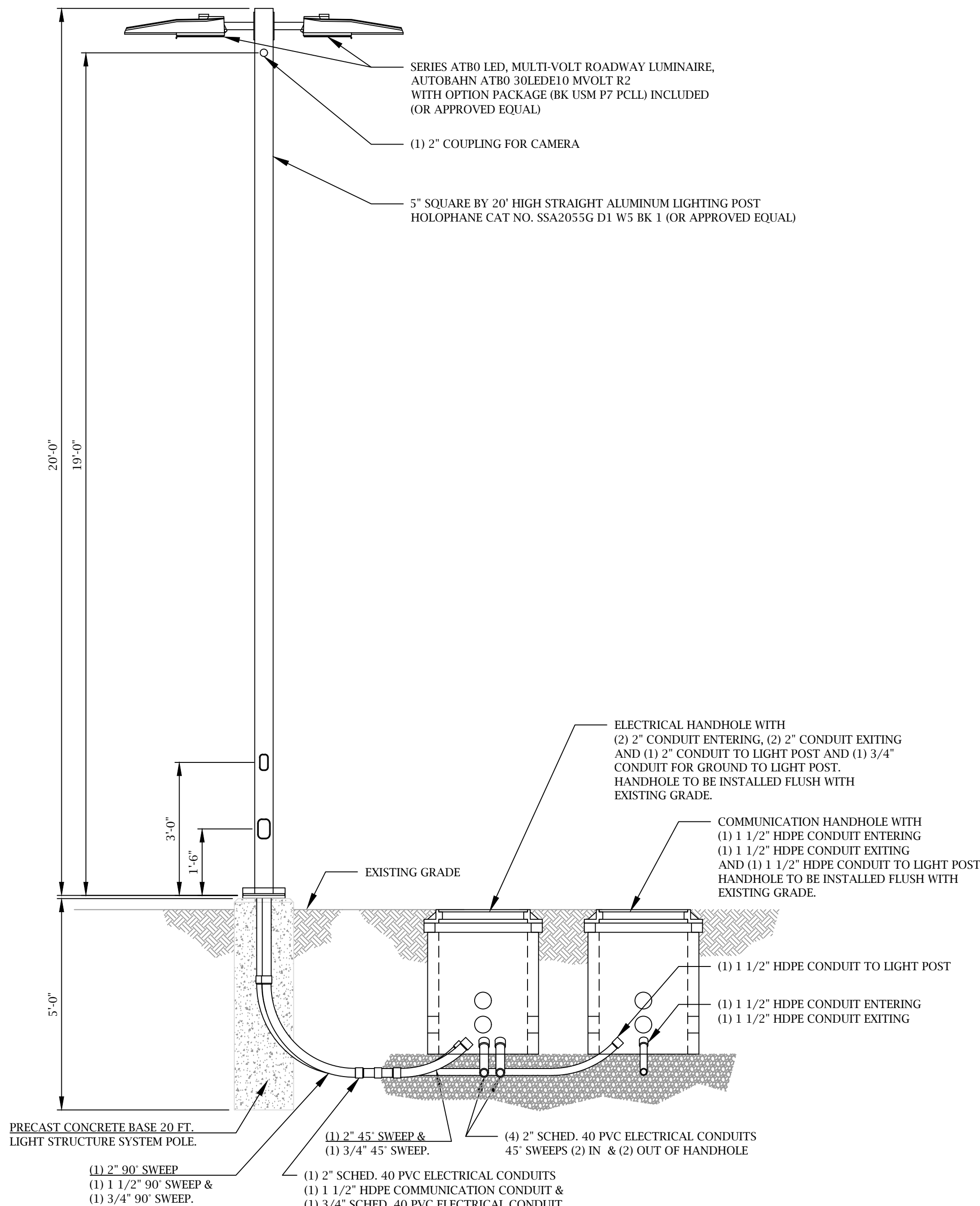
C

D

E

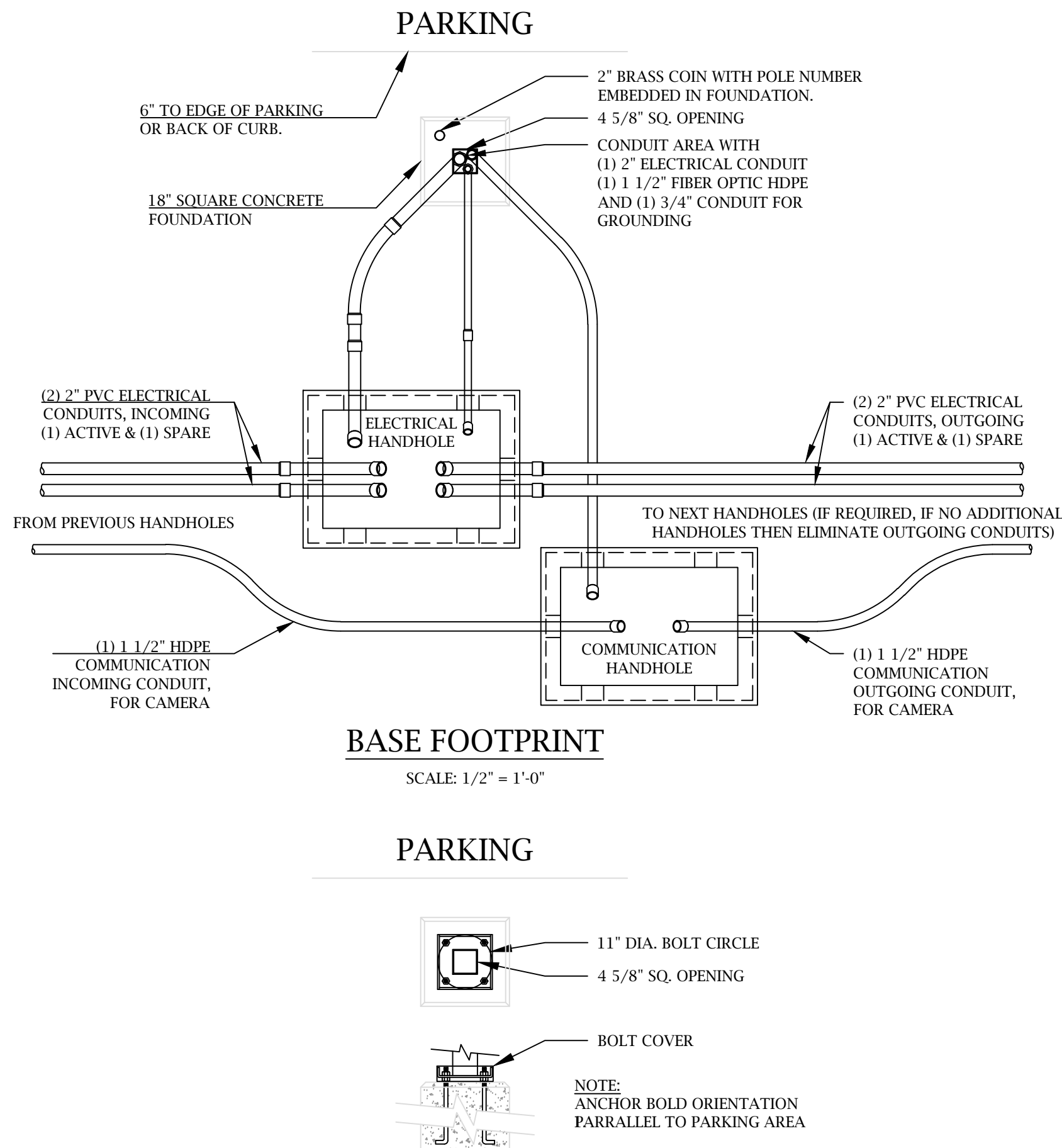
F

1 of 1
PROJECT: COAL MINE BROOK PARK
DWG #: E-3
Copyright - 2021 - All Rights Reserved. All documents prepared by Asplundh Engineering Services, as well as information depicted on documents are instruments of service with respect to the project for which they were specifically designed and for the listed applicant. Such documents and information are not intended or represented to be suitable for reuse by the listed applicant or others on requests or modification of the project or on any project. Any reproduction or reuse of said documents and/or information without the prior written approval of Asplundh Engineering Services, shall be considered a violation of both the copyright and the instrument of service. Asplundh Engineering Services, its employees, agents, and/or representatives shall not be held responsible for any damages, losses and expenses arising out of or resulting from the said unauthorized reproduction, misuse, or misappropriation of said documents and/or information and the listed applicant and/or owner shall indemnify and hold harmless Asplundh Engineering Services, from any and all claims, damages, losses and expenses arising out of or resulting from the said unauthorized reproduction, misuse, or misappropriation of said documents and/or information.



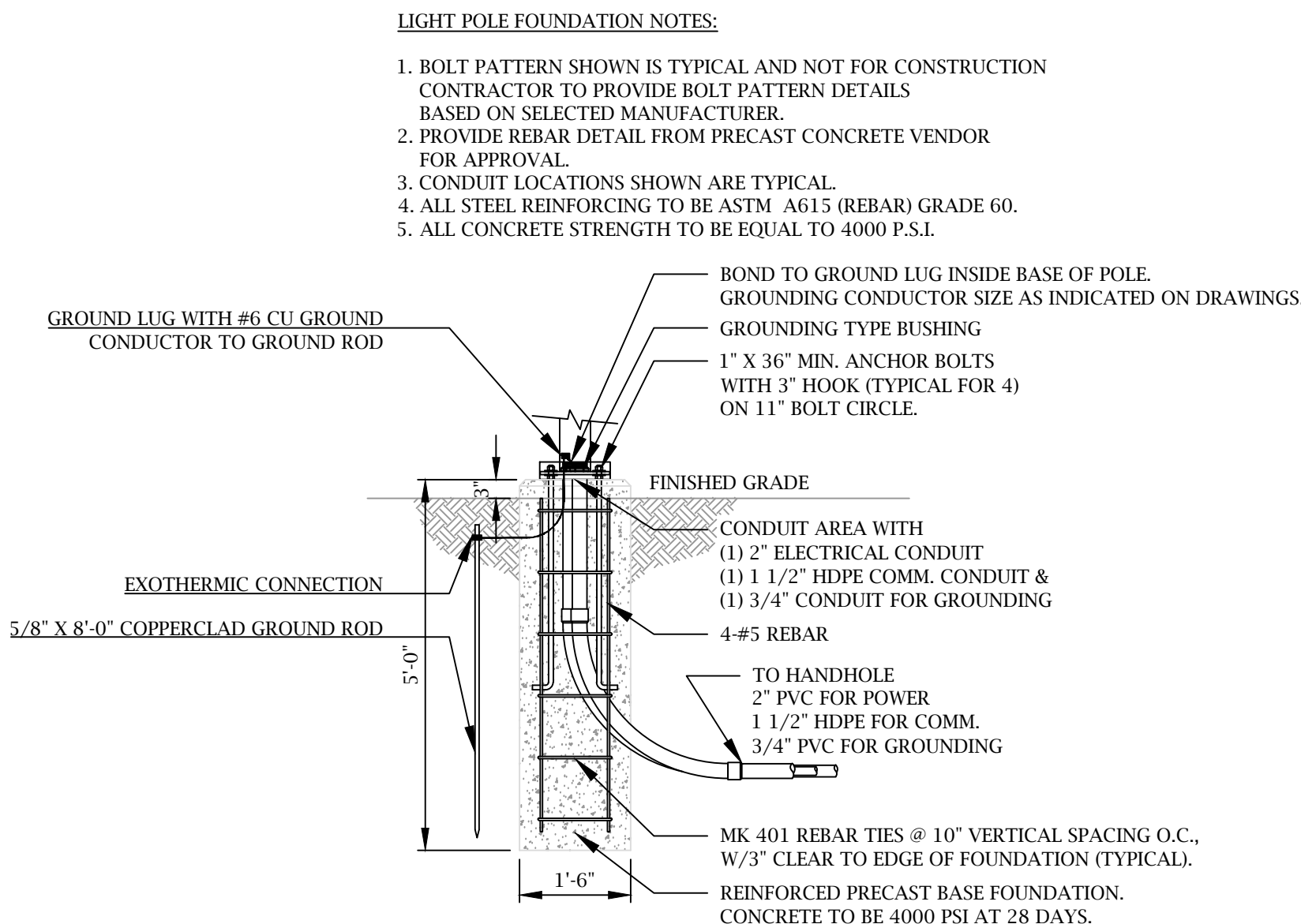
PARKING LIGHT POLE INSTALLATION DETAIL
PARKING LIGHT POLES LP2-A & LP2-B

SCALE: 1/2" = 1'-0"



PARKING AREA POST ANCHOR DETAIL

SCALE: 1/2" = 1'-0"



PARKING LIGHT POLE FOUNDATION DETAIL

SCALE: 1/2" = 1'-0"

FOR CONSTRUCTION

DESIGNED FOR:
BEALS + THOMAS

BEALS AND THOMAS, INC.
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

REV.	DATE	REVISION DESCRIPTION	DRAWN	ENG'R	CHKD	APVD
D	04/05/22	ISSUED FOR CONSTRUCTION	PB	CPO	CPO	CPO
C	03/01/22	ISSUED FOR PERMITTING/CAMERA REVISION	PB	CPO	CPO	CPO
B	01/07/22	ISSUED FOR PERMITTING	PB	CPO	CPO	CPO
A	08/05/21	ISSUED FOR CONCEPTUAL DESIGN REVIEW	PB	CPO	DM	CPO

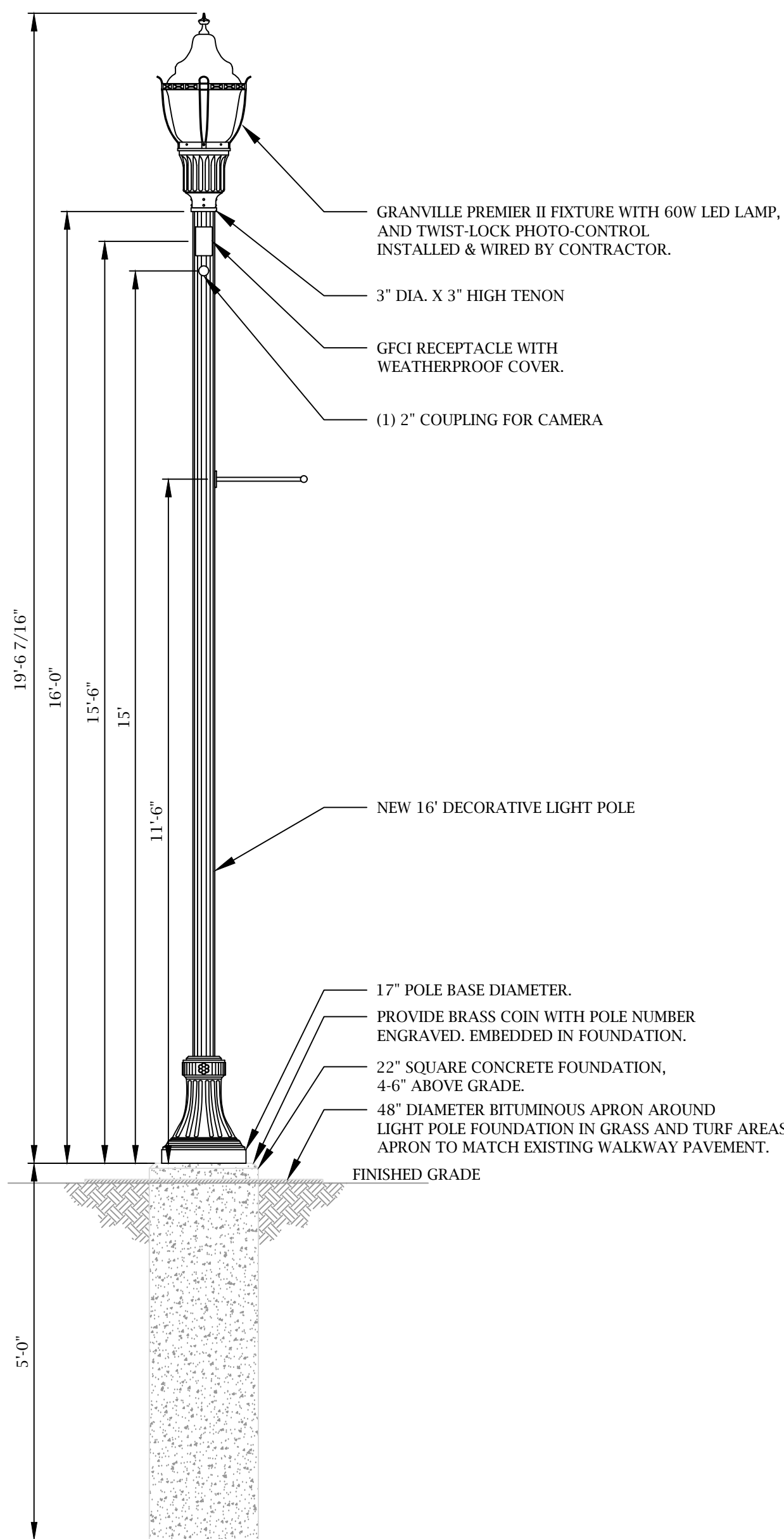
STATE LIC. No. 37843

ASPLUNDH
ENGINEERING SERVICES

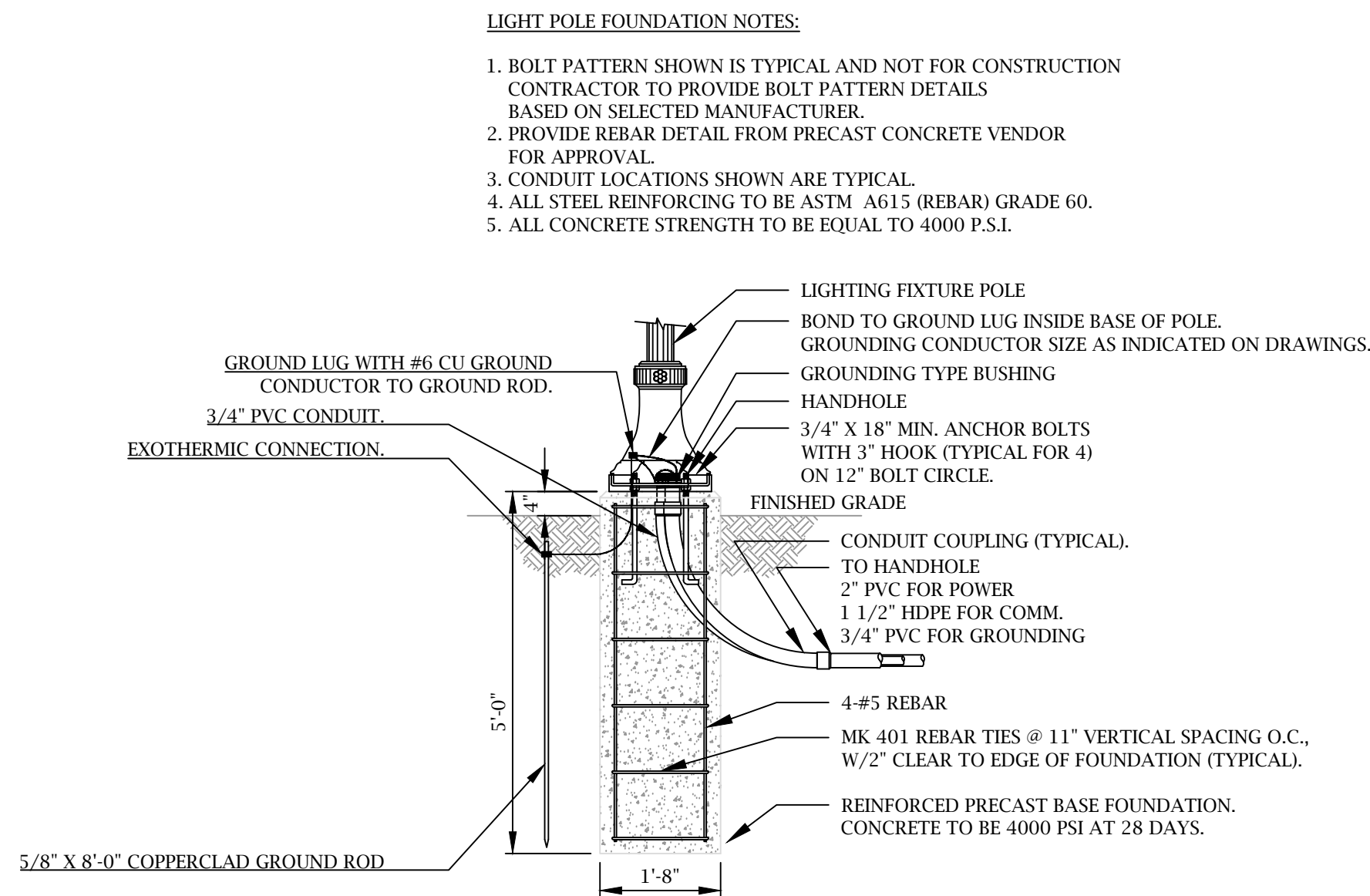
NEW ENGLAND OFFICE
25 FORBES BLVD., SUITE 1 FOXBORO, MA 02035
PHONE: 781-821-0121

COAL MINE BROOK PARK
616 PLANTATION ST., WORCESTER, MASSACHUSETTS
PARKING AREA LIGHTING POLE DETAILS

PROJ. NO.	E215440	DWG. NO.	E-3
SCALE	NTS	SIZE	D
SHEET	1	of	1

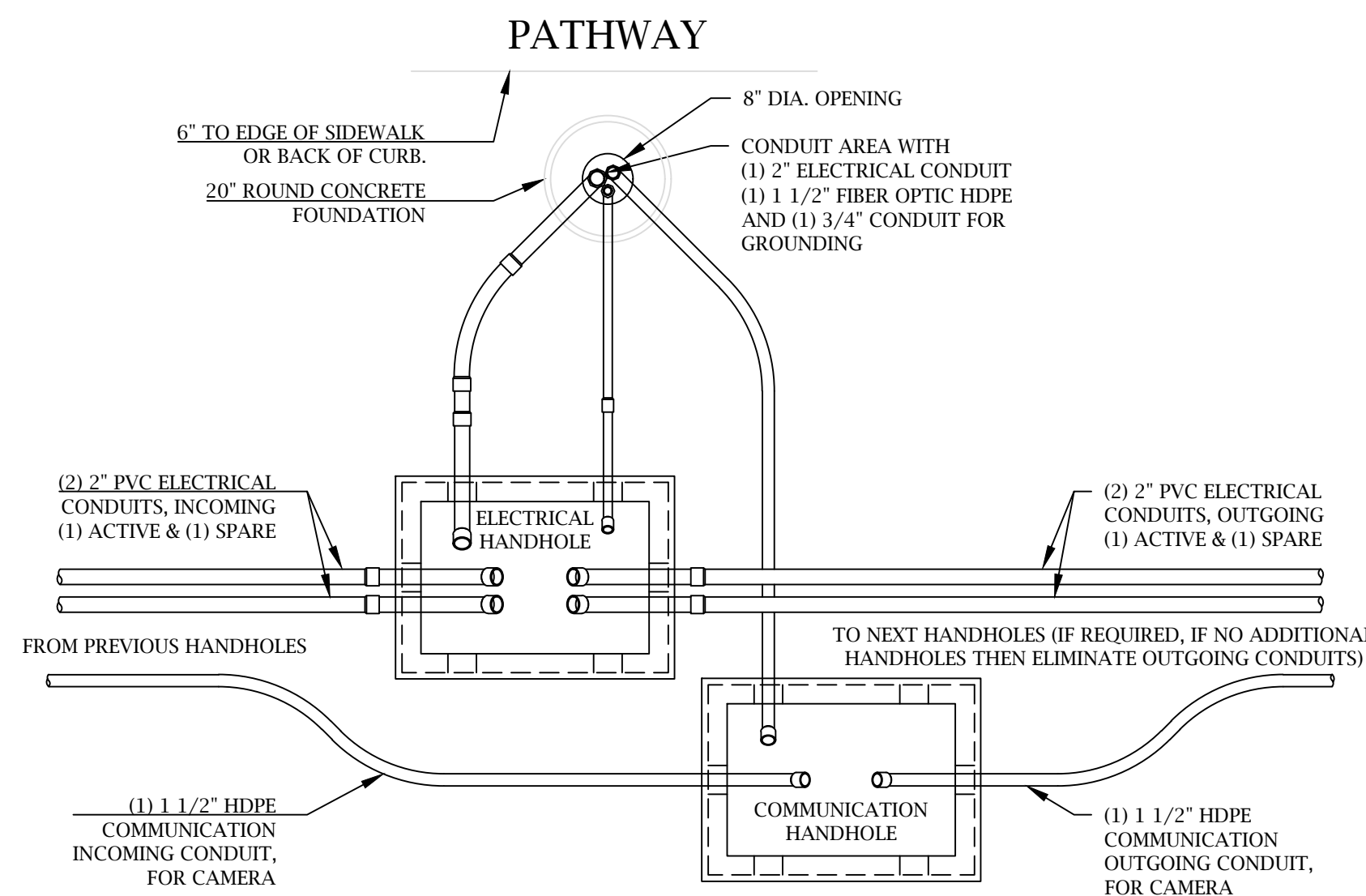


WALKWAY LIGHT POLE INSTALLATION DETAIL
WALKWAY LIGHT POLES LP1-A THRU LP1-F AND LP1-H THRU LP1-L
 SCALE: 1/2" = 1'-0"



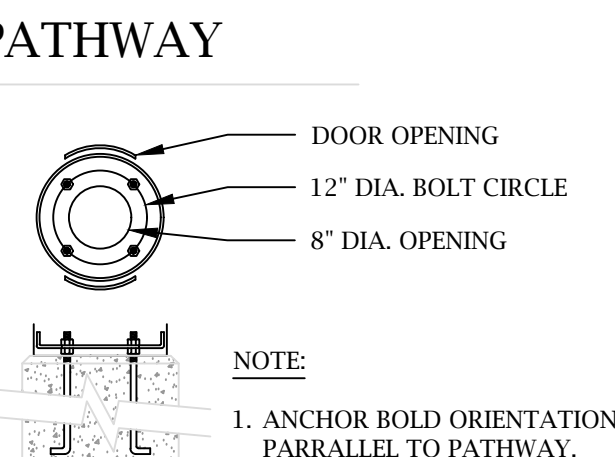
WALKWAY LIGHT POLE FOUNDATION DETAIL

SCALE: 1/2" = 1'-0"

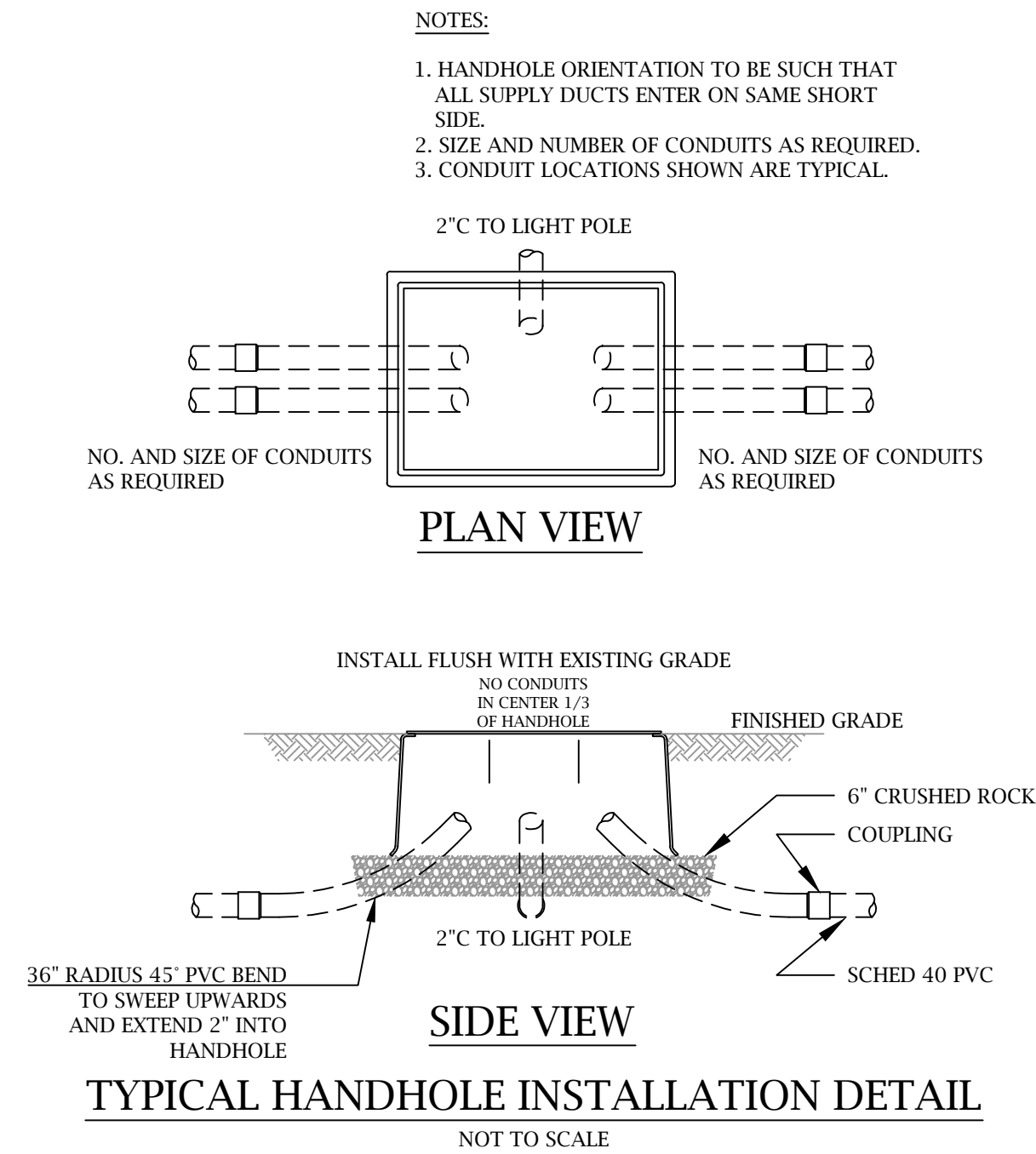


BASE FOOTPRINT

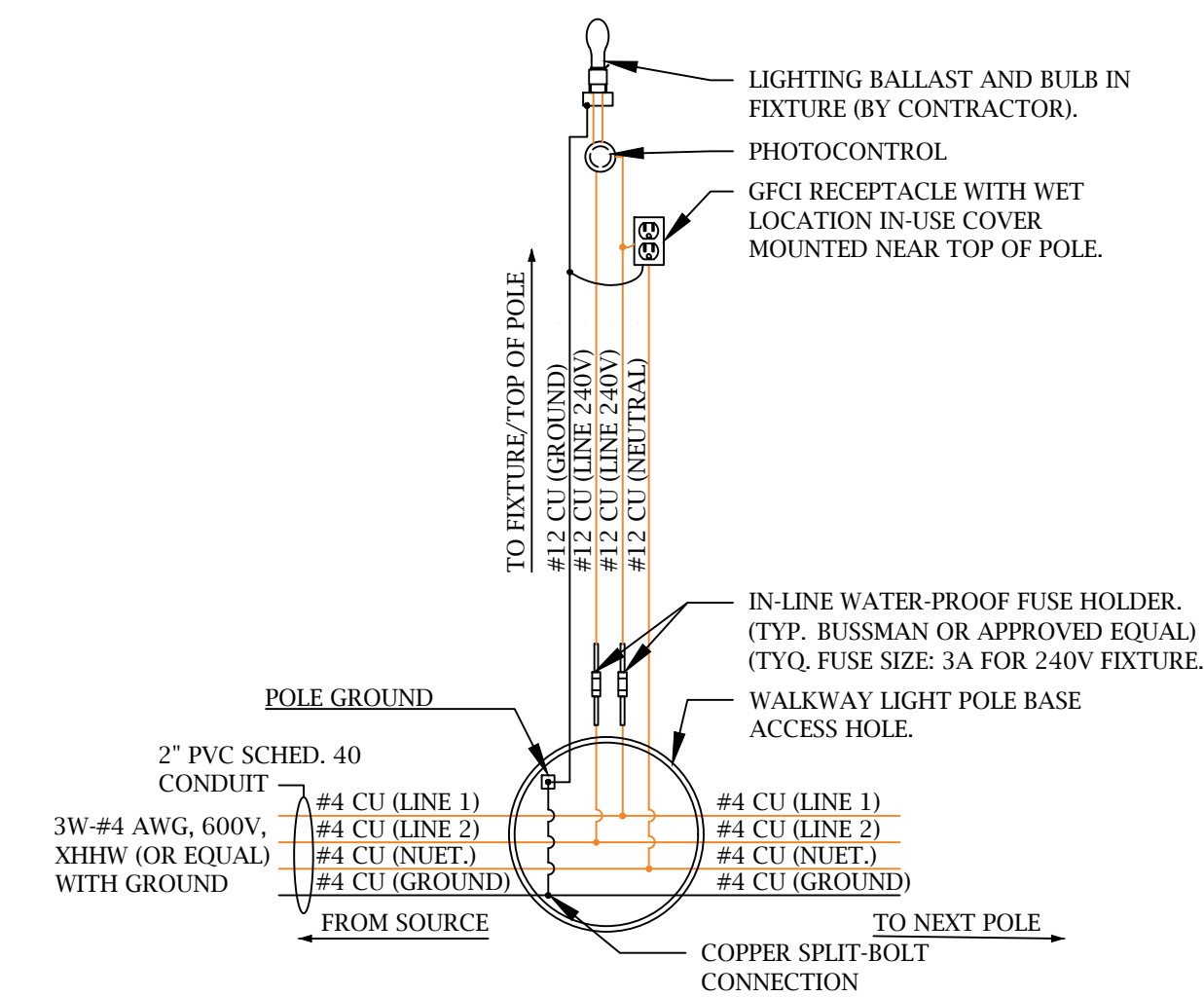
SCALE: 1/2" = 1'-0"



WALKWAY LIGHT POST ANCHOR DETAIL
SCALE: 1/2" = 1'-0"

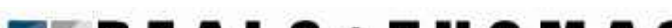


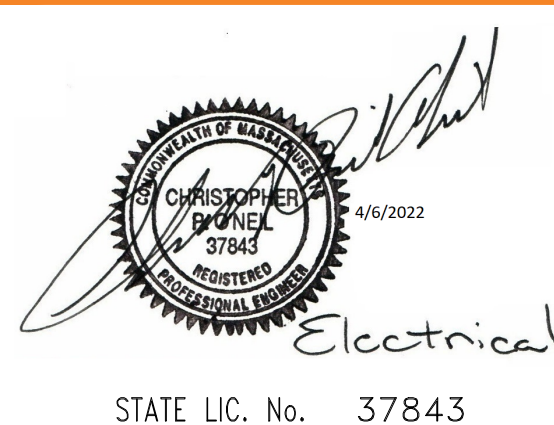
TYPICAL HANDHOLE INSTALLATION DETAIL



TYPICAL WALKWAY LIGHT WIRING DETAIL
NOT TO SCALE

FOR CONSTRUCTION

DESIGNED FOR:  BEALS AND THOMAS, INC. 144 Turnpike Road Southborough, Massachusetts 01772-2104 T 508.366.0560 www.bealsandthomas.com							
	D	04/05/22	ISSUED FOR CONSTRUCTION	PB	CPO	CPO	CPO
	C	03/01/22	ISSUED FOR PERMITTING/CAMERA REVISION	PB	CPO	CPO	CPO
	B	01/07/22	ISSUED FOR PERMITTING	PB	CPO	CPO	CPO
	A	08/05/21	ISSUED FOR CONCEPTUAL DESIGN REVIEW	PB	CPO	DM	CPO
	REV.	DATE	REVISION DESCRIPTION	DRAWN	ENG'R	CHKD	APV



ASPLUNDH®
ENGINEERING SERVICES

NEW ENGLAND OFFICE
25 FORBES BLVD., SUITE 1 FOXBORO, MA 02035
PHONE: 781-821-0121

COAL MINE BROOK PARK
616 PLANTATION ST., WORCESTER, MASSACHUSETTS
WALKWAY LIGHTING POLE DETAILS

PROJ. NO. E215440		DWG. NO. E-4	
SCALE NTS	SIZE D	SHEET 1 of 1	

INTERMATIC TIMER SWITCH

WALKWAY LIGHTING


WALKWAY LIGHTING

PARKING AREA LIGHTING

FUSE HOLDER

FUSE HOLDER

FOR CONSTRUCTION


 4/6/2022
 Electrical
 STATE LLC No. 37843



A

B

C

D

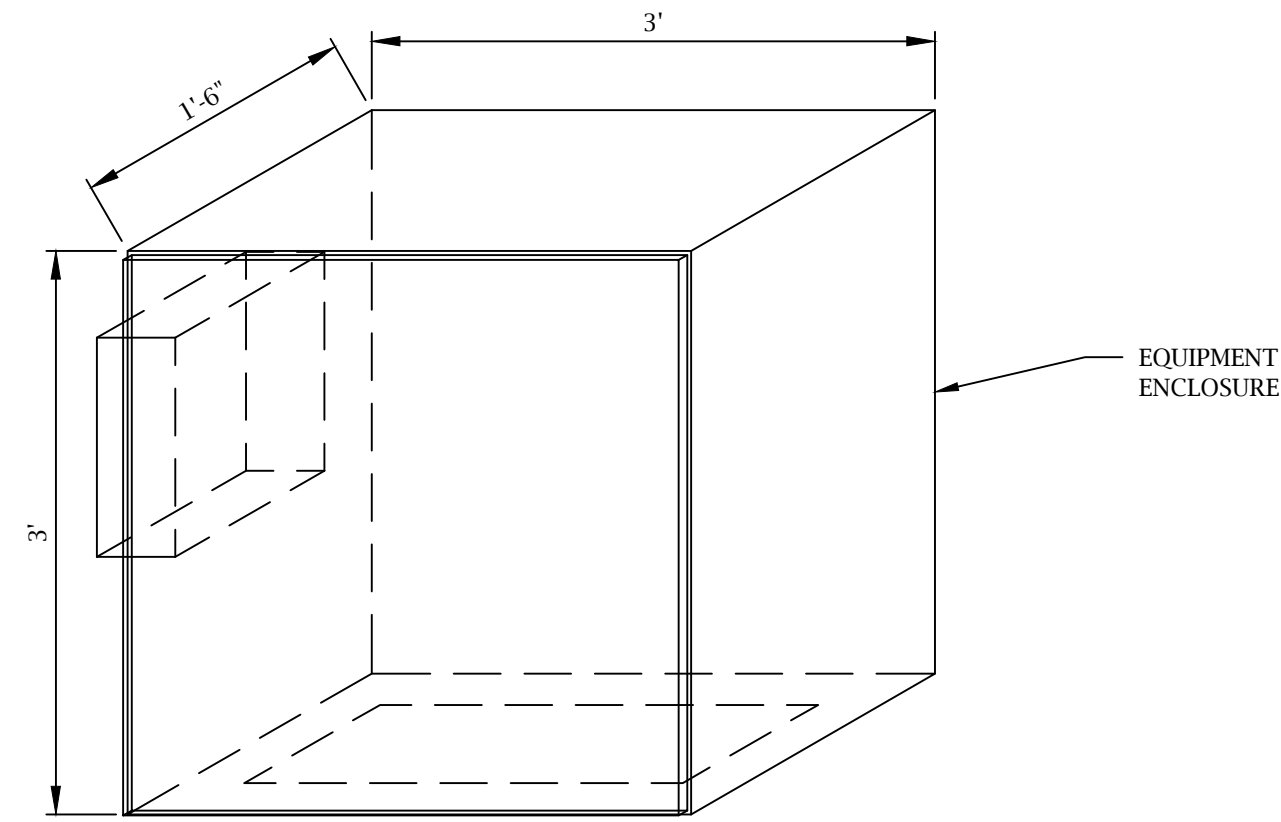
E

F

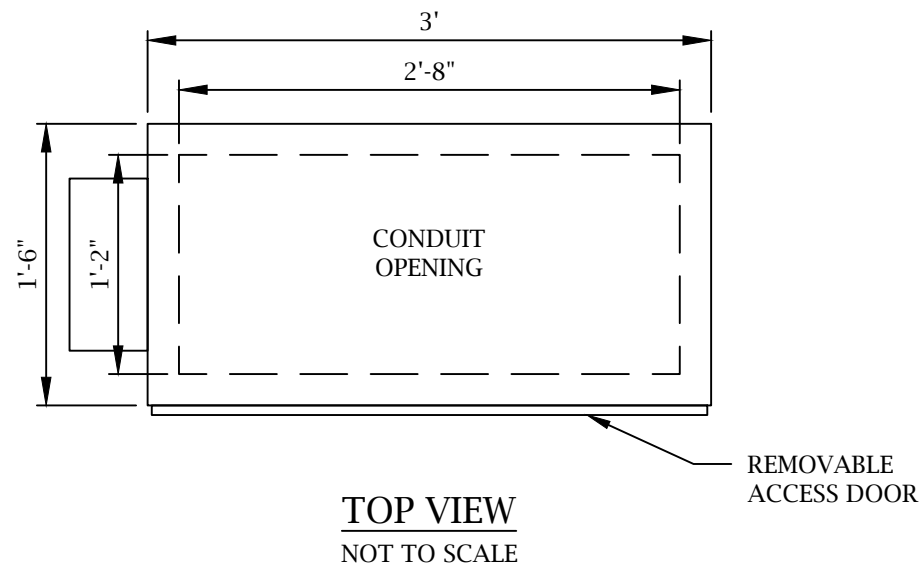
PROJECT: COAL MINE BROOK PARK
DWG #: E-6
1 of 1

Copyright © 2021. All Rights Reserved. All documents prepared by Asplundh Engineering Services, as well as information depicted on documents are instruments of service with respect to the project for which they were specifically designed and for the listed applicant. Such documents and information are not intended or represented to be suitable for reuse by the listed applicant or others for extensions or modification of the project or on any project. Any reproduction or reuse of said documents and/or information without the prior written approval of Asplundh Engineering Services, shall be considered a violation of both the copyright and the instrument of service. Asplundh Engineering Services, its employees, agents, and/or representatives shall not be liable for damages, losses and expenses arising out of or resulting from the said unauthorized reproduction, misuse, or misappropriation of said documents and/or information and the listed applicant and/or owner shall indemnify and hold harmless Asplundh Engineering Services, from any and all claims, damages, losses and expenses arising out of or resulting from the said unauthorized reproduction, misuse, or misappropriation of said documents and/or information.

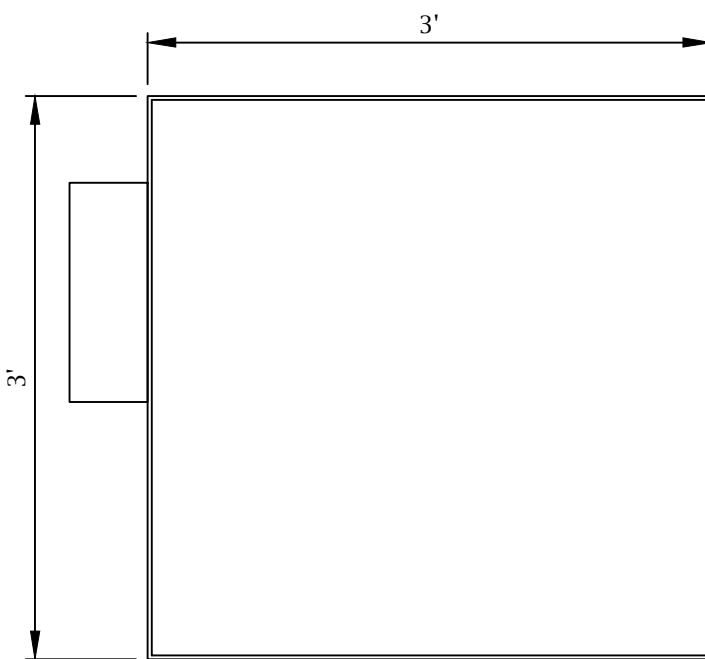
1 2 3 4 5 6 7 8



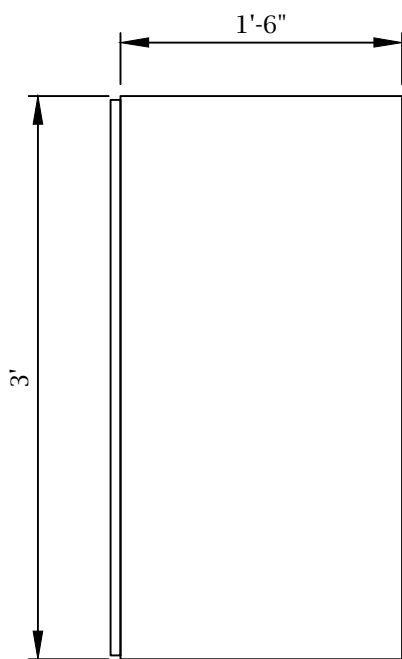
ISOMETRIC VIEW
NOT TO SCALE
(CABINET SIZED TO ACCOMMODATE AS REQUIRED)



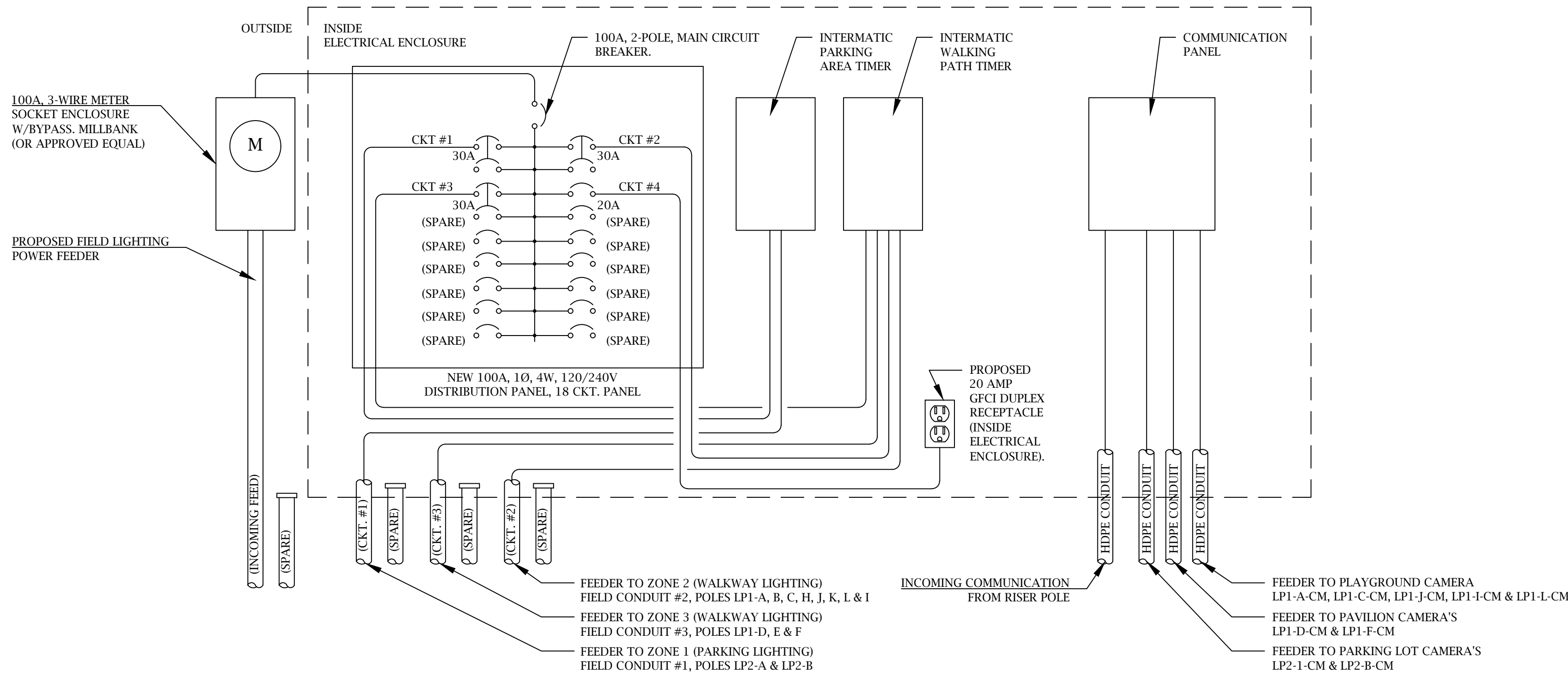
TOP VIEW
NOT TO SCALE



FRONT VIEW
NOT TO SCALE



SIDE VIEW
NOT TO SCALE



PROPOSED ELECTRICAL RISER DETAIL
NOT TO SCALE

FOR CONSTRUCTION

DESIGNED FOR:
BEALS + THOMAS

BEALS AND THOMAS, INC.
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

REV.	DATE	REVISION DESCRIPTION	DRAWN	ENG'R	CHKD	APVD
D	04/05/22	ISSUED FOR CONSTRUCTION	PB	CPO	CPO	CPO
C	03/01/22	ISSUED FOR PERMITTING/CAMERA REVISION	PB	CPO	CPO	CPO
B	01/07/22	ISSUED FOR PERMITTING	PB	CPO	CPO	CPO
A	08/05/21	ISSUED FOR CONCEPTUAL DESIGN REVIEW	PB	CPO	DM	CPO

Electrical
STATE LIC. No. 37843

ASPLUNDH
ENGINEERING SERVICES

NEW ENGLAND OFFICE
25 FORBES BLVD., SUITE 1 FOXBORO, MA 02035
PHONE: 781-821-0121

COAL MINE BROOK PARK
616 PLANTATION ST., WORCESTER, MASSACHUSETTS
ELECTRICAL ENCLOSURE AND
ELECTRICAL RISER DIAGRAM

PROJ. NO.	E215440	DWG. NO.	E-6
SCALE	NTS	SIZE	D
SHEET	1	of	1

1 2 3 4 5 6 7 8

A

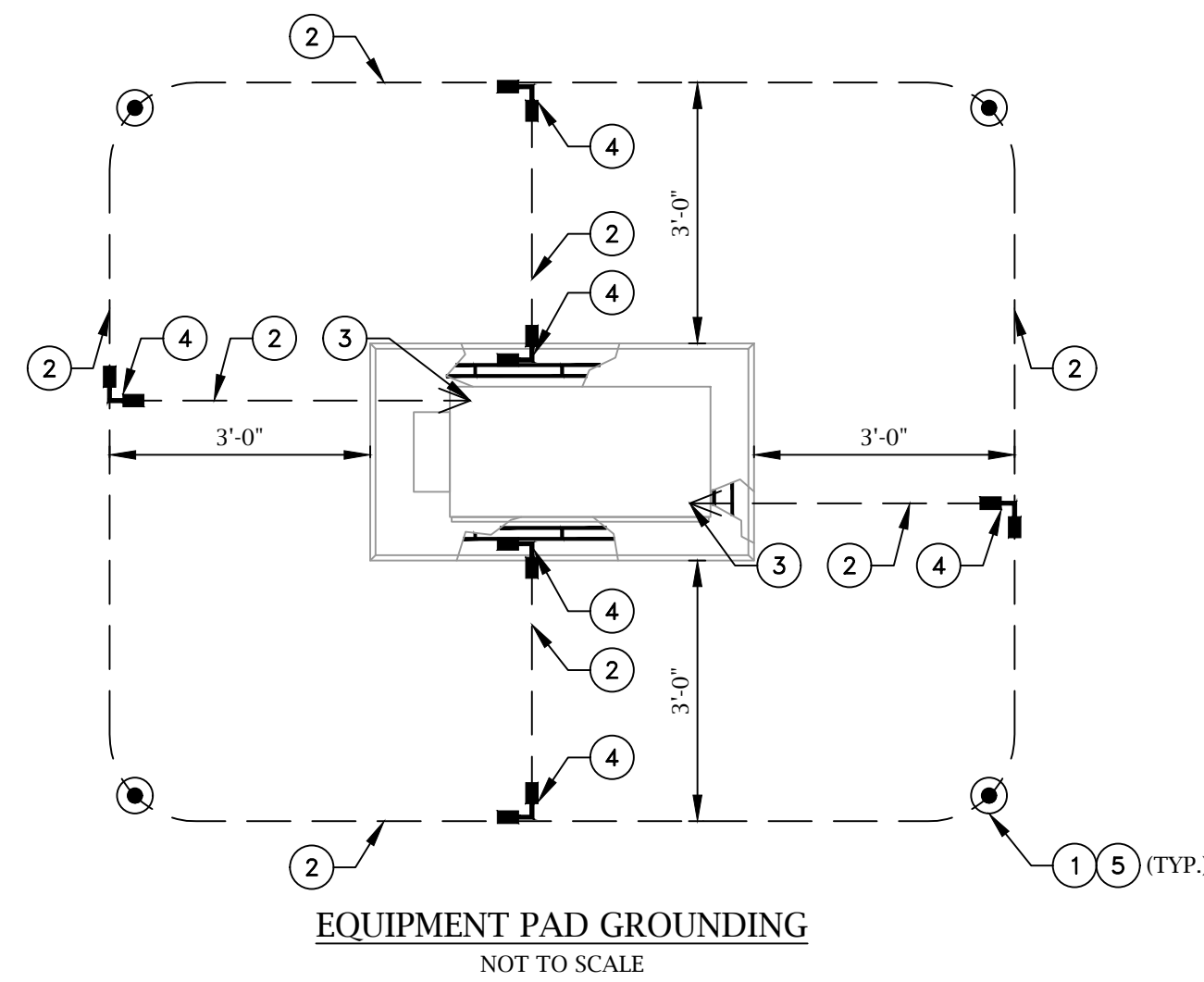
B

C

D




E

F



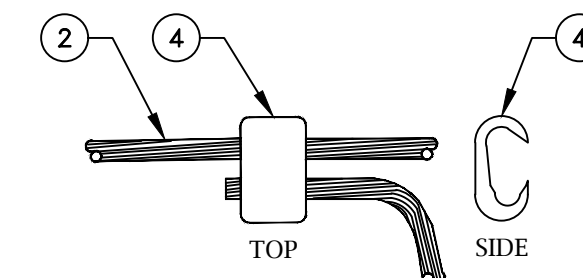
GROUNDING DETAIL MATERIAL LIST				
ITEM NO.	MANUF.	CAT. NO.	DESCRIPTION	NOTES
1	ERICO	613400	3/4" X 10' COPPER CLAD GROUND ROD	
2	----	-----	4/0 AWG BARE COPPER STRANDED CONDUCTOR	
3	BURNDY	YGA28-2N	4/0 AWG TWO HOLE COMPRESSION CONNECTOR	
4	BURNDY	YGL29C2N	#4/0 AWG TO #4/0 AWG COMPRESSION CONNECTOR	
5	BURNDY	YGLR29C34	4/0 TO 3/4" GROUND ROD CONNECTOR	

GROUNDING LEGEND:

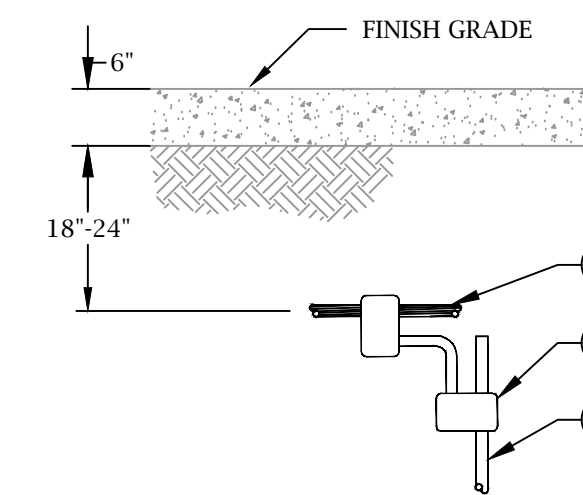
- #4/0 AWG COPPER, BARE.
BURIED 18"–24" BELOW GRADE.
-  GRID AND PIGTAIL CONNECTION NODES
-  #4/0 AWG COPPER STRUCTURE/
EQUIPMENT/FENCE/ PIGTAIL
-  3/4" x 10' COPPER CLAD GROUND ROD

GENERAL NOTES:

1. ALL GROUNDING MATERIAL SHALL BE LISTED FOR THE PURPOSE.
2. ALL GROUNDING AND BONDING SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT VERSION OF THE MASSACHUSETTS ELECTRICAL CODE, NATIONAL ELECTRIC SAFETY CODE AND ALL OTHER APPLICABLE STATE OR LOCAL CODES AND STANDARDS.
3. REFER TO CIVIL/STRUCTURAL DRAWINGS FOR FOUNDATION DETAILS.
4. MANUFACTURERS' AND CAT. #'S ARE FOR REFERENCE ONLY. ENGINEER APPROVED EQUALS WILL BE ACCEPTABLE.
5. GROUND RODS AROUND THE EQUIPMENT PAD SHALL BE INSTALLED A MINIMUM OF 10 FEET FROM EACH OTHER AND A MINIMUM OF 10 FEET FROM UTILITY POLES.
6. CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF EQUIPMENT. EQUIPMENT LOCATIONS ARE SHOWN FOR DIAGRAMMATIC PURPOSES ONLY.
7. CONTRACTOR SHALL REMOVE FACTORY BONDING STRAP FROM TRANSFORMER HO/HX BUSHING. BURIED OR EMBEDDED GROUND CONNECTIONS SHALL BE IRREVERSIBLE COMPRESSION TYPE.
9. ALL GROUND CONNECTIONS ABOVE GRADE OR EXPOSED ARE TO BE MADE WITH BOLTED SOLDER-LESS CONNECTIONS.
10. THE GROUNDING RING AROUND THE EQUIPMENT PAD SHOULD ALSO BE BONDED TO THE EQUIPMENT PAD REBAR.



TAP CABLE CONNECTION
DETAIL A



GROUND ROD TO CABLE CONNECTION
DETAIL C

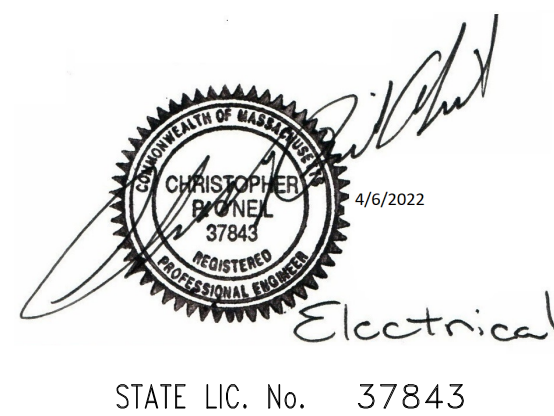
FOR CONSTRUCTION

DESIGNED FOR:

 **BEALS + THOMAS**

BEALS AND THOMAS, INC.
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

D	04/05/22	ISSUED FOR CONSTRUCTION	PB	CPO	CPO	CPO
C	03/01/22	ISSUED FOR PERMITTING/CAMERA REVISION	PB	CPO	CPO	CPO
B	01/07/22	ISSUED FOR PERMITTING	PB	CPO	CPO	CPO
A	08/05/21	ISSUED FOR CONCEPTUAL DESIGN REVIEW	PB	CPO	DM	CPO
REV.	DATE	REVISION DESCRIPTION	DRAWN	ENG'R	CHKD	APVD

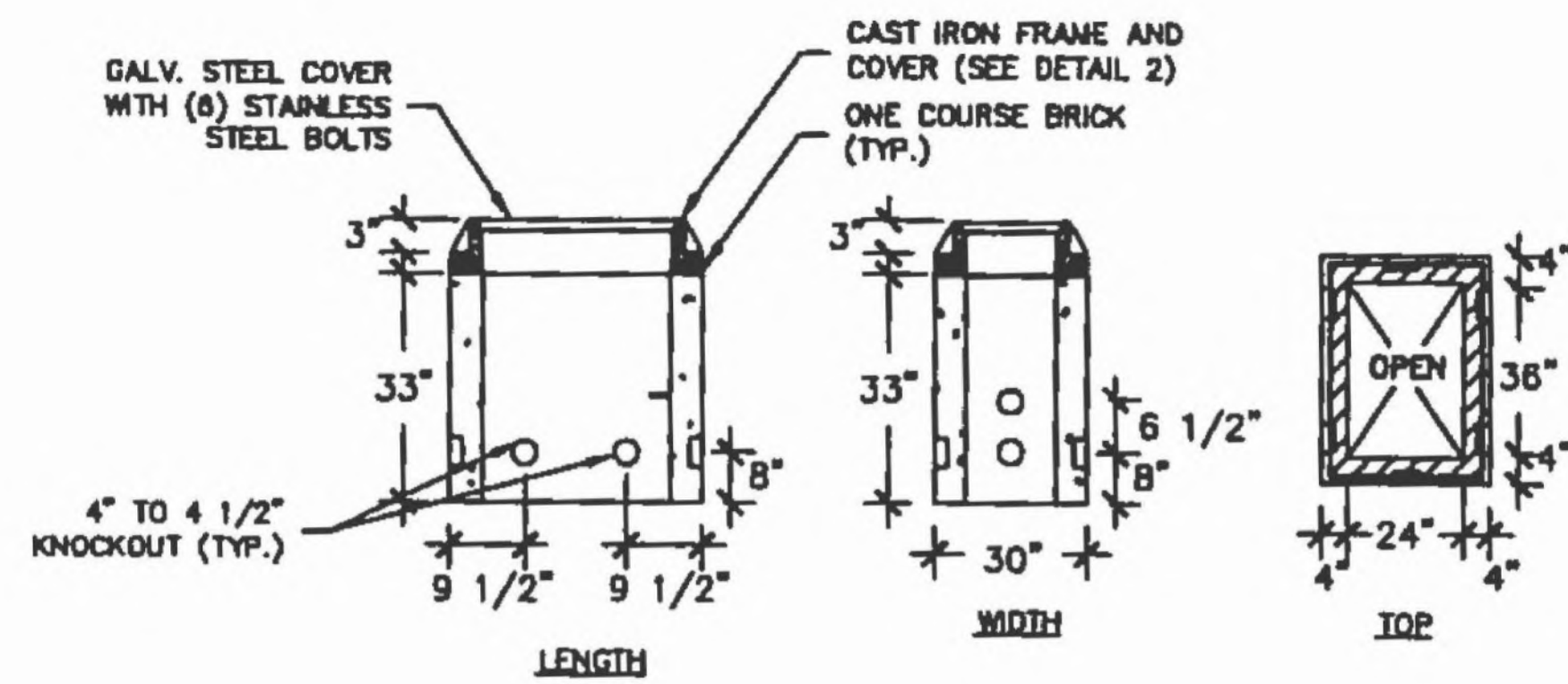


ASPLUNDH®
ENGINEERING SERVICES

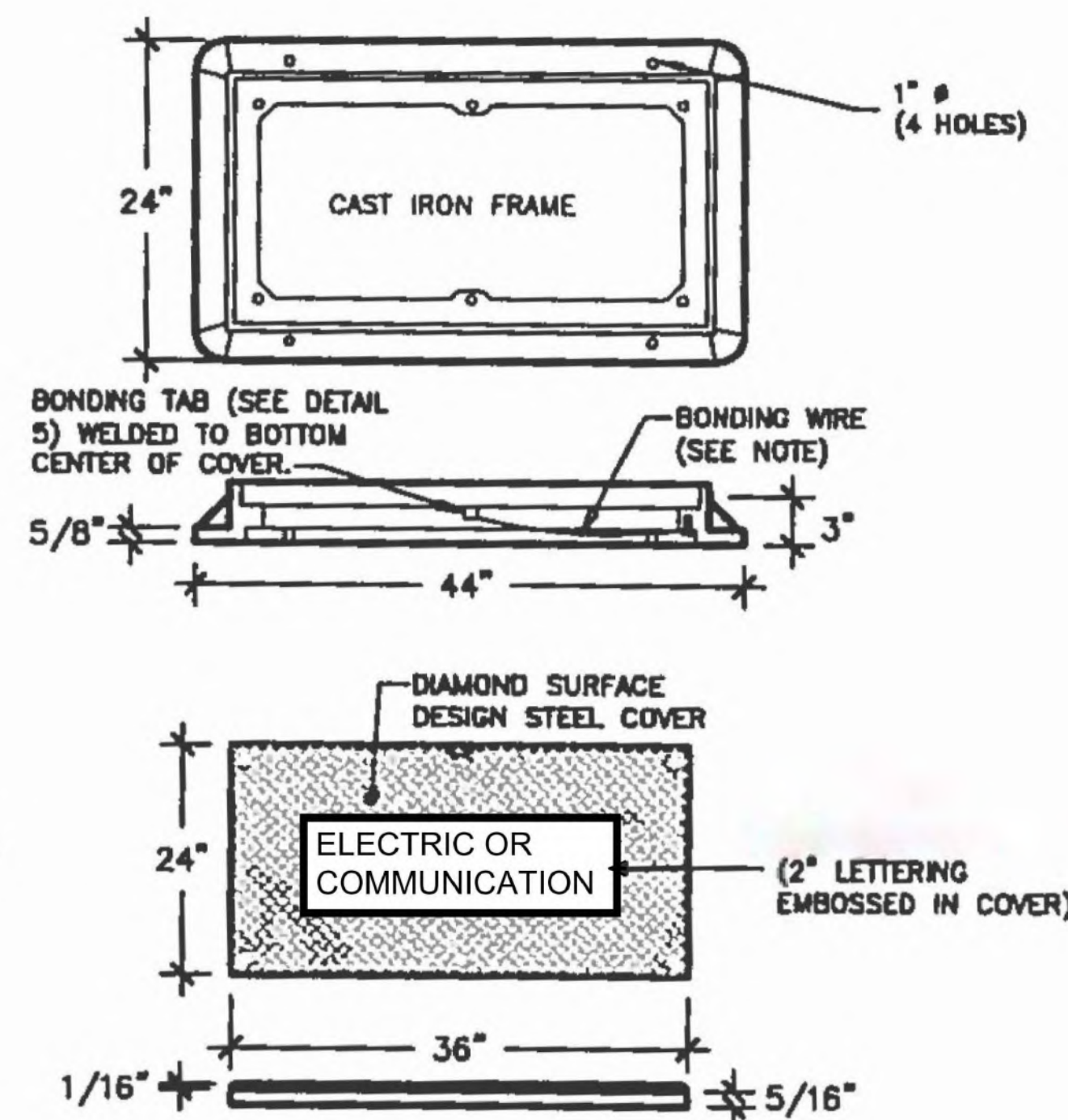
NEW ENGLAND OFFICE
25 FORBES BLVD., SUITE 1 FOXBORO, MA 02035
PHONE: 781-821-0121

COAL MINE BROOK PARK
616 PLANTATION ST., WORCESTER, MASSACHUSETTS
GROUNDING DETAILS

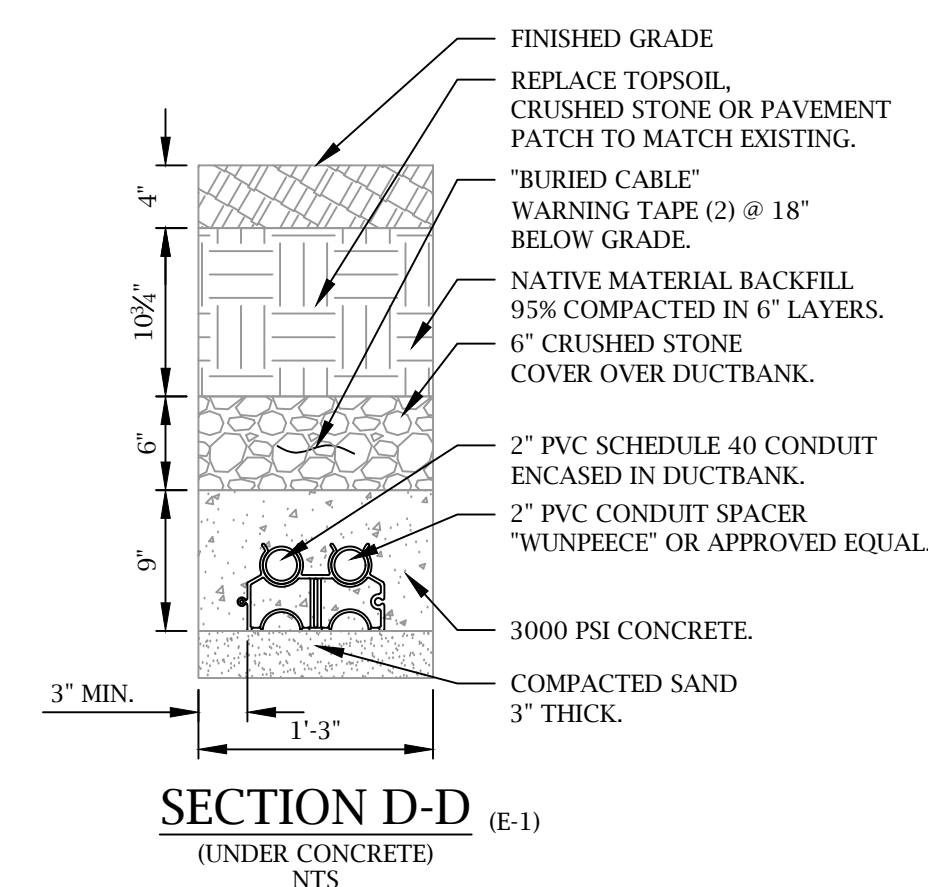
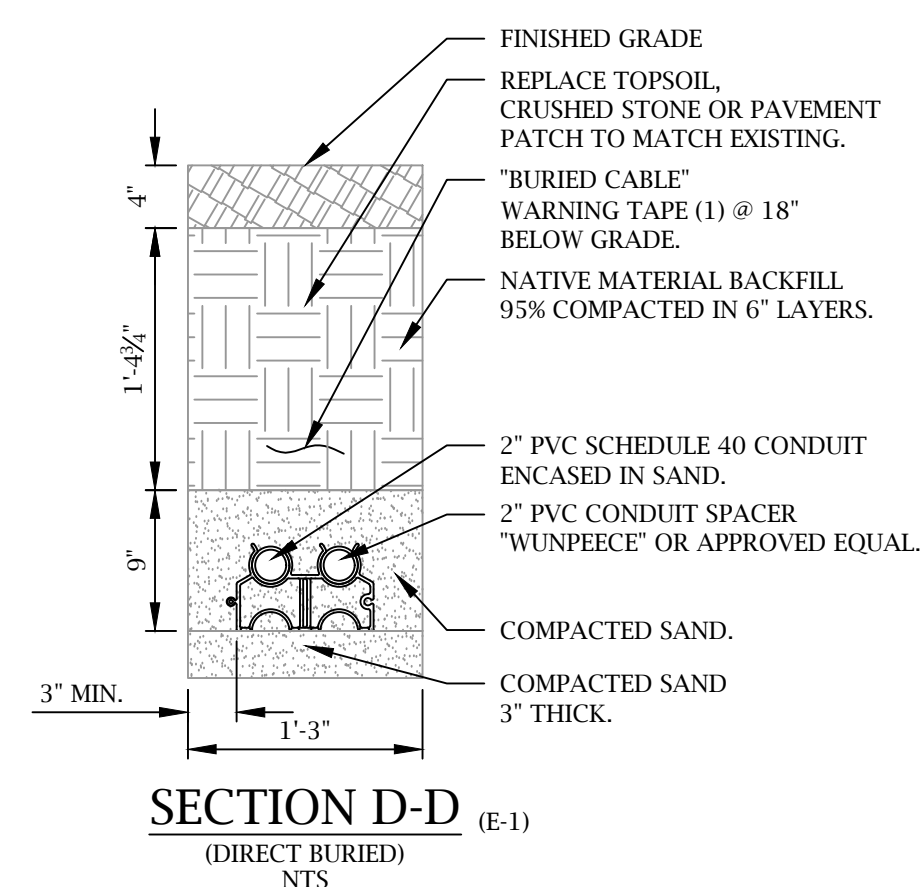
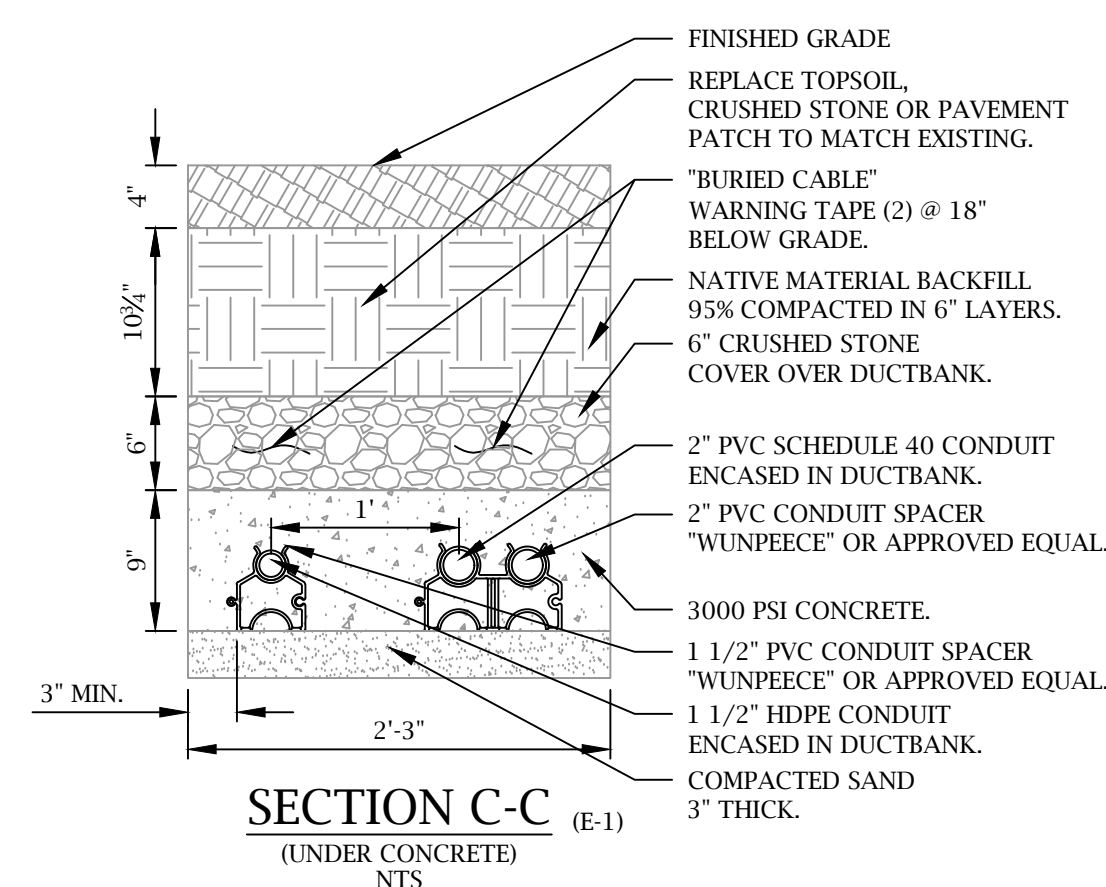
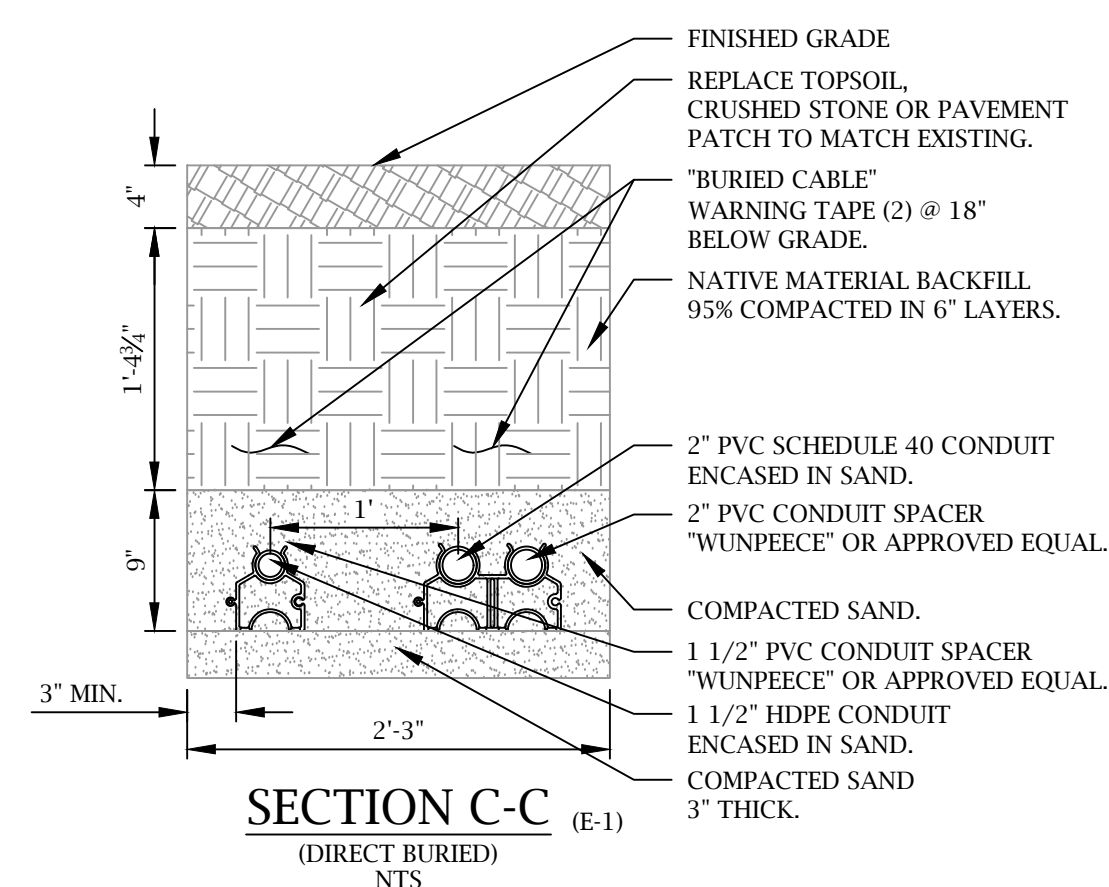
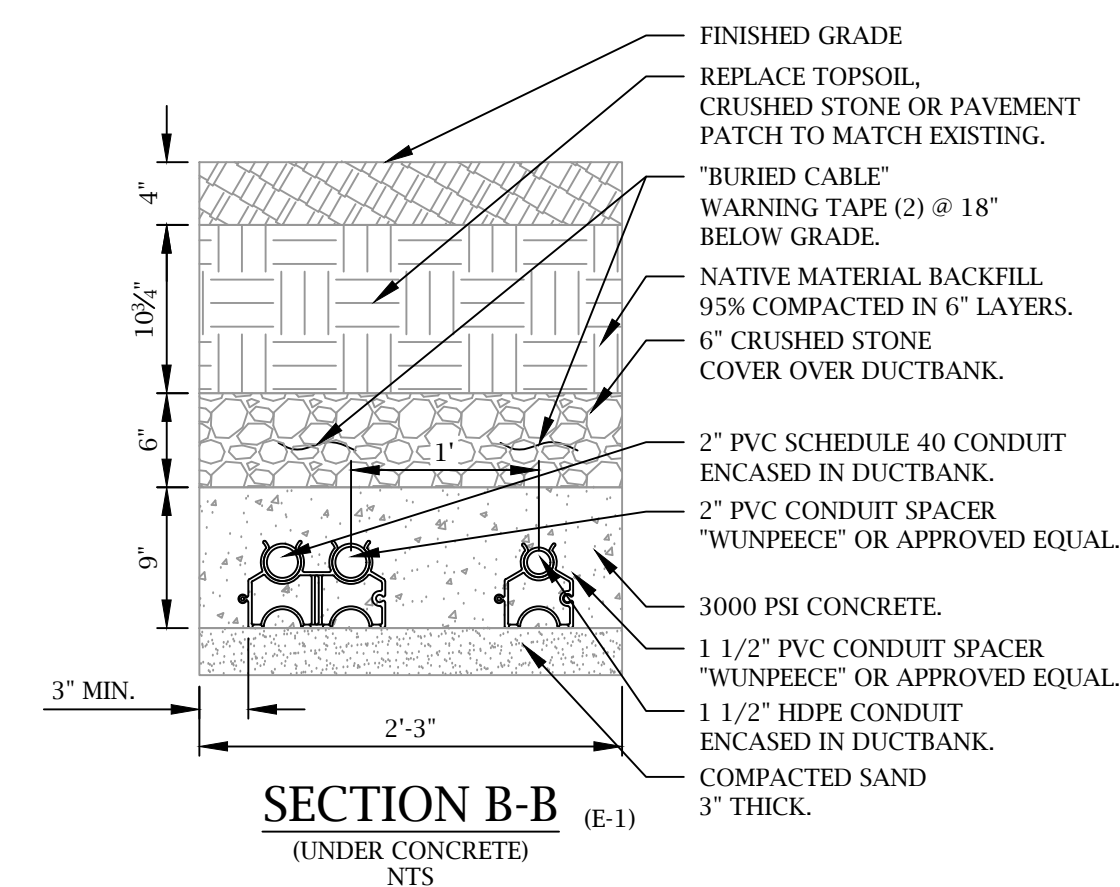
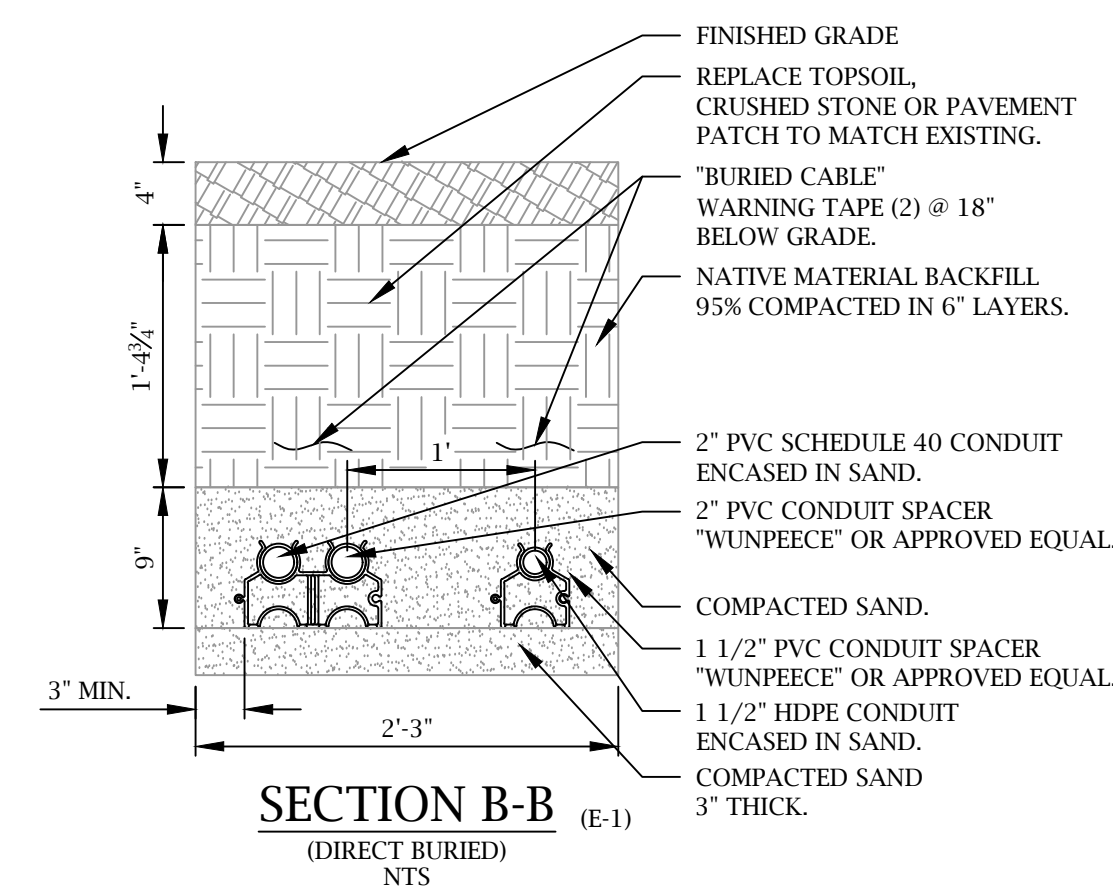
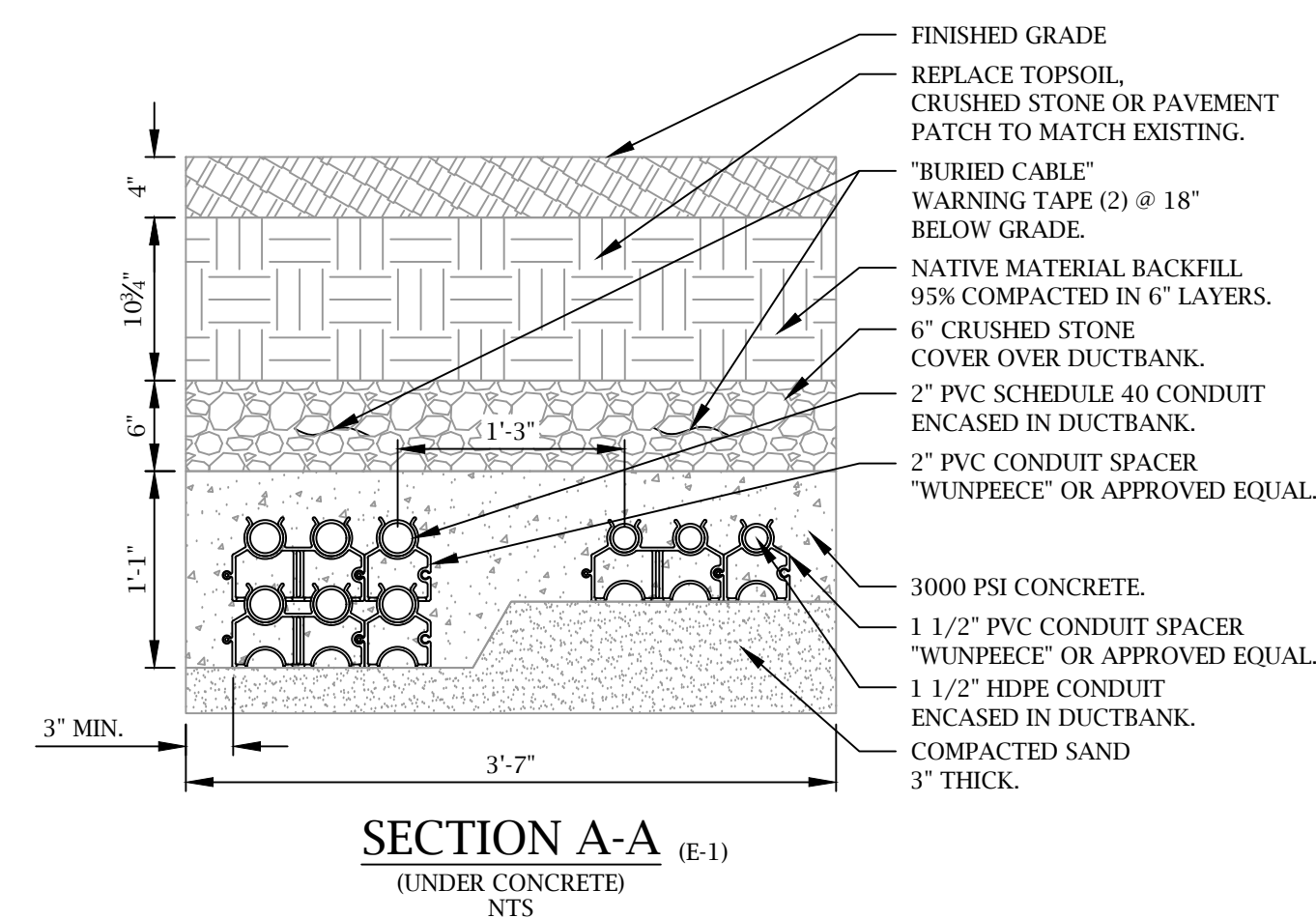
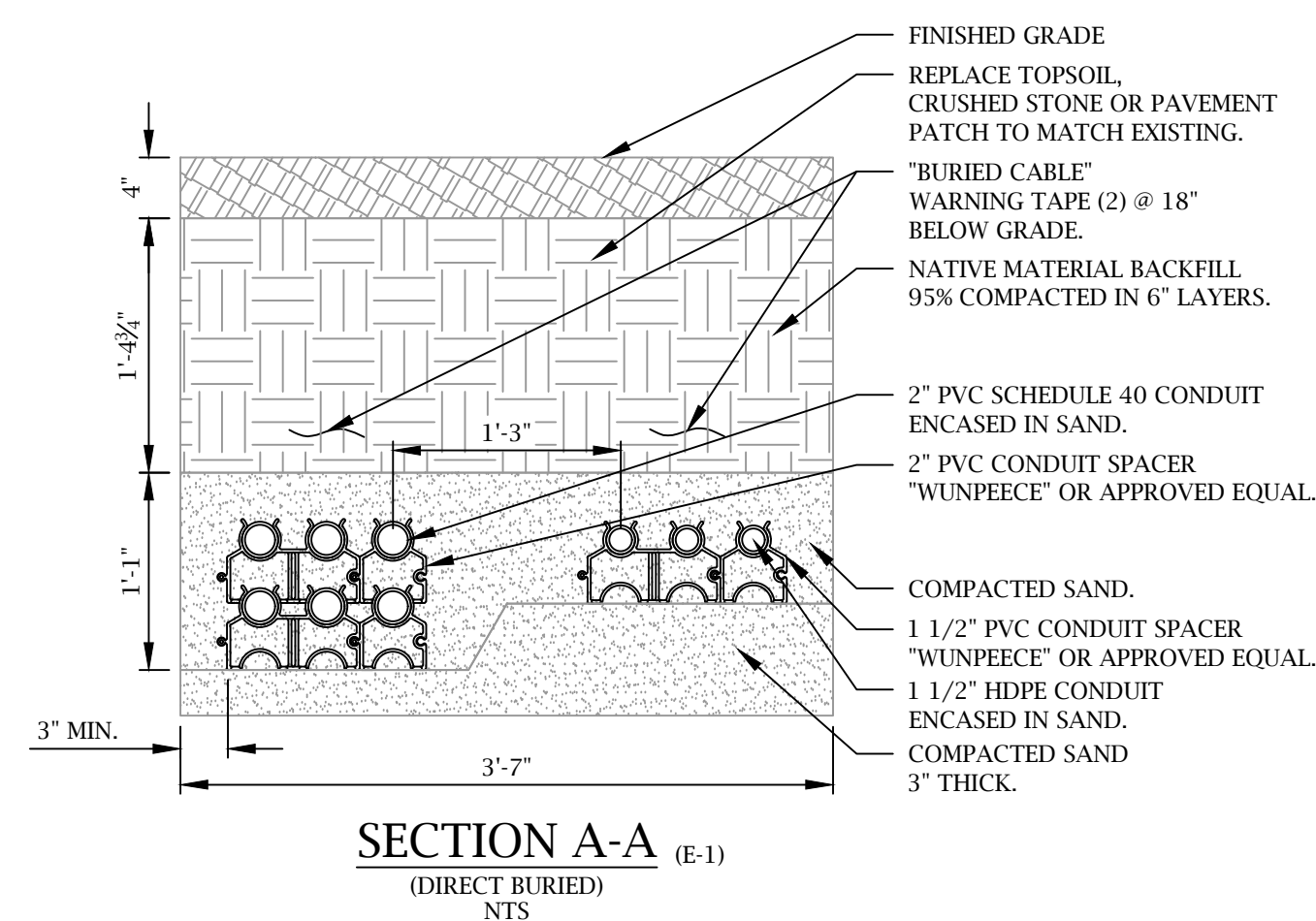
PROJ. NO. E215440		DWG. NO. E-8	
SCALE NTS	SIZE D	SHEET 1 of 1	



TYPICAL PRE-CAST CONCRETE HANDHOLE
NOT TO SCALE



TYPICAL HANDHOLE COVER
NOT TO SCALE



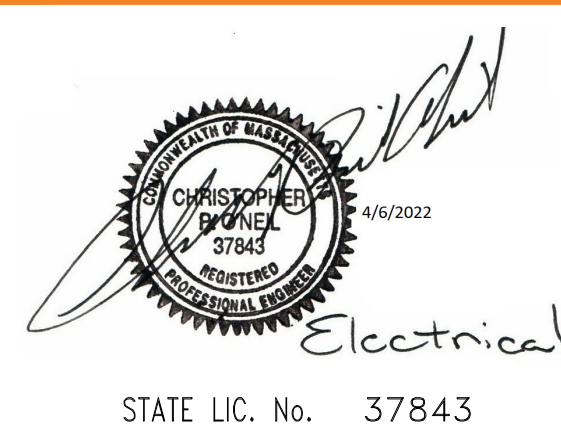
FOR CONSTRUCTION

DESIGNED FOR:

 **BEALS + THOMAS**

BEALS AND THOMAS, INC.
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

D	04/05/22	ISSUED FOR CONSTRUCTION	PB	CPO	CPO	CPO
C	03/01/22	ISSUED FOR PERMITTING/CAMERA REVISION	PB	CPO	CPO	CPO
B	01/07/22	ISSUED FOR PERMITTING	PB	CPO	CPO	CPO
A	08/05/21	ISSUED FOR CONCEPTUAL DESIGN REVIEW	PB	CPO	DM	CPO
REV.	DATE	REVISION DESCRIPTION	DRAWN	ENG'R	CHKD	APVD



ASPLUNDH®
ENGINEERING SERVICES

NEW ENGLAND OFFICE
25 FORBES BLVD., SUITE 1 FOXBORO, MA 02035
PHONE: 781-821-0121

COAL MINE BROOK PARK
616 PLANTATION ST., WORCESTER, MASSACHUSETTS
HANDHOLE & CONDUIT
TRENCH DETAILS

PROJ. NO. E215440		DWG. NO. E-9	
SCALE NTS	SIZE D	SHEET 1 of 1	