

# Town of Franklin

355 East Central Street  
Franklin, Massachusetts 02038-1352



Phone: (508) 520-4907  
www.franklinma.gov

## DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

### MEMORANDUM

**DATE:** January 3, 2024  
**TO:** Franklin Planning Board  
**FROM:** Department of Planning and Community Development  
**RE:** 100-200 Financial Way  
Site Plan - Endorsement

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#### General:

1. The Planning Board voted to approve the Site Plan for 100-200 Financial Way on November 6, 2023.
2. The Certificate of Vote has been added to the Site Plans.

DPCD has no further comment.



# WAREHOUSE/INDUSTRIAL DEVELOPMENT SITE DEVELOPMENT PLANS

**100/200 FINANCIAL PARK  
FRANKLIN, MASSACHUSETTS**  
PERMIT SET: MAY 11, 2023



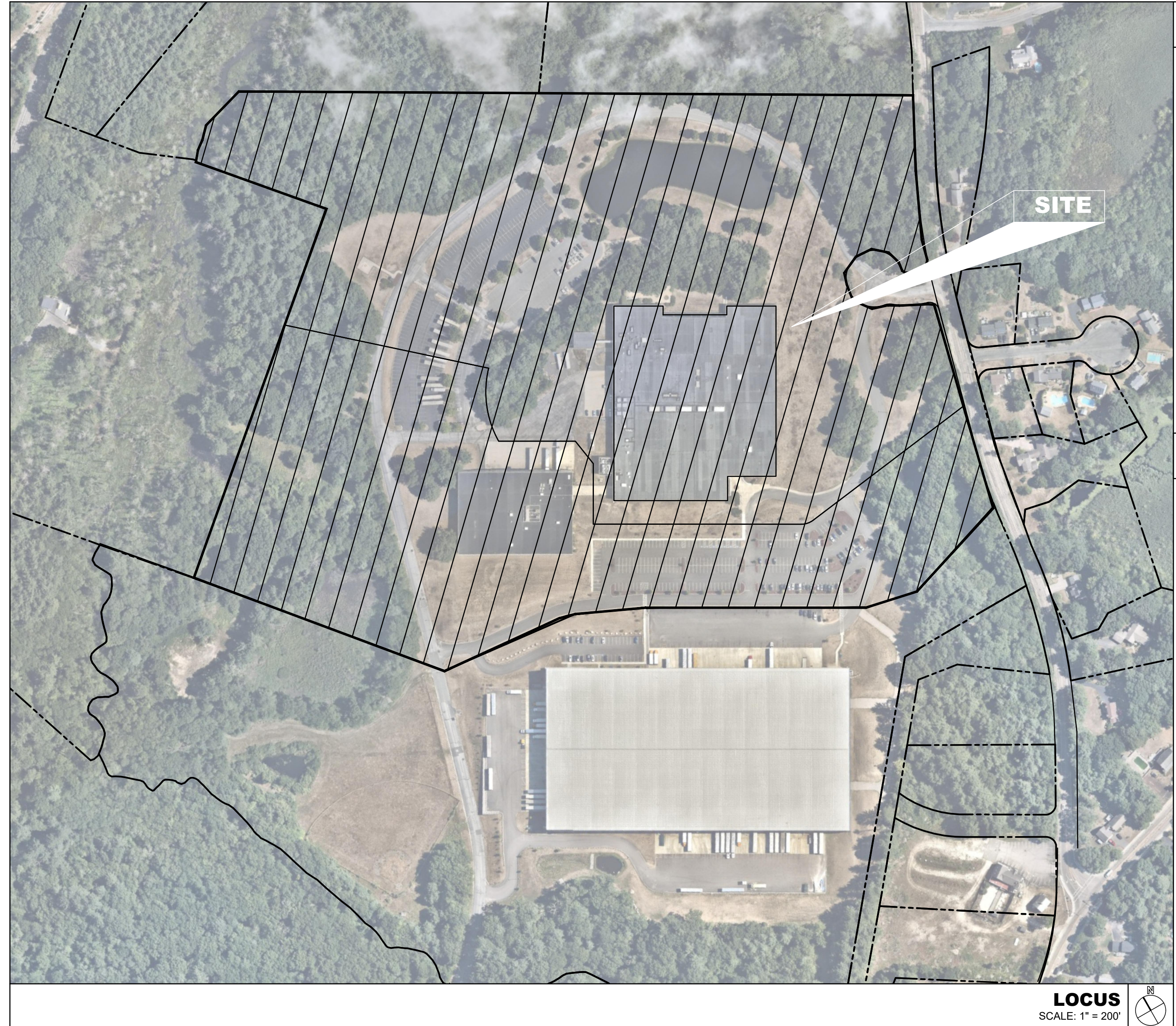
CLIENT:  
Berkeley Partners  
1 WASHINGTON MALL | Suite 701  
BOSTON, MA 02108

CONSULTANT:



12-07-2023

WAREHOUSE/INDUSTRIAL DEVELOPMENT  
100/200 FINANCIAL PARK  
FRANKLIN, MA  
OWNER/APPLICANT: BERKELEY PARTNERS



PROJECT TEAM	
<b>APPLICANT:</b>	BERKELEY PARTNERS 1 WASHINGTON MALL   SUITE 701 BOSTON, MA 02108
<b>OWNER/APPLICANT:</b>	OWNER ICBP IV HOLDINGS 34, LLC CO-OWNER C/O BERKELEY PARTNERS ADDRESS 1111 BROADWAY   SUITE 1670 OAKLAND, CA 94607
<b>ASSESSOR'S ID:</b>	100 FRANKLIN STREET BOOK - 40397 PAGE - 34 MAP - 312 PARCEL 020-000-000  200 FRANKLIN STREET BOOK - 36923 PAGE - 217 MAP - 312 PARCEL 020-001-000  ZONE INDUSTRIAL
<b>CIVIL ENGINEER:</b>	HIGHPOINT ENGINEERING, INC. 980 WASHINGTON STREET   SUITE 216 DEDHAM, MA 02026 TEL: (781) 770-0970 ATTN: Douglas Harnett www.highpointeng.com
<b>LAND SURVEYOR/ WETLAND CONSULTANT:</b>	HANCOCK ASSOCIATES 315 ELM STREET MARLBOROUGH, MA 01752 TEL: (508) 460-1111
<b>TRAFFIC CONSULTANT:</b>	MDM TRANSPORTATION CONSULTANTS 28 LORD ROAD MARLBOROUGH, MA 01752 TEL: (508) 380-9088
<b>ARCHITECT:</b>	RODE ARCHITECTS 535 ALBANY STREET, #405 BOSTON, MA 02118 www.rodearchitects.com
<b>LANDSCAPE ARCHITECT:</b>	MICHAEL D'ANGELO LANDSCAPE ARCHITECTS 840 SUMMER STREET   SUITE 201A BOSTON, MA 02110

## INDEX OF DRAWINGS

ISSUE HISTORY:	PERMIT SET MAY 11, 2023	RESPONSE TO COMMENTS JULY 17, 2023	RESPONSE TO COMMENTS AUGUST 14, 2023	RESPONSE TO COMMENTS AUGUST 26, 2023	RESPONSE TO COMMENTS OCTOBER 10, 2023	RESPONSE TO COMMENTS OCTOBER 15, 2023	RESPONSE TO COMMENTS OCTOBER 26, 2023	PLANNING BOARD ENDORSEMENT DECEMBER 7, 2023
<b>GENERAL</b>								
T100	•	•	•	•	•	•	•	•
EC-1	•	•	•	•	•	•	•	•
EC-2	•	•	•	•	•	•	•	•
EC-3	•	•	•	•	•	•	•	•
EC-4	•	•	•	•	•	•	•	•
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L407	•	•	•	•	•	•	•	•

- SYSTEM, AND STORMWATER SYSTEM SHALL BE THE RESPONSIBILITY OF THE OWNER/APPLICANT AND SHALL NEVER BE THE RESPONSIBILITY OF THE TOWN AND THE TOWN SHALL NEVER BE REQUIRED TO PERFORM ANY SERVICE, REPAIR OR MAINTENANCE WITH RESPECT TO SAID AREAS, OR ANY OF THE AFOREMENTIONED SYSTEMS WITHIN THE SUBJECT PROPERTY. THE TOWN WILL NEVER BE REQUIRED TO PROVIDE SNOW PLOWING OR TRASH PICKUP, WITH RESPECT TO THE SUBJECT PROPERTY.
- PRIOR TO CONSTRUCTION ACTIVITIES, THERE SHALL BE A PRE-CONSTRUCTION MEETING WITH THE OWNER/APPLICANT, AND HIS CONTRACTOR(S), THE DEPARTMENT OF PUBLIC WORKS AND THE PLANNING BOARD'S OBSERVATION CONTRACTOR.
  - SITE PLANS MUST BE ENDORSED BY THE PLANNING BOARD PRIOR TO THE PRE-CONSTRUCTION MEETING.

- CERTIFICATE OF VOTE  
WAIVERS  
100-200 FINANCIAL WAY**
- TO ALLOW THE USE OF HDPE PIPING FOR THE THREE ROOF DRAIN COLLECTORS.
  - REDUCE THE REQUIRED AMOUNT OF PARKING SPACES FROM 413 TO 262 SPACES.

- CERTIFICATE OF VOTE  
SPECIAL CONDITIONS  
100-200 FINANCIAL WAY**
- ALL CONDITIONS APPLY AS WRITTEN IN A LETTER FROM DOUGLAS HARNETT, HIGHPOINT ENGINEERING DATED OCTOBER 26, 2023, AS LISTED ON PAGE TWO (2), EXCEPT WITH THE FOLLOWING CHANGE:
    - APPLICANT WILL PROVIDE A \$100,000 DONATION TO THE TOWN OF FRANKLIN, TO USE TOWARDS THE FUTURE SIDEWALK EXTENSION ALONG WASHINGTON STREET. THE DONATION WILL BE PROVIDED TO THE TOWN PRIOR TO ISSUANCE OF A BUILDING PERMIT.
    - THE PROPONENT IS COMMITTED TO WORKING WITH THE TOWN TO PROVIDE TRANSPORTATION MONITORING FOR TWO PERIODS, WITHIN 6 MONTHS OF INITIAL OCCUPANCY AND WITH 6 MONTHS OF FULL OCCUPANCY OF THE PROJECT TO INCLUDE TRAFFIC DATA COLLECTION TO IDENTIFY POTENTIAL TRAFFIC SIGNAL TIMING ADJUSTMENTS. THE TRANSPORTATION MONITORING WILL BE AT ALL HOURS OF THE DAY. ADDITIONALLY, A CRASH DATA ANALYSIS WILL BE INCLUDED IN BOTH TRAFFIC STUDIES AS MENTIONED ABOVE.
  - THE PROPONENT WILL SUBMIT THE RESULTS OF THESE MONITORING STUDIES TO THE DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT AND TOWN ENGINEER, IF APPLICABLE. THE PROPONENT WILL DESIGN AND IMPLEMENT AN OPTIMIZED TRAFFIC SIGNAL TIMING PLAN.
  - THERE WILL BE NO TRUCK TRAFFIC FROM 11:00PM - 5:00AM.
  - THE APPLICANT/OWNER WILL WORK WITH DPW ON THE CONSTRUCTION IMPROVEMENTS AT WASHINGTON ST AND KING ST.
  - PRIOR TO OCCUPANCY, THE APPLICANT WILL FILE A LIMITED SITE PLAN TO INCLUDE THE TENANT AND PARKING CALCULATIONS.
  - THERE WILL BE NO STORAGE OF HAZARDOUS MATERIALS.
  - THE APPLICANT WILL ADD THE FOLLOWING SIGNAGE AT THE EXIT OF THE PROPERTY:
    - NO IDLING ON WASHINGTON STREET
    - NO TRUCKS ALLOWED ON WY LANE
  - APPLICANT IS RESPONSIBLE FOR ANY SIGNAGE DAMAGE THAT MAY OCCUR AT THE WASHINGTON ST AND KING ST INTERSECTION.

(PAGE 3)

**TOWN OF FRANKLIN PLANNING BOARD**  
DECISION DATE: NOVEMBER 6, 2023  
APPROVAL SIGNATURES:

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\_\_\_\_\_

(PAGE 2)

**CERTIFICATE OF VOTE  
SITE PLAN MODIFICATION  
100-200 FINANCIAL WAY**

SITE PLAN: 'SITE DEVELOPMENT PLAN FOR 100-200 FINANCIAL WAY'

OWNER: ICBP IV HOLDINGS 34, LLC C/O BERKELEY PARTNERS  
1111 BROADWAY, SUITE 1670  
OAKLAND, CA 94607

APPLICANT: BERKELEY PARTNERS  
1 WASHINGTON MALL, SUITE 701  
BOSTON, MA 02108

PREPARED BY: HIGHPOINT ENGINEERING, INC.  
SURVEYOR/ENGINEER: 980 WASHINGTON ST, DEDHAM, MA  
MAY 11, 2023

PROPERTY LOCATION: MAP-312, LOTS 020-000 & 020-001

PLEASE BE ADVISED THAT AT ITS MEETING ON MONDAY, NOVEMBER 6, 2023 THE PLANNING BOARD VOTED (5-0), UPON MOTION DULY MADE AND SECONDED TO APPROVE, WITH CONDITIONS, THE ABOVE REFERENCED SITE PLAN. THE CONDITIONS OF APPROVAL ARE LISTED ON PAGE 2-3, ATTACHED HERETO. BOTH THE CERTIFICATE OF VOTE AS WELL AS THE CONDITIONS OF APPROVAL SHALL BE REFERENCED ON THE SITE PLAN.

(PAGE 1)

**CERTIFICATE OF VOTE  
SITE PLAN MODIFICATION  
100-200 FINANCIAL WAY**

- THE PLANNING BOARD WILL USE OUTSIDE CONSULTANT SERVICES TO COMPLETE CONSTRUCTION INSPECTIONS UPON THE COMMENCEMENT OF CONSTRUCTION. THE FRANKLIN DEPARTMENT OF PUBLIC WORKS DIRECTOR, DIRECTLY AND THROUGH EMPLOYEES OF THE DEPARTMENT OF PUBLIC WORKS AND OUTSIDE CONSULTANT SERVICES SHALL ACT AS THE PLANNING BOARD'S INSPECTOR TO ASSIST THE BOARD WITH INSPECTIONS NECESSARY TO ENSURE COMPLIANCE WITH ALL RELEVANT LAWS, REGULATIONS AND PLANNING BOARD APPROVED PLAN SPECIFICATIONS. SUCH CONSULTANTS SHALL BE SELECTED AND RETAINED UPON A MAJORITY VOTE OF THE BOARD.
- ACTUAL AND REASONABLE COSTS OF INSPECTION CONSULTING SERVICES SHALL BE PAID BY THE OWNER/APPLICANT BEFORE OR AT THE TIME OF THE PRE-CONSTRUCTION MEETING. SHOULD ADDITIONAL INSPECTIONS BE REQUIRED BEYOND THE ORIGINAL SCOPE OF WORLD, THE OWNER/APPLICANT SHALL BE REQUIRED TO SUBMIT FEES PRIOR TO THE ISSUANCE OF A FINAL CERTIFICATE OF COMPLETION BY THE PLANNING BOARD (FORM H). SAID INSPECTION IS FURTHER OUTLINED IN CONDITION #1.
- NO ALTERATION OF THESE PLANS SHALL BE MADE OR AFFECTED OTHER THAN BY AN AFFIRMATIVE VOTE OF THE MEMBERS OF THE BOARD AT A DULY POSTED MEETING AND UPON THE ISSUANCE OF A WRITTEN AMENDED DECISION.
- ALL APPLICABLE LAWS, BY-LAWS, RULES, REGULATIONS, AND CODES SHALL BE COMPLIED WITH, AND ALL NECESSARY LICENSES, PERMITS AND APPROVALS SHALL BE OBTAINED BY THE OWNER/APPLICANT.
- PRIOR TO THE ENDORSEMENT OF THE SITE PLAN, THE FOLLOWING SHALL BE DONE:
  - THE OWNER/APPLICANT SHALL PROVIDE THE ENTIRE LIST OF CONDITIONS AND THIS CERTIFICATE OF VOTE ON THE FRONT PAGE OF THE PLANS.

(PAGE 2)

REV	DATE	DESCRIPTION
7	12-07-2023	PLANNING BOARD ENDORSEMENT
6	10-26-2023	RESPONSE TO COMMENTS
5	10-19-2023	RESPONSE TO COMMENTS
4	10-05-2023	RESPONSE TO COMMENTS
3	08-25-2023	RESPONSE TO COMMENTS
2	08-14-2023	RESPONSE TO COMMENTS
1	07-17-2023	RESPONSE TO COMMENTS

ISSUE TYPE:  
PERMIT SET  
ISSUE DATE:  
05/11/2023  
PROJECT NUMBER:  
22051  
DRAWN BY: JJP / CCL/ WH  
CHECKED BY: DJH  
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TITLE SHEET

SHEET NUMBER:  
**T100**

ISSUED FOR: PERMIT



**LEGEND**

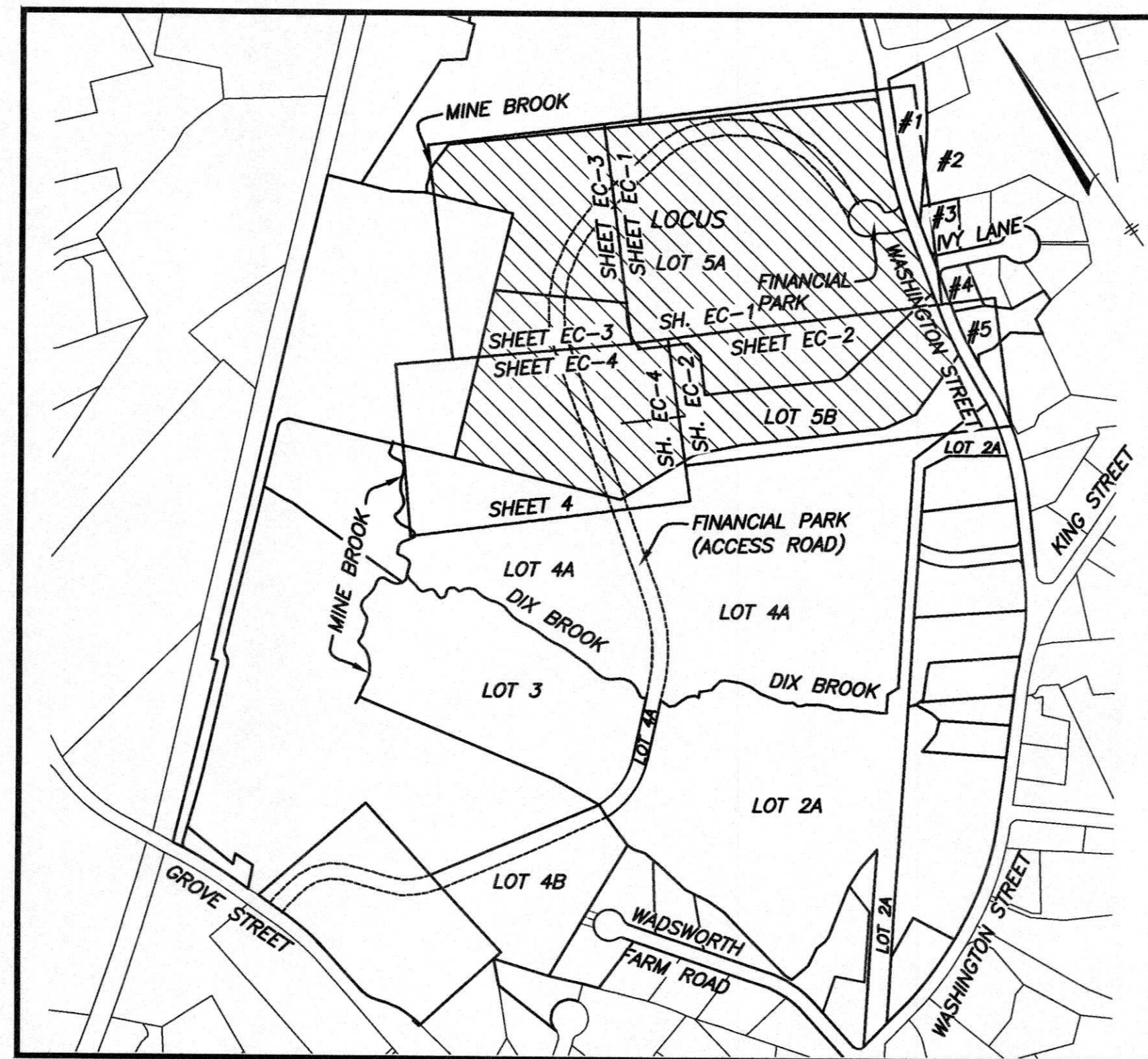
- E ELECTRIC MANHOLE & UNDERGROUND ELECTRIC LINES
- TELEPHONE MANHOLE & UNDERGROUND
- FO FIBER OPTIC LINES
- IR IRON ROD
- BIT. BITUMINOUS
- (C) CALCULATED
- CONG. CONCRETE
- (F) FOUND
- (R) RECORD
- POST INDICATOR VALVE
- CAMERA
- DRY WELL
- LIGHT POLE
- BOLLARD
- SIGN
- DH DRILL HOLE
- DHCB DRILL HOLE IN CONCRETE BOUND
- DHSB DRILL HOLE IN STONE BOUND
- CB CATCH BASIN
- SMH SEWER MANHOLE
- W 6" CI WATER MANHOLE, WATER MAIN WITH SIZE, TEE, GATE VALVE & FIRE HYDRANT
- G 10" DI GAS MAIN WITH SIZE & GATE VALVE
- OHW EXISTING UTILITY POLE WITH DESIGNATION OVERHEAD WIRES AND GUY POLE
- AREA OF FLOOD ZONES (SEE NOTE 10)
- STONE WALL
- METAL GUARDRAIL
- EDGE OF PAVEMENT
- WIRE FENCE
- EDGE OF GRAVEL ROAD
- T/G TELECOMMUNICATIONS EASEMENT
- 208.8 WFA2 LIMIT OF BORDERING VEGETATED WETLAND WITH FLAG NUMBER AND ELEVATION
- LIMIT OF 25-FOOT NO DISTURB WETLAND BUFFER ZONE
- LIMIT OF 50-FOOT NO BUILD ZONE WETLAND BUFFER ZONE
- LIMIT OF 100-FOOT WETLAND BUFFER ZONE
- SEWERLINE & MANHOLE
- DRAINLINE WITH CATCHBASIN, MANHOLE & ROUND CATCHBASIN
- LIMIT OF 100-YEAR FLOOD PLAIN (SEE NOTE 10 & 11)
- LIMIT OF FEMA FLOOD WAY (SEE NOTE 10)
- LIMIT OF 100-FOOT INNER RIPARIAN ZONE
- LIMIT OF 200-FOOT OUTER RIPARIAN ZONE

# LIMITED/COMPLIED EXISTING CONDITIONS PLAN

## FOR 100 & 200 FINANCIAL PARK FRANKLIN, MA

OCTOBER 24, 2022

REV. JULY 24, 2023



**LOCUS MAP**  
1"=500'

**NOTES:**

- 1) PROJECT SOURCE BENCHMARK IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988
- 2) THE PURPOSE OF THIS PLAN IS TO FACILITATE CONCEPT DESIGN ONLY. IT COMPILES INFORMATION FROM THE FOLLOWING SOURCES:
  - A: TOPOGRAPHY AND WETLANDS (SERIES F&G) NEAR WASHINGTON STREET FROM 2016 ANRAD BY THIS OFFICE.
  - B: REMAINDER OF WETLANDS FROM 2019 WETLANDS PLAN OF LOT 5 BY THIS OFFICE.
  - C: 2020 SITE "AS-BUILT" BY THIS OFFICE OF LOT 4A (TO THE SOUTH) WHICH INCLUDES PARKING EASEMENT ON LOT 5A AND ACCESS EASEMENT TO FINANCIAL PARK CUL-DE-SAC.
  - D: UTILITY LOCATIONS FROM 2021 ALTA PLAN FOR LOT 5A AND LOT 5B.
  - E: PORTIONS OF CONTOURS FROM NOAA 2011 LIDAR.
  - F: GPS FILL IN CONTOURS IN AREA SOUTH OF SMALL WAREHOUSE.
- 3) UNDERGROUND UTILITIES SHOWN HEREON ARE FROM A DECEMBER 15, 2021 ALTA BY THIS OFFICE (AND HAVE NOT BEEN UPDATED). THEY WERE COMPILED FROM FIELD LOCATIONS OF STRUCTURES, CONTRACTOR PAINT MARKS, AND AVAILABLE RECORD INFORMATION ON FILE AT THE TOWN ENGINEERING OFFICES, TOWN D.P.W., MASS HIGHWAY DEPT. AND UTILITY COMPANIES. OTHER UNDERGROUND UTILITIES MAY EXIST. IT SHALL BE THE RESPONSIBILITY OF THE DESIGN ENGINEER AND THE CONTRACTOR TO VERIFY THE LOCATION, SIZE & ELEVATION OF ALL UTILITIES WITHIN THE AREA OF ANY FUTURE PROPOSED WORK AND TO CONTACT "DIG-SAFE" AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION, DEMOLITION OR CONSTRUCTION.
- 4) THE LOCATION OF UNDERGROUND STORAGE TANKS, IF ANY, ARE UNKNOWN.
- 5) THIS PLAN IS A COMPILATION OF SEVERAL TOPOGRAPHIC SURVEYS PREPARED AT VARIOUS SCALES, AS SUCH, SCALES OF SOME SYMBOLS ARE NOT CONSISTENT.
- 6) ELECTRIC EASEMENT CROSSING LOCUS IS DEPICTED APPROXIMATELY PER 2-19-15 ALTA PLAN PREPARED FOR CRE MANAGEMENT, LLC. AND PLAN BOOK 56, PLAN #2653.
- 7) INTENTIONALLY OMITTED
- 8) A TWO LOT DEFINITIVE SUBDIVISION PLAN WAS APPROVED FOR PREVIOUS OWNERS BUT NOT REFERENCED ON THE CURRENT DEED. THE COVER SHEET (ONLY) WAS RECORDED IN PLAN BOOK 428, PLAN 163 OF 1995 AT THE NORFOLK COUNTY REGISTRY OF DEEDS. THE LOTTING SHEETS, NOT RECORDED, ARE ON FILE AT THE FRANKLIN PLANNING BOARD. THE LOCATION OF THE "FINANCIAL PARK" CUL-DE-SAC IS SHOWN FROM SAID PLANS.
- 9) LOCATION OF IRRIGATION SYSTEM COMPONENTS NOT INCLUDED IN THIS SURVEY.
- 10) FEMA FLOOD ZONE LINES FOR "ZONE X-SHADED" ARE SHOWN APPROXIMATELY FROM MASS GIS.
- 11) THE 100 YEAR FLOOD PLAIN (FLOOD ZONE AE) WAS FIELD LOCATED ON LOT 4A AND PARTIALLY ONTO THE SOUTHERLY PORTION OF LOT 5 ON AUGUST 19, 2019. THE FLOOD ZONE LINE IS SHOWN PER FIELD LOCATION BETWEEN WETLAND FLAG J105 (SHEETS 4 & 5) AND MEAN ANNUAL HIGH WATER FLAG 215. ALL OTHER PORTIONS OF FLOOD ZONE AE LINES ARE SHOWN APPROXIMATELY PER INTERPOLATION OF THE NOAA LIDAR CONTOURS THAT ARE PART OF THIS COMPILATION PLAN AND ARE NOT FIELD LOCATED.
- 12) MEAN ANNUAL HIGH WATER (MAHW) HAS BEEN FIELD DELINEATED AT THE NORTHWEST CORNER OF LOT 5A AND SEVERAL HUNDRED FEET SOUTH OF THERE. ON LOT 4A, ALONG MINE BROOK AND THE PORTION OF DIX BROOK THAT HAS NOT BEEN FIELD DELINEATED, MAHW HAS BEEN APPROXIMATED BASED ON DIGITIZED CENTERLINE OF SAID BROOKS AND MAHW WIDTHS FROM USGS STREAMSTATS BANKFULL STATISTICS.
- 13) BVW (BORDERING VEGETATED WETLANDS) HAS NOT BEEN FLAGGED WEST OF THE DETENTION POND ON ABUTTING LOT 4A, BETWEEN DIX BROOK AND ROUGH WF-J85. THIS LINE WOULD NOT IMPACT THE 100' SETBACK LINE ON LOT 4A AS THE DETENTION POND BROADCASTS A 100' BUFFER FARTHER EAST AS DEPICTED.
- 14) OFF-SITE ACCESS EASEMENTS AND UTILITY EASEMENTS EXIST BUT ARE NOT SHOWN AS THEY ARE OUTSIDE THE SCOPE OF THIS SURVEY.
- 15) WATER LINE SHOWN HEREON FOR WELL PUMP IS COMPILED FROM A SKETCH SUPPLIED BY HIGHPOINT ENGINEERING AND IS SHOWN APPROXIMATE ONLY. A WELL PUMP EXISTS ON SITE BUT HAS NOT BEEN LOCATED AS OF THE DATE OF THIS PLAN.
- 16) REVISED AND ADDITIONAL WETLAND FLAGS WERE FIELD LOCATED ON JUNE 29, 2023 BY THIS OFFICE AND ARE SHOWN HERE ON (SHEET EC-1) NEW FLAGS LOCATED ARE WF-114A, WF-114B, WF-114C, WF-114D, WF-B100, WF-B101, WF-B102, WF-B103, WF-BA200, WF-BA201B, WF-BA202, WF-BA203 & WF-BA204. WETLAND FLAGS WF BA-103A, WF BA-102A, WF BA-101A, WF BA-100A, WF BA-200A, WF BA-201 & WF BA-202A WERE LOCATED ON JULY 17, 2023.
- 17) IN PARAGRAPH 1.2 OF DOCUMENT IN DEED BOOK 36923, PAGE 202 A 20'X20' SIGNAGE EASEMENT IS DESCRIBED BUT REFERENCES A SKETCH ON ITS EXHIBIT B THAT DEPICTS TWO STRAIGHT LINES AND A CURVE WITH NO MATH. A BEST GUESS OF INTENT IS DRAFTED HEREON.

**SHEET INDEX:**

COVER SHEET  
LIMITED/COMPLIED EXISTING.....EC-1 THRU EC-4  
CONDITIONS PLANS

**ABUTTERS EAST OF WASHINGTON STREET:**

- #1: 312-006-000-000  
HALLIE WETZELL & NICHOLAS PAONE  
394 WASHINGTON STREET, FRANKLIN, MA  
DEED BOOK 31636, PAGE 270
- #2: 312-011-000-000  
TOWN OF FRANKLIN  
DEED BOOK 9381, PAGE 124
- #3: 312-007-000-000  
MICHAEL CARUSO & VANESSA CARUSO  
2 IVY LANE, FRANKLIN, MA  
DEED BOOK 35089, PAGE 415
- #4: 312-016-000-000  
KEVIN & KATIE BOYCE  
1 IVY LANE, FRANKLIN, MA  
DEED BOOK 36017, PAGE 305
- #5: 312-017-000-000  
SUZANNA & AMBER SARKAR  
JOANNE HEBERT SARKAR  
460 WASHINGTON STREET, FRANKLIN, MA  
DEED BOOK 40155, PAGE 457

**RECORD OWNERS:**

ICBP IV HOLDINGS 34, LLC  
C/O BERKELEY PARTERS  
1 SANSOME STREET, SUITE 1500  
SAN FRANCISCO, CALIFORNIA

**ASSESSORS' PARCEL ID:**

LOT 5A: 312-020-000-000  
LOT 5B: 312-020-001-000  
W/R/T EASEMENT OVER LOT 4A  
LOT 4A: 321-060-000-000

**REFERENCES:**

DEED BOOK 36923, PAGE 217  
PLAN BOOK 56, PLAN 2653 & 2654  
PLAN BOOK 107, PAGE 253  
PLAN BOOK 117, PAGES 388 & 389  
PLAN BOOK 190, PAGE 1305  
PLAN 252 OF 1977, PLAN BOOK 259  
PLAN BOOK 281, PLAN 323 OF 1980  
PLAN 322 OF 1980, PLAN BOOK 281  
PLAN BOOK 665, PAGES 8 & 9  
PLAN BOOK 672, PAGE 97 & 98  
PLAN BOOK 672, PAGE 97 & 98  
PLAN BOOK 675, PAGE 39  
PLAN BOOK 676, PAGE 49  
PLAN BOOK 678, PAGES 8 & 9  
PLAN BOOK 701, PAGE 31  
PLAN BOOK 281, PLAN 323 OF 1980

**ZONING:**

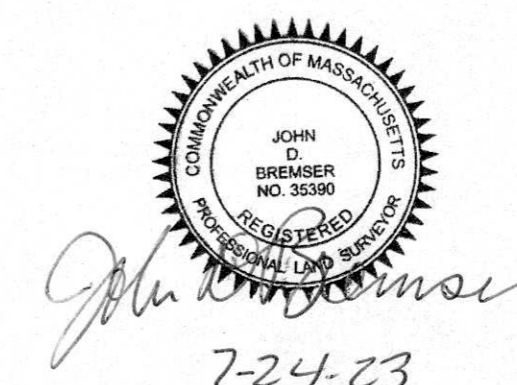
INDUSTRIAL

**SURVEYOR**

HANCOCK ASSOCIATES  
315 ELM STREET  
MARLBOROUGH, MA 01752  
PHONE (508) 460-1111

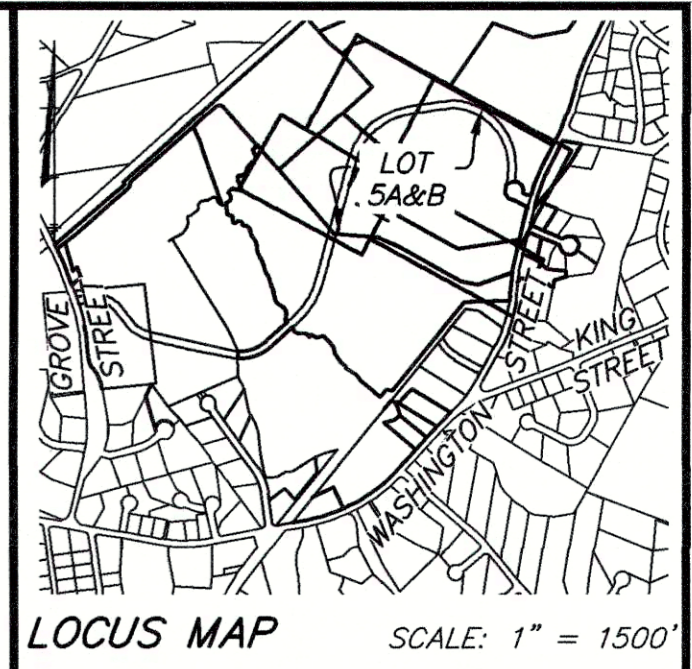
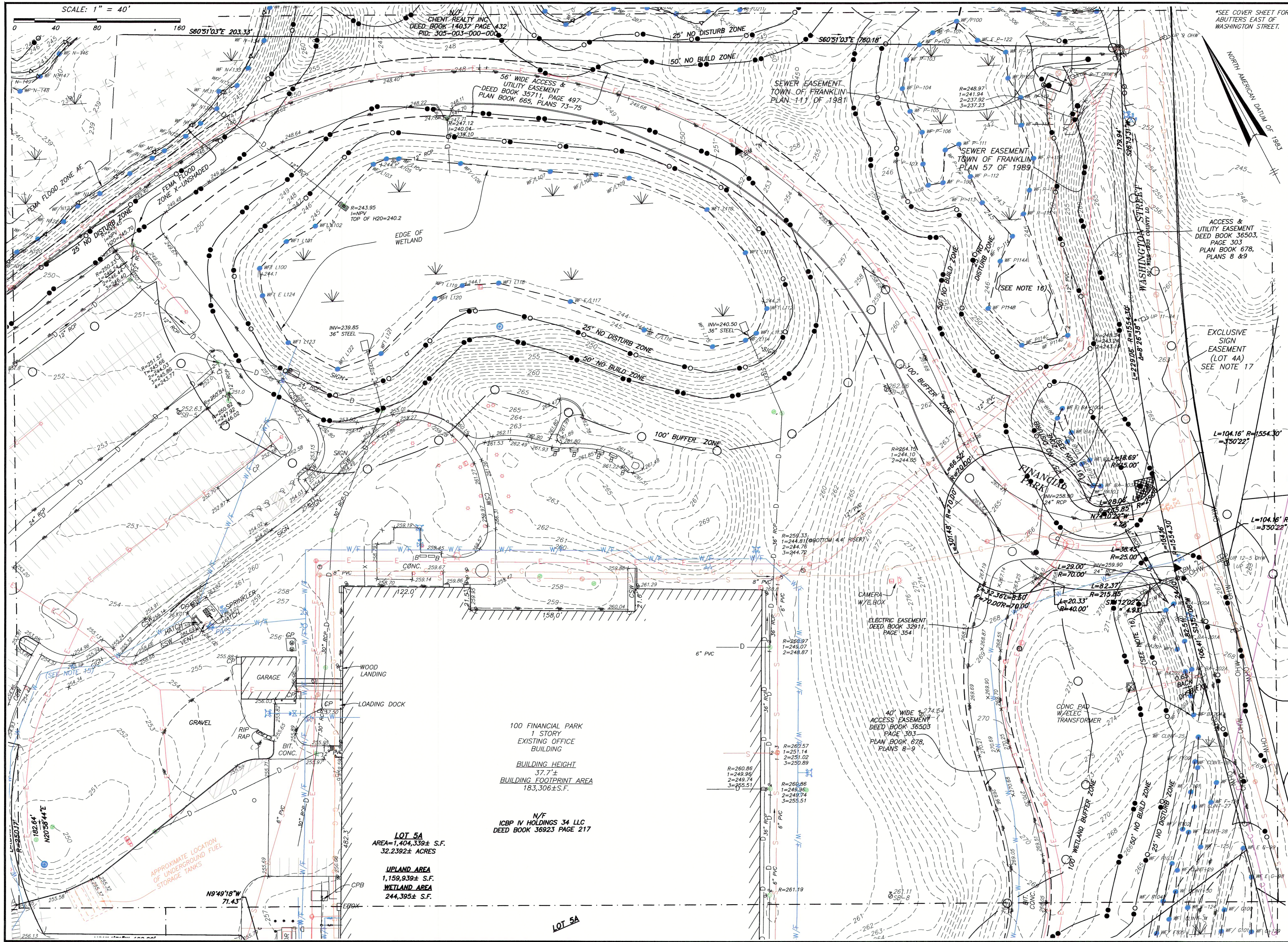
**CIVIL ENGINEER**

HIGHPOINT ENGINEERING, INC.  
980 WASHINGTON STREET  
DEDHAM, MA 02026  
PHONE (781) 770-0973



ELEVATION BENCH MARKS		
▲ DATUM: (SEE NOTE 1)		
NO.	DESCRIPTION	ELEV.
L	MAGNETIC NAIL IN PAVEMENT	266.93
M	MAGNETIC NAIL IN PAVEMENT	254.42
N	MAGNETIC NAIL IN PAVEMENT	251.92

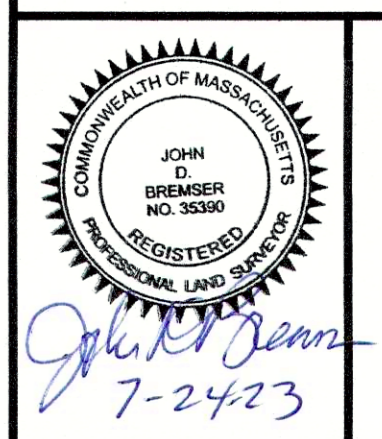




**SITE ADDRESS:**  
**#100 & #200**  
**FINANCIAL PARK**  
 (F/K/A 431 WASHINGTON ST.)  
 Franklin, Massachusetts

**PREPARED FOR:**  
**BERKELEY PARTNERS**  
**GROUP, LLC**

**HANCOCK ASSOCIATES**  
 Civil Engineers  
 Land Surveyors  
 Environmental Consultants  
 315 Elm Street, Marlborough, MA 01752  
 Voice (508) 460-1111, Fax (508) 460-1121  
 www.hancockassociates.com



NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION
12	CMC	JDB	7/24/23	ADD HYDRANT AT FINANCIAL PARK & WASHINGTON STREET
11	CMC	JDB	7/19/23	REV. WET. LINES/BUFF. AT WASH & FIN. PARK. NOTES & CULVERT
10	CMC	JDB	5/5/23	ADD WATER LINE
9	CMC	JDB	4/17/23	GENERAL REVISIONS
8	CMC	JDB	4/4/23	GENERAL REVISIONS
6	CMC	JDB	3/6/23	REVISE NOTES 10-13, ADD 13; ADD MAHW FLAGS ON LOT 4A
5	CMC	JDB	2/3/23	REVISE FLOOD ZONE AREAS & ADD MAHW FLAG SERIES 100
1	CMC	JDB	11/2/22	GENERAL REVISIONS

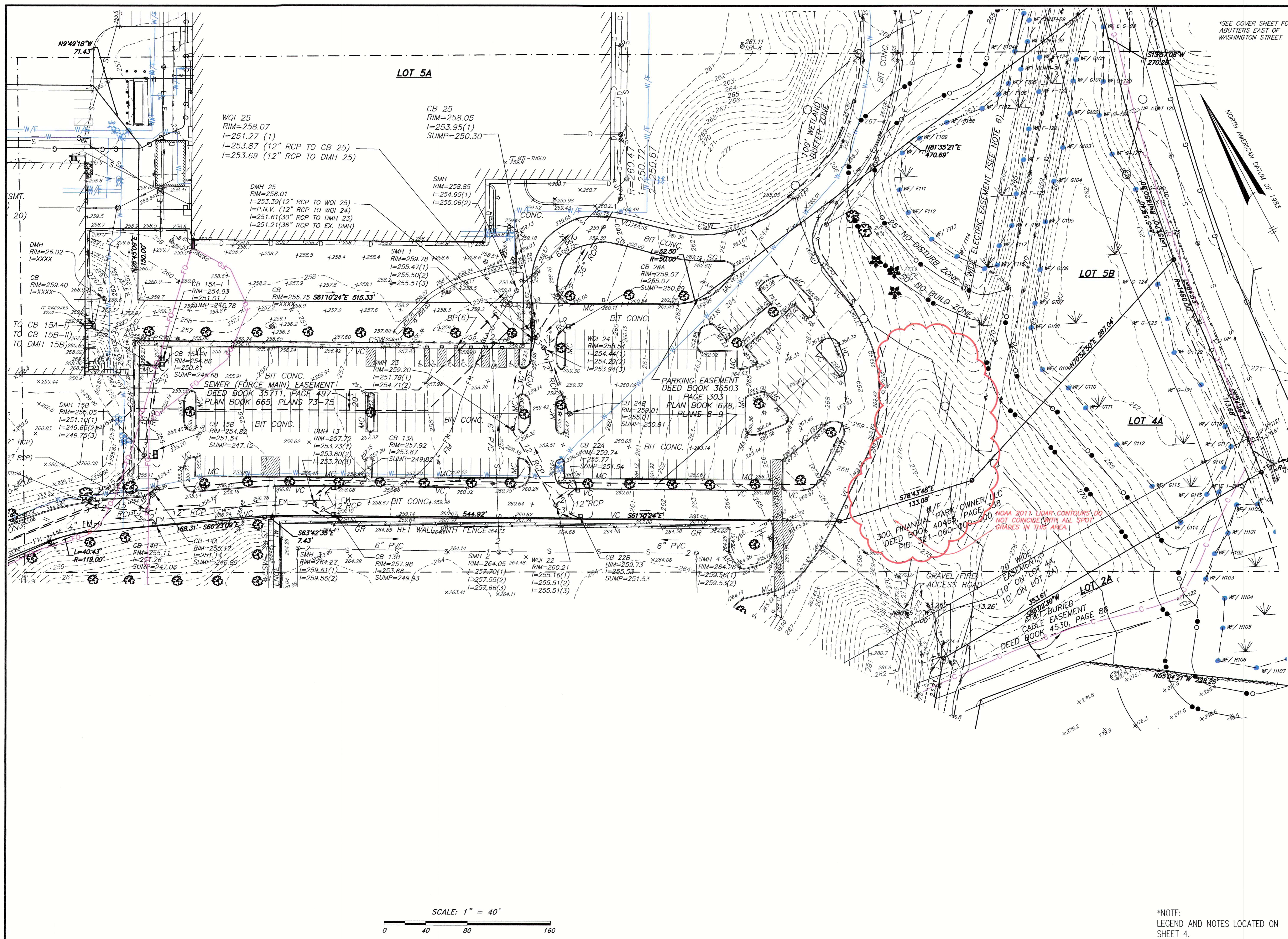
DATE: 10/24/22 DRAWN BY: CMC  
 SCALE: 1" = 40' CHECK BY: JDB

**LIMITED/COMPILED**  
**EXISTING CONDITIONS**  
**PLAN OF LAND**  
**IN**  
**FRANKLIN, MA**

PLOT DATE: Jul 24, 2023 7:15 pm  
 DWG: 26609-LIM-EC-LOT-5A&B-2023.dwg  
 LAYOUT: EC-1  
 SHEET: 2 OF 5  
 PROJECT NO.: 22387

**EC-1**

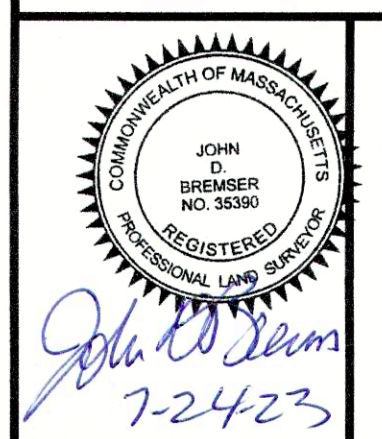




**SITE ADDRESS:**  
**#100 & #200**  
**FINANCIAL PARK**  
 (F/K/A 431 WASHINGTON ST.)  
 Franklin, Massachusetts

**PREPARED FOR:**  
**BERKELEY PARTNERS**  
**GROUP, LLC**

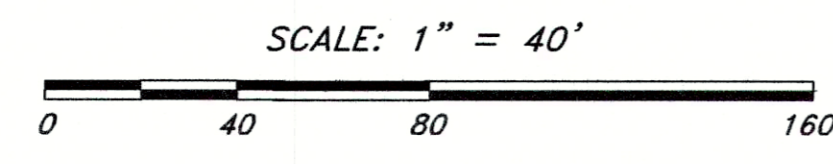
**HANCOCK ASSOCIATES**  
 Civil Engineers  
 Land Surveyors  
 Environmental Consultants  
 315 Elm Street, Marlborough, MA 01752  
 Voice (508) 460-1111, Fax (508) 460-1121  
 www.hancockassociates.com



12	CMC	JDB	7/24/23	ADD HYDRANT AT FINANCIAL PARK & WASHINGTON STREET
11	CMC	JDB	7/19/23	REV. WET. LINES/BUFF. AT WASH & FIN. PARK. NOTES & CULVERT
10	CMC	JDB	5/5/23	ADD WATER LINE
9	CMC	JDB	4/17/23	GENERAL REVISIONS
8	CMC	JDB	4/4/23	GENERAL REVISIONS
6	CMC	JDB	3/6/23	REVISE NOTES 10-13, ADD 13; ADD MAHW FLAGS ON LOT 4A
5	CMC	JDB	2/3/23	REVISE FLOOD ZONE AREAS & ADD MAHW FLAG SERIES 100
1	CMC	JDB	11/2/22	GENERAL REVISIONS
NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION

DATE: 10/24/22 DRAWN BY: CMC  
 SCALE: 1" = 40' CHECK BY: JDB

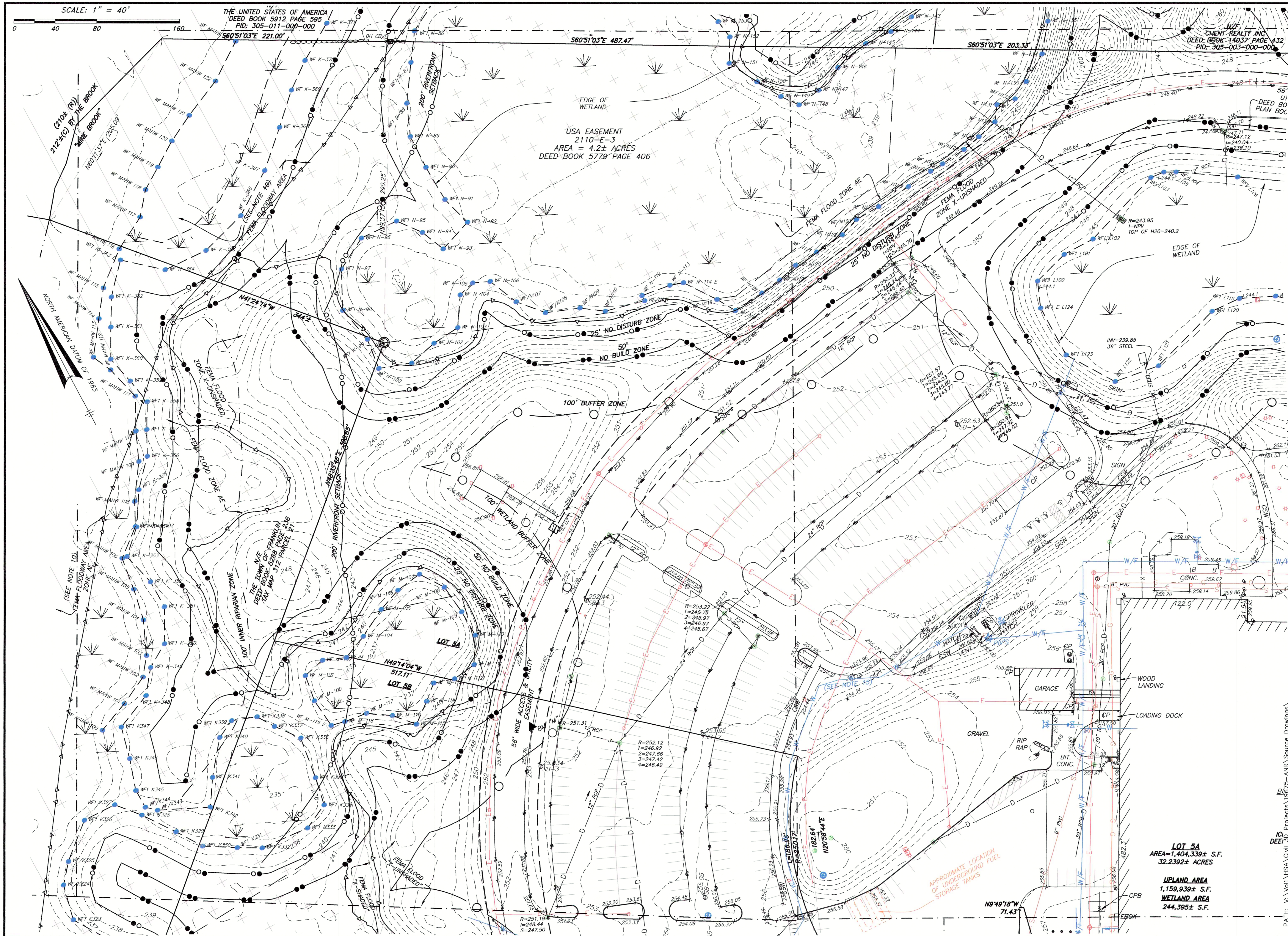
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**EXISTING CONDITIONS**  
**PLAN OF LAND**  
**IN**  
**FRANKLIN, MA**  
 PLOT DATE: Jul 24, 2023 7:10 pm  
 DWS: 26609-LIM-EC-LOT-5A&B-2023.dwg  
 LAYOUT: EC-2  
 SHEET: 3 OF 5  
 PROJECT NO.: 26609



\*NOTE:  
 LEGEND AND NOTES LOCATED ON SHEET 4.

PATH: V:\01\1975\19675-ANR Source Drawings\

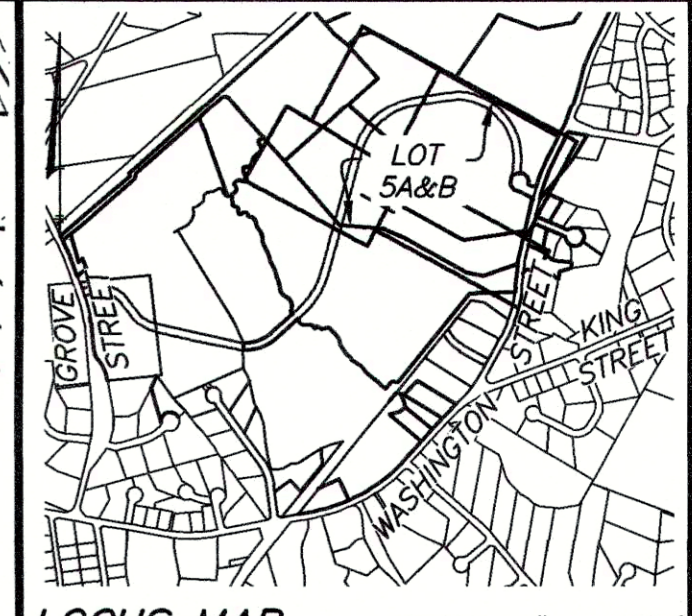




SCALE: 1" = 40'

THE UNITED STATES OF AMERICA  
DEED BOOK 5912 PAGE 595  
PID: 305-011-000-000

USA EASEMENT  
2110-E-3  
AREA = 4.2± ACRES  
DEED BOOK 5779 PAGE 406



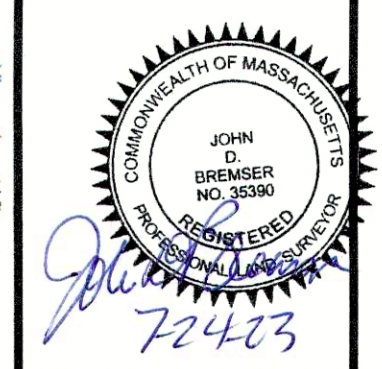
LOCUS MAP SCALE: 1" = 1500'

SITE ADDRESS:  
**#100 & #200  
FINANCIAL PARK**  
(F/K/A 431 WASHINGTON ST.)  
Franklin, Massachusetts

PREPARED FOR:  
**BERKELEY PARTNERS  
GROUP, LLC**

**HANCOCK  
ASSOCIATES**  
Civil Engineers  
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315 Elm Street, Marlborough, MA 01752  
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NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION
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DATE: 10/24/22 DRAWN BY: CMC  
SCALE: 1" = 40' CHECK BY: JDB

**LIMITED/COMPILED  
EXISTING CONDITIONS  
PLAN OF LAND  
IN  
FRANKLIN, MA**

PLOT DATE: Jul 24, 2023 7:13 pm

DWG: 26609-LIM-EC-LOT-5A&B-2023.dwg

LAYOUT: EC-3

SHEET: 4 OF 5

PROJECT NO.: 26609

**EC-3**

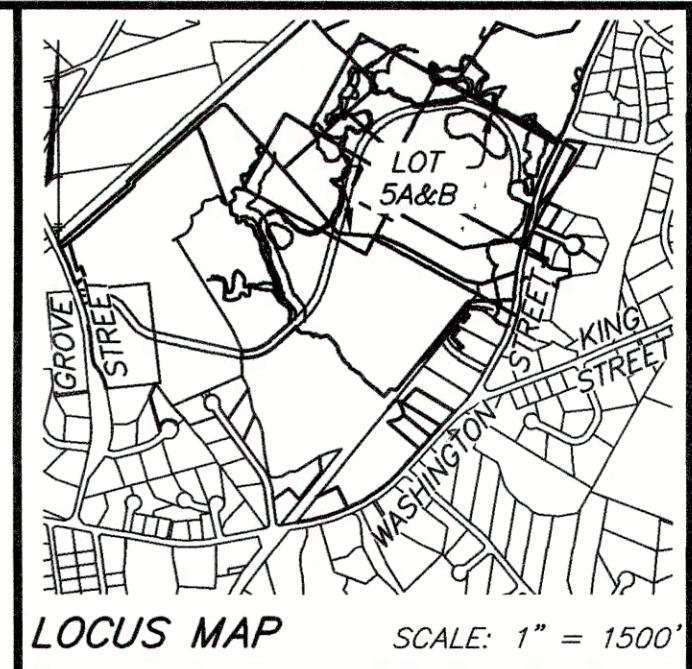
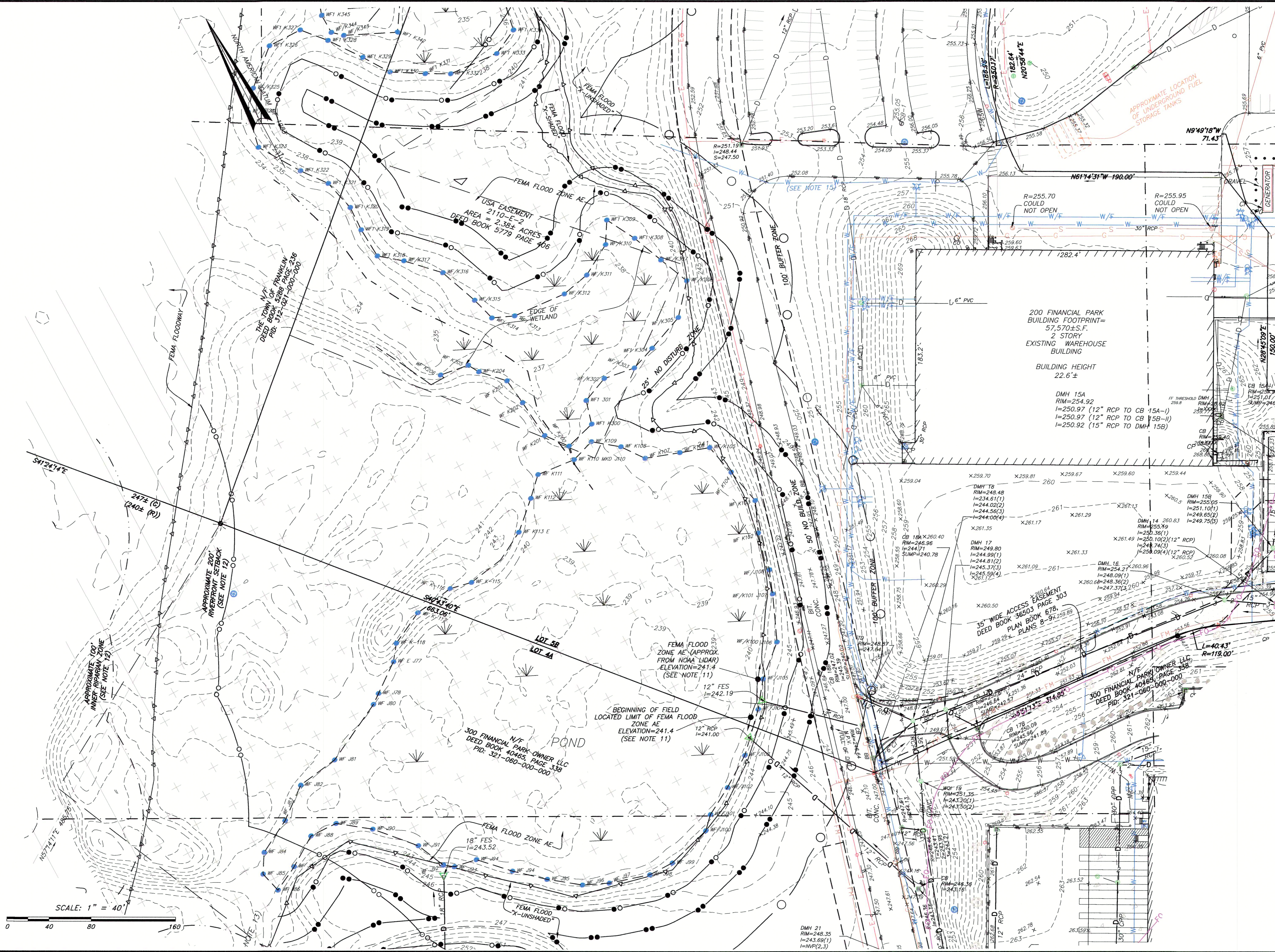
**LOT 5A**  
AREA=1,404,339± S.F.  
32.2392± ACRES

**UPLAND AREA**  
1,159,939± S.F.  
**WETLAND AREA**  
244,395± S.F.

APPROXIMATE LOCATION  
OF UNDERGROUND FUEL  
STORAGE TANKS

PATH: V:\081\USA\Civil\33\Projects\16975-ANR\Source Drawings\16975-ANR-EC-3.dwg  
 ID: DEE1

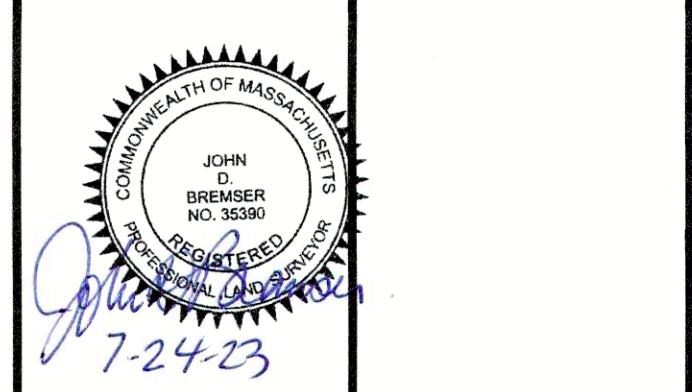




**SITE ADDRESS:**  
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**PREPARED FOR:**  
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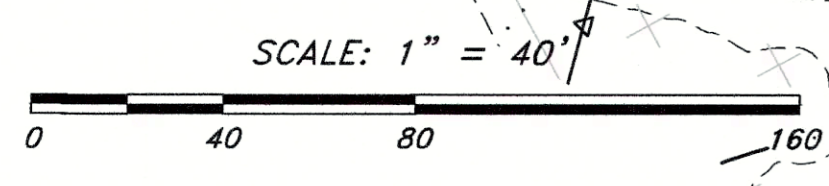
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**LIMITED/COMPILED**  
**EXISTING CONDITIONS**  
**PLAN OF LAND**  
**IN**  
**FRANKLIN, MA**  
 PLLOT DATE: Jul 24, 2023 7:14 pm  
 DWG: 26609-LIM-EC-LOT-5A&B-2023.dwg  
 LAYOUT: EC-4  
 SHEET: 5 OF 5  
**EC-4**  
 PROJECT NO.: 26609



PATH: V:\01\USA\Civil\_3D\_Projects\19675-ANR\Source Drawings



**GENERAL NOTES**

THE CONTRACTOR SHALL REPORT TO THE OWNER AND ENGINEER ANY SIGNIFICANT VARIATIONS IN EXISTING SITE CONDITIONS FROM THOSE SHOWN ON THESE PLANS. ANY PROPOSED REVISIONS TO THE WORK, IF REQUIRED BY THESE SITE CONDITIONS, SHALL NOT BE UNDERTAKEN UNTIL REVIEWED AND APPROVED BY THE OWNER AND THE ENGINEER.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTITUTE ANY AND ALL SAFETY MEASURES NECESSARY TO PROTECT THE PUBLIC SAFETY DURING CONSTRUCTION. THESE SHALL INCLUDE SIGNS, BARRICADES, FENCES, POLICE OFFICERS, ETC. AS IS NECESSARY, OR AS DIRECTED BY THE PUBLIC AUTHORITIES AND THE OWNER. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.

THE EXISTING SITE CONDITIONS SHOWN ON THESE PLANS WERE DETERMINED BY A FIELD SURVEY AND COMPILATION OF PLANS OF RECORD. ANY VARIATIONS FROM THE CONDITIONS SHOWN ON THESE PLANS SHOULD BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE PROPOSED WORK.

UNLESS OTHERWISE SPECIFIED ON THE PLANS AND SPECIFICATIONS ALL SITE CONSTRUCTION MATERIALS AND METHODOLOGIES ARE TO CONFORM TO THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, 1988 EDITION OR THE LATEST EDITION.

WORK WITHIN THE LOCAL RIGHTS-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN THE STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.

THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE MUNICIPALITY INCLUDING BUT NOT LIMITED TO DEMOLITION, TRENCHING, AND WATER/SEWER/RAIN CONNECTION PERMITS PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AND ALL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AND ALL CONSTRUCTION MEANS AND METHODS.

LIMIT OF WORK SHALL BE EROSION CONTROL BARRIERS, LIMIT OF GRADING AND SITE PROPERTY LINES AND/OR AS INDICATED ON DRAWINGS.

CONTRACTOR TO VERIFY UTILITY STUB LOCATIONS AND ELEVATIONS IN THE FIELD PRIOR TO COMMENCING WORK.

ANY ALTERATION TO THESE DRAWINGS MADE IN THE FIELD DURING CONSTRUCTION TO BE RECORDED BY THE CONTRACTOR ON RECORD DOCUMENTS.

ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO OWNER.

ALL WORK TO BE DONE WITHIN PUBLIC RIGHT-OF-WAYS SHALL CONFORM TO TOWNSHIP LOCAL STANDARD CONSTRUCTION REQUIREMENTS FOR THE INSTALLATION OF AND/OR REPAIR OF UNDERGROUND FACILITIES, EXCAVATIONS AND PAVING IN THE PUBLIC WAY.

IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACATORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL AND SHALL NOTIFY THE OWNER/ENGINEER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.

**SEDIMENTATION/EROSION CONTROL NOTES**

UNLESS DIRECTED OTHERWISE, ALL EXISTING TURF OR VEGETATED AREAS WITHIN THE PROPOSED LIMITS OF WORK FOR EXCAVATION, GRADING, OR IMPROVEMENT SHALL BE CLEARED AND GRUBBED. WITHIN THE CLEARING AND GRUBBING AREA, REMOVE ALL TREES, SHRUBS AND ROOTS UNLESS DESIGNATED OTHERWISE. CLEARING SHALL INCLUDE THE FELLING, CUTTING AND OFF-SITE DISPOSAL OF ALL TREES, SHRUBS, STUMPS AND VEGETATIVE DEBRIS PRODUCED THROUGH THE CLEARING OPERATIONS.

ALL EROSION MITIGATION MEASURES SHALL BE IN PLACE PRIOR TO MAJOR CONSTRUCTION OR SOIL DISTURBANCE COMMENCING ON THE SITE.

THE LOCATION OF EROSION CONTROL BARRIERS SHOWN ON DRAWINGS ARE INTENDED TO BE MINIMUM REQUIREMENTS AND A GUIDE FOR THE PLACEMENT OF THESE BARRIERS. OTHER MEASURES MAY BE WARRANTED BASED UPON EXPERIENCE AT THE SITE. WHEN NO SEDIMENTATION CONTROL SYSTEM IS SHOWN ON THE DRAWING, THE CONTRACTOR SHALL BE REQUIRED TO ESTABLISH A SYSTEM TO PREVENT SILTATION OR POLLUTION OF ADJACENT PROPERTY. THE SYSTEMS SHOWN SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF PLACING ADDITIONAL BARRIERS OR REPLACING BARRIERS AS REQUIRED BY SITE CONDITIONS. THE IMPLEMENTATION, MAINTENANCE, REPLACEMENT AND ADDITIONS TO THESE SYSTEMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. AS CONSTRUCTION PROGRESSES AND SEASONAL CONDITIONS DICTATE, MORE SILTATION CONTROL FACILITIES MAY BE REQUIRED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS NEW CONDITIONS THAT MAY BE CREATED.

THE CONTRACTOR SHALL REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP AND REMOVE LOOSE CONSTRUCTION DEBRIS FROM THE SITE. ALL DEMOLITION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE SITE TO A LEGAL DUMP SITE. ALL TRUCKS LEAVING THE SITE SHALL BE COVERED.

AT THE END OF CONSTRUCTION, THE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS AND SURPLUS MATERIALS FROM THE SITE. A THOROUGH INSPECTION OF THE WORK PERIMETER IS TO BE MADE AND ALL DISCARDED MATERIALS, BLOWN OR WATER CARRIED DEBRIS, SHALL BE COLLECTED AND REMOVED FROM THE SITE. THE CONTRACTOR SHALL NOT REMOVE ANY SILTATION CONTROLS UNTIL AUTHORIZED (IN WRITING) BY THE OWNER OR OWNER'S REPRESENTATIVE.

PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTITUTE EROSION CONTROL MEASURES ON AN AS NECESSARY BASIS, SUCH THAT EXCESSIVE SOIL EROSION DOES NOT OCCUR. MEASURES SHALL INCLUDE SEDIMENT BARRIERS AROUND DRAINAGE INLETS, MULCHING, AND PLANTING OF DISTURBED AREAS.

AN EROSION CONTROL BARRIER IS TO BE INSTALLED AT THE PROPOSED DOWN GRADIENT TOE OF SLOPE AT ALL LOCATIONS WHERE EARTHWORK IS PROPOSED.

DURING CONSTRUCTION THE EROSION CONTROL MEASURES SHALL BE INSPECTED ONCE PER WEEK AND WITHIN 24 HOURS OF ANY STORM EVENT GENERATING MORE THAN 1/2" OF RAINFALL. THE EROSION CONTROL MEASURES SHALL BE CLEANED REGULARLY AND ADJUSTED IF NECESSARY, TO ENSURE THAT NO SILT OR DEBRIS LEAVES THE SITE.

ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADS. ANY SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS SHALL BE SWEEPED AT THE END OF EACH WORKING DAY.

EXPPOSED SLOPES GREATER THAN 50' IN LENGTH ARE TO HAVE CHECK DAMS, TERRACES AND/OR MULCHING INSTALLED IN ORDER TO REDUCE EROSION AND TO ENHANCE SURFACE STABILIZATION. IF CHECK DAMS ARE USED, THEY SHOULD BE PLACED APPROXIMATELY 50' O/C PARALLEL WITH THE FACE OF THE SLOPE.

UNTIL DRIVEWAYS ARE PAVED, TEMPORARY DIKES ARE TO BE STAKED ACROSS DRIVEWAYS AS REQUIRED TO DIRECT RUNOFF WATER TO CATCH BASINS. SILT SCREENS ARE TO BE INSTALLED AT CATCH BASIN GRATES (SEE DETAIL) AND SUMPS OF BASINS ARE TO BE CLEANED AS NECESSARY TO PREVENT SILT FROM ENTERING THE SUBSURFACE DRAINAGE SYSTEM.

AFTER INSTALLATION OF EACH DRAINAGE INLET A SEDIMENT BARRIER SHALL BE INSTALLED AROUND THE INLET TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM.

AT THE END OF CONSTRUCTION ALL DRAINAGE STRUCTURES ARE TO BE CLEANED OF SILT, STONES AND OTHER DEBRIS. EROSION CONTROL BARRIERS ARE TO BE REMOVED AND DISPOSED OF IN ACCORDANCE TO LOCAL REQUIREMENTS.

CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS. ANY DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.

ALL AREAS DISTURBED DURING CONSTRUCTION AND NOT LEFT IN A NATURAL CONDITION SHALL RECEIVE SIX (6) INCHES OF LOAM AND SEED.

AREAS NOT DISTURBED BY CONSTRUCTION SHALL BE LEFT NATURAL. CARE SHALL BE TAKEN TO PRESERVE EXISTING TREES, GROUND COVER AND OTHER NATURAL FEATURES WHENEVER POSSIBLE.

AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL STATE AT THE CONTRACTOR'S EXPENSE.

CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.

ALL STOCKPILE AREAS SHALL BE LOCATED WITHIN LIMIT OF WORK LINE AND STABILIZED. 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 ALL DEBRIS GENERATED DURING SITE PREPARATION ACTIVITIES SHALL BE LEGALLY DISPOSED OF OFF-SITE.

PROVIDE CRIBBING AS NECESSARY TO PROTECT EXISTING UTILITY LINES DURING CONSTRUCTION.

SITE ELEMENTS TO REMAIN MUST BE PROTECTED FOR DURATION OF PROJECT.

ALL TOPSOIL ENCOUNTERED WITHIN WORK AREA SHALL BE STRIPPED TO ITS FULL DEPTH AND STOCKPILED FOR REUSE. EXCESS TOPSOIL SHALL BE DISPOSED OF ON-SITE AS DIRECTED BY OWNER. TOPSOIL PILES SHALL REMAIN SEGREGATED FROM EXCAVATED SUBSURFACE SOIL MATERIALS.

ALL AREAS IDENTIFIED AS CRITICAL AREA SEEDING SHALL BE STABILIZED DURING CONSTRUCTION BY SEEDING WITH ANNUAL RYE GRASS AT THE RATE OF FORTY (40) LBS/ACRE.

DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED METHODS AS DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE.

EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING ENVIRONMENTALLY SENSITIVE OR JURISDICTIONAL RESOURCE AREAS.

ALL DISTURBED SLOPES EITHER NEWLY CREATED OR EXPOSED PRIOR TO OCTOBER 15 SHALL BE SEEDING OR PROTECTED BY THAT DATE.

LOADING AND SEEDING OR MULCHING OF NON-PAVEMENT AREAS SHALL TAKE PLACE AS SOON AS PRACTICABLE.

ALL SLOPES WITH SURFACE GRADES STEEPER THAN 3:1 SHALL BE STABILIZED WITH EROSION CONTROL BLANKETS.

COIR FIBER ROLLS, HAYBALES, SILT FENCE OR OTHER SILTATION CONTROLS SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED.

**SITE LAYOUT AND MATERIALS NOTES**

CONTRACTOR SHALL REPORT SIGNIFICANT CONFLICTS TO THE OWNER OR OWNER'S REPRESENTATIVE FOR RESOLUTION.

ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).

TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

CROSSWALKS SHALL BE STRIPED WITH 12" WIDE LINES OF WHITE THERMO PLASTIC SPACED 3' ON CENTER. STOP LINES SHALL BE STRIPED WITH 12" WIDE LINES OF WHITE THERMO PLASTIC. ALL OTHER STRIPING SHALL BE 4" WIDE LINES OF THERMO PLASTIC IN COLORS INDICATED HEREON.

PAVEMENT MARKINGS SHALL CONFORM TO SECTION M7.01.05 OF THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.

ALL NEW CURBS SHALL BE VERTICAL GRANITE CURBING (VGC) WITH 6" REVEAL UNLESS OTHERWISE INDICATED HEREON. INSTALL 6' LONG TRANSITION CURB STONES AT ALL TRANSITIONS FROM VERTICAL TO FLUSH GRANITE.

EXISTING CURBS TO REMAIN AS SHOWN HEREON ARE ASSUMED TO BE IN SATISFACTORY CONDITION BUT ARE TO BE PARGED OR REPLACED IN KIND IN LOCATIONS OF DAMAGE.

INSTALL EXPANSION AND CONTROL JOINTS IN SIDEWALKS AT INTERVALS OF 5 FEET AND 25 FEET, RESPECTIVELY. PROVIDE BROOM FINISH IN TRANSVERSE DIRECTION ON ALL WALKS.

SIDEWALK WIDTHS INDICATED HEREON ARE MEASURED FROM BACK OF CURB TO BACK IF SIDEWALK 6' WIDTH OF CURBS NOT INCLUDED.

ALL CURB RADIUS DIMENSIONS SHOWN HEREON ARE MEASURED ALONG FACE OF CURB.

REFER TO LAYOUT PLAN FOR EXTENTS OF MILL AND OVERLAY AND FULL DEPTH PAVEMENT CONSTRUCTION AND PATCHING WHERE APPLICABLE.

ALL WORK CONDUCTED WITHIN PUBLIC RIGHT-OF-WAYS SHALL CONFORM TO THE LOCAL REQUIREMENTS AND SPECIFICATIONS.

ALL ACCESSIBLE ROUTES, RAMPS AND PARKING SPACES TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES AND THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (AAB).

THE FOLLOWING LAYOUT CRITERIA SHALL CONTROL UNLESS OTHERWISE NOTED ON THE PLAN:

DIMENSIONS FROM BUILDING ARE FROM FACE OF BUILDING.

DIMENSIONS ARE TO FACE OF CURB AT GUTTER LINE.

DIMENSIONS ARE TO THE CENTER OF PAVEMENT MARKINGS.

ALL LINES AND DIMENSIONS AND TIES TO PROPERTY LINES ARE PERPENDICULAR TO THE PROPERTY LINE UNLESS OTHERWISE NOTED.

COORDINATE THE LOCATION OF ALL SITE LIGHT STANDARDS WITH IMPROVEMENTS SHOWN ON THESE DRAWINGS.

CONTRACTOR SHALL FURNISH AND SET ALL LINES AND GRADES REQUIRED AND PROTECT ALL PERMANENT BENCHMARKS OR MONUMENTS. DAMAGED MONUMENTS SHALL BE REPLACED BY A LICENSED SURVEYOR AT NO COST TO THE OWNER.

ALL BITUMINOUS CONCRETE PAVING SHALL COMPLY WITH THE MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, 1988 EDITION AS AMENDED. THE CONTRACTOR SHALL SUBMIT A JOB MIX FORMULA DEMONSTRATING COMPLIANCE WITH THESE SPECIFICATIONS. THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A CERTIFICATE OF COMPLIANCE SUPPLIED BY THE PAVING CONTRACTOR.

BITUMINOUS CONCRETE PAVEMENT: CLASS I, TYPE I-1 CONFORMING TO THE STANDARD SPECIFICATIONS, SECTIONS 420 AND 460, AND M3.11.03 FOR BINDER COURSE AND TOP COURSE JOB MIX FORMULAS.

ALL CONCRETE WORK SHALL COMPLY WITH ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE," AND ACI 308R UNLESS MODIFIED BY THE CONTRACT DOCUMENTS. COMPLY WITH CRSI'S "MANUAL OF STANDARD PRACTICE" FOR FABRICATING, PLACING, AND SUPPORTING REINFORCEMENT. COMPLY WITH ACI 308.1 FOR COLD WEATHER PROTECTION, AND FOLLOW RECOMMENDATIONS IN ACI 308R FOR HOT WEATHER PROTECTION DURING CURING. COMPLY WITH ACI 304 "GUIDE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE."

SAW-CUT EXISTING PAVEMENT WHERE NEW BITUMINOUS CONCRETE PAVEMENT IS TO COME IN CONTACT. PRIME COAT THE CUT EDGE PRIOR TO PLACEMENT.

CONTRACTOR(S) SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL CONSTRUCTION DOCUMENTS, SPECIFICATIONS, AND ALL SITE CONDITIONS PRIOR TO CONSTRUCTION.

OUT OF FUNCTION OR SCREENED IMAGES REPRESENT EXISTING CONDITIONS. WHERE EXISTING CONDITIONS LIE UNDER OR ARE IMPACTED BY PROPOSED BUILDINGS AND/OR SITE ELEMENTS, THE EXISTING CONDITION WILL BE REMOVED, ABANDONED AND/OR CAPPED OR DEMOLISHED AS REQUIRED.

**GRADING NOTES**

THE CONTRACTOR SHALL VERIFY EXISTING GRADES IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER OR HIS REPRESENTATIVE.

ALL STUMPS, PEAT, CONSTRUCTION DEBRIS AND OTHER DELETERIOUS MATERIALS ON THE SITE AT THE TIME OF CONSTRUCTION ARE TO BE REMOVED FROM THE SITE TO AN APPROVED LANDFILL. NO SUCH MATERIALS ARE TO BE BURIED OR OTHERWISE DISPOSED OF ON THE SITE. MATERIAL FOR BACKFILL SHALL NOT INCLUDE UNSUITABLE MATERIAL SUCH AS PEAT, TRASH, STUMPS, DEBRIS OR HAZARDOUS WASTE.

FILL MATERIAL SHALL BE AS SPECIFIED BY THE ARCHITECT/ENGINEER AND SELECTED FROM ON-SITE EXCAVATION MATERIAL WHERE POSSIBLE.

AT ALL LOCATIONS WHERE EXISTING CURBING OR PAVEMENT ADJUTS 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. FITCH EVENLY BETWEEN SPOT GRADES. GRADE ALL AREAS TO DRAIN.

CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS, STRUCTURES AND PLANTING BEDS.

THE CONTRACTOR SHALL SCHEDULE HIS WORK TO ALLOW THE FINISHED SUBGRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT PUDDLING. SPECIFICALLY, ALLOW WATER TO ESCAPE WHERE PROPOSED CURBS MAY RETAIN RUNOFF PRIOR TO APPLICATION OF THE FINISH SUBGRADE AND/OR SURFACE PAVING. PROVIDE TEMPORARY POSITIVE DRAINAGE AS REQUIRED.

PITCH EVENLY BETWEEN SPOT GRADES. GRADE ALL AREAS TO DRAIN. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MINIMUM OF 1/8" PER FOOT UNLESS OTHERWISE SPECIFIED. ANY DISCREPANCIES NOT ALLOWING THIS MINIMUM PITCH SHALL BE REPORTED TO THE OWNER OR HIS REPRESENTATIVE PRIOR TO CONTINUING WORK.

ACCESSIBLE CURB RAMPS, RAMP LANDINGS, WALKWAYS, CROSSWALKS, PATIOS/PLAZAS AND PARKING AREAS SHALL BE PER THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (AAB) AND THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY REQUIREMENTS. WALKWAY AND CROSSWALK ALONG ACCESSIBLE ROUTE(S) SHALL HAVE 5% MAX. LONGITUDINAL SLOPE AND 2% MAX. CROSS SLOPE. LANDINGS, PATIOS/PLAZAS, AND ACCESSIBLE PARKING SPACES SHALL BE 2% MAX IN ALL DIRECTIONS. RAMPS SHALL BE 8.3% MAXIMUM.

A GEOTECHNICAL ENGINEER MAY BE RETAINED BY THE OWNER TO OBSERVE PERFORMANCE OF WORK, FOR CONFORMANCE WITH THESE CONTRACT DOCUMENTS, IN CONNECTION WITH EXCAVATING, TRENCHING, FILLING, BACKFILLING AND GRADING, AND TO PERFORM ASSOCIATED FIELD TESTS.

DURING THE PROGRESS OF THE WORK, THE CONTRACTOR MAY BE REQUIRED TO EXCAVATE ADDITIONAL TEST PITS FOR THE PURPOSE OF LOCATING UNDERGROUND UTILITIES OR STRUCTURES AS AN AID IN ESTABLISHING THE PRECISE LOCATION OF NEW WORK. THIS WORK IS TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER. TEST PITS SHALL BE BACKFILLED, AS SOON AS THE DESIRED INFORMATION HAS BEEN OBTAINED.

PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY CONTRACTOR OPERATIONS.

STOCKPILED TOPSOIL SHALL BE PLACED NEATLY IN AN AREA INDICATED BY THE OWNER.

EXISTING TREES AND SHRUBS OUTSIDE THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON PRIOR APPROVAL OF THE OWNER.

FILL DEPRESSIONS CAUSED BY TEST PITS AND CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY SOIL MATERIAL UNLESS FURTHER EXCAVATION OR EARTHWORK IS INDICATED.

THE CONTRACTOR SHALL PREVENT SURFACE WATER AND SUBSURFACE GROUNDWATER FROM FLOWING INTO EXCAVATIONS OR EARTHWORK AREAS WHICH WOULD CAUSE FLOODING OF THE PROJECT SITE AND SURROUNDING AREA, OR SOFTENING OR LOOSENING OF THE SOIL AT EXCAVATION OR EARTHWORK SUB-AREAS.

THE CONTRACTOR SHALL PROVIDE, INSTALL, OPERATE, MAINTAIN AND REMOVE ADEQUATE AND SATISFACTORY DEWATERING SYSTEMS AND DRAINAGE OF EXCAVATIONS TO PERMIT CONSTRUCTION TO PROCEED "IN THE DRY". THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR THE ADEQUACY OF THE METHODS, MATERIALS AND EQUIPMENT EMPLOYED. THE CONTRACTOR SHALL BEAR THE FULL COST OF PROVIDING ALL NECESSARY DEWATERING.

THE CONTRACTOR SHALL PROHIBIT SEEPAGE, GROUNDWATER FLOW OR SURFACE INFILTRATION AND RUNOFF FROM UNDERMINING OR OTHERWISE DAMAGING ADJACENT STRUCTURES AND UTILITIES.

PAVING, CONCRETE WORK AND BASE COURSE PREPARATION SHALL BE DONE ONLY AFTER EXCAVATION AND CONSTRUCTION WORK WHICH MIGHT INJURE THEM HAS BEEN COMPLETED. DAMAGE CAUSED DURING CONSTRUCTION SHALL BE REPAIRED BEFORE ACCEPTANCE.

PAVEMENT OR BASE MATERIALS SHALL NOT BE PLACED ON A MUDDY OR FROZEN SUBGRADE.

ESTABLISHMENT OF GRADES, GRADE CONTROL, AND CONFORMANCE TO REQUIRED GRADE TOLERANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

PROTECT GRADED, FINISHED OR PAVED AREAS FROM DAMAGE AND KEEP THEM FREE OF TRASH AND DEBRIS RESULTING FROM CONSTRUCTION OPERATIONS. REPAIR AND RE-ESTABLISH GRADES IN SETTLED, ERODED AND RUTTED AREAS.

PAVEMENT, LAWN OR PLANTING AREAS EXCAVATED DURING UTILITY CONSTRUCTION, WHETHER ON THE SITE OR ADJACENT PROPERTIES, SHALL BE RESTORED AND MATCHED WITH EXACTLY THE SAME MATERIALS AND TOLERANCES AS PRIOR TO DISRUPTION, AT NO ADDITIONAL COST TO THE OWNER, OR ADJACENT PROPERTY OWNERS.

**DRAINAGE NOTES**

ALL STORM DRAINS SHALL BE REINFORCED CONCRETE PIPE (RCP) PIPE UNLESS OTHERWISE NOTED. INSTALLATION OF ALL UTILITY STRUCTURES SHALL CONFORM TO MANUFACTURERS RECOMMENDATION.

REINFORCED CONCRETE PIPE SHALL CONFORM TO ASTM DESIGNATION C-76, CLASS II. REINFORCED CONCRETE PIPE SHALL CONFORM TO ASTM DESIGNATION C-76, CLASS III, WALL B WITH JOINTS AND GASKETS IN CONFORMANCE WITH ASTM C 443.

ALL HIGH-DENSITY POLYETHYLENE (HDPE) PIPES SHALL HAVE MINIMUM 2' COVER.

MANHOLES SHALL BE 48-INCH DIAMETER (UNLESS OTHERWISE SPECIFIED). CAST-IN-PLACE BASES SHALL BE USED WHERE MANHOLES ARE CONSTRUCTED OVER EXISTING PIPES.

FRAMES AND COVERS FOR DRAINAGE STRUCTURES SHALL PROVIDE A 24-INCH MINIMUM CLEAR OPENING AND SHALL BE LEBARON TYPE LK110 OR APPROVED EQUAL. DRAINAGE STRUCTURE COVERS SHALL HAVE THE WORD "DRAIN" CENTERED ON THE COVER IN 3-INCH HIGH LETTERS.

SINGLE CATCHBASIN FRAMES AND GRATES SHALL BE LEBARON TYPE LF 248-2 OR AS SINGLE CATCHBASIN FRAMES AND GRATES SHALL BE LEBARON TYPE LF 248-2 OR AS REQUIRED BY TOWN OF FRANKLIN DPW.

DOUBLE CATCH BASIN FRAMES SHALL BE LEBARON ONE-PIECE LV2448-1 FRAMES OR DOUBLE CATCH BASIN FRAMES SHALL BE LEBARON ONE-PIECE LV2448-1 FRAMES OR APPROVED EQUAL. FOR DOUBLE CATCH BASIN GRATES, USE TWO LEBARON TYPE LF 248-2 OR APPROVED EQUAL.

FRAMES, GRATES AND COVERS SHALL BE SET FIRM AND TRUE TO GRADE, ADJUST FOR FRAMES, GRATES AND COVERS SHALL BE SET FIRM AND TRUE TO GRADE, ADJUST FOR GRADE WITH BRICK MASONRY.

ALL ON-SITE DRAIN LINES SHALL BE SMOOTH INTERIOR WALLED CORRUGATED ALL ON-SITE DRAIN LINES SHALL BE SMOOTH INTERIOR WALLED CORRUGATED POLYETHYLENE PIPE UNLESS OTHERWISE NOTED.

PRE-CAST CONCRETE STRUCTURES INCLUDING TANKS, BARREL SECTIONS, CATCHBASINS AND BASES SHALL CONFORM TO ASTM C478 AND ASHTO H204. PLACEMENT SHALL BE IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS. ALL PRE-CAST STRUCTURES INCLUDING JOINTS, SEALS, OPENINGS, ETC. MUST BE WATERTIGHT.

AT THE END OF CONSTRUCTION, AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE CONTRACTOR SHALL CLEAN THE SUMPS OF ALL CATCH BASINS AND THE INVERTS OF ALL DRAIN MANHOLES.

ALL DRAIN LINES SHOWN SHALL BE 12" DIAMETER UNLESS OTHERWISE NOTED.

**UTILITY NOTES**

THE LOCATION OF UNDERGROUND UTILITIES AS REPRESENTED ON THESE PLANS IS BASED UPON EXISTING CONDITIONS PLANS AND POTENTIALLY INFORMATION PROVIDED BY THE LOCAL MUNICIPALITIES. ADDITIONAL INFORMATION MAY BE SUPPLEMENTED BY FIELD INVESTIGATIONS HOWEVER POSSIBLE. NO WARRANTY IS MADE AS TO THE ACCURACY OF THESE LOCATIONS OR THAT ALL UNDERGROUND UTILITIES ARE SHOWN. THE CONTRACTOR SHALL CONTACT DIG SAFE AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION. DIG SAFE TELEPHONE NUMBER IS 1-888-DIG-SAFE.

UNDERGROUND UTILITIES WERE COMPLIED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE AND ASSUMED.

ALL PVC SANITARY SEWER SHALL BE SDR 35 WITH RUBBER RING JOINTS.

REFER TO PLUMBING PLANS FOR EXACT SIZE AND LOCATION OF SANITARY CONNECTIONS.

THE LOCAL MUNICIPAL WATER AND FIRE DEPARTMENTS SHALL BE NOTIFIED PRIOR TO THE START OF ANY WORK ON THE WATER SYSTEM.

THE PROPOSED WATER MAIN IS TO BE CL 52 CLD1. ALL FITTINGS, HYDRANTS, VALVES, ETC. USED ON THE SITE ARE TO BE IN ACCORDANCE WITH THE LOCAL UNICAL WATER DEPARTMENT SPECIFICATIONS.

HYDRANTS AND MINIMUM SIZING OF WATER PIPES SHALL BE SUBJECT TO THE APPROVAL OF THE (TOWNSHIP) FIRE CHIEF.

THE CONTRACTOR SHALL NOTIFY THE LOCAL MUNICIPAL DEPARTMENT OF PUBLIC WORKS AT LEAST 48 HOURS IN ADVANCE OF ANY REQUIRED INSPECTIONS.

UNDERGROUND INFRASTRUCTURE LOCATED IN THE PUBLIC WAY SHALL BE SUBJECT TO THE APPROVAL OF THE LOCAL MUNICIPAL DEPARTMENT OF PUBLIC WORKS.

NO LEDGE, BouldERS, OR OTHER UNYIELDING MATERIALS SHALL BE LEFT WITHIN 6" OF THE WATER AND SEWER IN THE TRENCH, NOR ARE THEY TO BE USED FOR BACKFILL FOR THE FIRST 12' ABOVE THE PIPES.

THE CONTRACTOR SHALL VERIFY THE LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO TAPPING INTO, CROSSING OR EXTENDING THEM. IF THE NEW WORK POSES A CONFLICT WITH EXISTING UTILITIES, THE ENGINEER IS TO BE NOTIFIED PRIOR TO THE CONTRACTOR CONTINUING.

EXCAVATION SHALL BE TO THE LINES AND ELEVATIONS AS SHOWN ON THE PLANS.

ALL MATERIALS FOR INSTALLATION OF WATER, SEWER, DRAIN, GAS, DATA/ELECTROM, AND ELECTRICITY SHALL BE IN ACCORDANCE WITH LOCAL STATE AND UTILITY COMPANY STANDARDS AND REGULATIONS AS THEY APPLY.

ALL BENDS, TEES, VALVES, AND HYDRANTS ARE TO BE SECURED BY MEANS OF THREADED TIE RODS.

THREE CUBIC FEET OF CRUSHED STONE IS TO BE PLACED AROUND THE DRAIN HOLE IN ALL HYDRANTS. HYDRANTS ARE TO CONFORM TO THE (TOWNSHIP) OF (TOWNSHIP) STANDARD SPECIFICATIONS.

UNLESS OTHERWISE NOTED ALL UTILITY, TRENCHES ARE TO BE BACKFILLED WITH BANK RUN GRAVEL. NO STONES GREATER THAN 3" IN DIAMETER ARE TO BE USED WITHIN 12" OF THE PIPES. THE TRENCHES, WHEN UNDER PROPOSED PAVED AREAS, ARE TO BE MECHANICALLY COMPACTED IN 12' LIFTS.

NO LEDGE, BouldERS OR OTHER UNYIELDING MATERIALS ARE TO BE LEFT WITHIN 6" OF THE WATER MAIN IN THE TRENCH NOR ARE THEY TO BE USED FOR BACKFILL IN THE TRENCH.

THE SITE CONTRACTOR IS TO INSTALL A GAS SERVICE IN THE APPROXIMATE LOCATION SHOWN ON THE PLANS. THE SIZE AND EXACT LOCATION OF THE SERVICE IS TO BE DETERMINED AND COORDINATED WITH THE PLUMBING PLANS AND ALL EARTHEN PERIMETER SIDE SLOPES THAT ARE GRADED AND ARE NOT SCHEDULED FOR PERMANENT STABILIZATION WITHIN 30 DAYS OF COMPLETION ARE TO BE COVERED WITH HAY OR WOOD CHIP MULCH. BIODEGRADABLE EROSION CONTROL FABRIC, OR HYDROSEED WITH A TEMPORARY GRASS MIXTURE IF WEATHER CONDITIONS WILL BE CONDUCIVE TO GERMINATION OF THE SEED.

THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES, 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 ARCHITECT FOR RESOLUTION.

BEFORE COMMENCING SITE WORK IN ANY AREA, CONTRACTOR SHALL CONTACT "DIG SAFE" AT 1-888-DIG-SAFE, 811 OR WWW.DIGSAFE.COM 72 WORKING HOURS IN ADVANCE TO ACCURATELY LOCATE UNDERGROUND UTILITIES. IN ADDITION, CONTRACTOR SHALL CONTACT OTHER MUNICIPAL OFFICIALS SUCH AS WATER AND SEWER IF APPLICABLE.

ALL UTILITY COVERS, GRATES, ETC. SHALL BE ADJUSTED TO BE FLUSH WITH THE PAVEMENT FINISH GRADE UNLESS OTHERWISE NOTED. RIM ELEVATIONS OF DRAINAGE STRUCTURES AND MANHOLES ARE APPROXIMATE.

CONTRACTOR SHALL PROTECT ALL UNDERGROUND DRAINAGE, SEWER AND UTILITY FACILITIES FROM EXCESSIVE VEHICULAR LOADS DURING CONSTRUCTION. ANY DAMAGE TO THESE FACILITIES RESULTING FROM CONSTRUCTION LOADS WILL BE RESTORED TO ORIGINAL CONDITION AT NO COST TO OWNER. NO EXCAVATION SHALL BE DONE UNTIL UTILITY COMPANIES ARE PROPERLY NOTIFIED IN ADVANCE.

EXCAVATION REQUIRED WITHIN THE PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.

THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISH SURFACE GRADE.

PROVIDE UNDERGROUND ELECTRIC CONDUIT FOR SITE LIGHTS AS APPROPRIATE.

ENSURE ALL EXISTING (TO REMAIN) AND PROPOSED MANHOLE COVERS PROPERLY IDENTIFY UTILITY SERVED.

UNLESS OTHERWISE INDICATED, ABANDONED EXISTING UTILITY LINES SHALL BE CAPPED AND ABANDONED IN PLACE UNLESS THEY CONFLICT WITH PROPOSED IMPROVEMENTS. CAP REMAINING PORTIONS WHERE PARTIALLY REMOVED.

REFER TO ELECTRICAL DRAWINGS FOR ALL SITE ELECTRICAL WORK.

THE CONTRACTOR SHALL COLLECT AND DISPOSE OF WATER FROM ALL SYSTEMS IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL CODES, ORDINANCES AND REGULATIONS AND OBTAIN ALL NECESSARY PERMITS.

ANY WATER PUMPED FROM EXCAVATIONS WILL BE CONVEYED BY HOSE TO AN UPLAND AREA AND DISCHARGED INTO HAYBALE CORRALS OR SEDIMENTATION BAGS.



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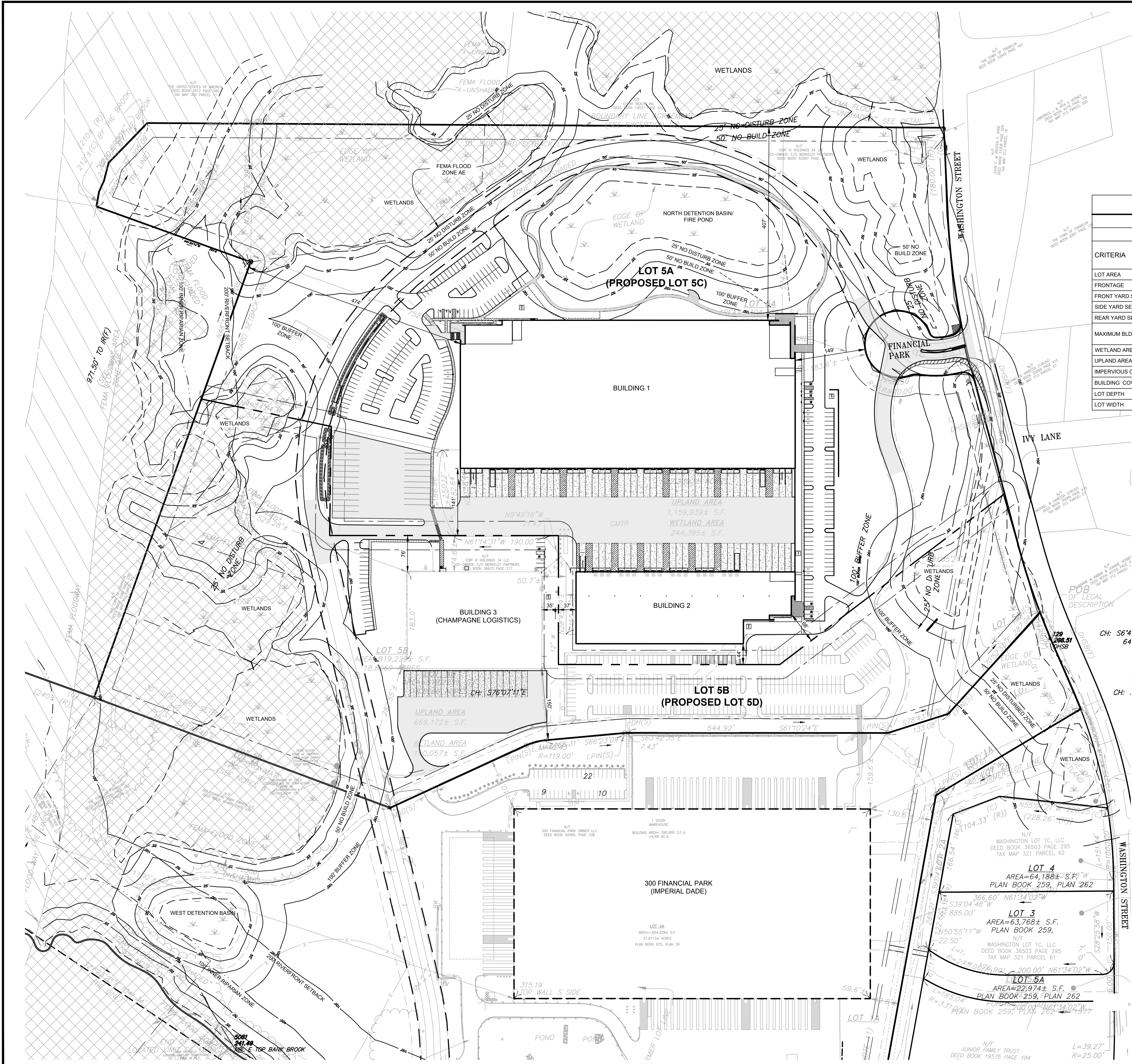
CONSULTANT:





12-07-2023

WAREHOUSE/INDUSTRIAL DEVELOPMENT  
100/200 FINANCIAL PARK  
FRANKLIN, MA  
OWNER/APPLICANT: BERKELEY PARTNERS



**COMPLIANCE SUMMARY - BUILDING AND SITE DIMENSIONAL REQUIREMENTS**

ZONING DISTRICT: INDUSTRIAL (I)  
OVERLAY DISTRICT: WATER RESOURCE DISTRICT

CRITERIA	REQUIRED	EXISTING LOTS 5A / 5B	LOT 5A (PROPOSED LOT 5C)	LOT 5B (PROPOSED LOT 5D)	COMPLIANCE
LOT AREA	40,000 SF	32.24 / 18.81 ± AC	34.12 ± AC	16.92 ± AC	YES
FRONTAGE	175 FT	1219 / 260 ± FT	890 ± FT	260 ± FT	YES
FRONT YARD SETBACK	40 FT	183.6 / 40 FT	149 FT	>40 FT	YES
SIDE YARD SETBACK	30 FT	50.8 / 50.7 FT	37 FT	35 FT	YES
REAR YARD SETBACK	30 FT	752.3 / 529.3 FT	474 FT	529 FT	YES
MAXIMUM BLDG. HEIGHT	3 STORIES	1 / 2 STORIES	≤ 2 STORIES	≤ 2 STORIES	YES
WETLAND AREA	---	250,998 / 139,809 SF	250,998 SF	139,809 SF	---
UPLAND AREA	---	1,153,336 / 679,420 SF	1,235,466 SF	597,302 SF	---
IMPERVIOUS COVERAGE	80%	31% / 69%	52%	45%	YES
BUILDING COVERAGE	70%	16% / 9%	23%	10%	YES
LOT DEPTH	200 FT	>200 FT	>200 FT	>200 FT	YES
LOT WIDTH	157.5 FT	>157.5 FT	>157.5 FT	>157.5 FT	YES

- NOTES:**
- IMPERVIOUS COVERAGE PERCENTAGE IS CALCULATED AS IMPERVIOUS AREA / UPLAND AREA AS DEFINED IN THE FRANKLIN ZONING BYLAW.
  - THE FINANCIAL PARK CUL-DE-SAC (RIGHT-OF-WAY) IS EXCLUDED FROM THE AREAS USED FOR THE CALCULATIONS IN THIS CHART.
  - BUILDING COVERAGE PERCENTAGE IS CALCULATED AS BUILDING FOOTPRINT AREA / UPLAND AREA AS DEFINED IN THE FRANKLIN ZONING BYLAW.
  - EXISTING LOTS 5A & 5B SHALL BE RECONFIGURED AND RENAMED TO PROPOSED LOTS 5C & 5D, RESPECTIVELY TO MAINTAIN ZONING COMPLIANCE FOR THE DEVELOPMENT PLAN. APPROVAL OF AN ANR PLAN BY THE PLANNING BOARD IS REQUIRED.

**PARKING SUMMARY**

	GROSS FLOOR AREA	REQUIRED	PROVIDED
<b>BUILDING 1</b>			
PROPOSED WAREHOUSE	206,500 GSF	207 SP.	-
PROPOSED OFFICE	13,500 GSF	54 SP.	-
SUBTOTAL		261 SP.	
<b>BUILDING 2</b>			
PROPOSED WAREHOUSE	57,750 GSF	58 SP.	-
PROPOSED OFFICE	7,250 GSF	29 SP.	-
SUBTOTAL		87 SP.	
<b>BUILDING 3</b>			
EXISTING WAREHOUSE	65,000 GSF ±	65 SP.	-
PROPOSED TOTAL	350,000 GSF ±	413 SP.	262 SP.

**VEHICULAR PARKING REQUIREMENTS**

DESCRIPTION	CALCULATION
OFFICE SPACE	1 PARKING SPACE PER 250 GSF
WAREHOUSE	1 PARKING SPACE PER 1,000 GSF

- NOTES:**
- A PARKING WAIVER IS REQUIRED FROM THE FRANKLIN PLANNING BOARD.

**SYMBOL LEGEND**

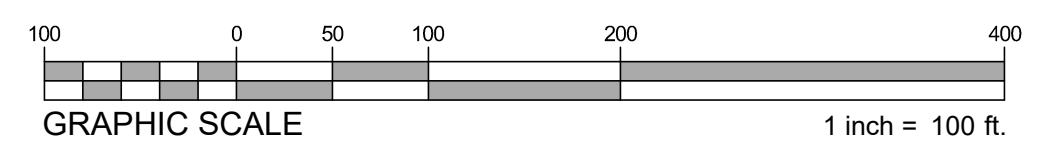
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[Symbol]	PROPOSED BIT. CONC.
[Symbol]	PROPOSED CONCRETE

**FEMA LEGEND**

[Symbol]	FLOOD ZONE "X"
[Symbol]	FLOOD ZONE "AE"
[Symbol]	FLOOD WAY

**ELEVATION BENCH MARKS**

NO.	DESCRIPTION	ELEV.
L	MAGNETIC NAIL IN PAVEMENT	266.93
M	MAGNETIC NAIL IN PAVEMENT	254.42
N	MAGNETIC NAIL IN PAVEMENT	251.92



REV	DATE	DESCRIPTION
7	12.07.2023	PLANNING BOARD ENDORSEMENT
6	10.26.2023	RESPONSE TO COMMENTS
5	10.19.2023	RESPONSE TO COMMENTS
4	10.05.2023	RESPONSE TO COMMENTS
3	08.15.2023	RESPONSE TO COMMENTS
2	08.14.2023	RESPONSE TO COMMENTS
1	07.17.2023	RESPONSE TO COMMENTS

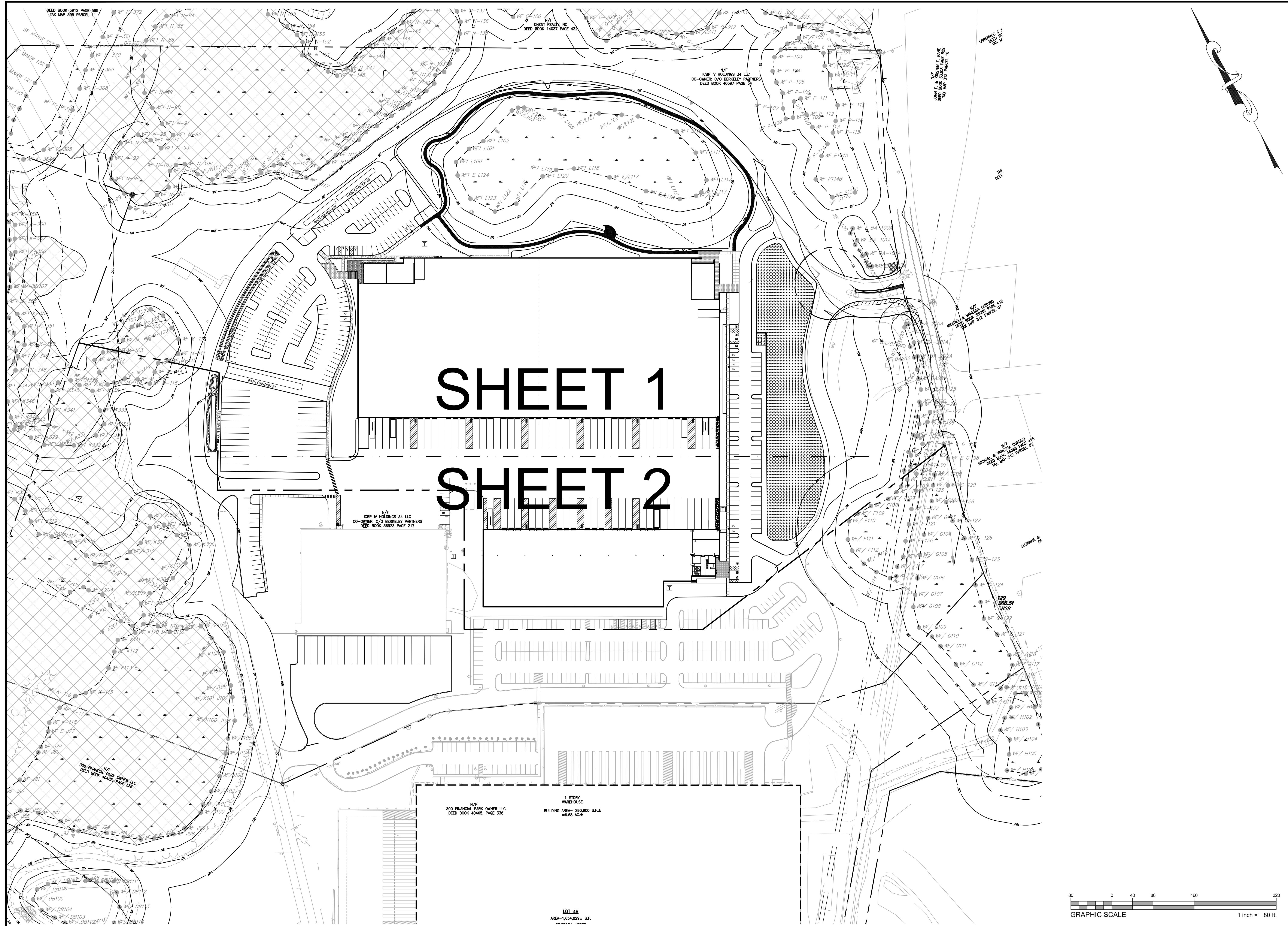
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SHEET TITLE:  
**SITE CONFORMANCE PLAN**

SHEET NUMBER:  
**C100**





12-07-2023

WAREHOUSE/INDUSTRIAL DEVELOPMENT

100/200 FINANCIAL PARK  
FRANKLIN, MA

OWNER/APPLICANT: BERKELEY PARTNERS

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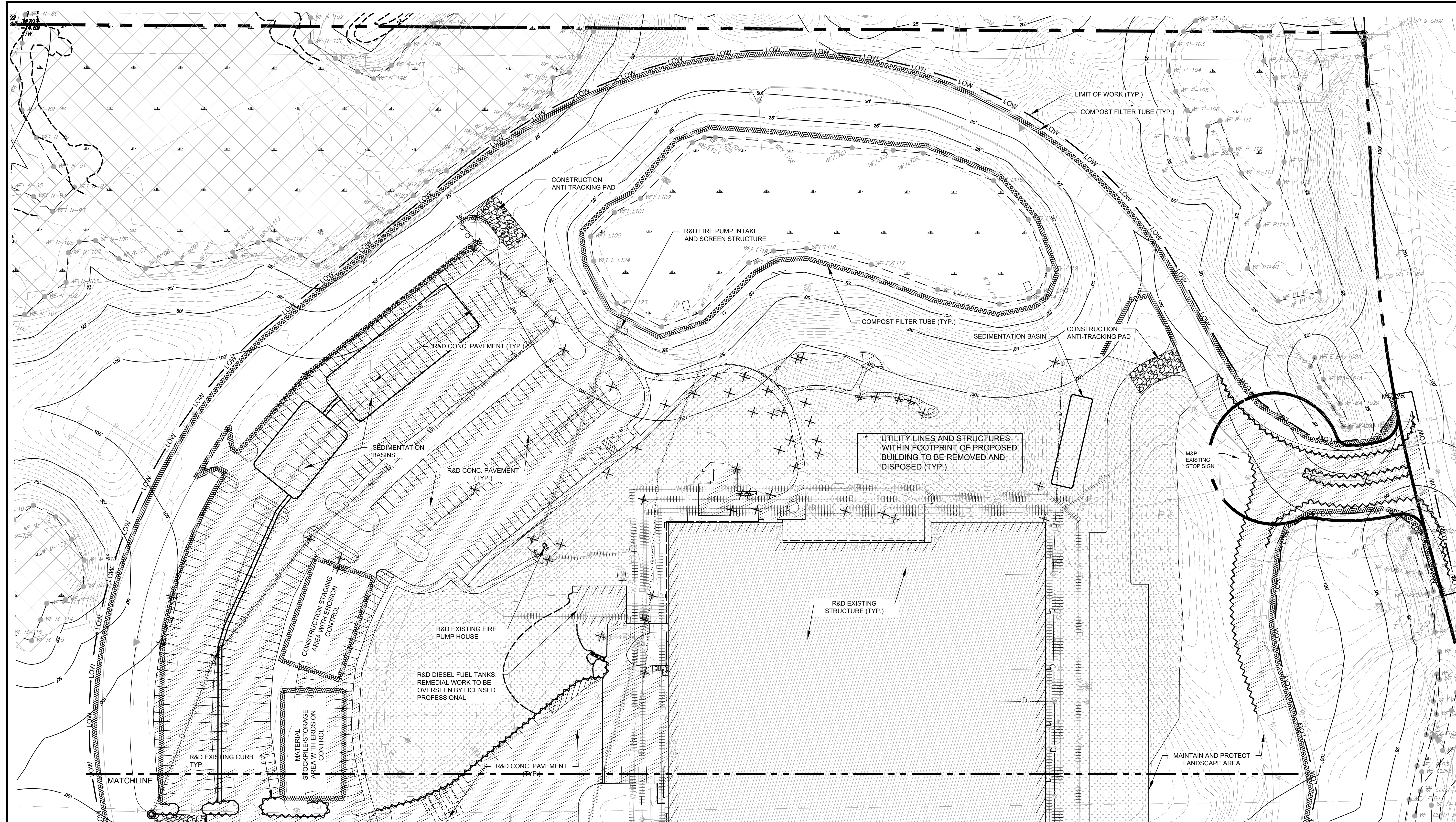
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KEY SHEET

SHEET NUMBER:  
**C101**

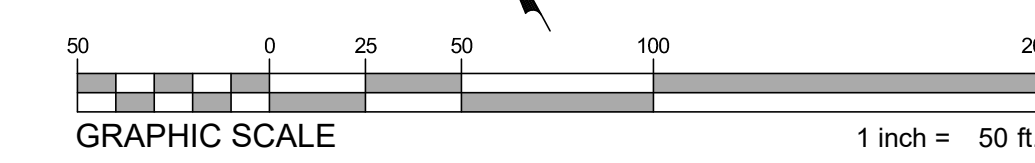
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- NOTE:
- SEE SHEET G100 FOR GENERAL SOIL EROSION AND SEDIMENTATION CONTROL & SITE PREPARATION NOTES
  - ALL SLOPES WITH A GRADE OF 3:1 (H:V, 33.3%) OR STEEPER, ARE TO BE TREATED WITH JUTE MESH FOR STABILIZATION CONTROL. (TYP.) REFER TO DETAIL
  - NO DISCHARGES FROM TEMPORARY SEDIMENTATION BASINS ARE TO BE CONNECTED TO THE MUNICIPAL STORM WATER SYSTEM.
  - PRIOR TO COMMENCEMENT OF CONSTRUCTION, ANY RELOCATED AND RECONSTRUCTED EXISTING PUBLIC WATER AND SEWER UTILITIES THAT RUN THROUGH THE SITE SHALL BE COORDINATED WITH FRANKLIN UTILITIES.
  - BUILDING DEMOLITION AND ANY REQUIRED ABATEMENT SHALL BE COMPLETED UNDER THE SUPERVISION OF A LICENSED SITE PROFESSIONAL IN ACCORDANCE WITH MASSACHUSETTS STATE LAWS.

SYMBOL LEGEND			
	STRAW WATTLE EROSION CONTROL BARRIER	M&P	MAINTAIN AND PROTECT
	SILTSACK CATCH BASIN INSERT	R&D	REMOVE AND DISPOSE
	CONSTRUCTION ANTI-TRACKING PAD		DENOTES TREE TO BE REMOVED
	R&D EXISTING UTILITY LINE		
	R&D EXISTING CURB		
	R&D EXISTING STRUCTURE		
	R&D PAVEMENT/CONCRETE AND GRAVEL BASE LAYER		
	STRIP LOAM AND STOCKPILE ON SITE		
	SEAL COAT CRACKS & PATCH		
	REMOVE & DISPOSE EXISTING OBJECT		



12-07-2023

WAREHOUSE/INDUSTRIAL DEVELOPMENT  
 100/200 FINANCIAL PARK  
 FRANKLIN, MA  
 OWNER/APPLICANT: BERKELEY PARTNERS

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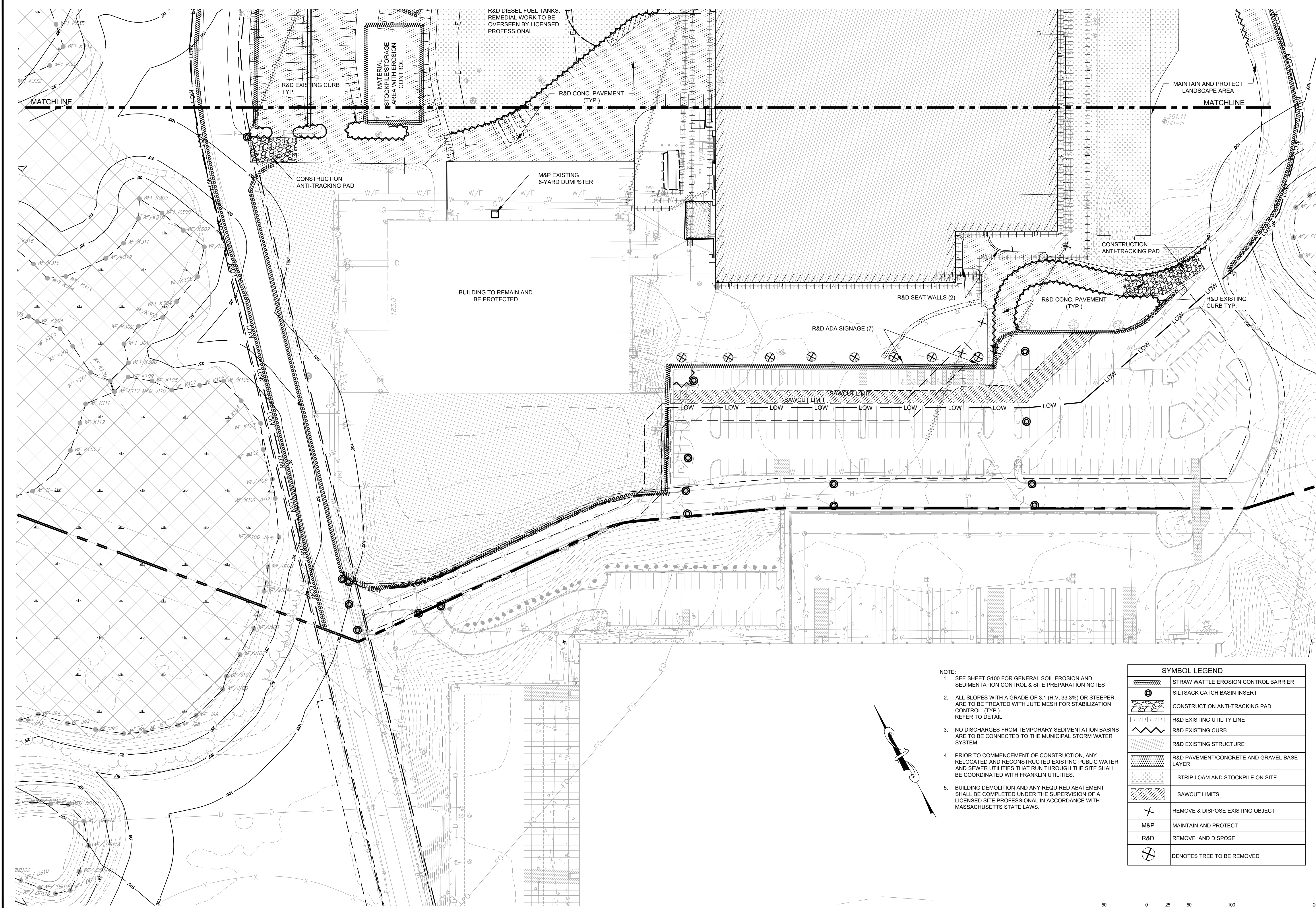
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SHEET TITLE:  
**SITE PREPARATION & EROSION CONTROL PLAN**

SHEET NUMBER:  
**C200**

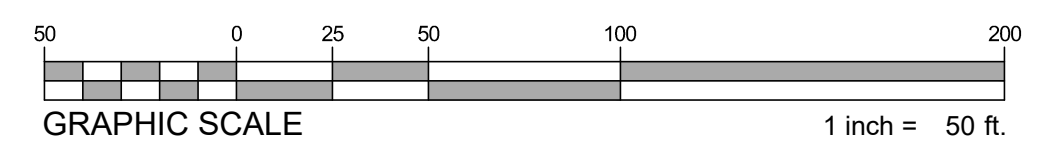
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- NOTE:
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  - ALL SLOPES WITH A GRADE OF 3:1 (H:V. 33.3%) OR STEEPER, ARE TO BE TREATED WITH JUTE MESH FOR STABILIZATION CONTROL. (TYP.) REFER TO DETAIL
  - NO DISCHARGES FROM TEMPORARY SEDIMENTATION BASINS ARE TO BE CONNECTED TO THE MUNICIPAL STORM WATER SYSTEM.
  - PRIOR TO COMMENCEMENT OF CONSTRUCTION, ANY RELOCATED AND RECONSTRUCTED EXISTING PUBLIC WATER AND SEWER UTILITIES THAT RUN THROUGH THE SITE SHALL BE COORDINATED WITH FRANKLIN UTILITIES.
  - BUILDING DEMOLITION AND ANY REQUIRED ABATEMENT SHALL BE COMPLETED UNDER THE SUPERVISION OF A LICENSED SITE PROFESSIONAL, IN ACCORDANCE WITH MASSACHUSETTS STATE LAWS.

SYMBOL LEGEND	
	STRAW WATTLE EROSION CONTROL BARRIER
	SILTSACK CATCH BASIN INSERT
	CONSTRUCTION ANTI-TRACKING PAD
	R&D EXISTING UTILITY LINE
	R&D EXISTING CURB
	R&D EXISTING STRUCTURE
	R&D PAVEMENT/CONCRETE AND GRAVEL BASE LAYER
	STRIP LOAM AND STOCKPILE ON SITE
	SAWCUT LIMITS
	REMOVE & DISPOSE EXISTING OBJECT
	M&P MAINTAIN AND PROTECT
	R&D REMOVE AND DISPOSE
	DENOTES TREE TO BE REMOVED



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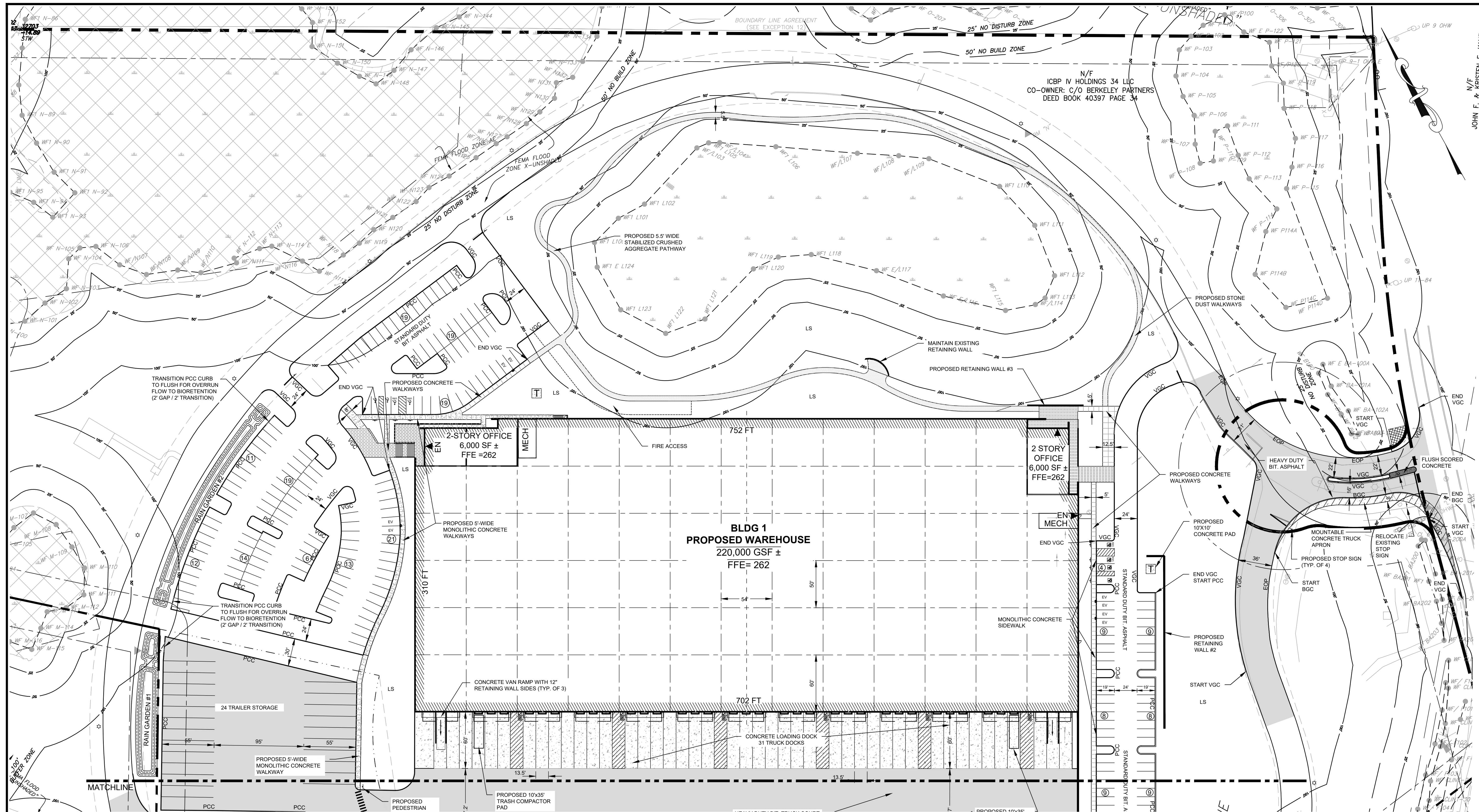
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SHEET TITLE:  
**SITE PREPARATION & EROSION CONTROL PLAN**

SHEET NUMBER:  
**C201**

ISSUED FOR: PERMIT





REV	DATE	DESCRIPTION
7	12.07.2023	PLANNING BOARD ENDORSEMENT
6	10.26.2023	RESPONSE TO COMMENTS
5	10.19.2023	RESPONSE TO COMMENTS
4	10.05.2023	RESPONSE TO COMMENTS
3	08.15.2023	RESPONSE TO COMMENTS
2	08.14.2023	RESPONSE TO COMMENTS
1	07.17.2023	RESPONSE TO COMMENTS

SYMBOL LEGEND	
EOP	EDGE OF PAVEMENT
CCB	CAPE COD BERM
PCC	PRECAST CONCRETE CURB
VGC	VERTICAL GRANITE CURB
BGC	BEVELED GRANITE CURB
(14)	PARKING SPACE COUNT
[Hatched]	PATCH, CRACK SEAL, AND SEALCOAT EXISTING BIT. CONC.
[Dotted]	PROPOSED HEAVY DUTY BIT. CONC.
[Horizontal Lines]	PROPOSED BIT. CONC.
[Vertical Lines]	PROPOSED CONCRETE
LS	PROPOSED LANDSCAPE
EN	PROPOSED BUILDING EGRESS
RW	PROPOSED RETAINING WALL
[Square]	PROPOSED ELECTRICAL PADS
[Square]	PROPOSED ACCESSIBLE STALL

- NOTES**
- PROPOSED RETAINING WALLS SHALL MATCH EXISTING SEGMENTAL RETAINING WALL SYSTEM ON SITE. USE STONE STRONG SEGMENTAL RETAINING WALL SYSTEM OR EQUAL.
  - PROPOSED DRIVEWAYS AND PARKING AREAS SHALL BE CONSTRUCTED WITH STANDARD DUTY PAVEMENT SYSTEM UNLESS OTHERWISE DEPICTED ON THIS PLAN.

ISSUE TYPE:  
 PERMIT SET  
 ISSUE DATE:  
 05/11/2023  
 PROJECT NUMBER:  
 22051

DRAWN BY: JJP/CCL/WH  
 CHECKED BY: DJH

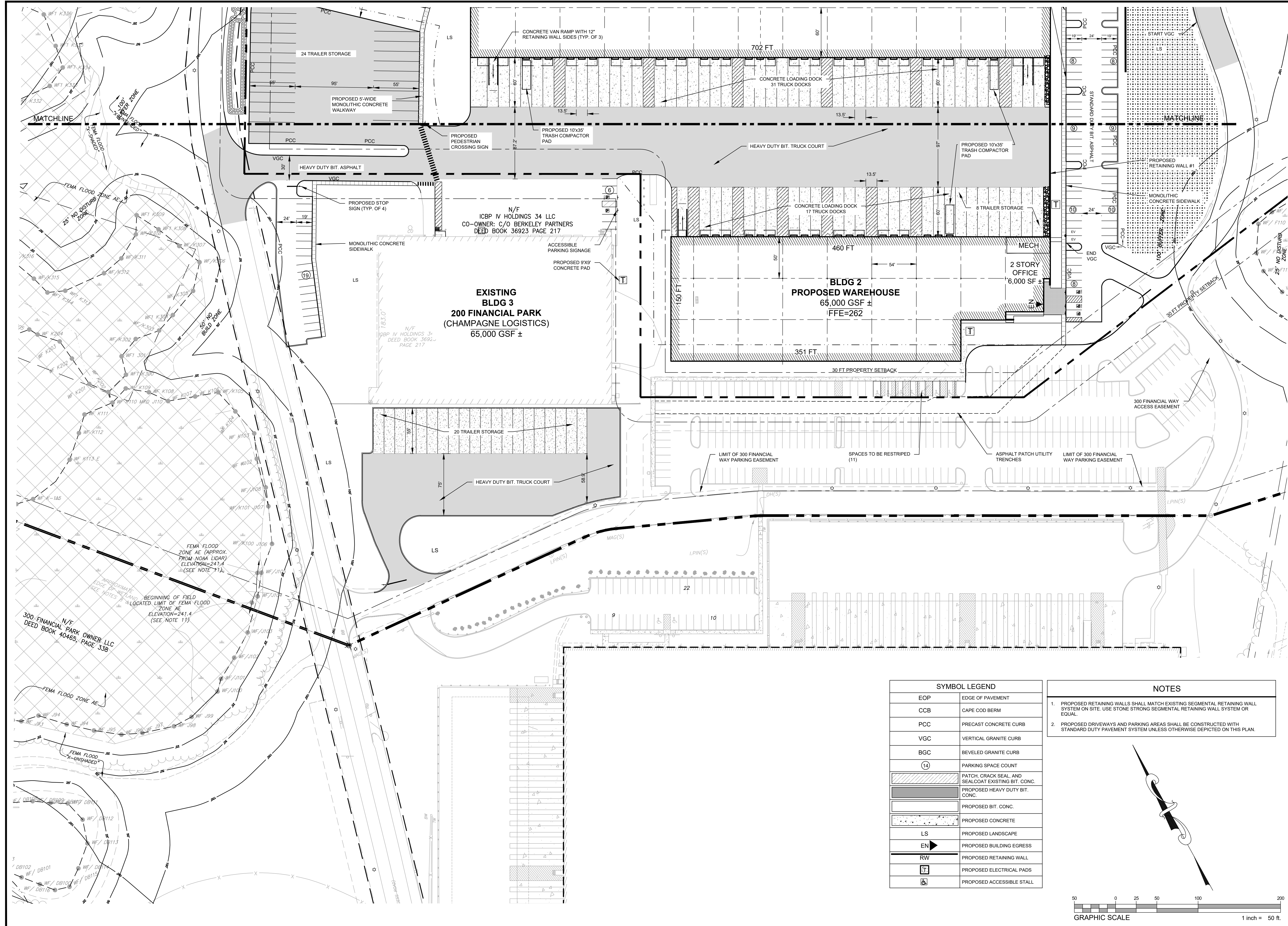
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SHEET TITLE:  
**LAYOUT & MATERIALS PLAN**

SHEET NUMBER:  
**C300**

ISSUED FOR: PERMIT





REV	DATE	DESCRIPTION
7	12.07.2023	PLANNING BOARD ENDORSEMENT
6	10.26.2023	RESPONSE TO COMMENTS
5	10.19.2023	RESPONSE TO COMMENTS
4	10.05.2023	RESPONSE TO COMMENTS
3	08.15.2023	RESPONSE TO COMMENTS
2	08.14.2023	RESPONSE TO COMMENTS
1	07.17.2023	RESPONSE TO COMMENTS

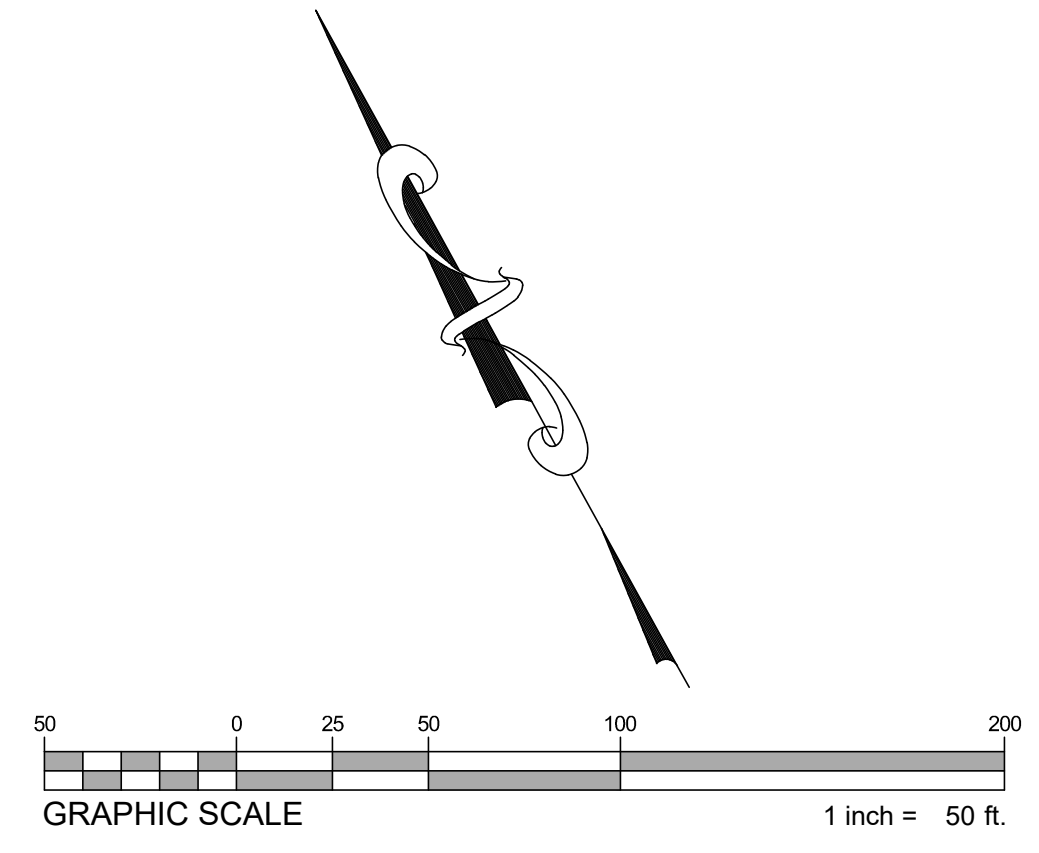
ISSUE TYPE:  
 PERMIT SET  
 ISSUE DATE:  
 05/11/2023  
 PROJECT NUMBER:  
 22051

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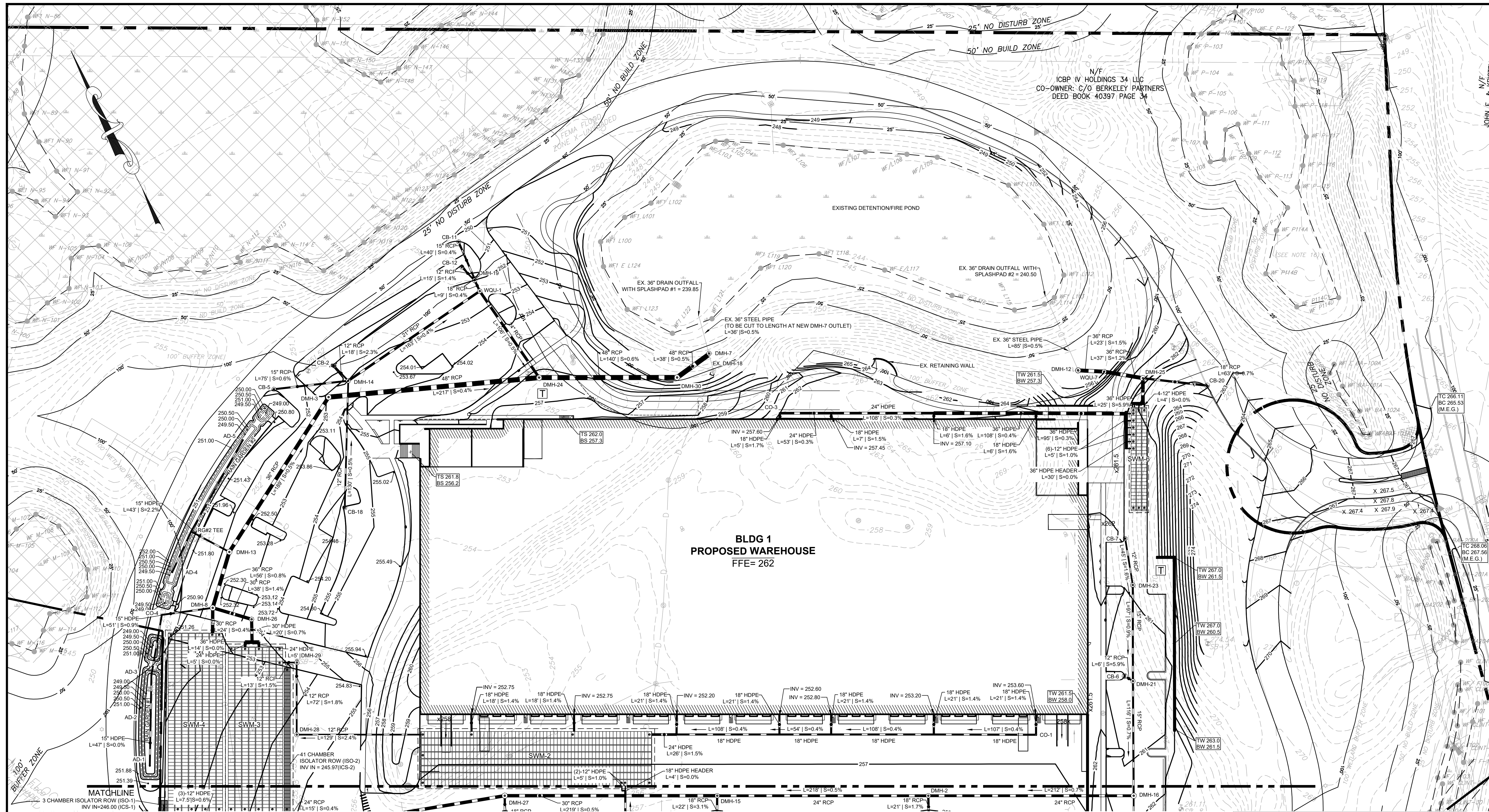
SHEET TITLE:  
**LAYOUT & MATERIALS PLAN**  
 SHEET NUMBER:  
**C301**  
 ISSUED FOR: PERMIT

SYMBOL LEGEND	
EOP	EDGE OF PAVEMENT
CCB	CAPE COD BERM
PCC	PRECAST CONCRETE CURB
VGC	VERTICAL GRANITE CURB
BGC	BEVELED GRANITE CURB
(14)	PARKING SPACE COUNT
[Hatched]	PATCH, CRACK SEAL AND SEALCOAT EXISTING BIT. CONC.
[Dark Grey]	PROPOSED HEAVY DUTY BIT. CONC.
[Light Grey]	PROPOSED BIT. CONC.
[Stippled]	PROPOSED CONCRETE
LS	PROPOSED LANDSCAPE
EN	PROPOSED BUILDING EGRESS
RW	PROPOSED RETAINING WALL
[Square]	PROPOSED ELECTRICAL PADS
[Wheelchair]	PROPOSED ACCESSIBLE STALL

- NOTES**
- PROPOSED RETAINING WALLS SHALL MATCH EXISTING SEGMENTAL RETAINING WALL SYSTEM ON SITE. USE STONE STRONG SEGMENTAL RETAINING WALL SYSTEM OR EQUAL.
  - PROPOSED DRIVEWAYS AND PARKING AREAS SHALL BE CONSTRUCTED WITH STANDARD DUTY PAVEMENT SYSTEM UNLESS OTHERWISE DEPICTED ON THIS PLAN.







**BLDG 1  
PROPOSED WAREHOUSE  
FFE= 262**

STRUCTURE	ELEV.	STRUCTURE	ELEV.	STRUCTURE	ELEV.	STRUCTURE	ELEV.	STRUCTURE	ELEV.	STRUCTURE	ELEV.
AD-1 15' AREA DRAIN	RIM = 250.50 INV OUT = 247.50 (AD-2)	CB-6 DOUBLE GRATE	RIM = 260.01 INV OUT = 255.70 (DMH-21)	CO-3 18" NYLOPLAST CLEANOUT	RIM = 262.00 INV IN = 257.50 (Bldg 1 - North 1) INV OUT = 257.50 (BLDG 1 TEE 1 N)	DMH-13 5' DIA. DMH	RIM = 252.17 INV IN = 246.50 (RG#2 TEE) INV IN = 244.30 (DMH-8) INV OUT = 244.20 (DMH-3)	DMH-24 5' DIA. DMH	RIM = 256.22 INV IN = 242.20 (DMH-3) INV IN = 246.00 (WQU-1) INV OUT = 242.10 (DMH-30)	WQU-1 CASCADE CS-4	RIM = 252.43 INV IN = 246.60 (DMH-14) INV IN = 246.65 (DMH-19) INV OUT = 246.50 (DMH-24)
AD-2 15' AREA DRAIN	RIM = 249.35 INV IN = 247.50 (AD-1) INV OUT = 247.50 (AD-3)	CB-7 SINGLE GRATE	RIM = 261.47 INV OUT = 256.80 (DMH-23)	CO-4 18" NYLOPLAST CLEANOUT	RIM = 251.16 INV IN = 247.50 (AD-3) INV IN = 247.00 (DMH-8)	DMH-14 4' DIA. DMH	RIM = 253.01 INV IN = 247.30 (CB-2) INV IN = 247.30 (CB-5) INV IN = 247.70 (CB-18) INV OUT = 247.20 (WQU-1)	DMH-25 5' DIA. DROP DMH	RIM = 261.88 INV IN = 257.00 (CB-20) INV IN = 255.50 (SWM-6 OUT) INV OUT = 251.00 (WQU-7)	WQU-7 SciCloneX SCX-6	RIM = 257.07 INV IN = 250.50 (DMH-25) INV OUT = 250.00 (DMH-12)
AD-3 15' AREA DRAIN	RIM = 250.50 INV IN = 247.50 (AD-2) INV OUT = 247.50 (CO-4)	CB-11 SINGLE GRATE	RIM = 250.89 INV OUT = 247.15 (DMH-19)	DMH-2 4' DIA. DMH	RIM = 256.31 INV IN = 250.00 (DMH-16) INV IN = 250.50 (CB-8) INV OUT = 249.90 (DMH-15)	DMH-15 4' DIA. DMH	RIM = 256.32 INV IN = 248.70 (DMH-2) INV IN = 248.70 (CB-9) INV OUT = 248.60 (DMH-27)	DMH-26 4' DIA. DMH	RIM = 253.20 INV IN = 246.00 (SWM-3 OUT) INV OUT = 245.90 (DMH-6)		
AD-4 15' AREA DRAIN	RIM = 250.50 INV IN = 247.50 (RG#2 TEE)	CB-18 SINGLE GRATE	RIM = 254.59 INV OUT = 248.40 (DMH-14)	DMH-3 5' DIA. DMH	RIM = 253.15 INV IN = 243.20 (DMH-13) INV OUT = 243.10 (DMH-24)	DMH-16 5' DIA. DMH	RIM = 261.56 INV IN = 254.00 (DMH-21) INV IN = 256.30 (DMH-5) INV OUT = 251.50 (DMH-2)	DMH-27 5' DIA. DMH	RIM = 256.32 INV IN = 247.50 (DMH-15) INV IN = 247.50 (CB-19) INV OUT = 247.40 (CS-2)		
AD-5 15' AREA DRAIN	RIM = 249.97 INV IN = 247.50 (AD-2) INV OUT = 247.50 (AD-3)	CB-20 DOUBLE GRATE	RIM = 262.69 INV OUT = 257.50 (DMH-25)	DMH-7 4' DIA. DMH	RIM = 248.80 INV IN = 241.00 (DMH-30) INV OUT = 240.17 (EX. SPLASH PAD #1)	DMH-10 4' DIA. DMH	RIM = 252.01 INV IN = 248.70 (CB-12) INV IN = 247.00 (CB-11) INV OUT = 246.90 (WQU-1)	DMH-28 4' DIA. DMH	RIM = 254.31 INV IN = 249.40 ( ) INV OUT = 249.10 (DMH-29)		
CB-2 SINGLE GRATE	RIM = 252.16 INV IN = 247.80 (DMH-14)	CO-1 18" NYLOPLAST CLEANOUT	RIM = 257.59 INV IN = 253.30 (Bldg 1 - South 1) INV IN = 253.30 (RL TEE 1)	DMH-8 5' DIA. DMH	RIM = 252.23 INV IN = 244.90 (SWM-4 OUT) INV IN = 245.30 (DMH-26) INV IN = 247.00 (CO-4) INV OUT = 244.80 (DMH-13)	DMH-19 4' DIA. DMH	RIM = 260.17 INV IN = 255.10 (CB-6) INV IN = 255.00 (DMH-23) INV OUT = 254.90 (DMH-16)	DMH-29 4' DIA. DMH	RIM = 254.28 INV IN = 247.80 (DMH-28) INV IN = 247.70 (SWM-1 (I)) INV OUT = 247.70 (DMH-7)		
CB-5 SINGLE GRATE	RIM = 251.60 INV IN = 247.80 (DMH-14)			DMH-12 5' DIA. DROP DMH	RIM = 255.00 INV IN = 249.60 (WQU-7) INV OUT = 241.00 (EX. SPLASH PAD #2)	DMH-21 4' DIA. DMH	RIM = 261.16 INV IN = 256.00 (CB-7) INV OUT = 255.90 (DMH-21)	DMH-30 5' DIA. DMH	RIM = 252.62 INV IN = 241.30 (DMH-24) INV OUT = 241.20 (DMH-7)		

STRUCTURE	SYSTEM ELEV.	SYSTEM CONNECTIONS
SWM-2 CULTREC R902HD 249.03' x 63.25' 528 TOTAL CHAMBERS (8 ROWS x 66 CHAMBERS)	TOP OF STONE = 255.25 TOP OF SYSTEM = 254.25 BOTTOM OF SYSTEM = 250.25 BOTTOM OF STONE = 249.50 ESHW = 247.30 WELL = 246.00 FRIMPTER = 1.30	INV OUT = 252.75 (12" HDPE - DMH-28) INV IN = 251.50 (12" HDPE - DMH-17) INV IN = 251.50 (30" HDPE - BLDG 1 - SOUTH-1)
SWM-3 CULTREC R902HD 179.37' x 63.25' 376 TOTAL CHAMBERS (8 ROWS x 47 CHAMBERS)	TOP OF STONE = 248.75 TOP OF SYSTEM = 248.75 BOTTOM OF SYSTEM = 244.75 BOTTOM OF STONE = 244.00 ESHW = 241.30 WELL = 240.00 FRIMPTER = 1.30	INV OUT = 246.16 (2-24" RCP - DMH-26) INV IN = 246.50 (18" HDPE - SWM-2) INV IN = 246.20 (4-18" HDPE - 30" HEADER)
SWM-4 CULTREC R902HD 194.03' x 63.25' 408 TOTAL CHAMBERS (8 ROWS x 51 CHAMBERS)	TOP OF STONE = 248.75 TOP OF SYSTEM = 247.75 BOTTOM OF SYSTEM = 243.75 BOTTOM OF STONE = 243.00 ESHW = 240.30 WELL = 239.00 FRIMPTER = 1.30	INV OUT = 245.00 (30" RCP - DMH-28) INV IN = 245.00 (30" RCP - DMH-31) INV IN = 246.50 (3-12" HDPE - 12" HEADER)
SWM-6 CULTREC R360HD 114.83' x 22.50' 87 TOTAL CHAMBERS (3 ROWS x 29 CHAMBERS)	TOP OF STONE = 259.50 TOP OF SYSTEM = 259.00 BOTTOM OF SYSTEM = 256.00 BOTTOM OF STONE = 255.50 ESHW = 253.30 WELL = 252.00 FRIMPTER = 1.30	INV OUT = 257.10 (4 - 12" HDPE - DMH-25) INV IN = 256.25 (6-12" HDPE - 30" HDPE HEADER)

SYMBOL LEGEND	
	EXISTING ELEVATION CONTOUR
	PROPOSED ELEVATION CONTOUR
	PROPOSED SPOT ELEVATION
	PROPOSED TC/BC ELEVATIONS
	PROPOSED TW/BW ELEVATIONS
	PROPOSED CATCH BASIN
	PROPOSED DRAIN MANHOLE
	DOUBLE GRATE CATCH BASIN
	PROPOSED STORM DRAIN
	PROPOSED ELECTRICAL TRANSFORMER
	PROPOSED RIP RAP
	PROPOSED SEWER MANHOLE
	PROPOSED RETAINING WALL
	TEST PIT LOCATION



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CONSULTANT:  
JOHN F. [Signature]

SEAL:

12-07-2023

**WAREHOUSE/INDUSTRIAL DEVELOPMENT**

100/200 FINANCIAL PARK  
FRANKLIN, MA

OWNER/APPLICANT: BERKELEY PARTNERS

ISSUE TYPE:  
PERMIT SET  
ISSUE DATE:  
05/11/2023  
PROJECT NUMBER:  
22051

DRAWN BY: JJP/JMP  
CHECKED BY: DJH

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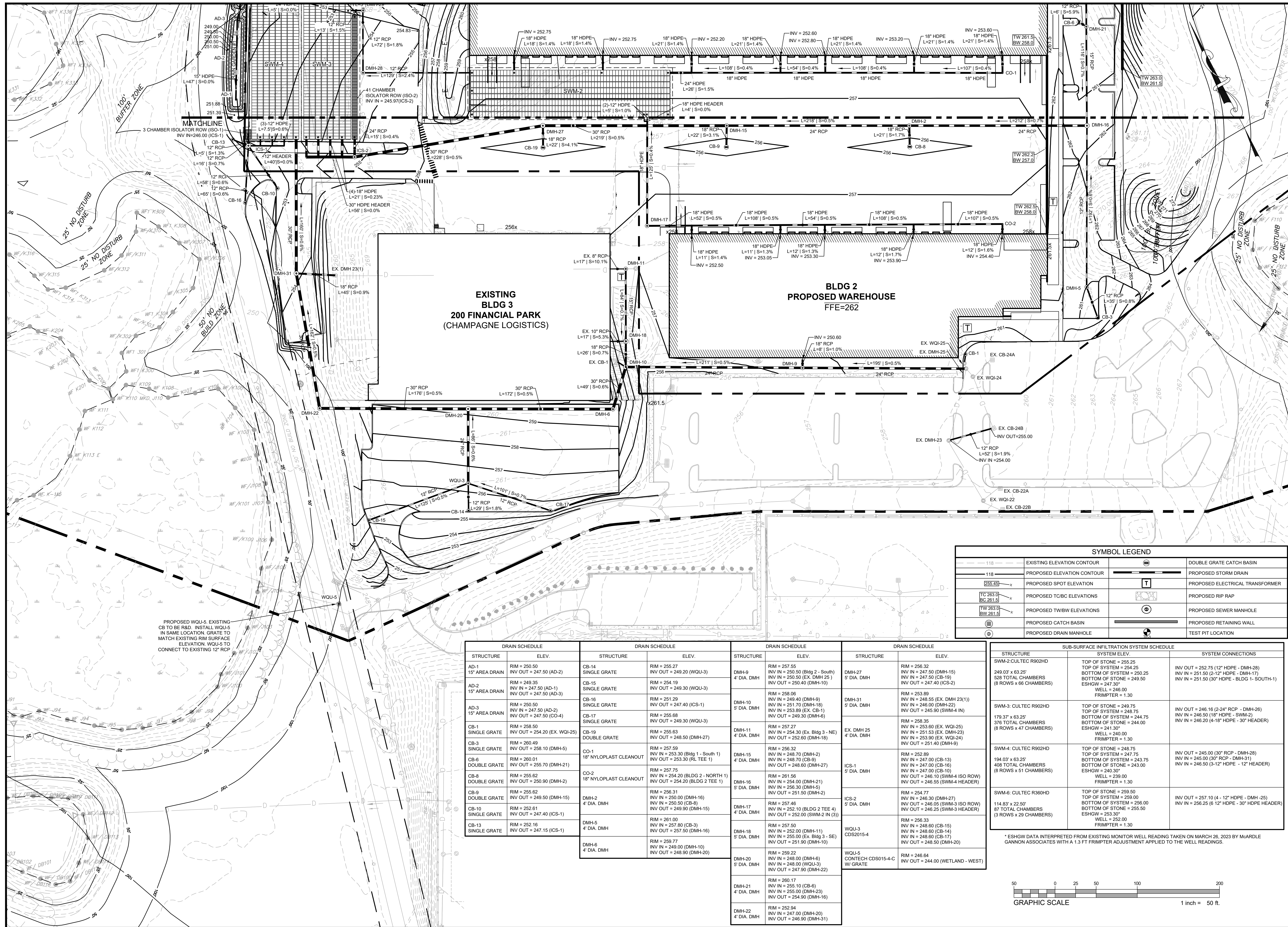
SHEET TITLE:  
**GRADING &  
DRAINAGE PLAN**

SHEET NUMBER:  
**C400**

ISSUED FOR: PERMIT

\* ESHW DATA INTERPRETED FROM EXISTING MONITOR WELL READING TAKEN ON MARCH 26, 2023 BY MARDLE GANNON ASSOCIATES WITH A 1.3 FT FRIMPTER ADJUSTMENT APPLIED TO THE WELL READINGS.





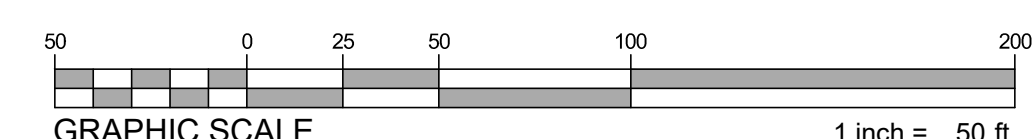
PROPOSED WQU-5, EXISTING CB TO BE R.O.D. INSTALL WQU-5 IN SAME LOCATION. GRATE TO MATCH EXISTING RIM SURFACE ELEVATION. WQU-5 TO CONNECT TO EXISTING 12" RCP

SYMBOL LEGEND			
	EXISTING ELEVATION CONTOUR		DOUBLE GRATE CATCH BASIN
	PROPOSED ELEVATION CONTOUR		PROPOSED STORM DRAIN
	PROPOSED SPOT ELEVATION		PROPOSED ELECTRICAL TRANSFORMER
	PROPOSED TC/BC ELEVATIONS		PROPOSED RIP RAP
	PROPOSED TW/BW ELEVATIONS		PROPOSED SEWER MANHOLE
	PROPOSED CATCH BASIN		PROPOSED RETAINING WALL
	PROPOSED DRAIN MANHOLE		TEST PIT LOCATION

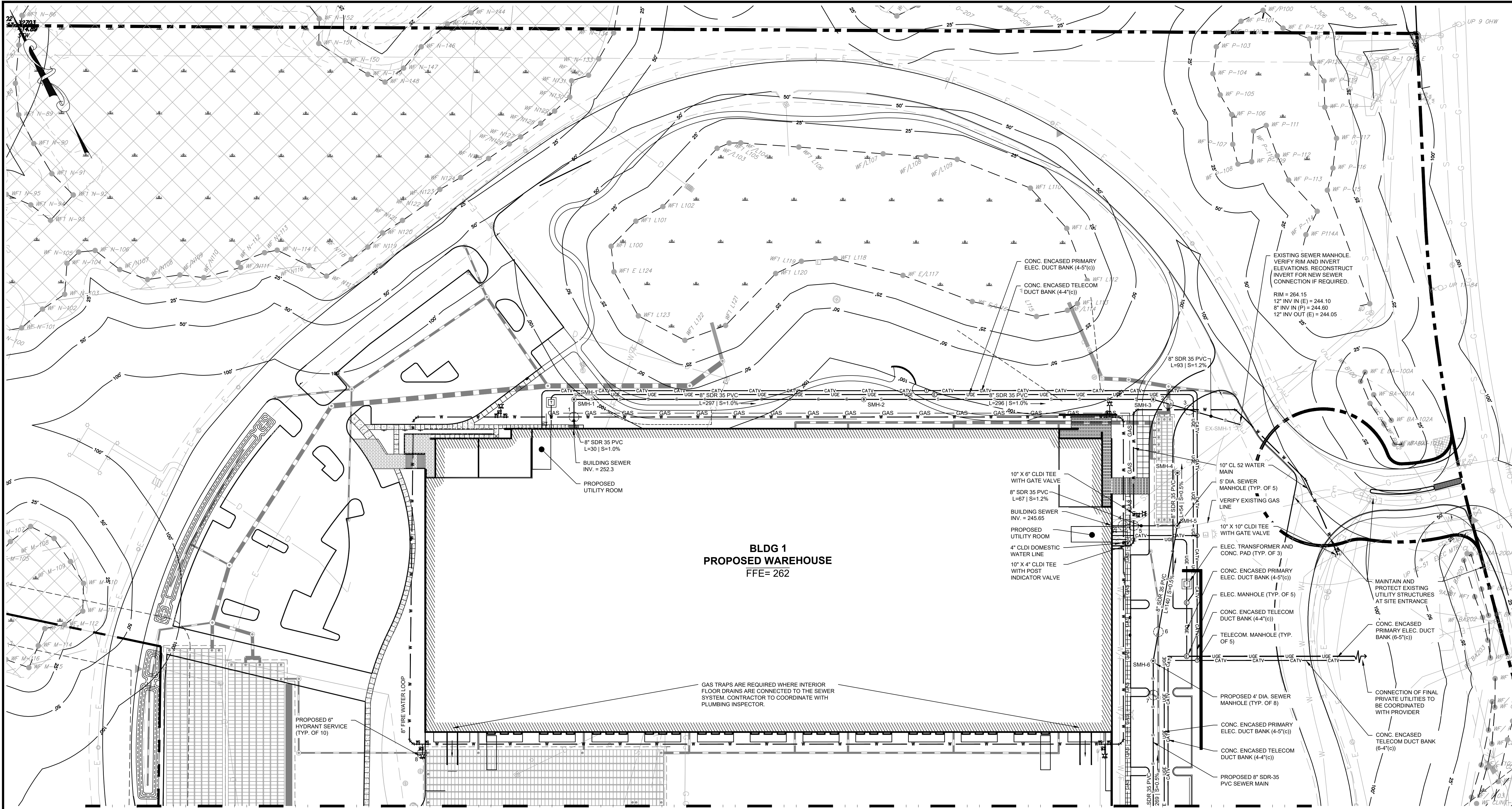
DRAIN SCHEDULE		DRAIN SCHEDULE		DRAIN SCHEDULE		DRAIN SCHEDULE	
STRUCTURE	ELEV.	STRUCTURE	ELEV.	STRUCTURE	ELEV.	STRUCTURE	ELEV.
AD-1 15" AREA DRAIN	RIM = 250.50 INV IN = 247.50 (AD-2) INV OUT = 247.50 (AD-2)	CB-14 SINGLE GRATE	RIM = 257.27 INV IN = 249.20 (WQU-3) INV OUT = 249.20 (WQU-3)	DMH-9 4" DIA. DMH	RIM = 256.32 INV IN = 247.50 (DMH-15) INV OUT = 247.50 (CB-19)	DMH-27 5" DIA. DMH	RIM = 256.32 INV IN = 247.50 (DMH-15) INV OUT = 247.50 (CB-19)
AD-2 15" AREA DRAIN	RIM = 249.35 INV IN = 247.50 (AD-1) INV OUT = 247.50 (AD-3)	CB-15 SINGLE GRATE	RIM = 254.19 INV IN = 249.30 (WQU-3) INV OUT = 249.30 (WQU-3)	DMH-10 5" DIA. DMH	RIM = 258.06 INV IN = 249.40 (DMH-9) INV IN = 251.70 (DMH-18) INV IN = 253.89 (EX. CB-1) INV OUT = 249.30 (DMH-6)	DMH-31 5" DIA. DMH	RIM = 253.89 INV IN = 248.55 (EX. DMH 23(1)) INV IN = 246.00 (DMH-22) INV IN = 251.53 (EX. DMH-23) INV IN = 253.90 (EX. WQI-24) INV OUT = 251.40 (DMH-9)
AD-3 15" AREA DRAIN	RIM = 250.50 INV IN = 247.50 (AD-2) INV OUT = 247.50 (CO-4)	CB-16 SINGLE GRATE	RIM = 251.29 INV IN = 247.40 (ICS-1) INV OUT = 247.40 (ICS-1)	DMH-11 4" DIA. DMH	RIM = 257.27 INV IN = 254.30 (EX. Bldg 3 - NE) INV OUT = 252.60 (DMH-18)	EX. DMH 25 4" DIA. DMH	RIM = 258.35 INV IN = 253.60 (EX. WQI-25) INV IN = 251.53 (EX. DMH-23) INV IN = 253.90 (EX. WQI-24) INV OUT = 251.40 (DMH-9)
CB-1 SINGLE GRATE	RIM = 250.50 INV IN = 254.20 (EX. WQI-25) INV OUT = 254.20 (EX. WQI-25)	CB-17 SINGLE GRATE	RIM = 255.68 INV IN = 249.30 (WQU-3) INV OUT = 249.30 (WQU-3)	DMH-15 4" DIA. DMH	RIM = 256.32 INV IN = 248.70 (DMH-2) INV IN = 247.00 (CB-18) INV OUT = 246.60 (DMH-27)	ICS-1 5" DIA. DMH	RIM = 252.89 INV IN = 247.00 (CB-18) INV IN = 246.05 (SWM-3 ISO ROW) INV IN = 246.10 (SWM-4 ISO ROW) INV OUT = 246.55 (SWM-4 HEADER)
CB-3 SINGLE GRATE	RIM = 260.49 INV IN = 258.10 (DMH-5) INV OUT = 258.10 (DMH-5)	CB-19 DOUBLE GRATE	RIM = 255.63 INV IN = 248.50 (DMH-27) INV OUT = 248.50 (DMH-27)	DMH-16 5" DIA. DMH	RIM = 261.56 INV IN = 254.00 (DMH-21) INV IN = 256.30 (DMH-5) INV OUT = 251.50 (DMH-2)	DMH-17 4" DIA. DMH	RIM = 254.77 INV IN = 246.30 (DMH-27) INV IN = 247.00 (CB-18) INV OUT = 246.25 (SWM-3 HEADER)
CB-6 DOUBLE GRATE	RIM = 260.01 INV IN = 255.70 (DMH-21) INV OUT = 255.70 (DMH-21)	CO-1 18" NYLOPLAST CLEANOUT	RIM = 257.59 INV IN = 248.70 (Bldg 1 - South 1) INV OUT = 254.20 (Bldg 2 TEE 1)	DMH-18 5" DIA. DMH	RIM = 257.59 INV IN = 248.70 (DMH-2) INV IN = 247.00 (CB-18) INV OUT = 246.60 (DMH-27)	DMH-20 4" DIA. DMH	RIM = 257.59 INV IN = 248.70 (DMH-2) INV IN = 247.00 (CB-18) INV OUT = 246.25 (SWM-3 HEADER)
CB-8 DOUBLE GRATE	RIM = 255.62 INV IN = 250.90 (DMH-2) INV OUT = 250.90 (DMH-2)	CO-2 18" NYLOPLAST CLEANOUT	RIM = 257.75 INV IN = 254.20 (BLDG 2 - NORTH 1) INV OUT = 254.20 (BLDG 2 TEE 1)	DMH-21 4" DIA. DMH	RIM = 261.56 INV IN = 254.00 (DMH-21) INV IN = 256.30 (DMH-5) INV OUT = 251.50 (DMH-2)	DMH-22 4" DIA. DMH	RIM = 257.59 INV IN = 248.70 (DMH-2) INV IN = 247.00 (CB-18) INV OUT = 246.25 (SWM-3 HEADER)
CB-9 DOUBLE GRATE	RIM = 255.62 INV IN = 249.50 (DMH-15) INV OUT = 249.50 (DMH-15)	DMH-2 4" DIA. DMH	RIM = 256.31 INV IN = 250.00 (DMH-16) INV IN = 250.50 (CB-8) INV OUT = 249.90 (DMH-15)	DMH-5 4" DIA. DMH	RIM = 257.46 INV IN = 252.10 (BLDG 2 TEE 4) INV OUT = 252.00 (SWM-2 IN (3))	DMH-23 4" DIA. DMH	RIM = 256.32 INV IN = 248.70 (DMH-2) INV IN = 247.00 (CB-18) INV OUT = 246.25 (SWM-3 HEADER)
CB-10 SINGLE GRATE	RIM = 252.61 INV IN = 247.40 (ICS-1) INV OUT = 247.40 (ICS-1)	DMH-6 4" DIA. DMH	RIM = 257.75 INV IN = 257.80 (CB-3) INV IN = 257.50 (DMH-16) INV OUT = 249.90 (DMH-15)	DMH-11 4" DIA. DMH	RIM = 257.59 INV IN = 252.10 (BLDG 2 TEE 4) INV OUT = 252.00 (SWM-2 IN (3))	DMH-24 4" DIA. DMH	RIM = 257.59 INV IN = 248.70 (DMH-2) INV IN = 247.00 (CB-18) INV OUT = 246.25 (SWM-3 HEADER)
CB-13 SINGLE GRATE	RIM = 252.16 INV IN = 247.15 (ICS-1) INV OUT = 247.15 (ICS-1)	DMH-20 4" DIA. DMH	RIM = 259.77 INV IN = 249.00 (DMH-10) INV OUT = 248.90 (DMH-20)	DMH-18 5" DIA. DMH	RIM = 257.59 INV IN = 252.10 (BLDG 2 TEE 4) INV OUT = 252.00 (SWM-2 IN (3))	DMH-25 4" DIA. DMH	RIM = 257.59 INV IN = 248.70 (DMH-2) INV IN = 247.00 (CB-18) INV OUT = 246.25 (SWM-3 HEADER)
		DMH-9 4" DIA. DMH	RIM = 257.27 INV IN = 249.20 (WQU-3) INV OUT = 249.20 (WQU-3)	DMH-30 5" DIA. DMH	RIM = 259.22 INV IN = 248.00 (DMH-6) INV IN = 248.00 (WQU-3) INV OUT = 247.90 (DMH-22)	DMH-26 4" DIA. DMH	RIM = 259.22 INV IN = 248.00 (DMH-6) INV IN = 248.00 (WQU-3) INV OUT = 247.90 (DMH-22)
		DMH-10 5" DIA. DMH	RIM = 258.06 INV IN = 249.40 (DMH-9) INV IN = 251.70 (DMH-18) INV IN = 253.89 (EX. CB-1) INV OUT = 249.30 (DMH-6)	DMH-21 4" DIA. DMH	RIM = 260.17 INV IN = 255.10 (CB-6) INV IN = 255.00 (DMH-23) INV OUT = 254.90 (DMH-16)	DMH-27 4" DIA. DMH	RIM = 260.17 INV IN = 255.10 (CB-6) INV IN = 255.00 (DMH-23) INV OUT = 254.90 (DMH-16)
		DMH-11 4" DIA. DMH	RIM = 257.27 INV IN = 254.30 (EX. Bldg 3 - NE) INV OUT = 252.60 (DMH-18)	DMH-22 4" DIA. DMH	RIM = 252.94 INV IN = 247.00 (DMH-20) INV OUT = 246.90 (DMH-31)		

SUB-SURFACE INFILTRATION SYSTEM SCHEDULE		
STRUCTURE	SYSTEM ELEV.	SYSTEM CONNECTIONS
SWM-2 CULTEC R902HD 249.03' x 63.25' 528 TOTAL CHAMBERS (8 ROWS x 66 CHAMBERS)	TOP OF STONE = 255.25 TOP OF SYSTEM = 254.25 BOTTOM OF SYSTEM = 250.25 BOTTOM OF STONE = 249.50 ESHW = 247.30" WELL = 246.00" FRIMPITER = 1.30	INV OUT = 252.75 (12" HDPE - DMH-28) INV IN = 251.50 (2-12" HDPE - DMH-17) INV IN = 251.50 (30" HDPE - BLDG 1 - SOUTH-1)
SWM-3 CULTEC R902HD 179.37' x 63.25' 376 TOTAL CHAMBERS (6 ROWS x 47 CHAMBERS)	TOP OF STONE = 249.75 TOP OF SYSTEM = 248.75 BOTTOM OF SYSTEM = 244.75 BOTTOM OF STONE = 244.00 ESHW = 241.30" WELL = 240.00" FRIMPITER = 1.30	INV OUT = 246.16 (2-24" RCP - DMH-26) INV IN = 246.50 (18" HDPE - SWM-2) INV IN = 246.20 (4-18" HDPE - 30" HEADER)
SWM-4 CULTEC R902HD 114.83' x 63.25' 408 TOTAL CHAMBERS (8 ROWS x 51 CHAMBERS)	TOP OF STONE = 248.75 TOP OF SYSTEM = 247.75 BOTTOM OF SYSTEM = 243.75 BOTTOM OF STONE = 243.00 ESHW = 240.30" WELL = 239.00" FRIMPITER = 1.30	INV OUT = 245.00 (30" RCP - DMH-28) INV IN = 245.00 (30" RCP - DMH-31) INV IN = 246.50 (3-12" HDPE - 12" HEADER)
SWM-6 CULTEC R360HD 114.83' x 22.50' 87 TOTAL CHAMBERS (3 ROWS x 29 CHAMBERS)	TOP OF STONE = 259.50 TOP OF SYSTEM = 259.00 BOTTOM OF SYSTEM = 256.00 BOTTOM OF STONE = 255.50 ESHW = 253.30" WELL = 252.00" FRIMPITER = 1.30	INV OUT = 257.10 (4 - 12" HDPE - DMH-25) INV IN = 256.25 (6-12" HDPE - 30" HDPE HEADER)

\* ESHW DATA INTERPRETED FROM EXISTING MONITOR WELL READINGS TAKEN ON MARCH 26, 2023 BY MCARDLE GANNON ASSOCIATES WITH A 1.5 FT FRIMPITER ADJUSTMENT APPLIED TO THE WELL READINGS.





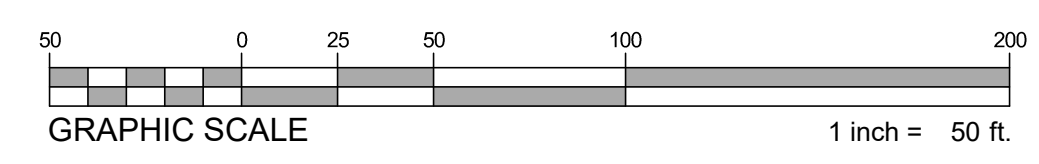


**BLDG 1  
 PROPOSED WAREHOUSE  
 FFE= 262**

STRUCTURE	ELEV.
SMH-1	RIM = 255.43 INV IN = 251.97 (BUILDING 1 WEST) INV OUT = 251.87 (SMH-2)
SMH-2	RIM = 262.38 INV IN = 248.90 (SMH-1) INV OUT = 248.80 (SMH-3)
SMH-3	RIM = 262.01 INV IN = 245.84 (SMH-2) INV OUT = 245.74 (EX-SMH-1)
SMH-4	RIM = 261.99 INV IN = 244.48 (SMH-5) INV OUT = 244.38 (EX-SMH-1)
SMH-5	RIM = 262.00 INV IN = 244.85 (SMH-6) INV IN = 244.85 (BUILDING 1 EAST) INV OUT = 244.75 (SMH-4)
SMH-6	RIM = 260.06 INV IN = 245.61 (SMH-7) INV OUT = 245.51 (SMH-5)

SANITARY/WATER AND SANITARY/ STORMWATER CROSSINGS	
1	FG = 257.5± INVERT OF WATER PIPE = 254.3± TOP OF SANITARY SEWER = 252.82± CLEARANCE = 1.5±
2	FG = 261.9± INVERT OF STORMWATER PIPE = 256.54± TOP OF SANITARY SEWER = 246.21± CLEARANCE = 10.33±
3	FG = 262.4± INVERT OF WATER PIPE = 256.3± TOP OF SANITARY SEWER = 245.94± CLEARANCE = 10.4±
4	FG = 262.0± INVERT OF WATER PIPE = 256.3± TOP OF SANITARY SEWER = 246.18± CLEARANCE = 10.2±
5	FG = 261.9± INVERT OF WATER PIPE = 256.3± TOP OF SANITARY SEWER = 246.05± CLEARANCE = 10.3±
6	FG = 260.9± INVERT OF STORMWATER PIPE = 255.30± TOP OF SANITARY SEWER = 246.04± CLEARANCE = 9.26±
7	FG = 261.1± INVERT OF STORMWATER PIPE = 255.35± TOP OF SANITARY SEWER = 246.45± CLEARANCE = 8.90±
8	FG = 258.5± INVERT OF WATER PIPE = 254.5± TOP OF STORMWATER PIPE = 253.41± CLEARANCE = 1.1±

SITE UTILITY LEGEND	
	PROPOSED WATER SERVICE OR MAIN
	PROPOSED SEWER SERVICE OR MAIN
	PROPOSED CONC. ENCASED ELECTRIC DUCT BANK
	PROPOSED CONC. ENCASED TELECOM DUCT BANK
	PROPOSED GAS SERVICE
	PROPOSED FIRE HYDRANT
	PROPOSED WATER GATE VALVE
	PROPOSED SEWER MANHOLE
	PROPOSED ELECTRIC TRANSFORMER
	PROPOSED ELECTRIC MANHOLE (6'X8')
	PROPOSED TELECOM MANHOLE
	PROPOSED GAS GATE VALVE



REV	DATE	DESCRIPTION
7	12.07.2023	PLANNING BOARD ENDORSEMENT
6	10.16.2023	RESPONSE TO COMMENTS
5	10.19.2023	RESPONSE TO COMMENTS
4	10.05.2023	RESPONSE TO COMMENTS
3	08.15.2023	RESPONSE TO COMMENTS
2	08.14.2023	RESPONSE TO COMMENTS
1	07.17.2023	RESPONSE TO COMMENTS

ISSUE TYPE:  
 PERMIT SET  
 ISSUE DATE:  
 05/11/2023  
 PROJECT NUMBER:  
 22051

DRAWN BY: JJP/CCL  
 CHECKED BY: DJH

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**UTILITY PLAN**

SHEET NUMBER:  
**C500**

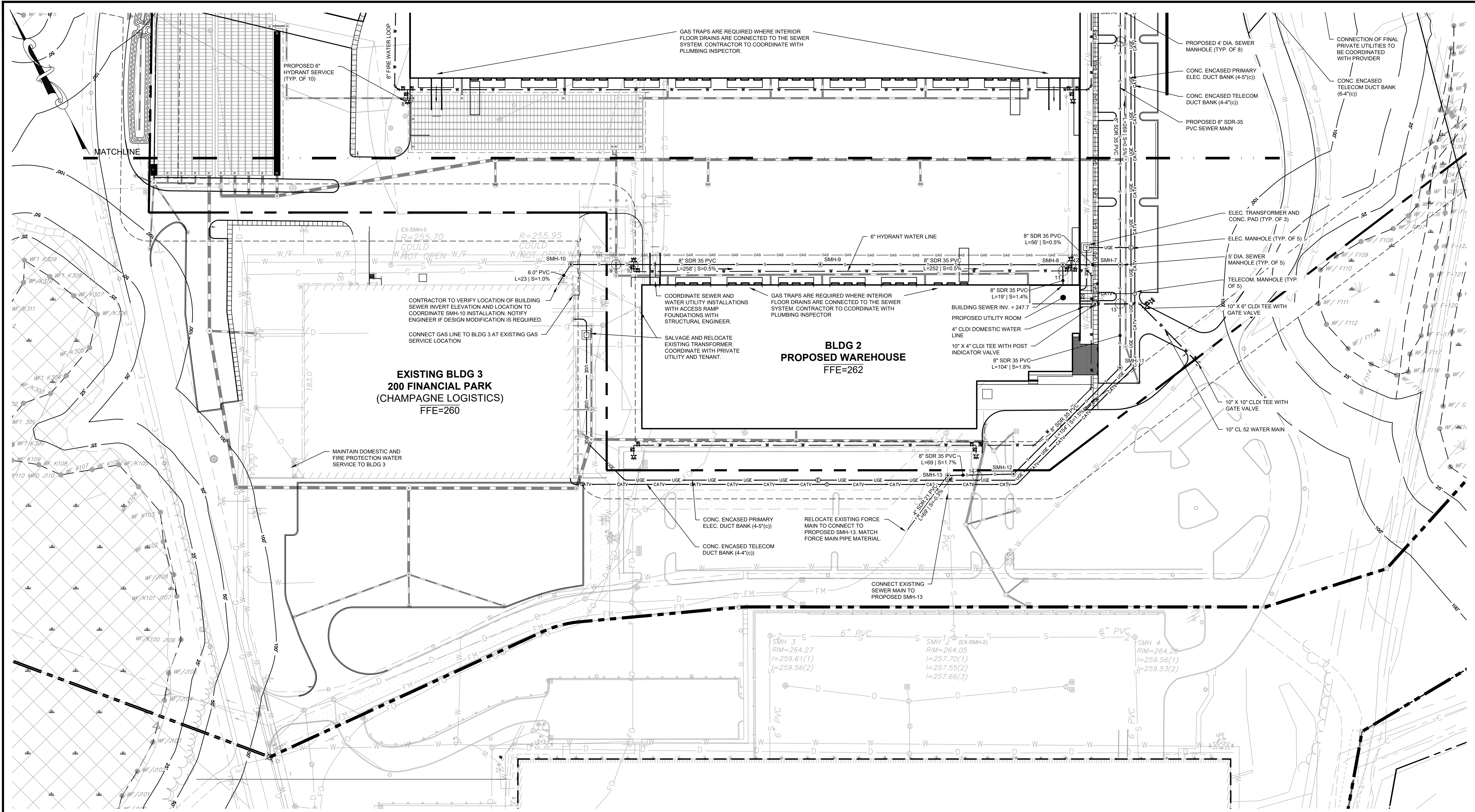




12-07-2023

**WAREHOUSE/INDUSTRIAL DEVELOPMENT**  
 100/200 FINANCIAL PARK  
 FRANKLIN, MA

OWNER/APPLICANT: BERKELEY PARTNERS

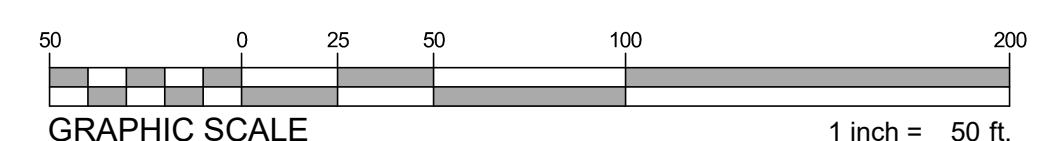


SEWER SCHEDULE	
STRUCTURE	ELEV.
SMH-6	RIM = 260.06 INV IN = 245.61 (SMH-7) INV OUT = 245.51 (SMH-5)
SMH-7	RIM = 262.19 INV IN = 247.84 (SMH-11) INV IN = 247.01 (SMH-8) INV OUT = 246.91 (SMH-6)
SMH-8	RIM = 257.99 INV IN = 247.41 (BUILDING 2) INV IN = 247.38 (SMH-9) INV OUT = 247.28 (SMH-7)
SMH-9	RIM = 257.53 INV IN = 248.64 (SMH-10) INV OUT = 248.54 (SMH-8)
SMH-10	RIM = 256.10 INV IN = 249.93 (EX-SMH-5) INV IN = 250.07 (BUILDING 3) INV OUT = 249.83 (SMH-9)

SEWER SCHEDULE	
STRUCTURE	ELEV.
SMH-11	RIM = 261.28 INV IN = 250.70 (SMH-12) INV OUT = 249.80 (SMH-7)
SMH-12	RIM = 261.97 INV IN = 253.80 (SMH-13) INV IN = 253.00 (SMH-11)
SMH-13	RIM = 261.99 INV IN = 255.10 (EX. FORCE MAIN) INV IN = 255.00 (EX-SMH-2) INV OUT = 255.00 (SMH-12)

SANITARY/WATER AND SANITARY/ STORMWATER CROSSINGS	
7	FG = 261.1± INVERT OF STORMWATER PIPE = 255.35± TOP OF SANITARY SEWER = 246.45± CLEARANCE = 8.90±
8	FG = 258.5± INVERT OF WATER PIPE = 254.5± TOP OF STORMWATER PIPE = 253.41± CLEARANCE = 1.1±
9	FG = 257.3± INVERT OF STORMWATER PIPE = 251.95± TOP OF SANITARY SEWER = 250.28± CLEARANCE = 1.37±
10	FG = 257.5± INVERT OF WATER PIPE = 251.9± TOP OF SANITARY SEWER = 250.19± CLEARANCE = 1.7±
11	FG = 257.8± INVERT OF WATER PIPE = 252.2± TOP OF SANITARY SEWER = 248.15± CLEARANCE = 4.1±
12	FG = 257.7± INVERT OF WATER PIPE = 252.1± TOP OF SANITARY SEWER = 247.91± CLEARANCE = 4.2±
13	FG = 261.4± INVERT OF WATER PIPE = 255.8± TOP OF SANITARY SEWER = 249.3± CLEARANCE = 6.5±
14	FG = 259.0± INVERT OF SANITARY SEWER = 254.46± TOP OF STORMWATER PIPE = 253.64± CLEARANCE = 0.82±

SITE UTILITY LEGEND	
	PROPOSED WATER SERVICE OR MAIN
	PROPOSED FORCE MAIN
	PROPOSED SEWER SERVICE OR MAIN
	PROPOSED CONC. ENCASED ELECTRIC DUCT BANK
	PROPOSED CONC. ENCASED TELECOM DUCT BANK
	PROPOSED GAS SERVICE
	PROPOSED FIRE HYDRANT
	PROPOSED WATER GATE VALVE
	PROPOSED SEWER MANHOLE
	PROPOSED ELECTRIC TRANSFORMER
	PROPOSED ELECTRIC MANHOLE (6'x8')
	PROPOSED TELECOM MANHOLE
	PROPOSED GAS GATE VALVE



REV	DATE	DESCRIPTION
7	12.07.2023	PLANNING BOARD ENDORSEMENT
6	10.26.2023	RESPONSE TO COMMENTS
5	10.19.2023	RESPONSE TO COMMENTS
4	10.05.2023	RESPONSE TO COMMENTS
3	08.15.2023	RESPONSE TO COMMENTS
2	08.14.2023	RESPONSE TO COMMENTS
1	07.17.2023	RESPONSE TO COMMENTS

ISSUE TYPE:  
 PERMIT SET  
 ISSUE DATE:  
 05/11/2023  
 PROJECT NUMBER:  
 22051  
 DRAWN BY: JJP/CCL  
 CHECKED BY: DJH  
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**UTILITY PLAN**  
 SHEET NUMBER:  
**C501**

ISSUED FOR: PERMIT



REV	DATE	DESCRIPTION
7	12.07.2023	PLANNING BOARD ENDORSEMENT
6	10.26.2023	RESPONSE TO COMMENTS
5	10.19.2023	RESPONSE TO COMMENTS
4	10.05.2023	RESPONSE TO COMMENTS
3	08.15.2023	RESPONSE TO COMMENTS
2	08.14.2023	RESPONSE TO COMMENTS
1	07.17.2023	RESPONSE TO COMMENTS

ISSUE TYPE:  
 PERMIT SET  
 ISSUE DATE:  
 05/11/2023  
 PROJECT NUMBER:  
 22051

DRAWN BY: JMP  
 CHECKED BY: DH

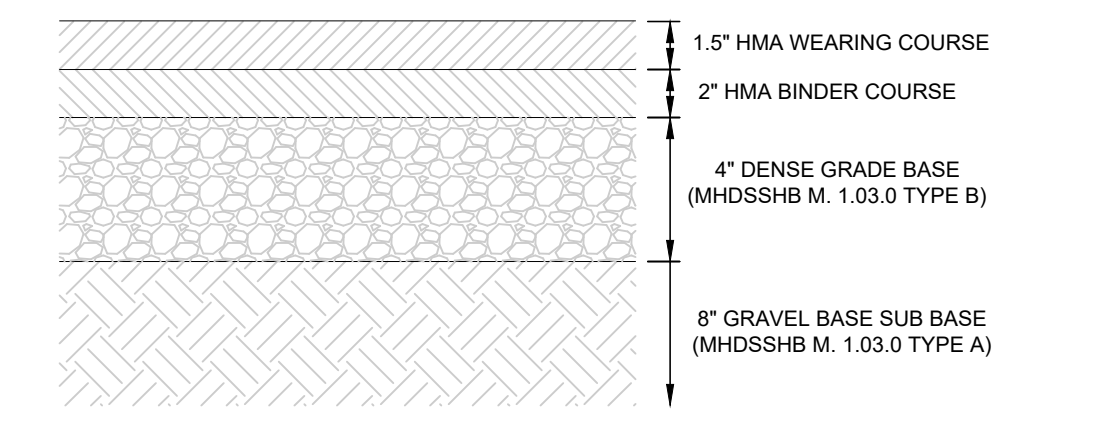
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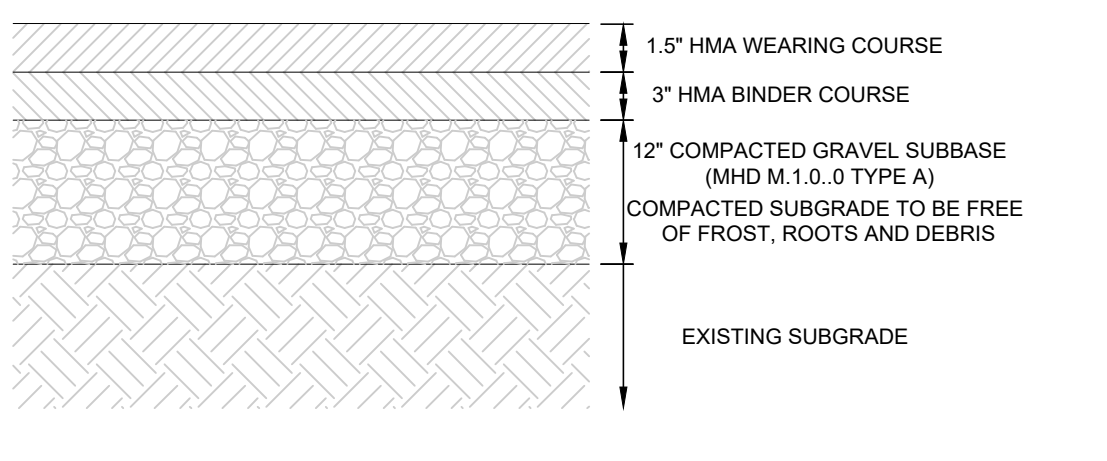
**DETAIL SHEET**

SHEET NUMBER:  
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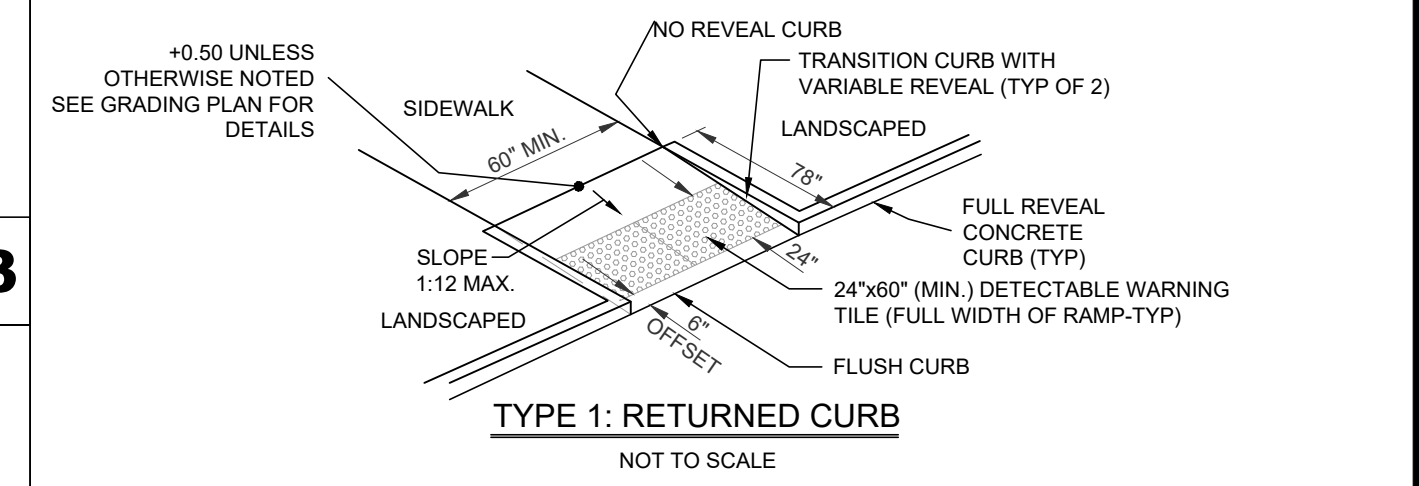
ISSUED FOR: PERMIT



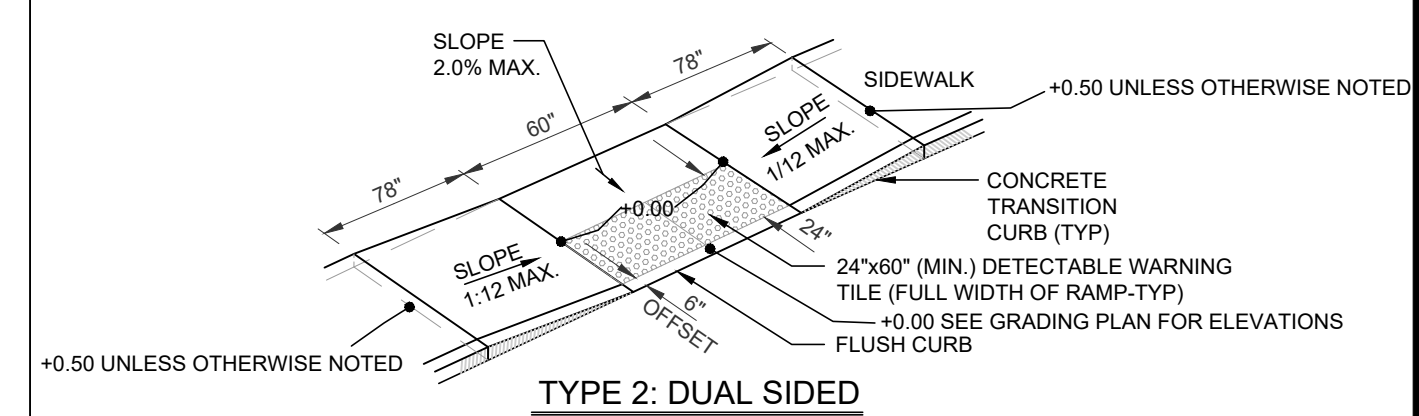
**BITUMINOUS CONCRETE PAVEMENT**  
 NOT TO SCALE **C2**



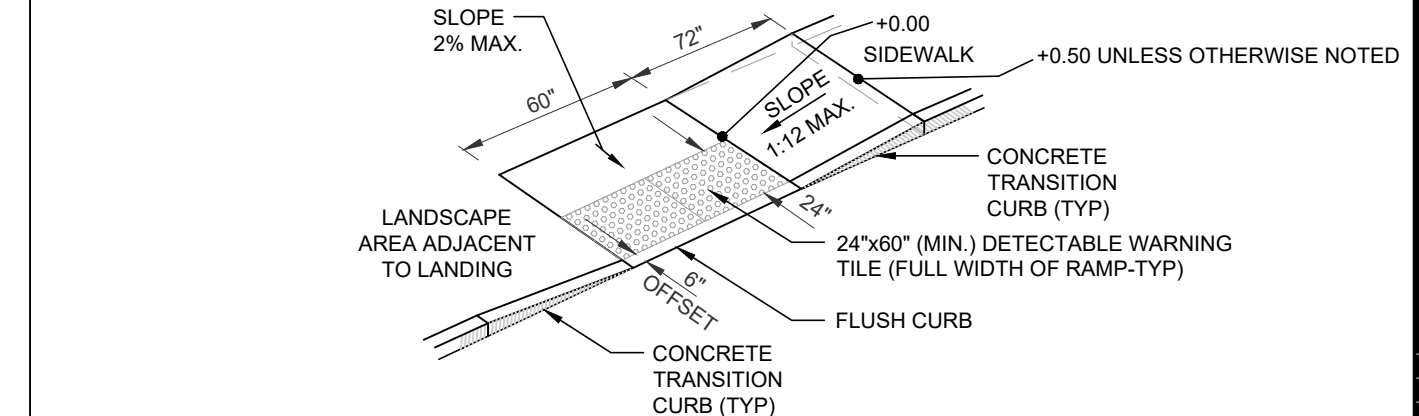
**HEAVY DUTY BITUMINOUS CONCRETE PAVEMENT**  
 NOT TO SCALE **C1**



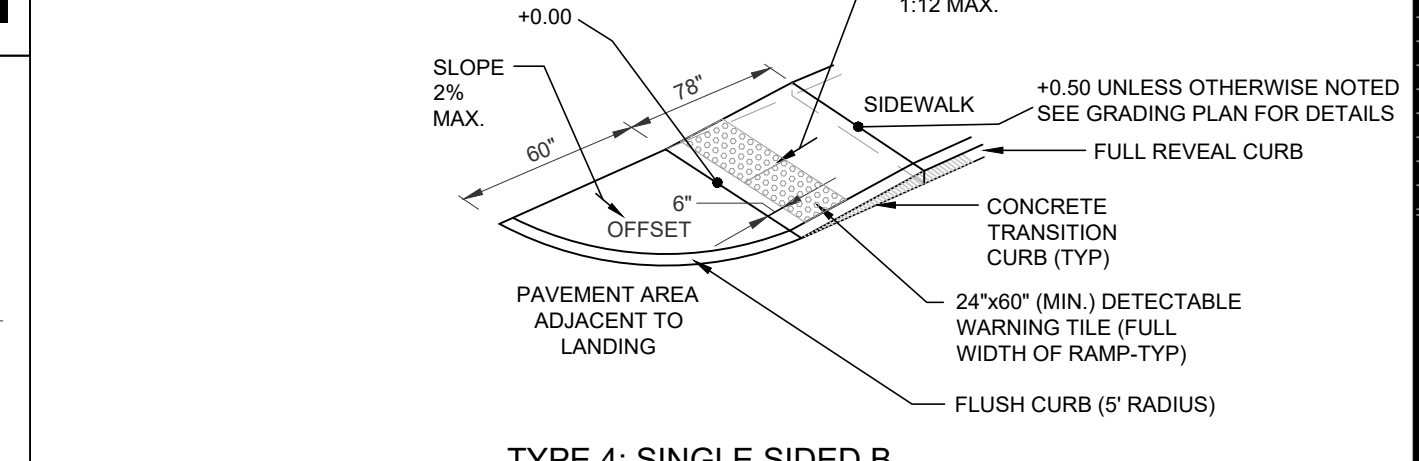
**TYPE 1: RETURNED CURB**  
 NOT TO SCALE



**TYPE 2: DUAL SIDED**  
 NOT TO SCALE



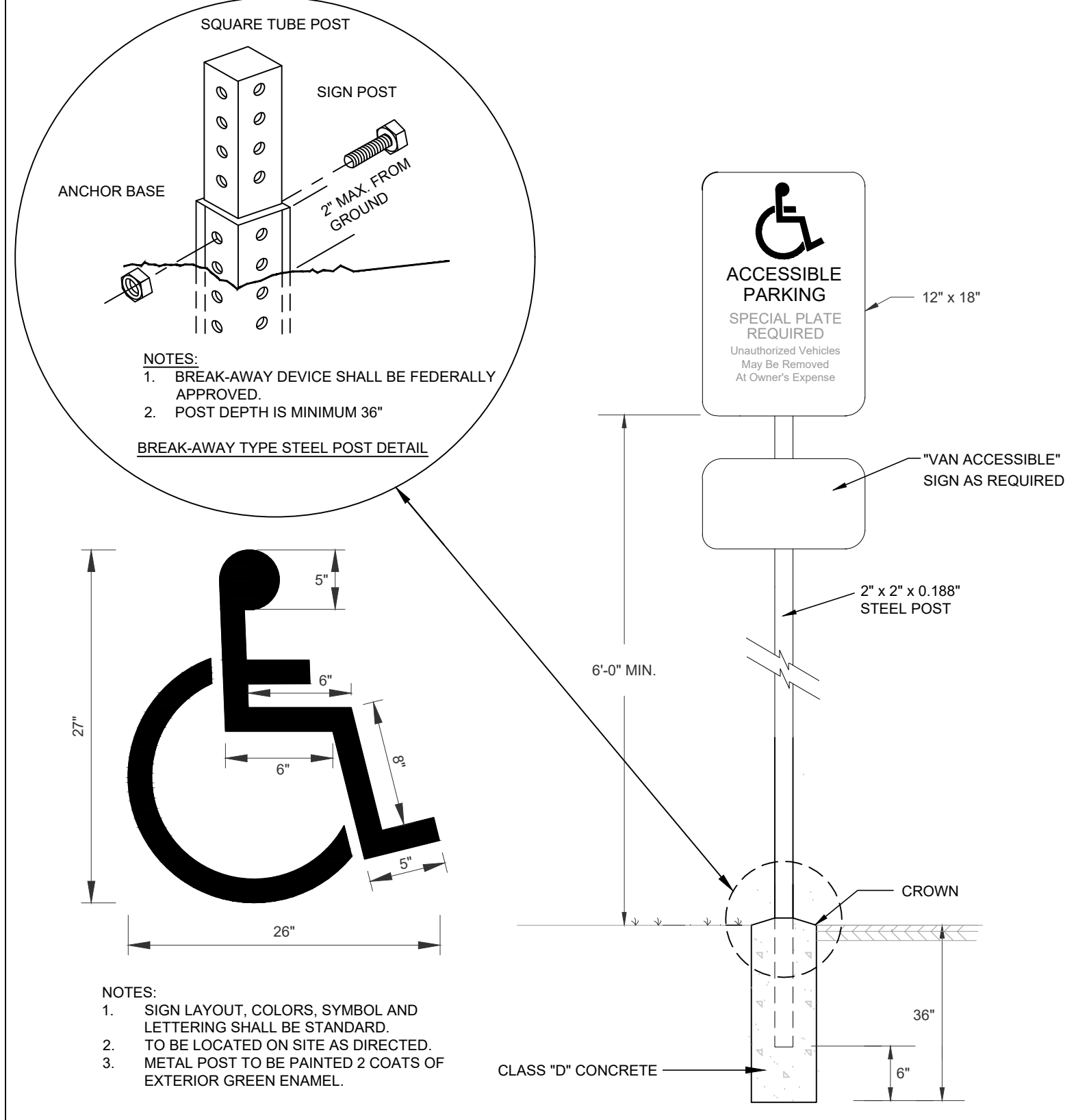
**TYPE 3: SINGLE SIDED A**  
 NOT TO SCALE



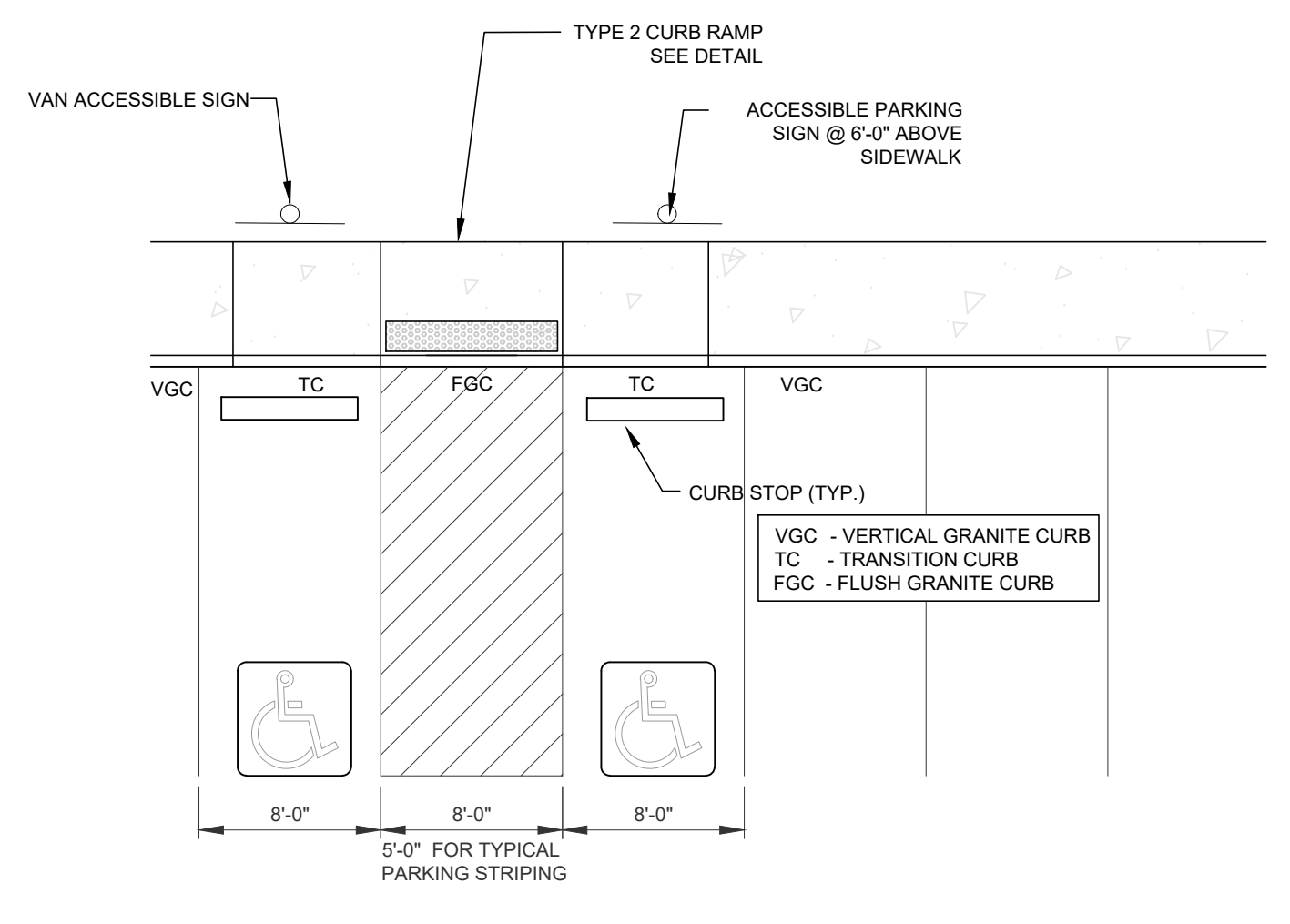
**TYPE 4: SINGLE SIDED B**  
 NOT TO SCALE

- IN NO INSTANCE SHALL THE SIDEWALK CROSS SLOPE EXCEED 2.0% EXCEPT THE RAMP AREA PROPER WHICH IS EXEMPT.
- AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 36\"/>

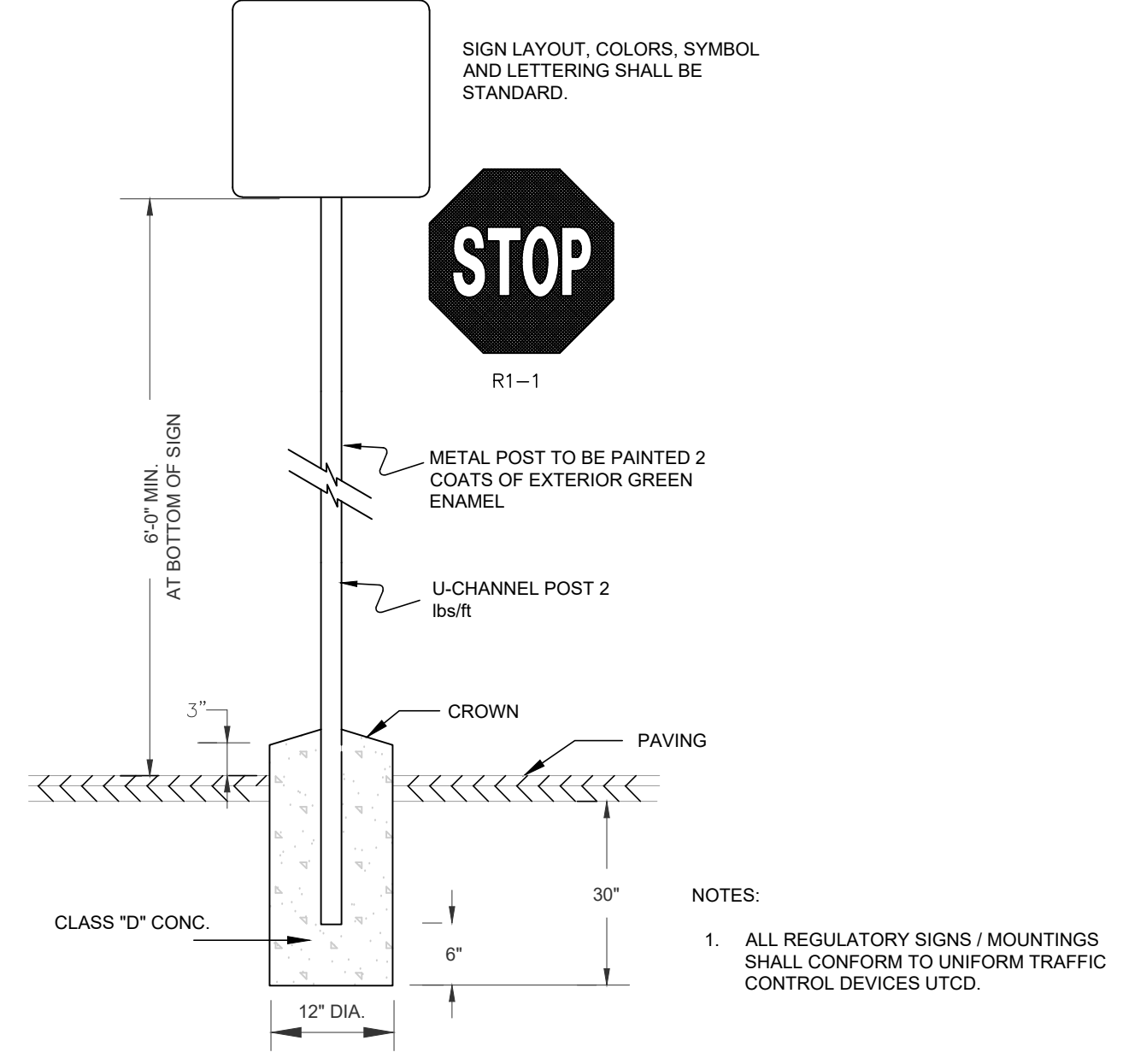
**CURB RAMPS**  
 NOT TO SCALE **A1**



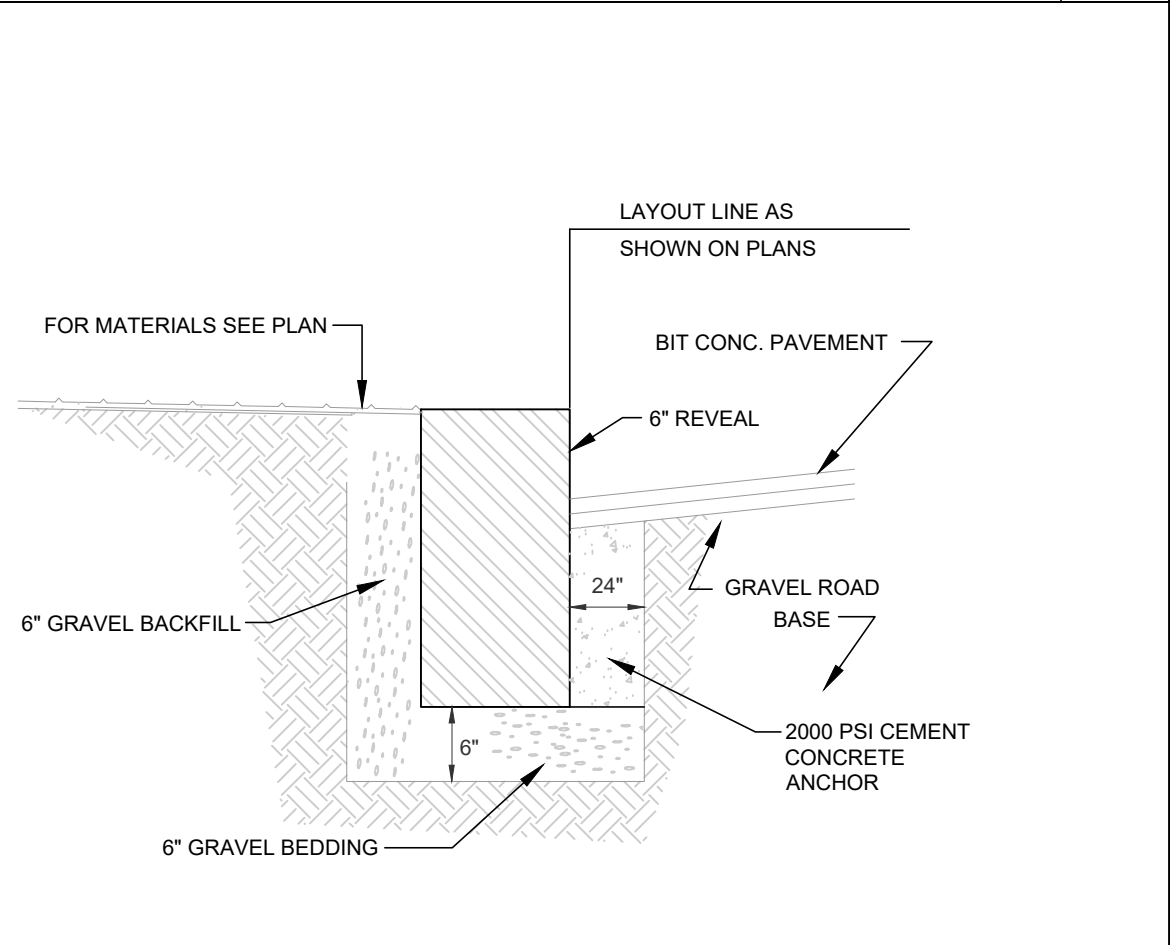
**ACCESSIBLE PARKING SIGN AND PAVEMENT MARKING**  
 NOT TO SCALE **C3**



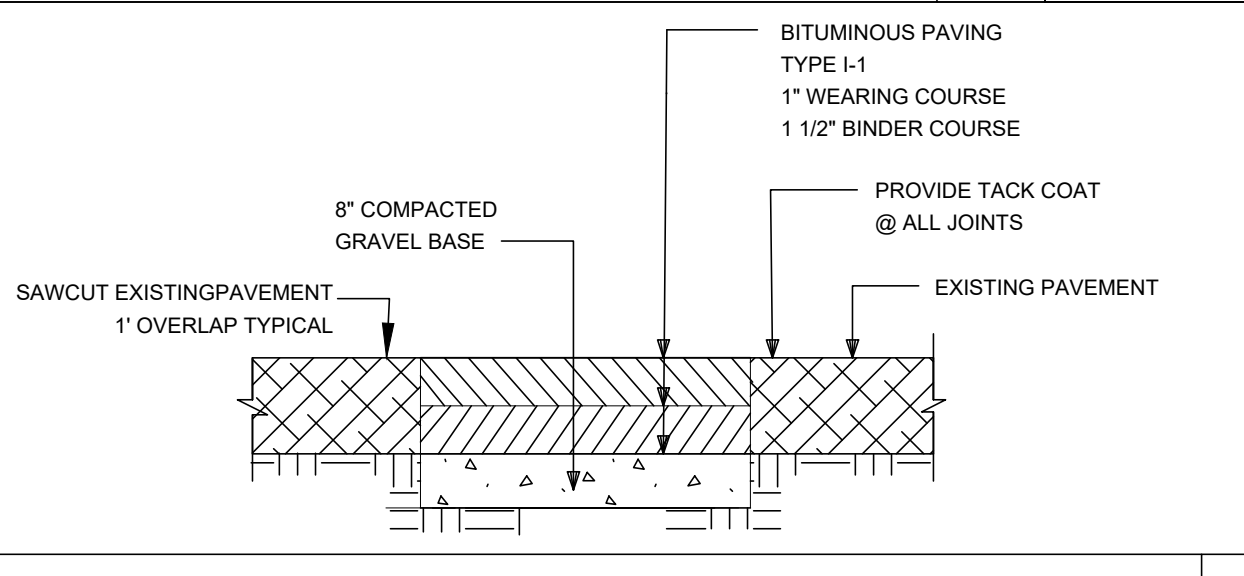
**TYPICAL ACCESSIBLE VAN PARKING STRIPING**  
 NOT TO SCALE **C4**



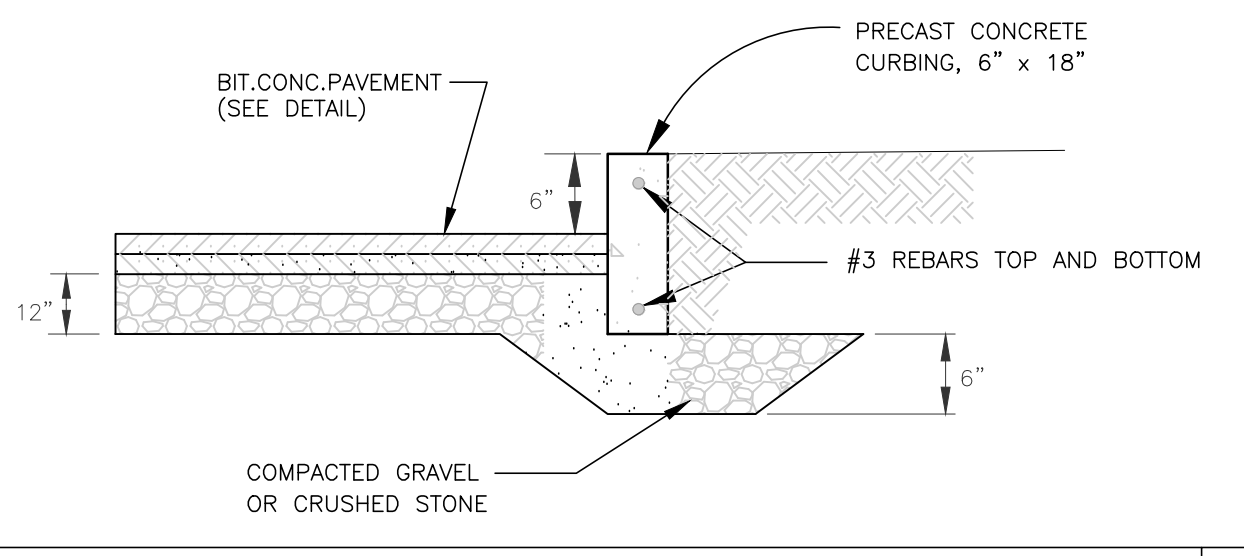
**TYPICAL SIGN DETAIL**  
 NOT TO SCALE **C5**



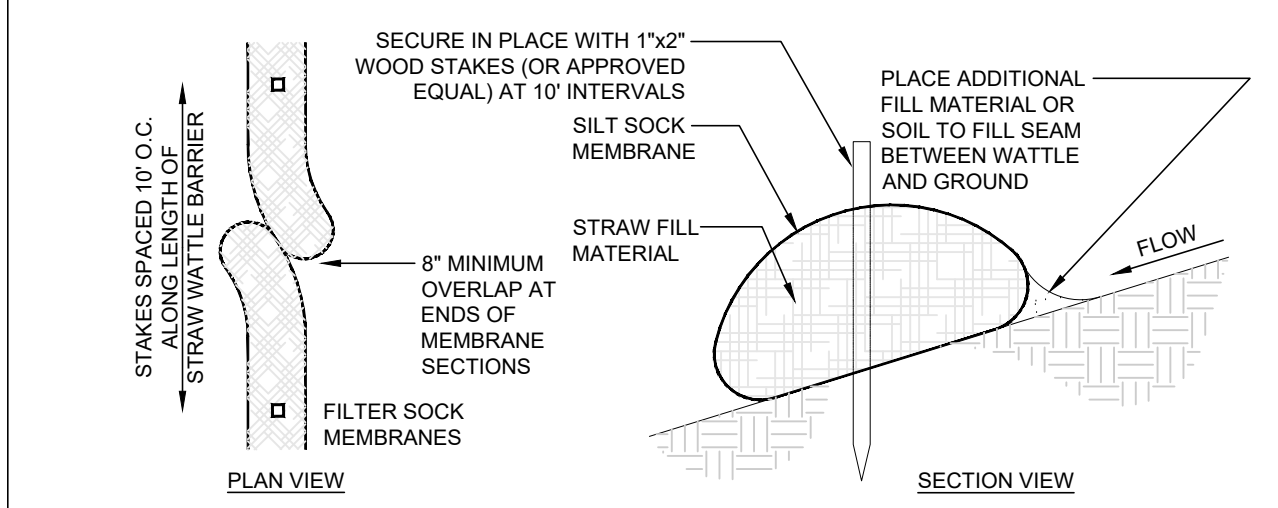
**PRECAST CONCRETE CURB**  
 NOT TO SCALE **B2**



**PAVEMENT MATCH SAWCUT**  
 NOT TO SCALE **B3**

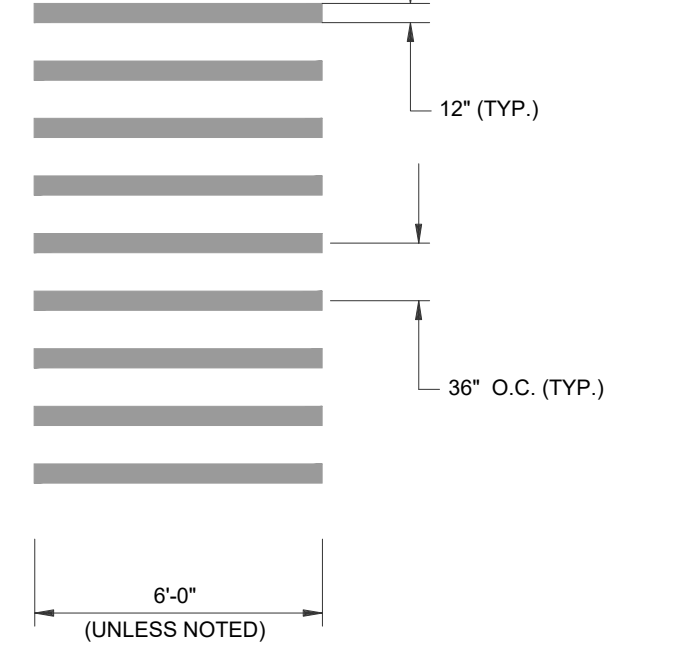


**VERTICAL GRANITE CURB**  
 NOT TO SCALE **B1**

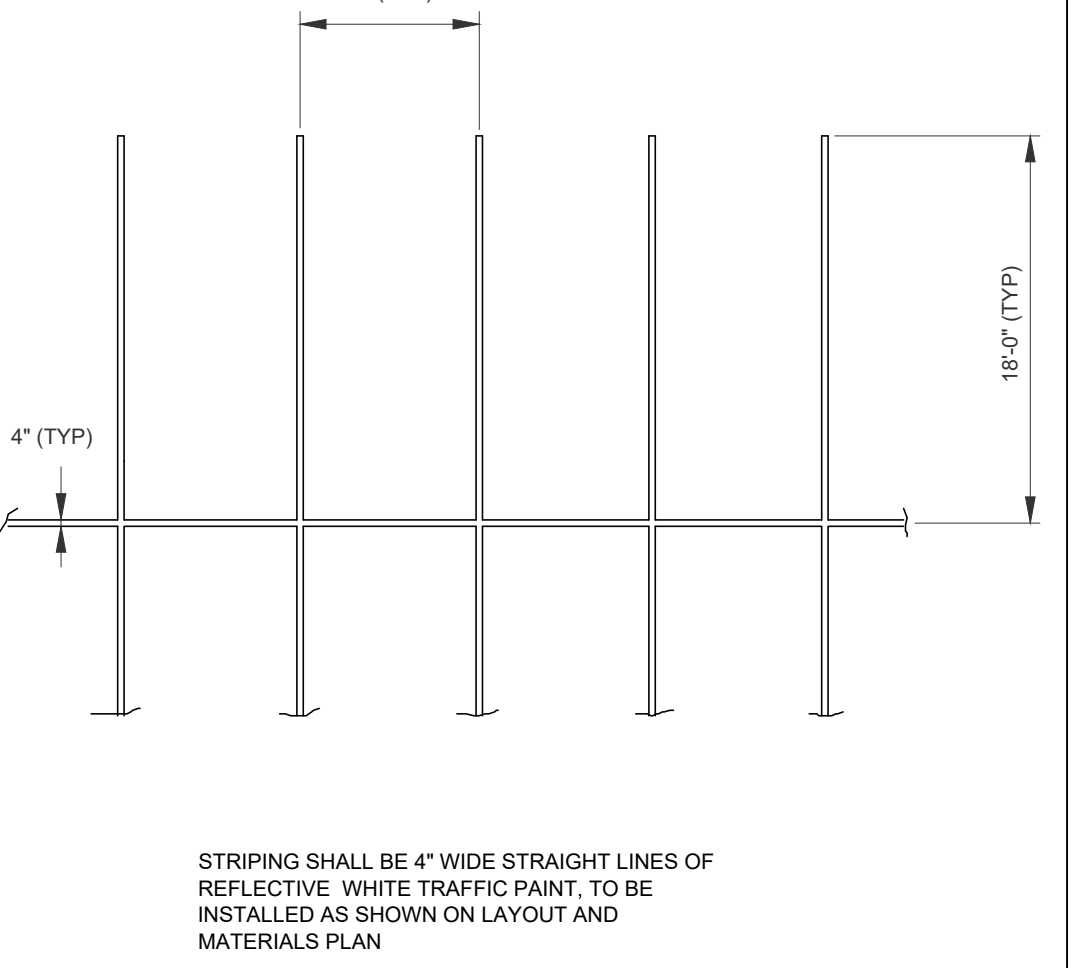


- NOTES
- WATTLES SHALL BE USED IN UPLAND AREAS ONLY.
  - WATTLES SHALL BE 6\"/>

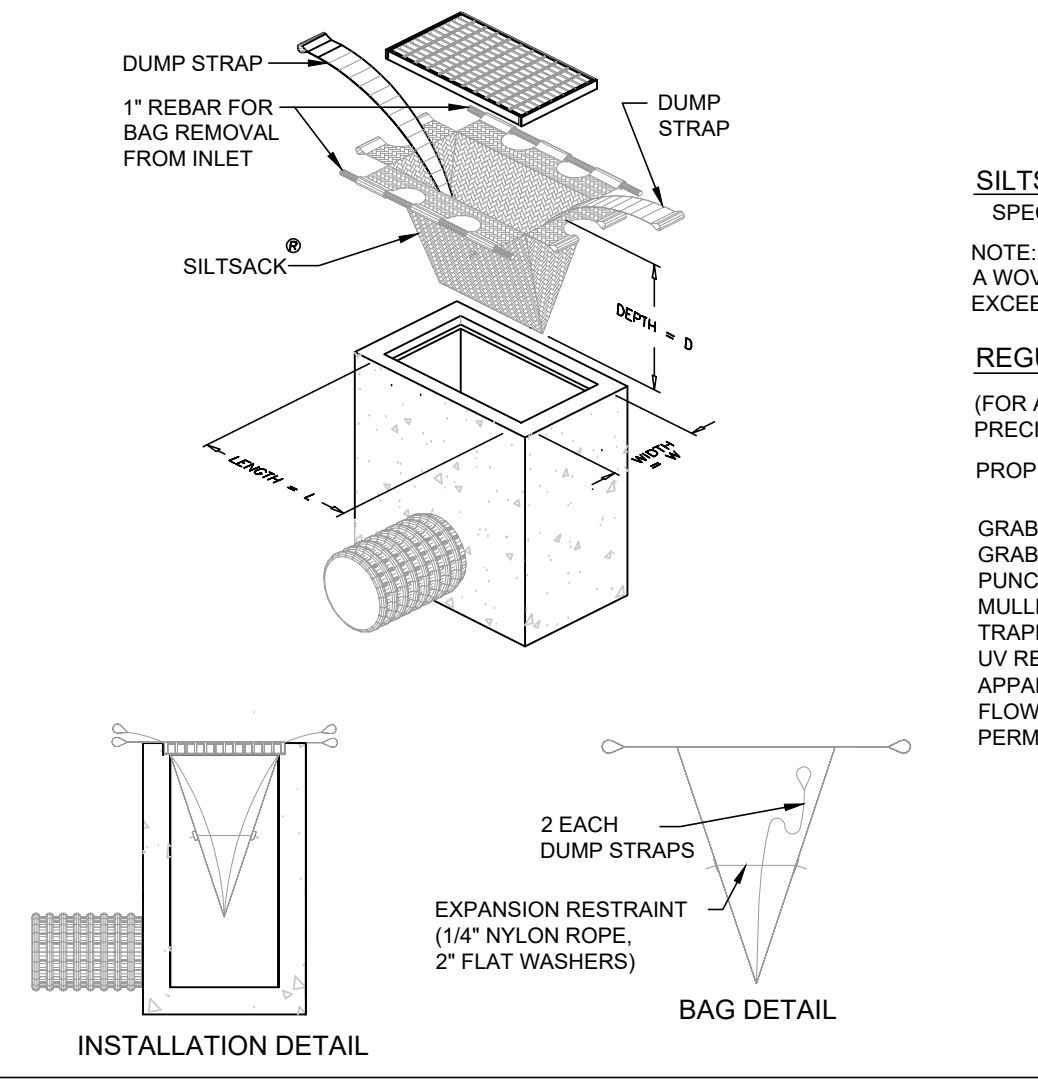
**STRAW WATTLE EROSION CONTROL BARRIER**  
 NOT TO SCALE **A4**



**STRIPED PEDESTRIAN CROSSWALK**  
 NOT TO SCALE **A3**



**TYPICAL PARKING SPACE STRIPING**  
 NOT TO SCALE **A2**



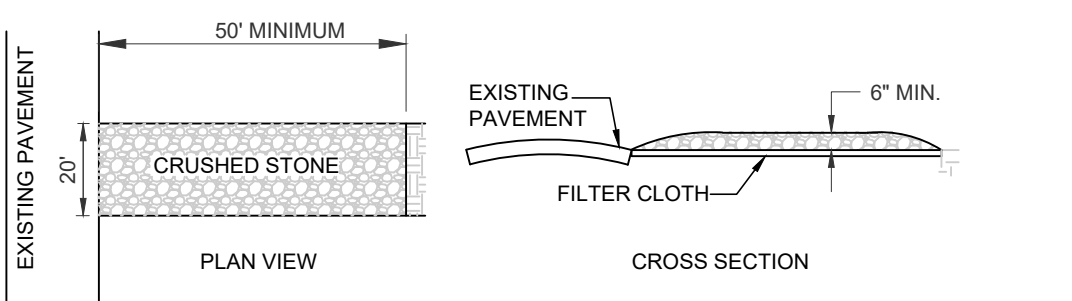
**SILTSACK INLET PROTECTION DEVICE**  
 NOT TO SCALE **B4**

**SILTSACK®**  
 SPECIFICATIONS

NOTE: THE SILTSACK WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE SPECIFICATIONS PROVIDED.

**REGULAR FLOW SILTSACK®**  
 (FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

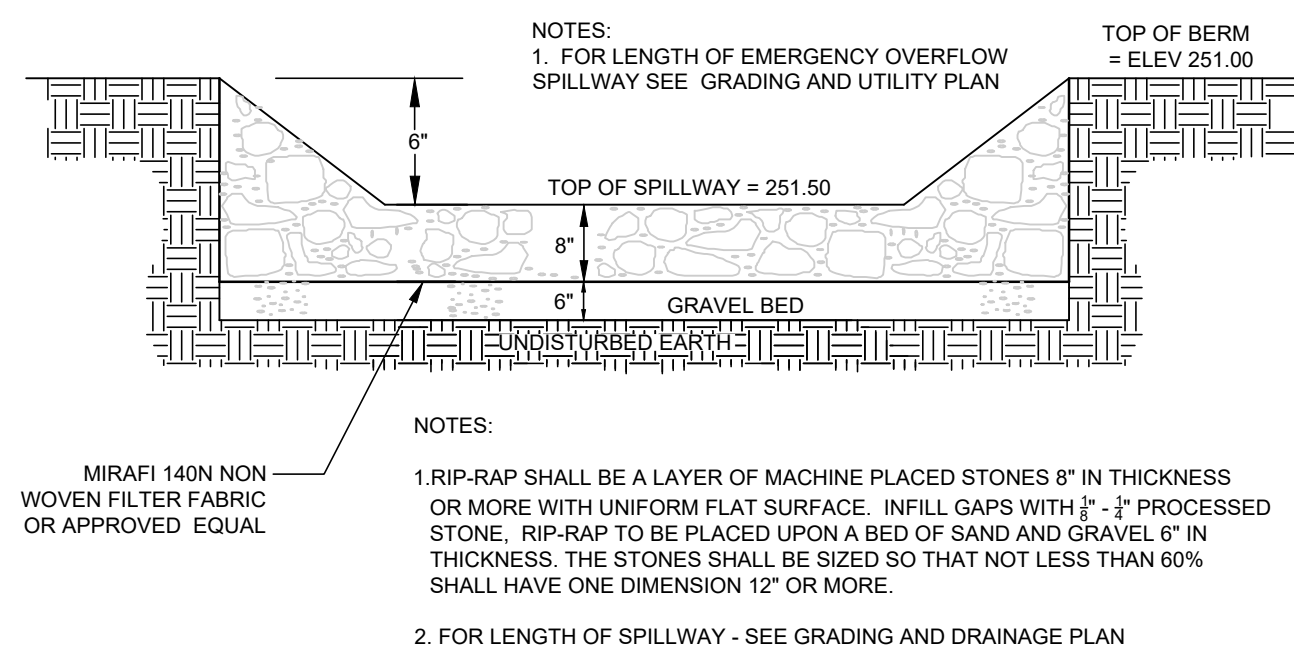
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1



- TRACKING PAD NOTES
- STONE SIZE - USE 6\"/>

**CRUSHED STONE TRACKING PAD**  
 NOT TO SCALE **A5**





**SPILLWAY BETWEEN FOREBAY AND RAINGARDEN**  
 NOT TO SCALE **C3**

BACKFILL MATERIAL SHALL BE WELL GRADED WITHIN THE SPECIFIED LIMITS. GRADATION OF MATERIALS SHALL BE DETERMINED IN ACCORDANCE WITH ASTM C 136.

GRANULAR FILL (FOR OVER-EXCAVATION) SHALL BE SAND-GRAVEL MIXTURE, GRADED WITHIN THE FOLLOWING LIMITS:

SIEVE SIZE	% PASSING BY WEIGHT
1-1/2 IN.	100
NO. 4	20-60
NO. 10	10-35
NO. 200	0-8

GRAVEL BEDDING (FOR UTILITIES) SHALL BE GRAVEL, CRUSHED QUARRY ROCK OR CRUSHED GRAVEL, FROM OFF-SITE SOURCES GRADED WITHIN THE FOLLOWING LIMITS:

SIEVE SIZE	% PASSING BY WEIGHT
1 IN.	100
3/4 IN.	90-100
3/8 IN.	20-55
NO. 4	0-10
NO. 8	0-5

STONE (FOR UTILITIES) SHALL BE A DURABLE, CRUSHED STONE OR GRAVEL FROM OFF-SITE SOURCES, GRADED WITHIN THE FOLLOWING LIMITS:

SIEVE SIZE	% PASSING BY WEIGHT
2-1/2 IN.	100
2 IN.	60-90
1-1/4 IN.	25-50
3/4 IN.	0

SELECT FILL SHALL BE A COARSE GRANULAR MATERIAL, CONSISTING OF HARD, DURABLE, ANGULAR MATERIAL, GRADED WITHIN THE FOLLOWING LIMITS. MATERIAL PASSING THE NO. 40 SIEVE SHALL HAVE A PLASTICITY INDEX OF NOT MORE THAN 10 AND A LIQUID LIMIT NOT TO EXCEED 35%.

SIEVE SIZE	% PASSING BY WEIGHT
4 IN.	100
1 IN.	60-100
NO. 4	30-80
NO. 40	5-30
NO. 200	0-8

COMMON FILL (IN LANDSCAPED AREAS) SHALL BE BANK RUN SAND, GRAVEL, OR MIXTURE THEREOF, GRADED WITHIN THE FOLLOWING LIMITS:

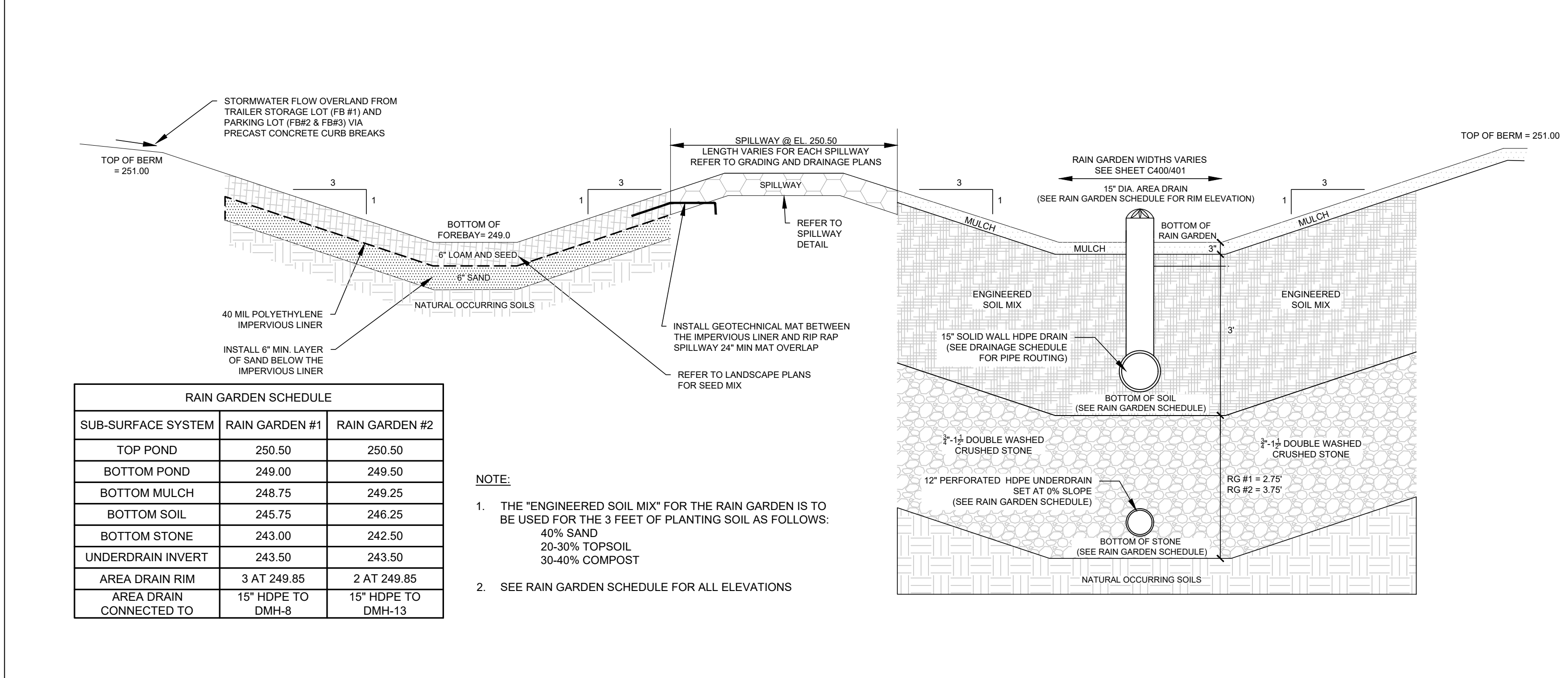
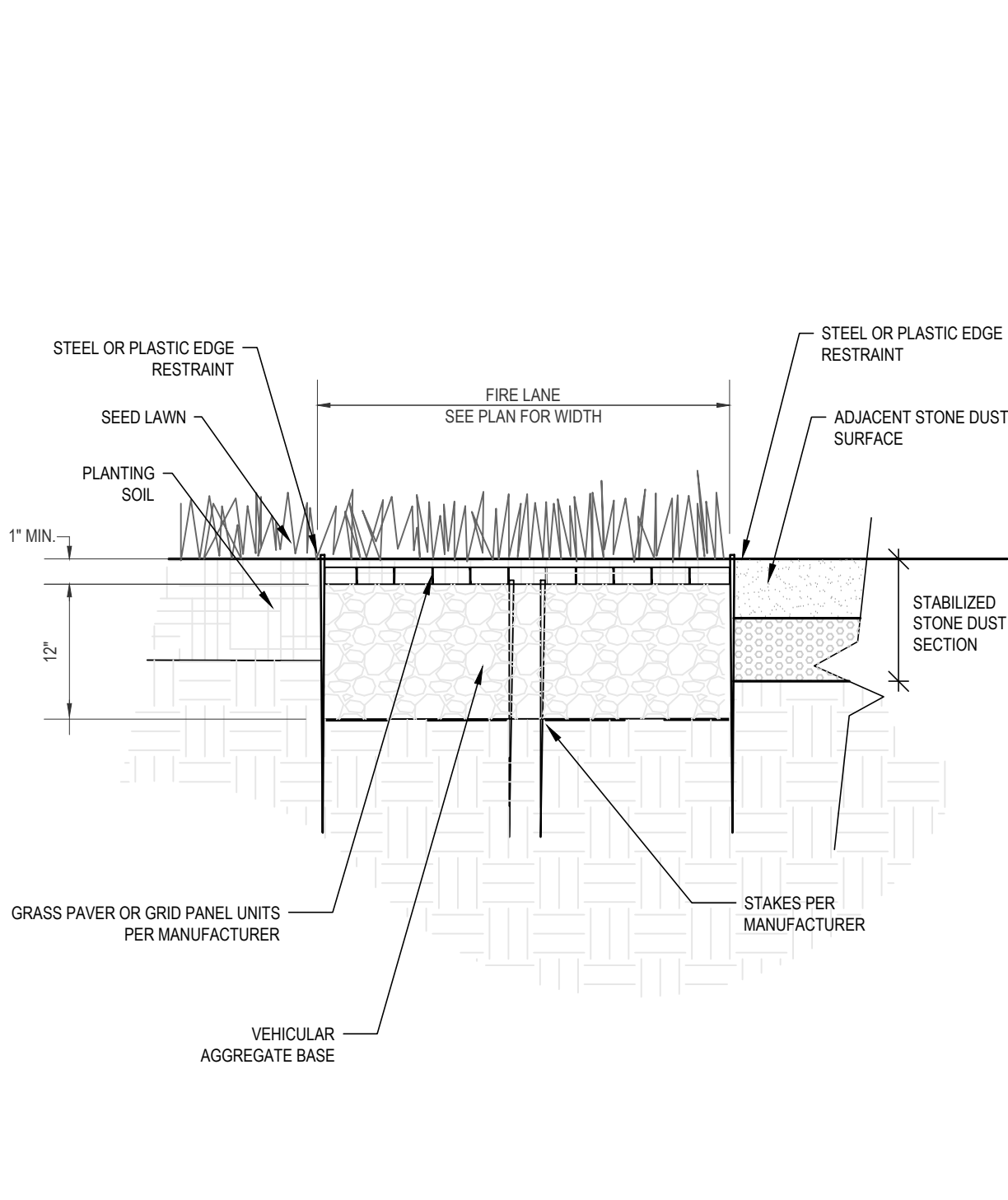
SIEVE SIZE	% PASSING BY WEIGHT
6 IN.	100
NO. 4	30-95
NO. 200	0-15

DENSE GRADED CRUSHED STONE SHALL CONSIST OF CRUSHER-RUN COARSE AGGREGATES OF CRUSHED STONE OR GRAVEL AND FINE AGGREGATES OF NATURAL SAND OR STONE SCREENINGS, UNIFORMLY PRE-MIXED WITH A PREDETERMINED QUANTITY OF WATER. COARSE AGGREGATE SHALL HAVE A PERCENTAGE OF WEAR OF NOT MORE THAN 45 BY THE LOS ANGELES TEST.

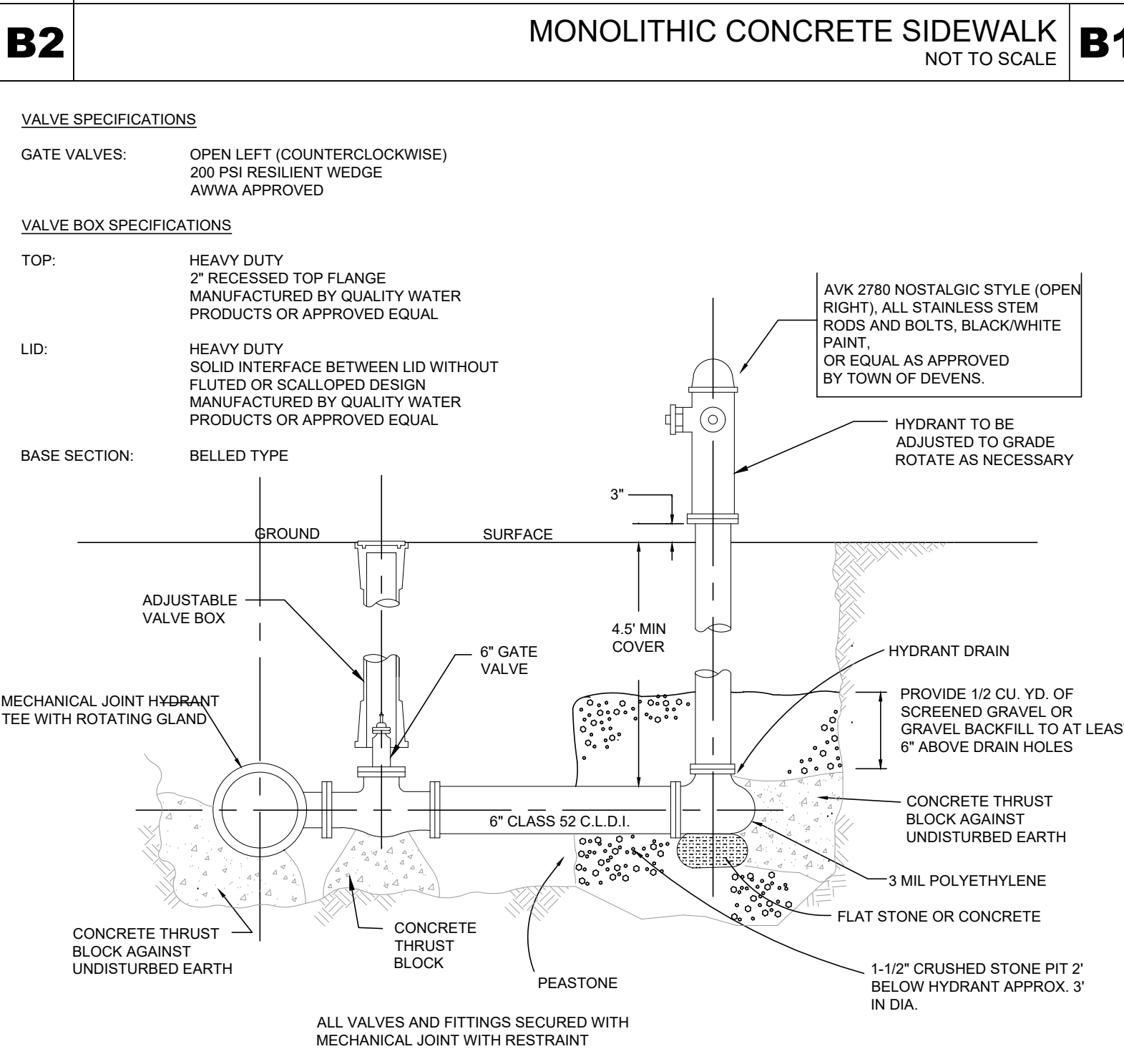
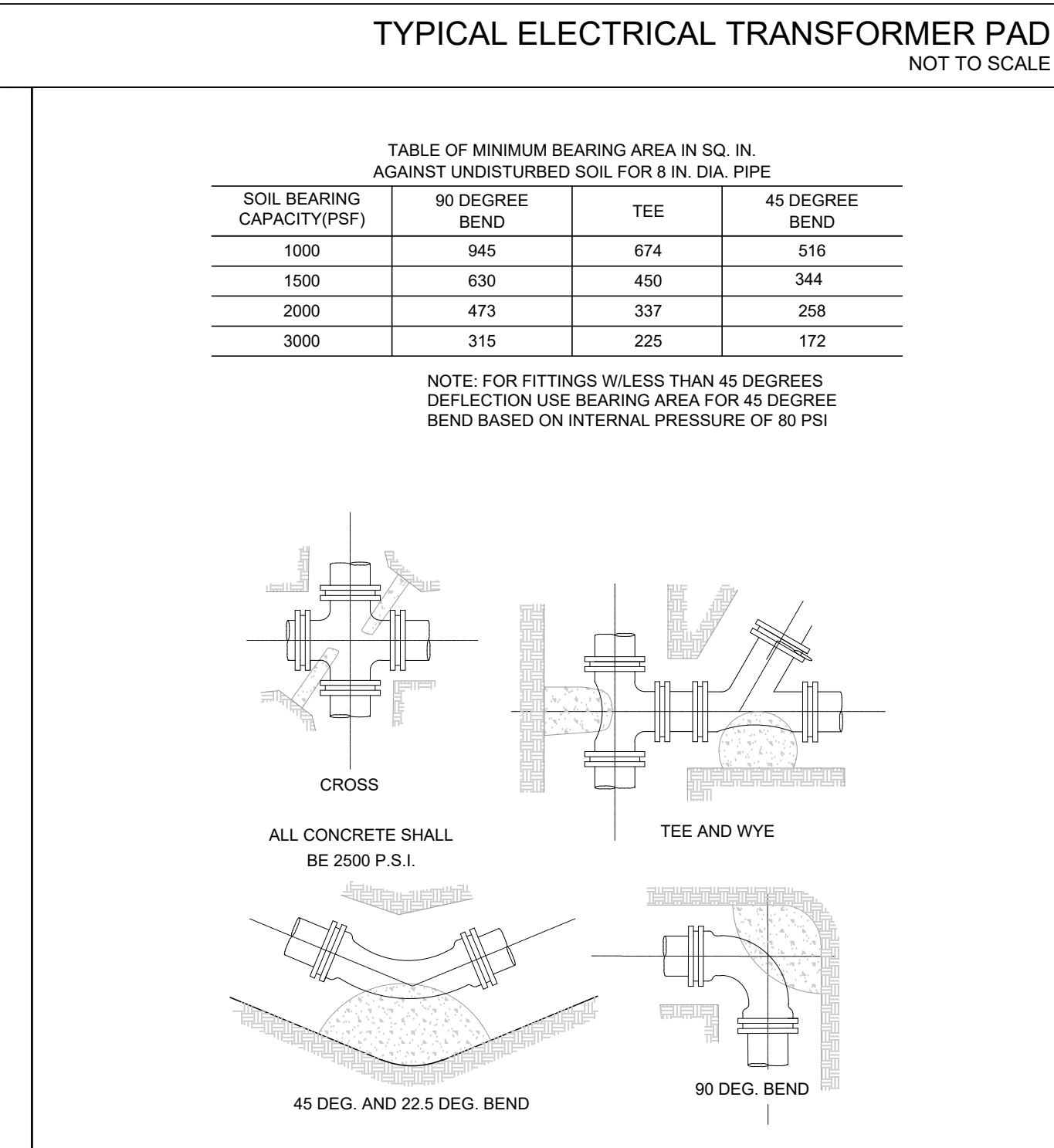
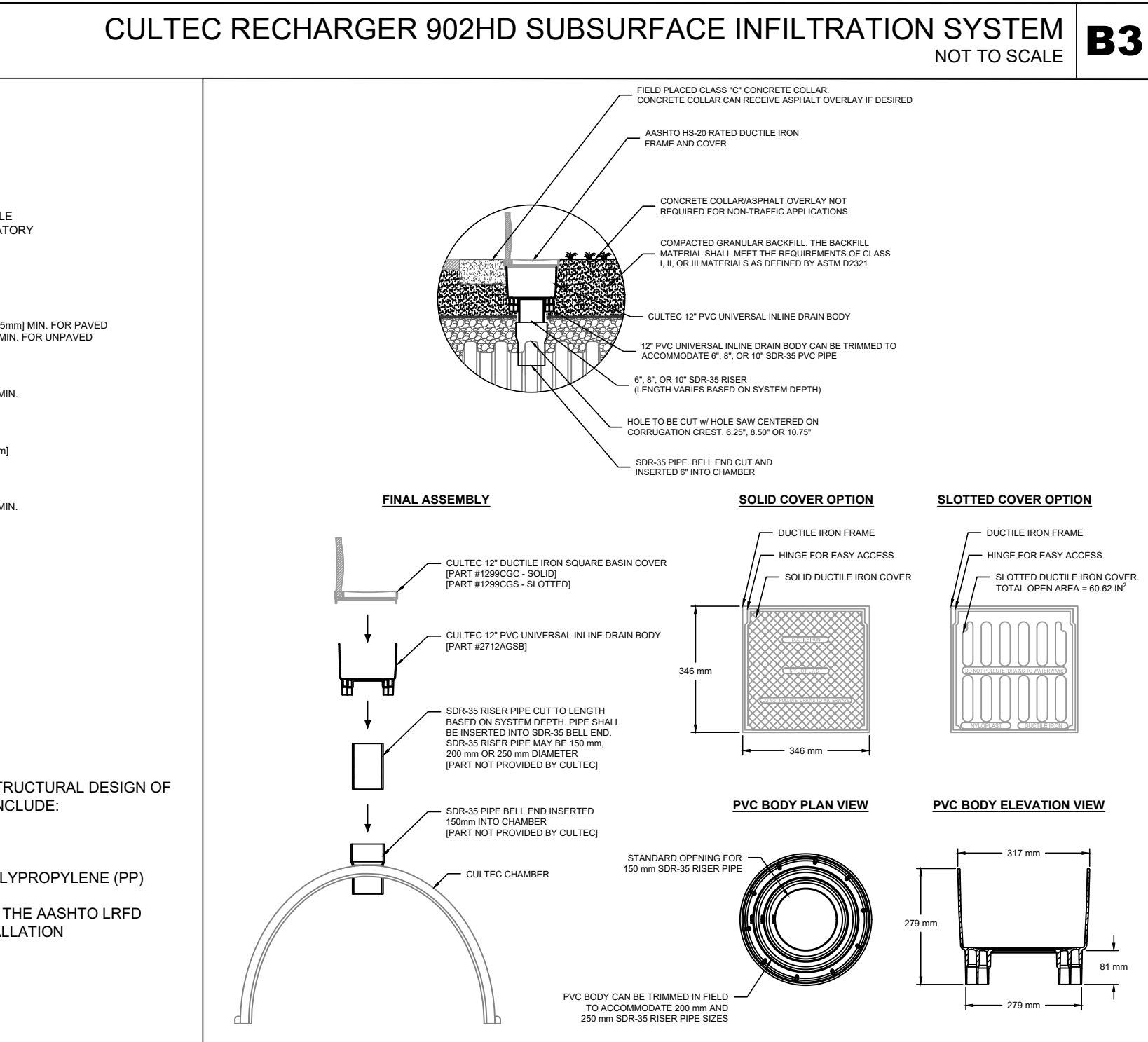
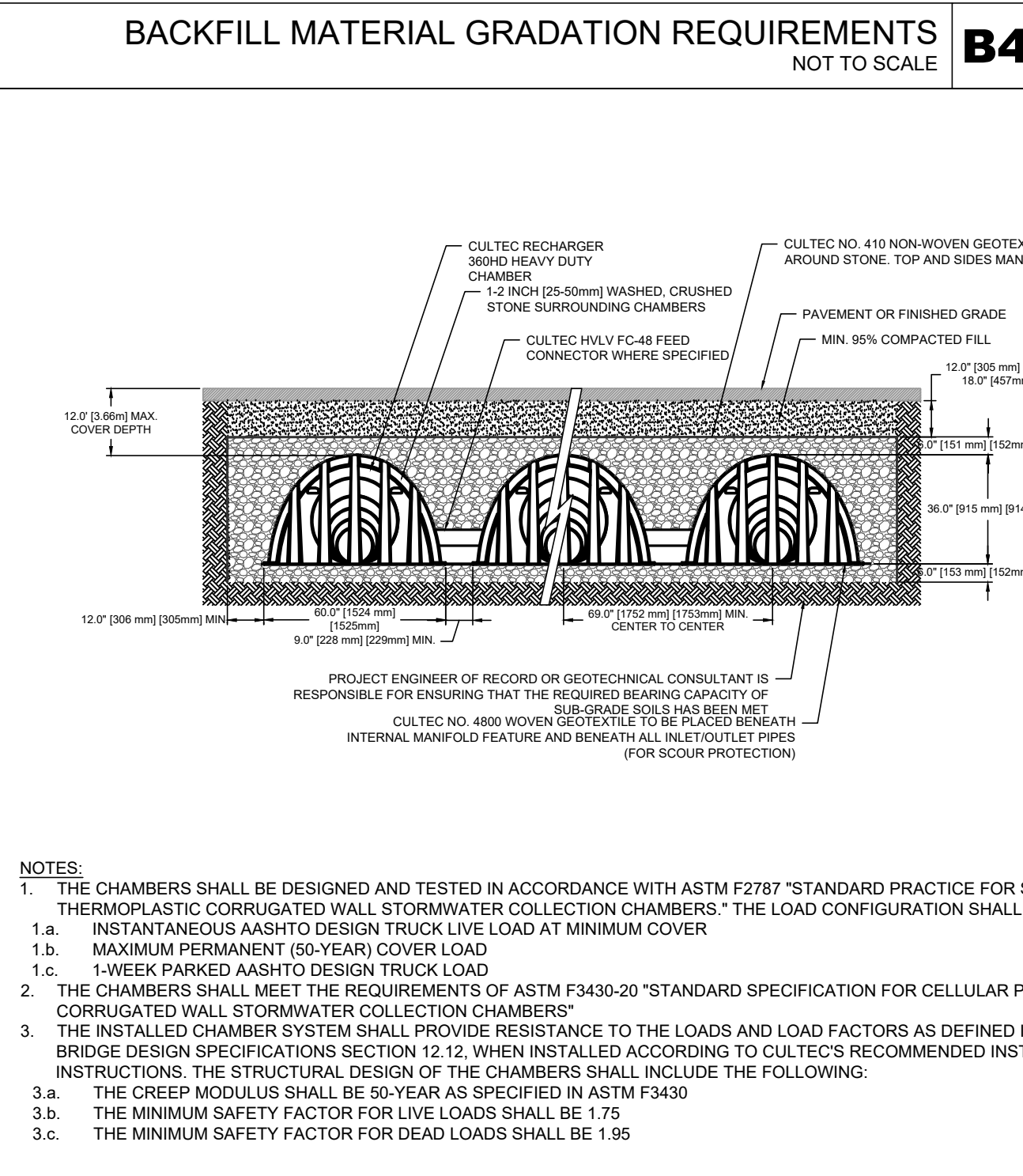
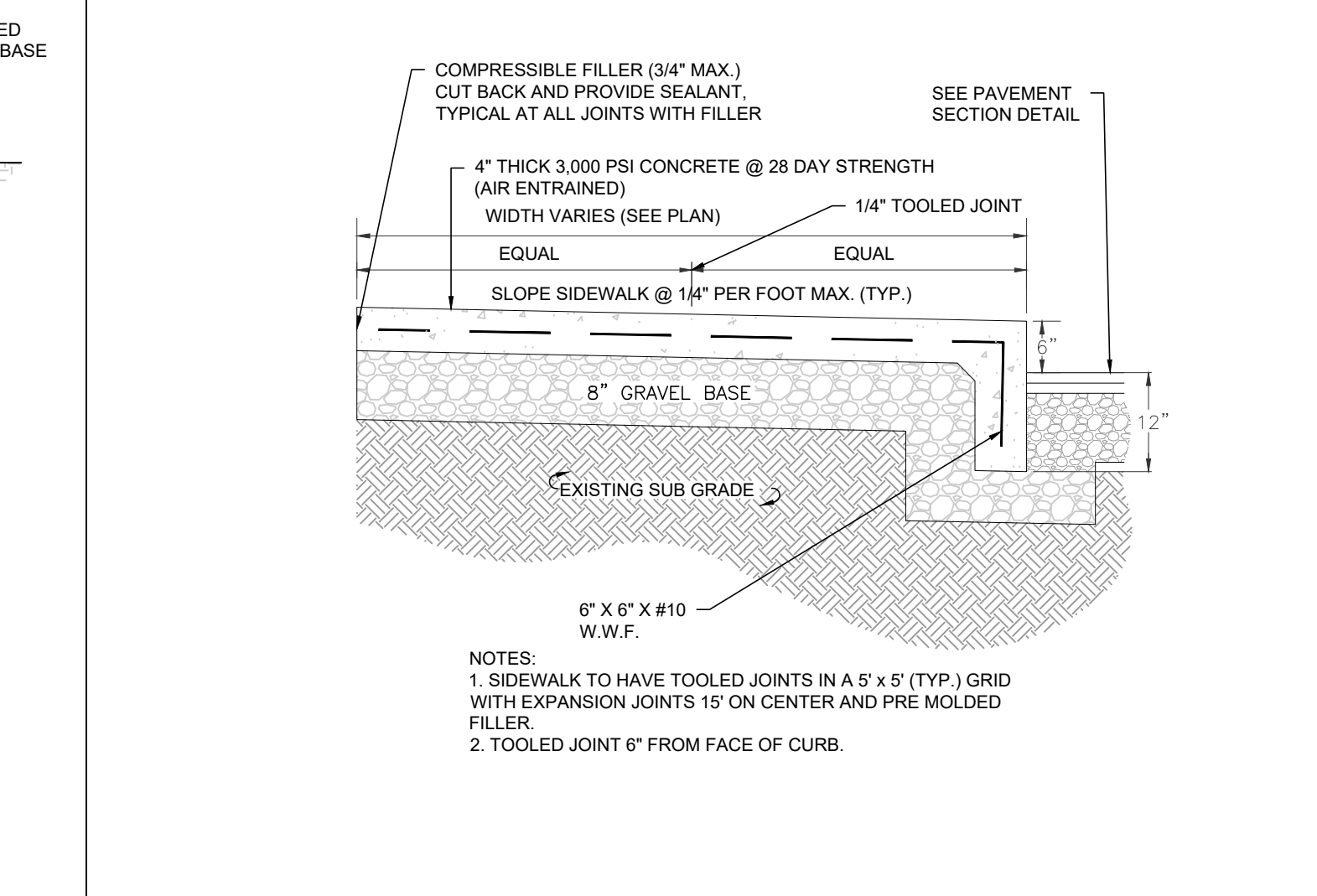
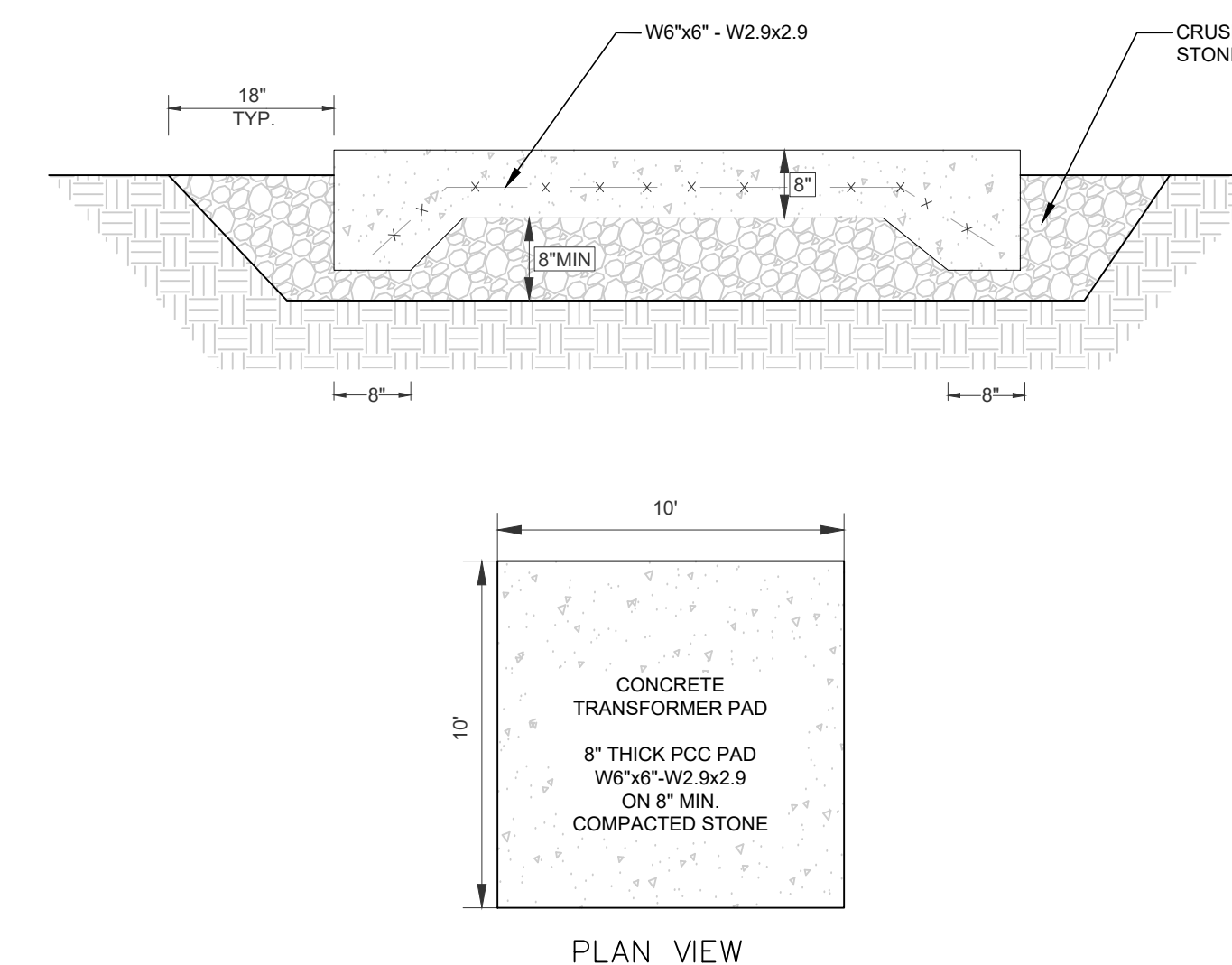
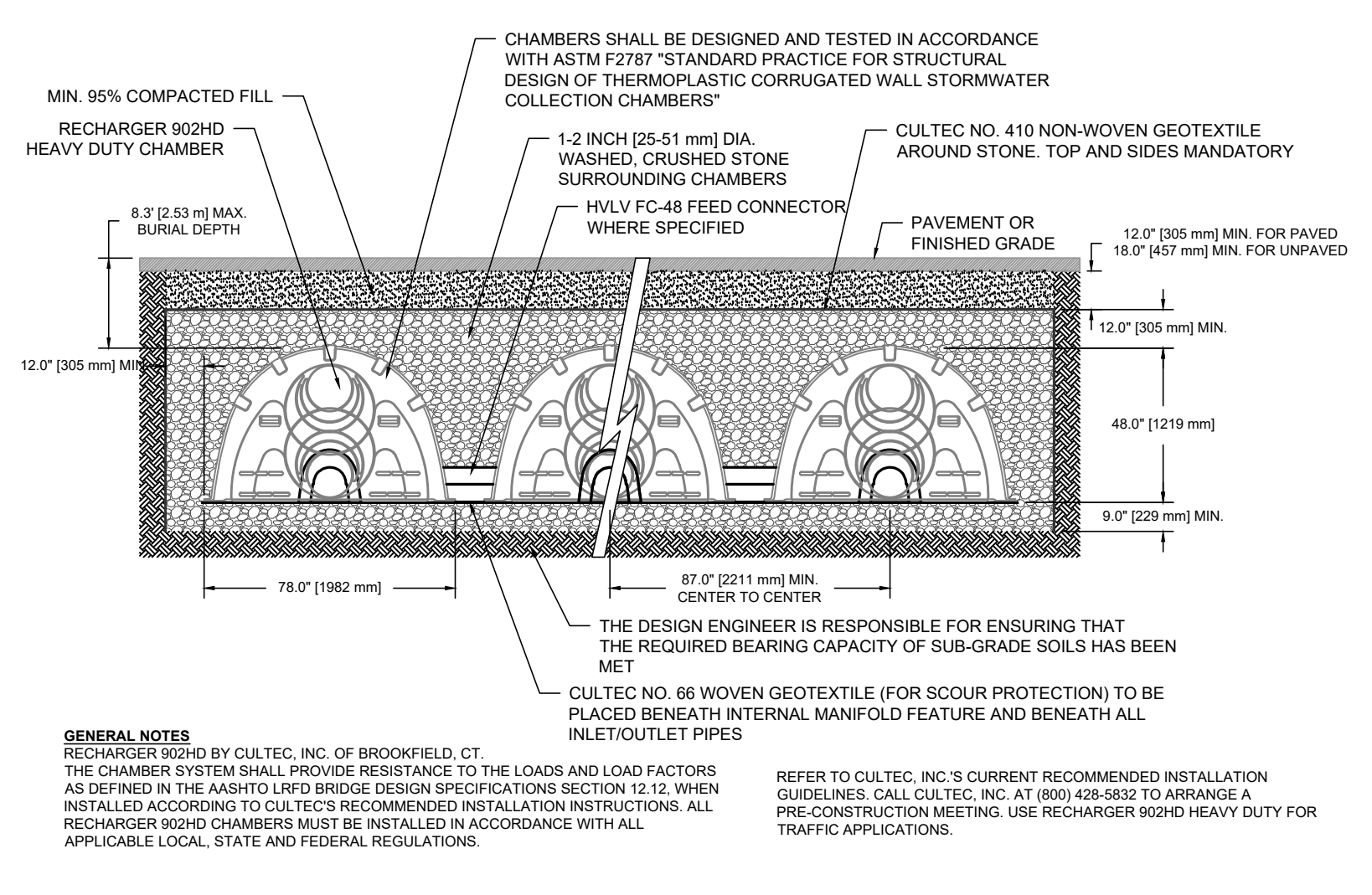
THE COMPOSITE MATERIAL SHALL BE FREE FROM CLAY, LOAM AND ALL OTHER PLASTIC MATERIALS, AND SHALL CONFORM TO THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	PERCENTAGE BY MASS PASSING SQUARE MESH SIEVES
2 inches	100
1 1/2 inches	70-100
3/4 inch	50-85
No. 4	30-55
No. 50	8-24
No. 200	3-10

SAMPLING AND TESTING SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARD AASHTO METHODS:  
 • SIEVE ANALYSIS: AASHTO T27  
 • PASSING NO. 200 SIEVE: AASHTO T11



BACKFILL MATERIAL GRADATION REQUIREMENTS  
 NOT TO SCALE **B4**



**HIGHPOINT ENGINEERING, INC.**  
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 CIVIL ENGINEERING  
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 BOSTON, MA 02108

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**CLIENT:**  
 Berkeley Partners  
 1 WASHINGTON MALL | Suite 701  
 BOSTON, MA 02108

**CONSULTANT:**

**SEAL:**

**12-07-2023**

**WAREHOUSE / INDUSTRIAL DEVELOPMENT**

100/200 FINANCIAL PARK  
 FRANKLIN, MA

**OWNER/APPLICANT: BERKELEY PARTNERS**

REV	DATE	DESCRIPTION
1	07.17.2023	RESPONSE TO COMMENTS
2	08.14.2023	RESPONSE TO COMMENTS
3	08.15.2023	RESPONSE TO COMMENTS
4	10.05.2023	RESPONSE TO COMMENTS
5	10.19.2023	RESPONSE TO COMMENTS
6	10.26.2023	RESPONSE TO COMMENTS
7	12.07.2023	PLANNING BOARD ENDORSEMENT

ISSUE TYPE:  
 PERMIT SET  
 ISSUE DATE:  
 05/11/2023  
 PROJECT NUMBER:  
 22051

DRAWN BY: JMP  
 CHECKED BY: DH

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**DETAIL SHEET**

SHEET NUMBER:  
**C601**



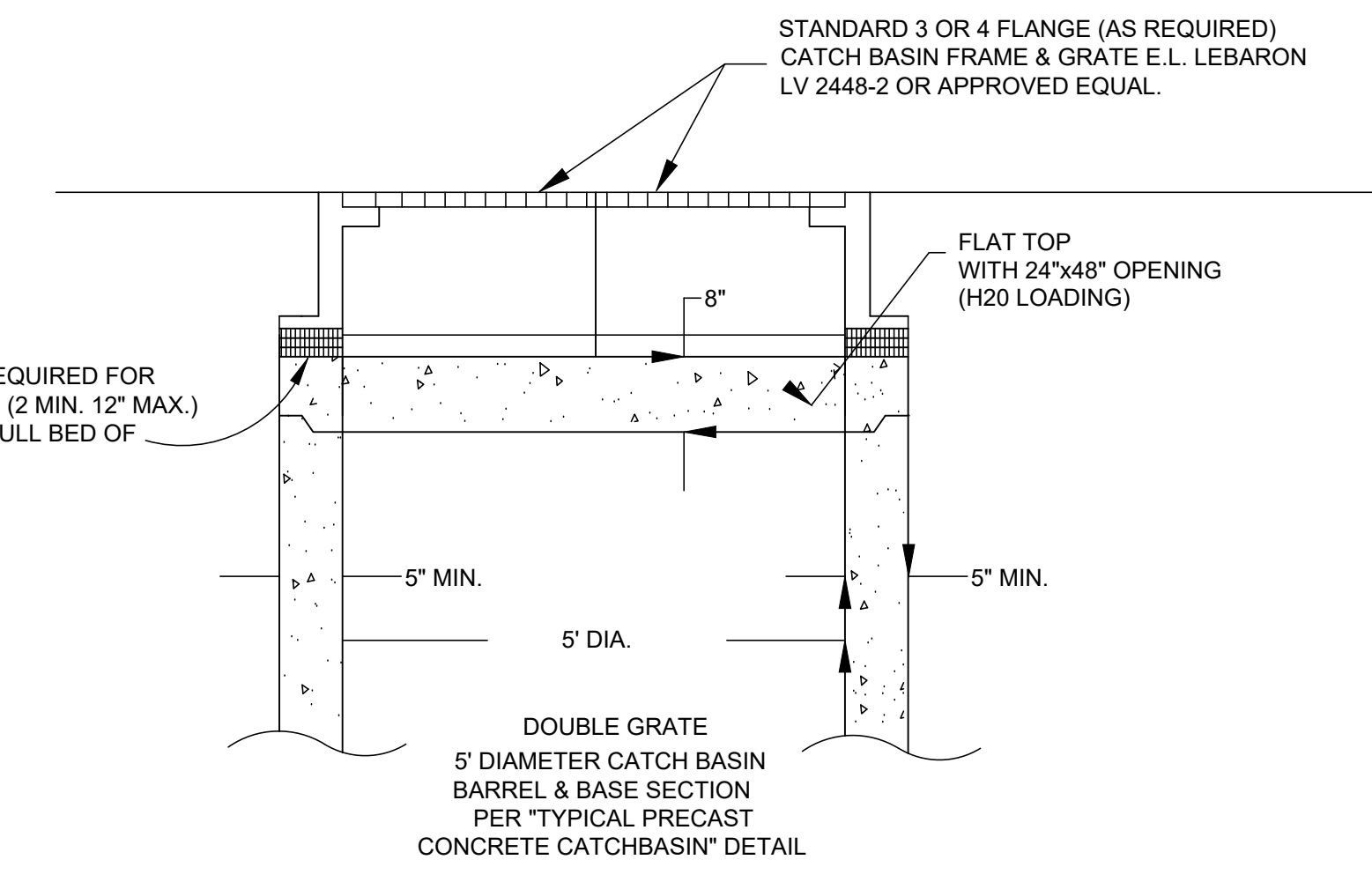
REV	DATE	DESCRIPTION
7	12.07.2023	PLANNING BOARD ENDORSEMENT
6	10.26.2023	RESPONSE TO COMMENTS
5	10.19.2023	RESPONSE TO COMMENTS
4	10.05.2023	RESPONSE TO COMMENTS
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2	08.14.2023	RESPONSE TO COMMENTS
1	07.17.2023	RESPONSE TO COMMENTS

ISSUE TYPE:  
PERMIT SET  
ISSUE DATE:  
05/11/2023  
PROJECT NUMBER:  
22051  
DRAWN BY: JMP  
CHECKED BY: DH  
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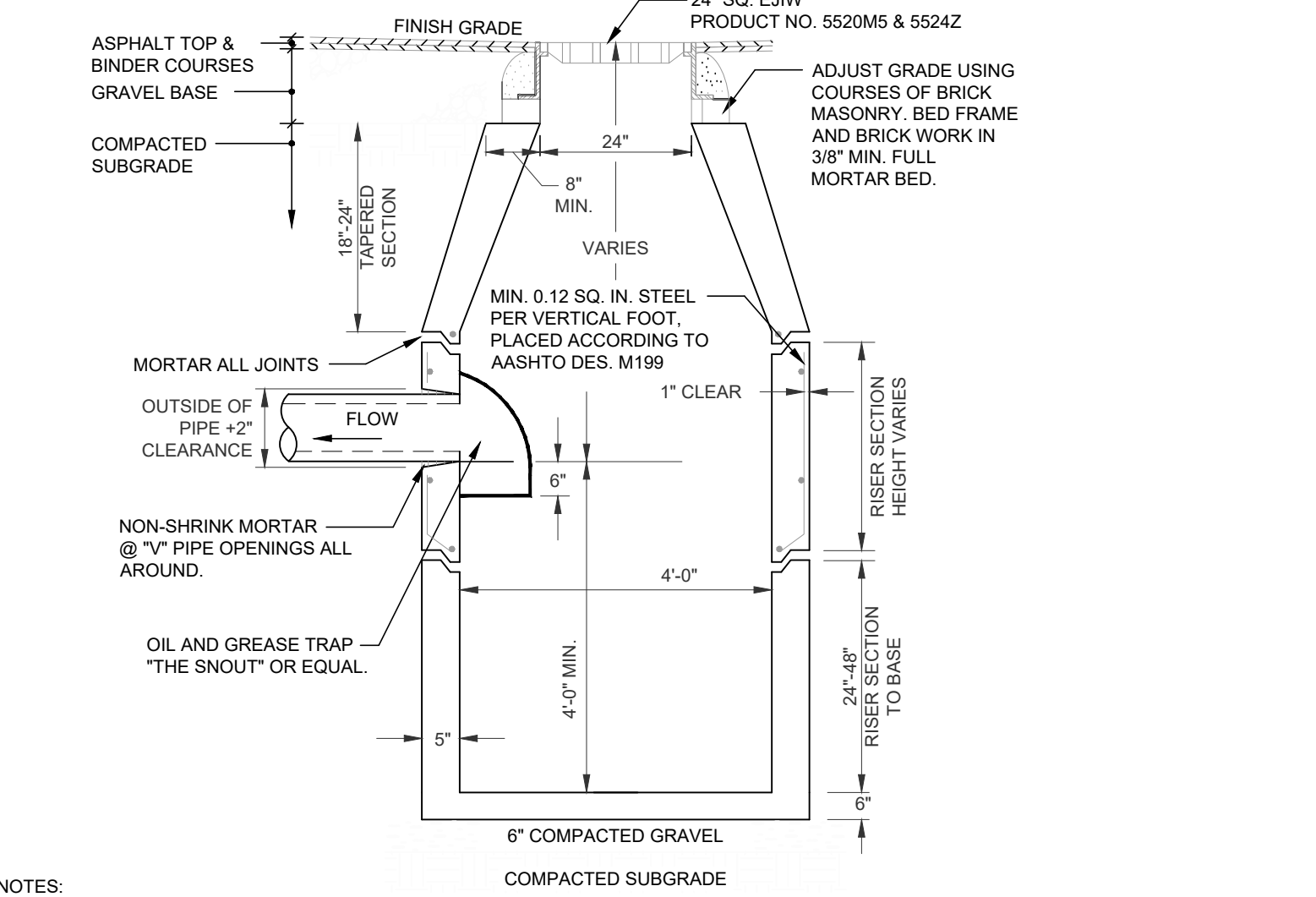
DETAIL SHEET

SHEET NUMBER:  
**C602**

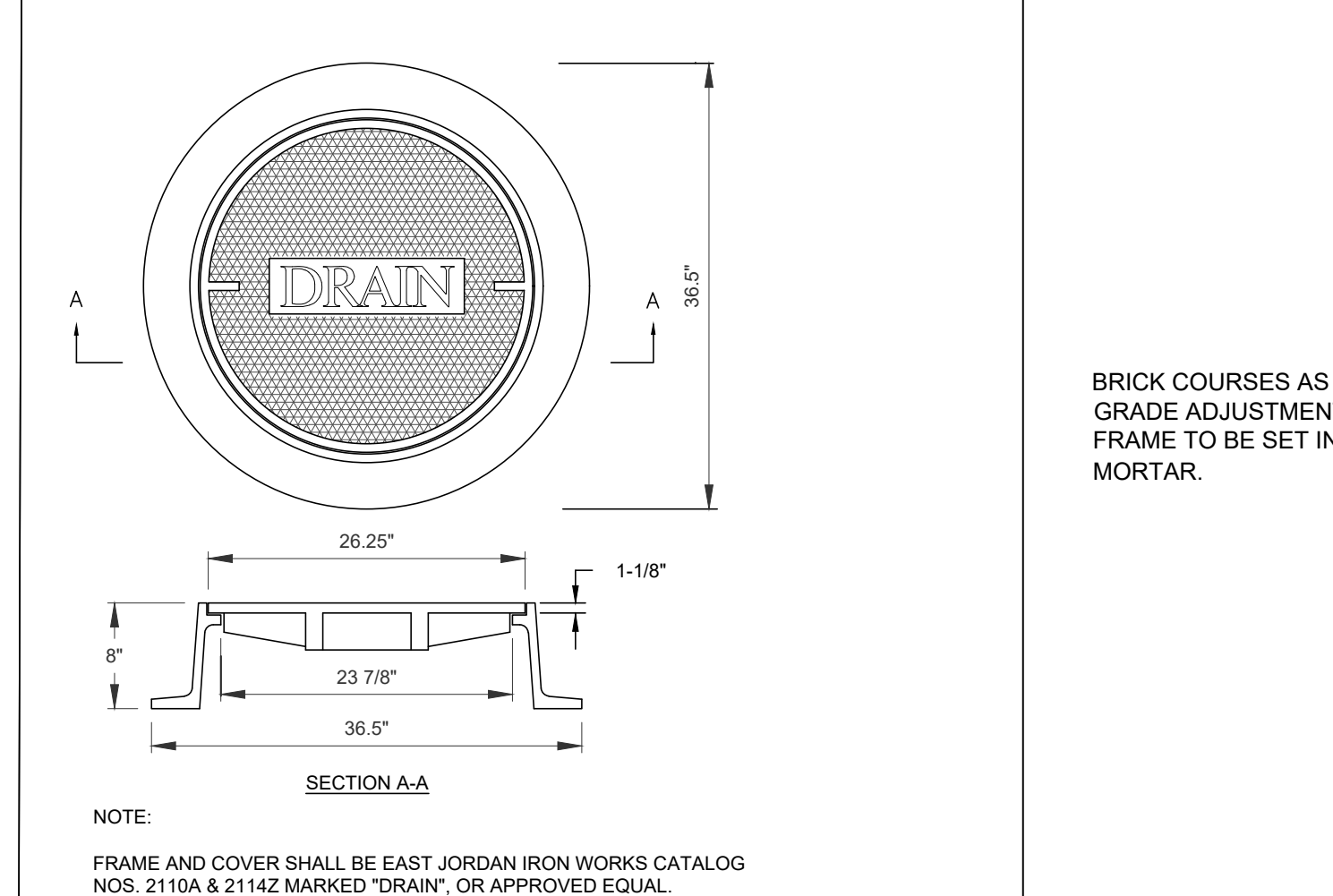
ISSUED FOR: PERMIT



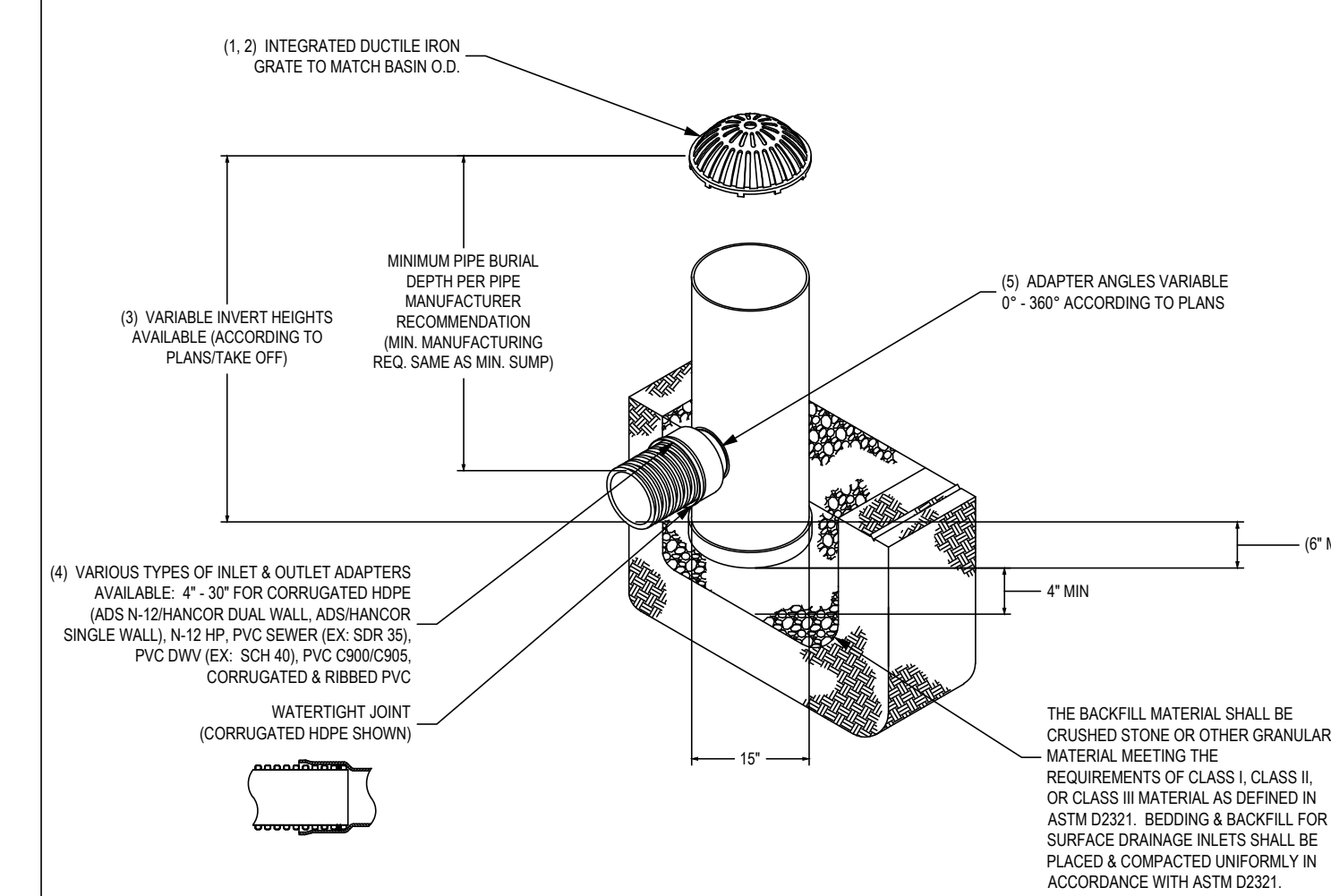
NOTE: ALL CATCH BASINS SHALL MEET THE REQUIREMENTS OF THE TOWN OF FRANKLIN DEPARTMENT OF PUBLIC WORKS. ANY CATCH BASINS INSTALLED ADJACENT TO GRANITE CURBING MUST RECEIVE GRANITE THROAT STONES.



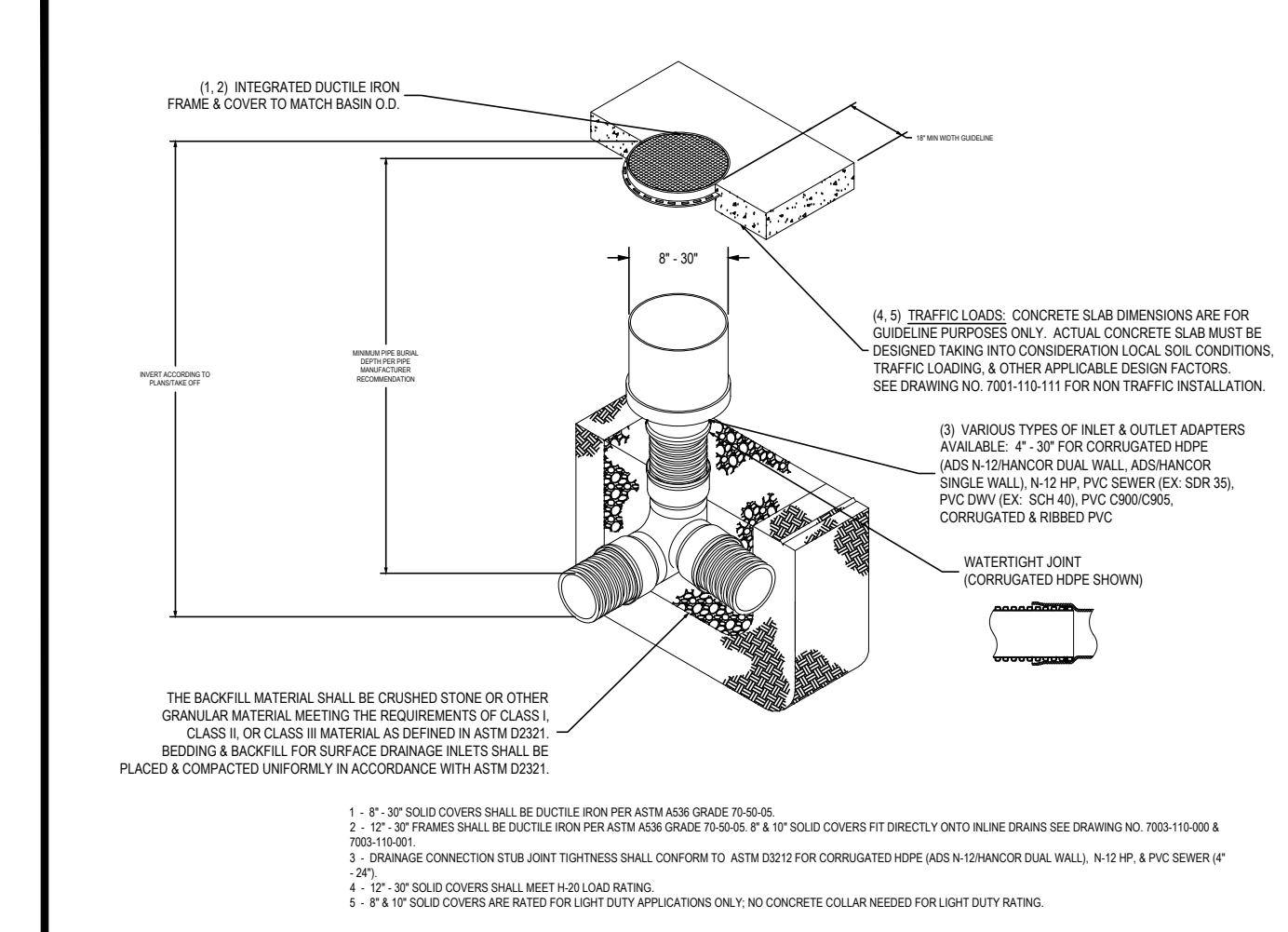
- NOTES:
- ALL STRUCTURES SHALL BE SUITABLE FOR H-20 LOADING AND SHALL MEET THE REQUIREMENTS OF ASTM C478.
  - ALL BLOCKS TO BE LAID IN A FULL BED OF MORTAR.
  - OUTSIDE OF BASIN TO BE COATED WITH 2" OF MORTAR CEMENT PARING.
  - FACE OF PIPE FLUSH OR NOT TO PROJECT MORE THAN 4" FROM FACE OF WALL ALONG CENTERLINE OF PIPE.
  - PIPE OPENING COVERED WITH 23 GAUGE GALVANIZED WIRE MESH.
  - PLACE 2 C.F. OF 2" CRUSHED STONE OVER WIRE MESH.
  - BACKFILL SHALL CONSIST OF CLEAN SOIL MATERIALS UNIFORMLY PLACED IN 6-INCH LAYERS AROUND THE STRUCTURE AND THOROUGHLY COMPACTED WITH HAND TAMPERS OR MECHANICAL EQUIPMENT.



NOTE: FRAME AND COVER SHALL BE EAST JORDAN IRON WORKS CATALOG NOS. 2110A & 2114Z MARKED "DRAIN", OR APPROVED EQUAL.



NOTE: FRAME AND COVER SHALL BE EAST JORDAN IRON WORKS CATALOG NOS. 2110A & 2114Z MARKED "DRAIN", OR APPROVED EQUAL.



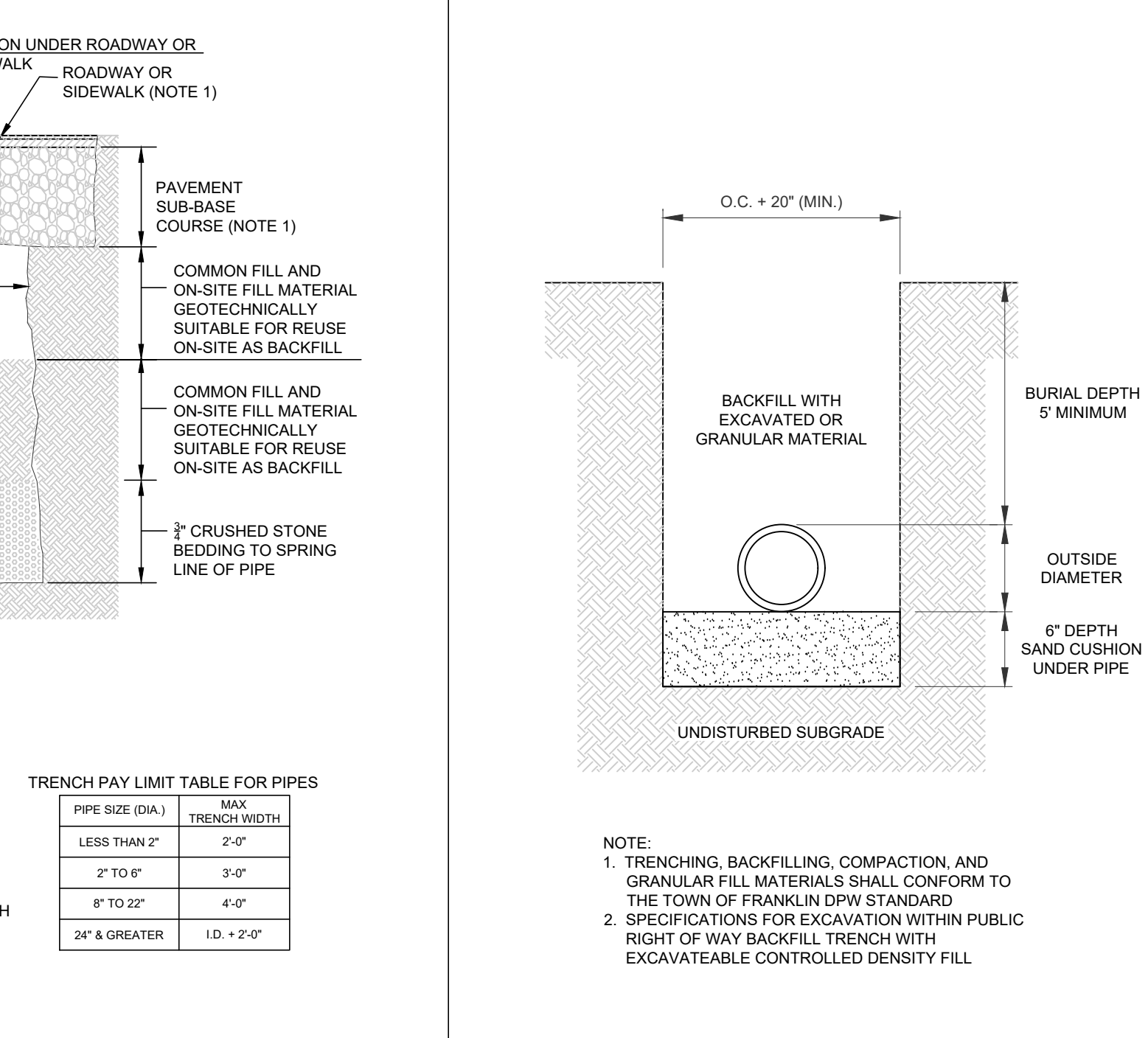
NOTE: FRAME AND COVER SHALL BE EAST JORDAN IRON WORKS CATALOG NOS. 2110A & 2114Z MARKED "DRAIN", OR APPROVED EQUAL.

**B1** SINGLE & DOUBLE GRATE CATCH BASIN NOT TO SCALE

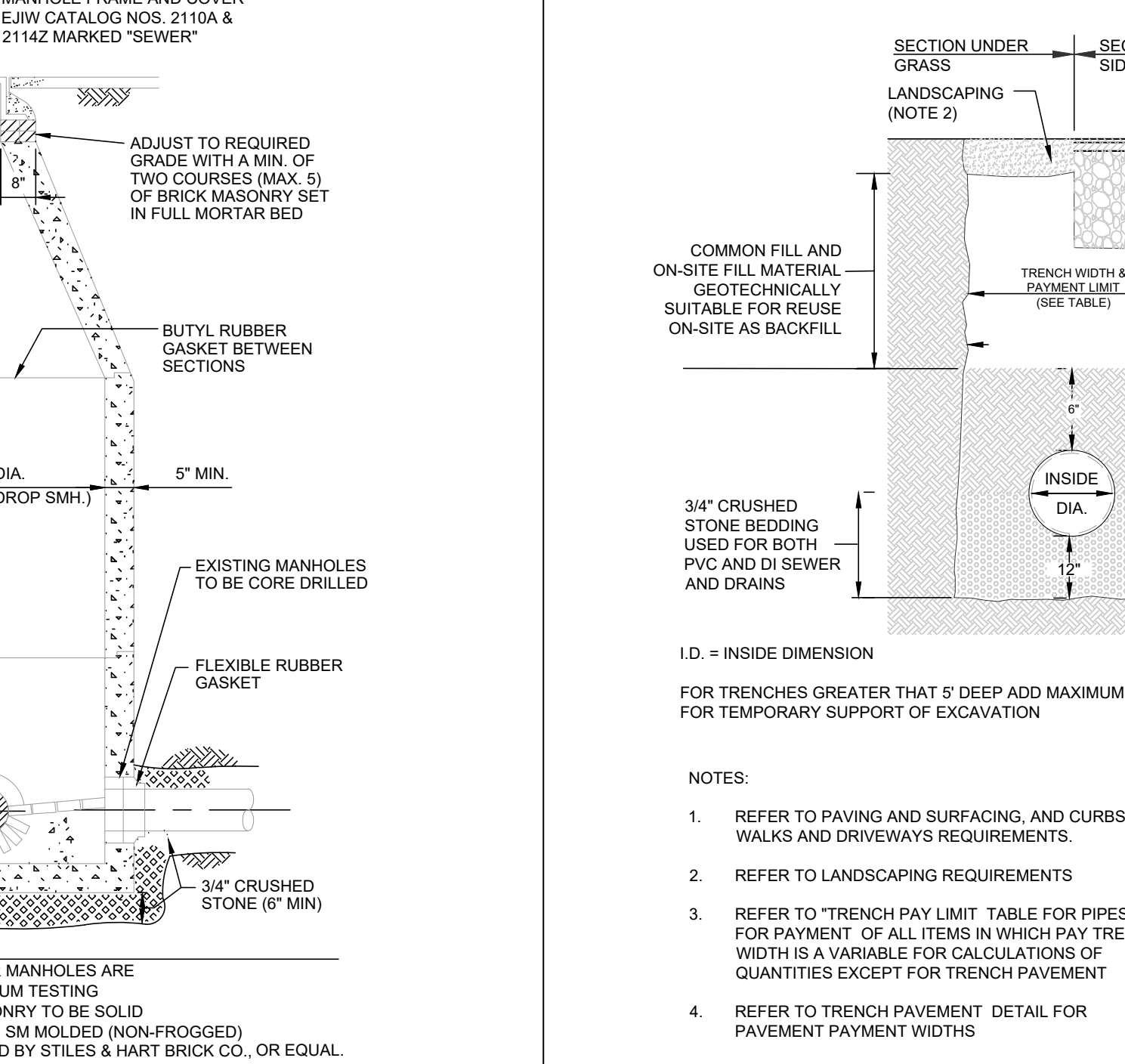
**B2** 4' PRECAST CONCRETE DRAIN MANHOLE NOT TO SCALE

**B3** 5' PRECAST CONCRETE DRAIN MANHOLE NOT TO SCALE

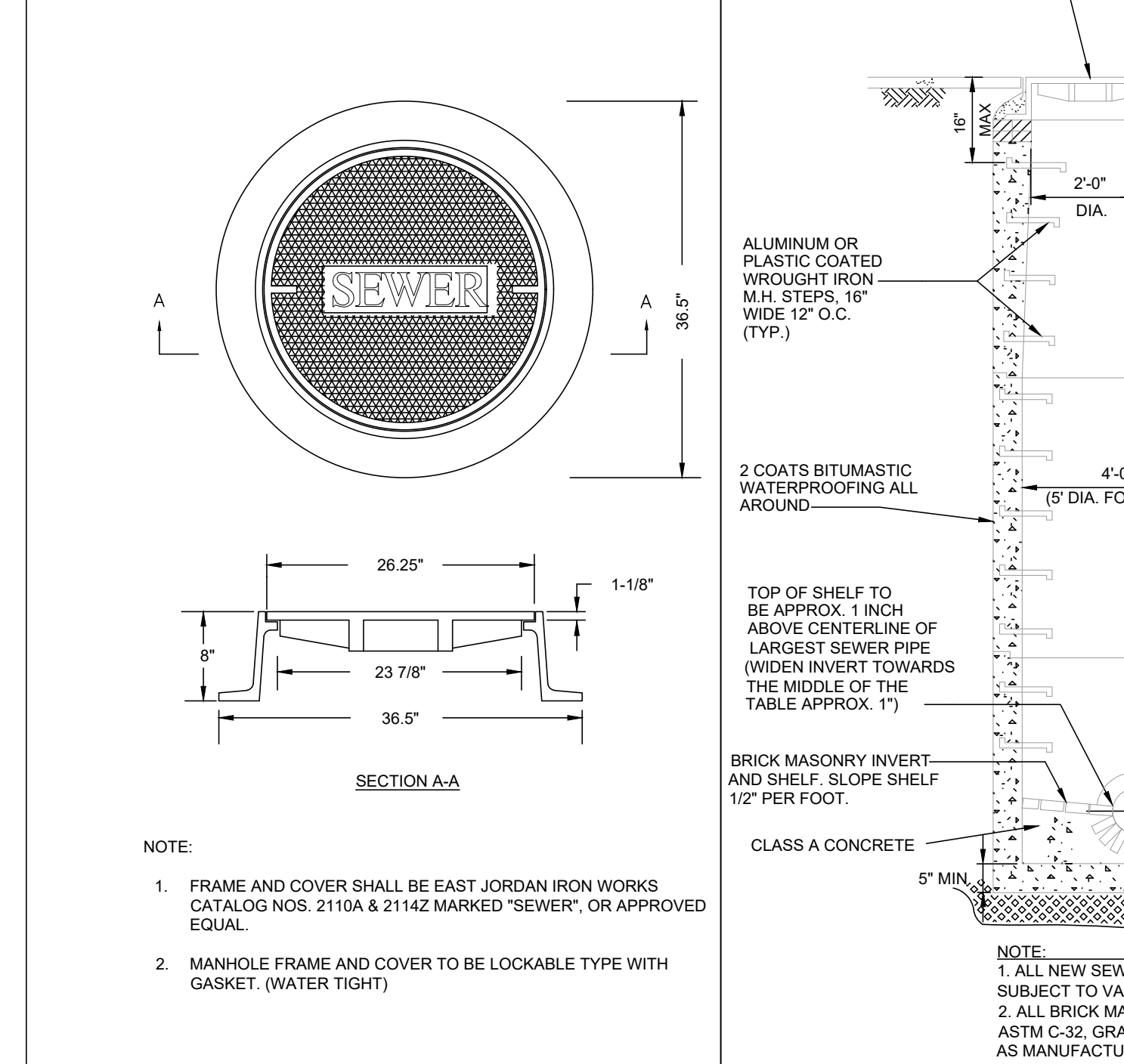
**B4** DOGHOUSE MANHOLE NOT TO SCALE



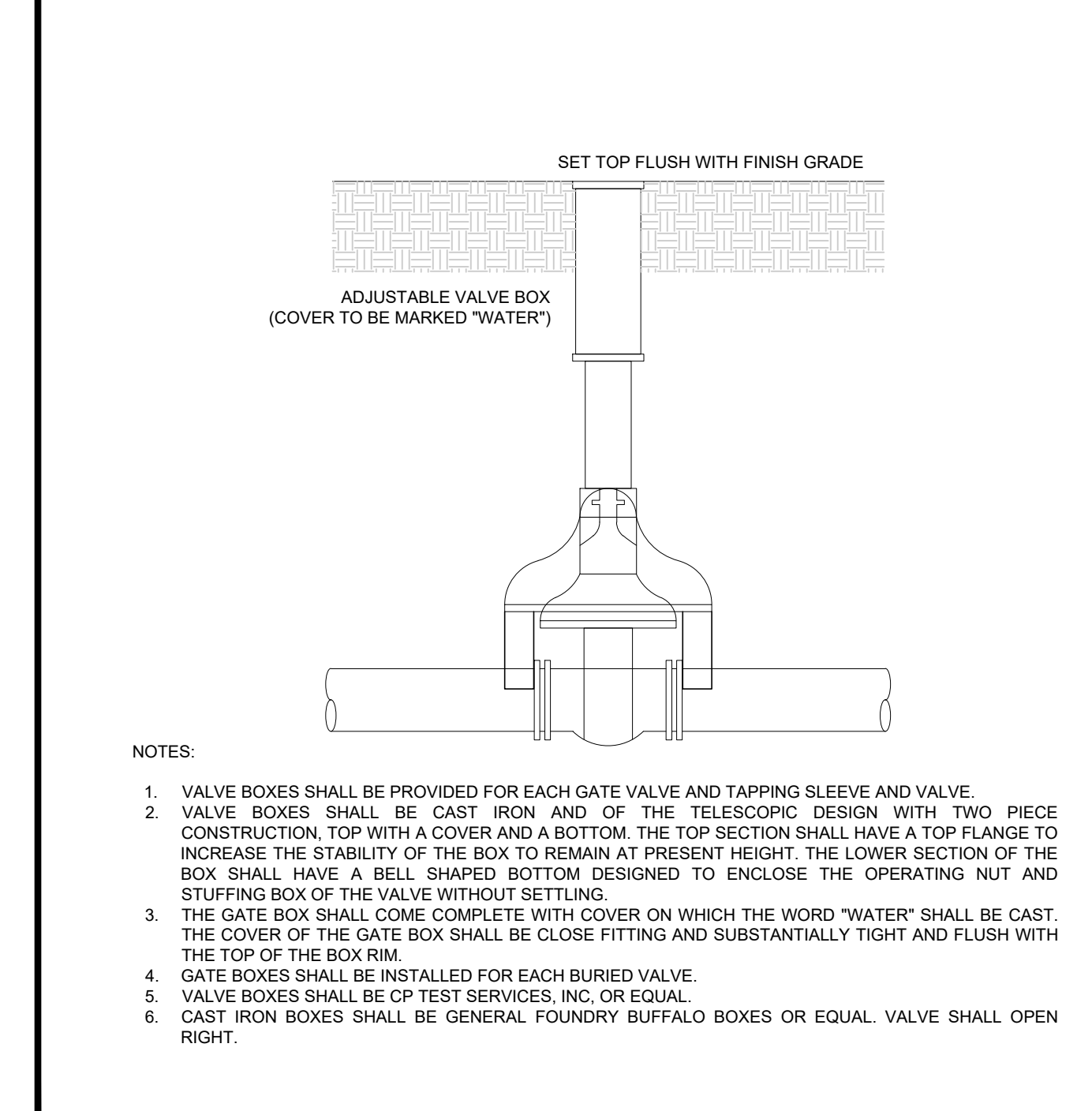
**A1** WATER TRENCH NOT TO SCALE



**A3** SANITARY SEWER MANHOLE NOT TO SCALE

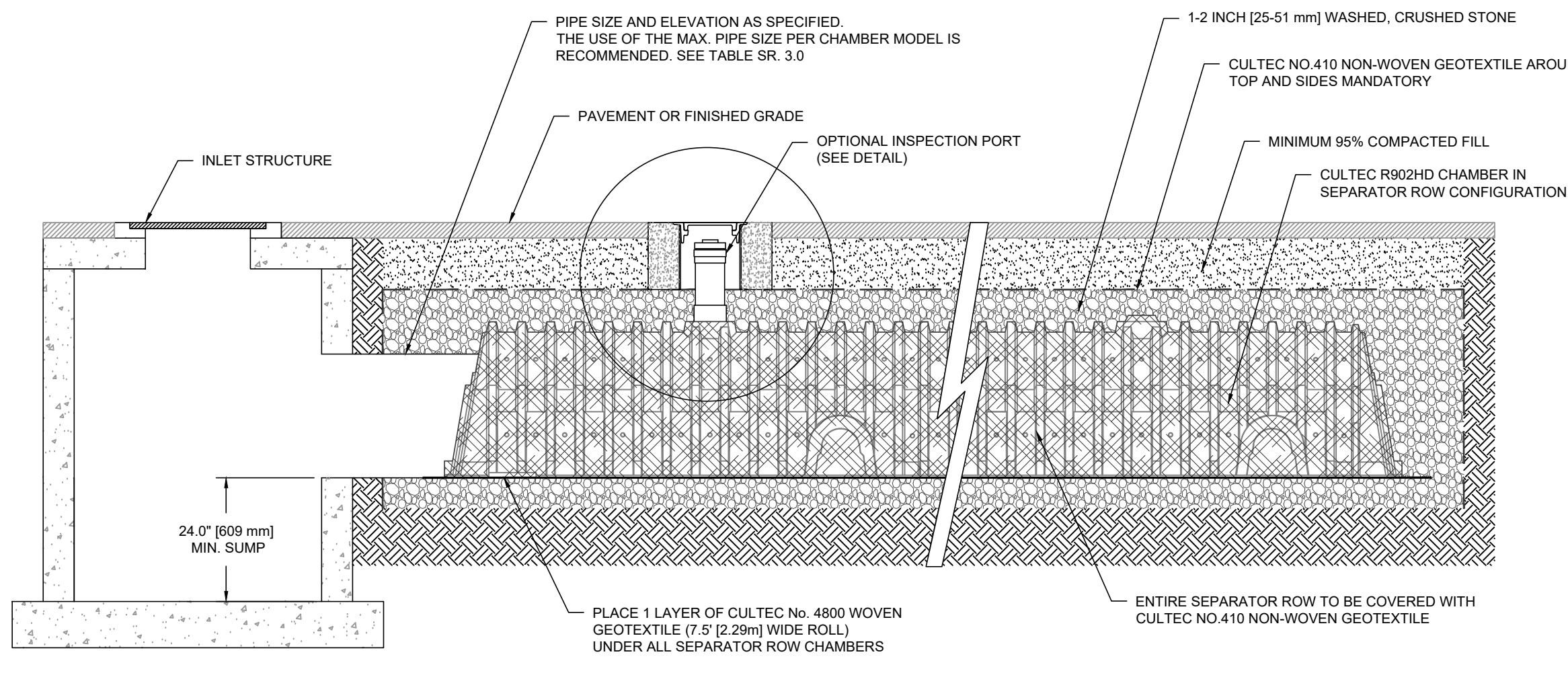


**A4** SEWER MANHOLE FRAME & COVER NOT TO SCALE



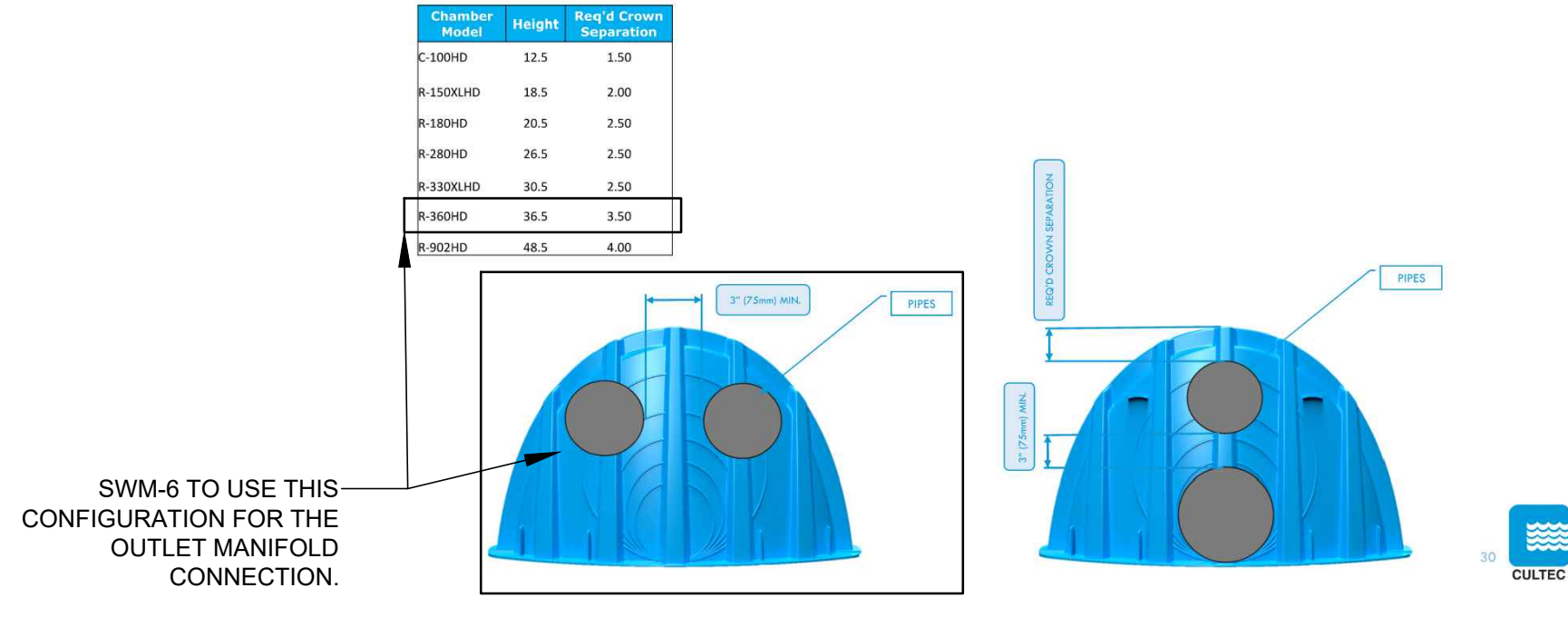
**A5** WATER GATE BOX NOT TO SCALE



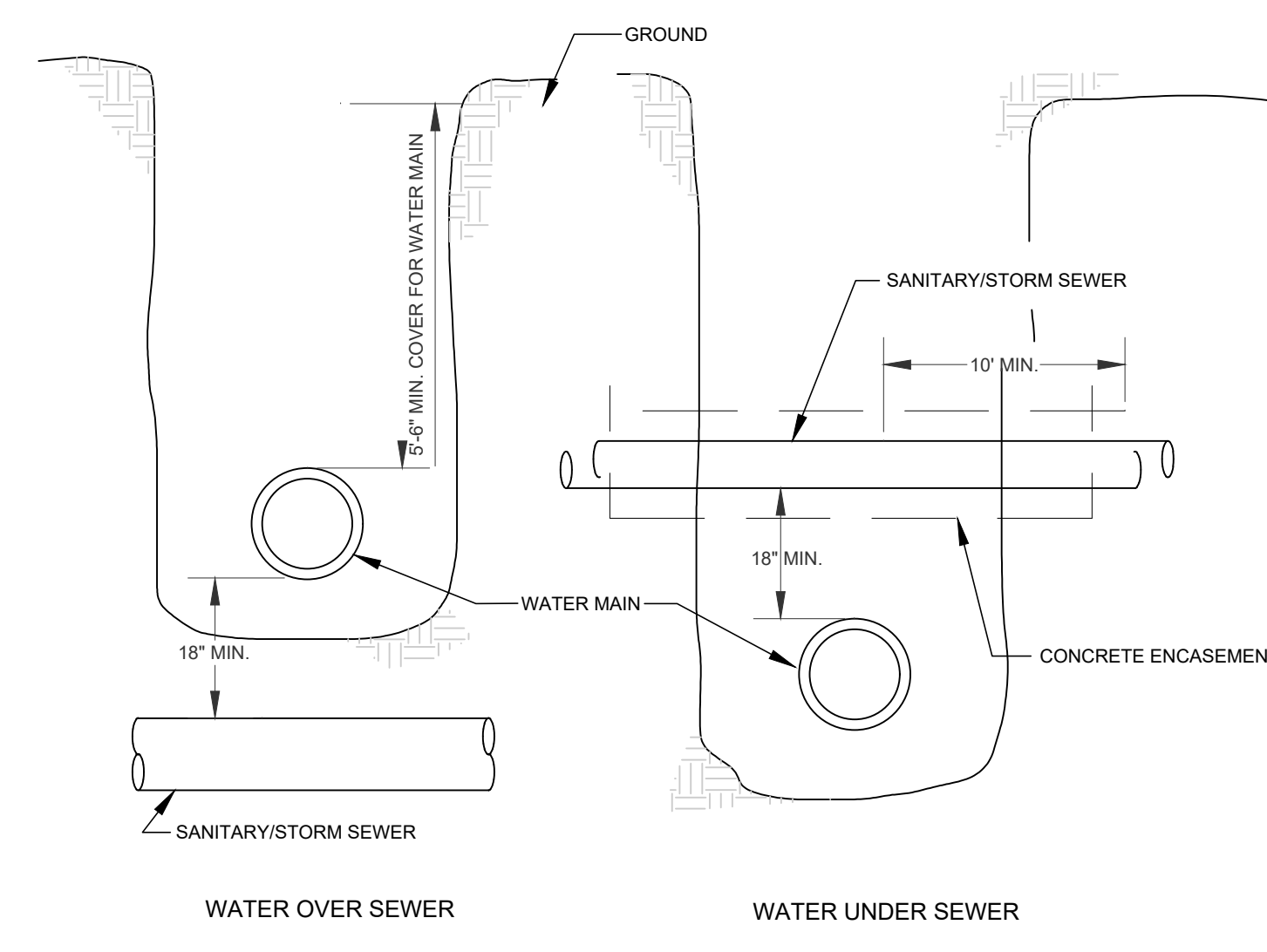


TYPICAL CULTEC SEPARATOR (ISOLATOR) ROW CONFIGURATION NOT TO SCALE **C3**

**CULTEC TECHNICAL REFERENCE AND TRAINING MANUAL**  
Design Standards - Pipe Connections - Multiple Pipes in End Cap



CULTEC INLET & OUTLET DESIGN STANDARDS NOT TO SCALE **C2**



TYPICAL WATER-SEWER CROSSING NOT TO SCALE **C1**

**SEPARATOR ROW™ SPECIFICATIONS**

**GENERAL**

1. CULTEC'S SEPARATOR ROW IS USED AS AN INEXPENSIVE MEANS OF REMOVING TOTAL SUSPENDED SOLIDS FROM THE CHAMBER SYSTEM, AS WELL AS PROVIDING EASIER ACCESS FOR INSPECTION AND MAINTENANCE.
2. THE SEPARATOR ROW PERFORMANCE SHALL BE TESTED AND VERIFIED TO THE PROTOCOLS AND PROCEDURES AS DEFINED BY ENVIRONMENTAL TECHNOLOGY VERIFICATION (ETV) CANADA TO ACHIEVE 80% TSS REMOVAL.

**INSTALLATION INSTRUCTIONS**

A SEPARATOR ROW IS INSTALLED ON A 1-2 INCH [25-51 mm] WASHED, CRUSHED STONE BASE. TYPICALLY, THE CULTEC CHAMBER MODEL USED FOR THE SEPARATOR ROW IS THE SAME CHAMBER USED THROUGHOUT THE ENTIRE CHAMBER BED.

STORMWATER IS DISTRIBUTED TO THE SEPARATOR ROW BY A PRIMARY FEED SYSTEM THAT DIVERTS FLOW TO THE SEPARATOR ROW AND A SECONDARY BYPASS FEED SYSTEM THAT DIVERTS THE FLOW OF CLEAN WATER TO THE OTHER PARTS OF THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM. THE DISTRIBUTION SYSTEM MAY BE BY PIPES SET AT A LOWER ELEVATION THAT PERMIT THE FIRST FLUSH TO THE SEPARATOR ROW VERSUS OTHER PARTS OF THE UNDERGROUND STORMWATER SYSTEM. THIS INITIAL FLOW MAY BE MANAGED BY A BAFFLE OR WEIR. THE SIZING OF THE PIPE(S) THAT PROVIDE STORM WATER TO THE SEPARATOR ROW IS TO BE DETERMINED BY THE DESIGN ENGINEER AND IS BASED UPON THE REQUIREMENT TO ACCOMMODATE THE DESIGN FLOW AND SERVICE CONVENIENCE.

THE CHAMBERS UTILIZED IN THE SEPARATOR ROW ARE TO BE COMPLETELY WRAPPED WITH CULTEC NO. 410 NON-WOVEN GEOTEXTILE. THIS CREATES A PASS-THROUGH FILTER ARRANGEMENT TO SEPARATE TOTAL SUSPENDED SOLIDS IN THE TRANSFER OF STORM WATER TO OTHER CHAMBERS THROUGHOUT THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM.

ONCE WRAPPED, THE SEPARATOR ROW IS TO THEN BE PLACED ENTIRELY OVER 1 LAYER OF CULTEC No. 4800 WOVEN GEOTEXTILE. THIS WOVEN GEOTEXTILE PROVIDES A DURABLE SURFACE WITHIN THE ROW FOR MAINTENANCE PROCEDURES AS WELL AS TO PREVENT ANY SCOURING OF THE STONE BASE DURING HIGH PRESSURE JETTING.

THE RECOMMENDED INSTALLATION OF SEPARATOR ROW CHAMBERS, IN REGARD TO STONE SEPARATION AND STONE ABOVE THE UNIT, ALONG WITH OTHER MINIMUM BURIAL, MATERIALS AND METHOD SPECIFICATIONS DETAILED FOR THE PROPER INSTALLATION, IS THE SAME AS CULTEC'S REQUIREMENT DETAILED IN THE COMPANY'S INSTALLATION GUIDELINES WITH THE EXCEPTION OF THE PLACEMENT OF THE REQUIRED FILTERING FABRICS. PLEASE REFER TO CULTEC'S CURRENT INSTALLATION INSTRUCTIONS FOR STORMWATER CHAMBERS AS A GUIDE.

**MAINTENANCE PROCEDURES**

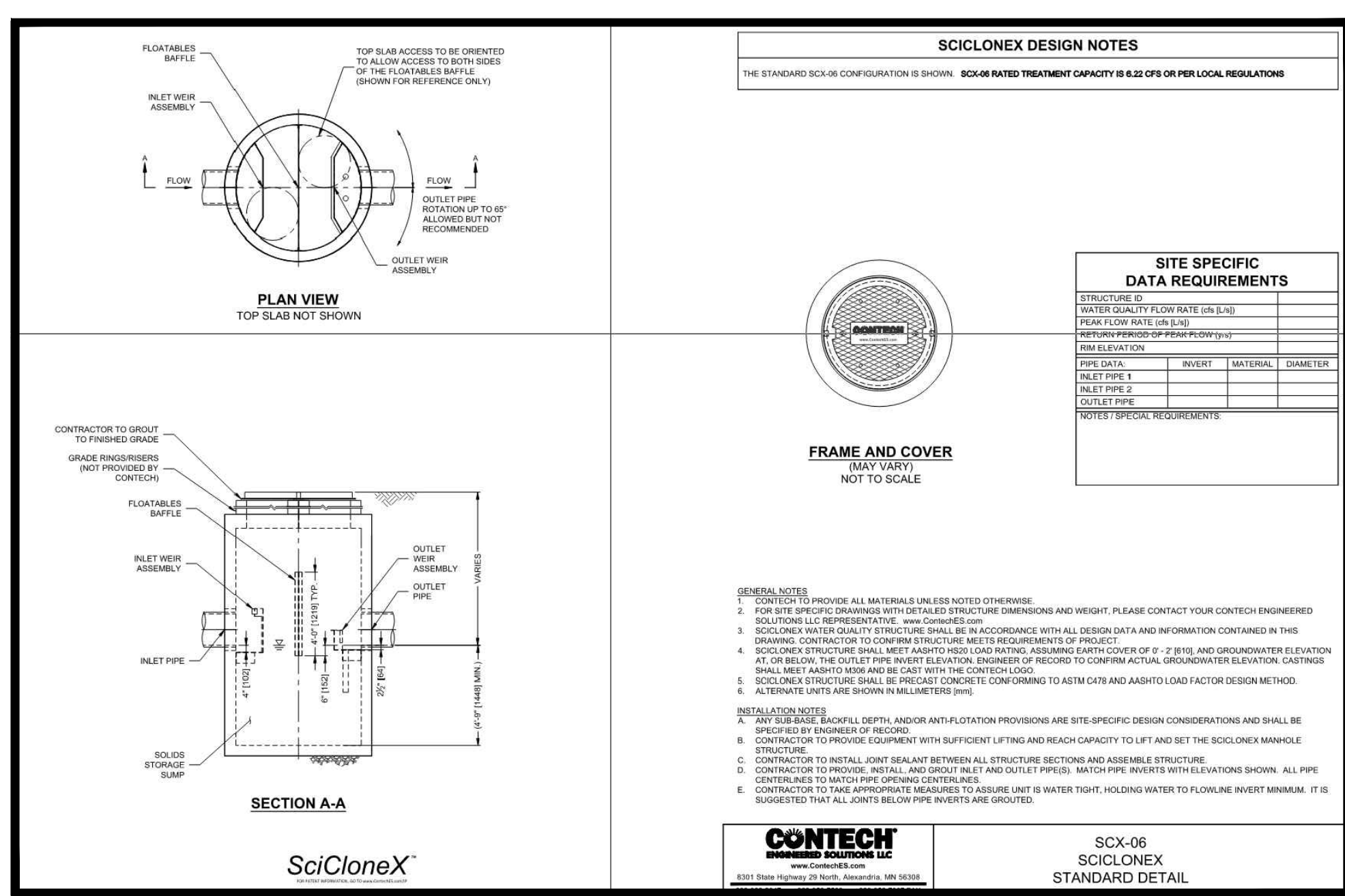
CULTEC RECOMMENDS INSPECTIONS OF THE SEPARATOR ROW TO BE PERFORMED EVERY SIX MONTHS FOR THE FIRST YEAR. THE FREQUENCY OF INSPECTION CAN THEN BE ADJUSTED BASED UPON PREVIOUS OBSERVATION OF SEDIMENT DEPOSITION.

WHILE CLEANING IS POSSIBLE FROM A SINGLE MANHOLE IN SHORTER LINES, A CLEAN-OUT OPTION FROM EITHER END OF A LINE IS PREFERABLE, PARTICULARLY FOR LONGER RUNS. CLEANING INVOLVES FLUSHING SEDIMENT FROM THE BASE FABRIC OF THE SEPARATOR ROW.

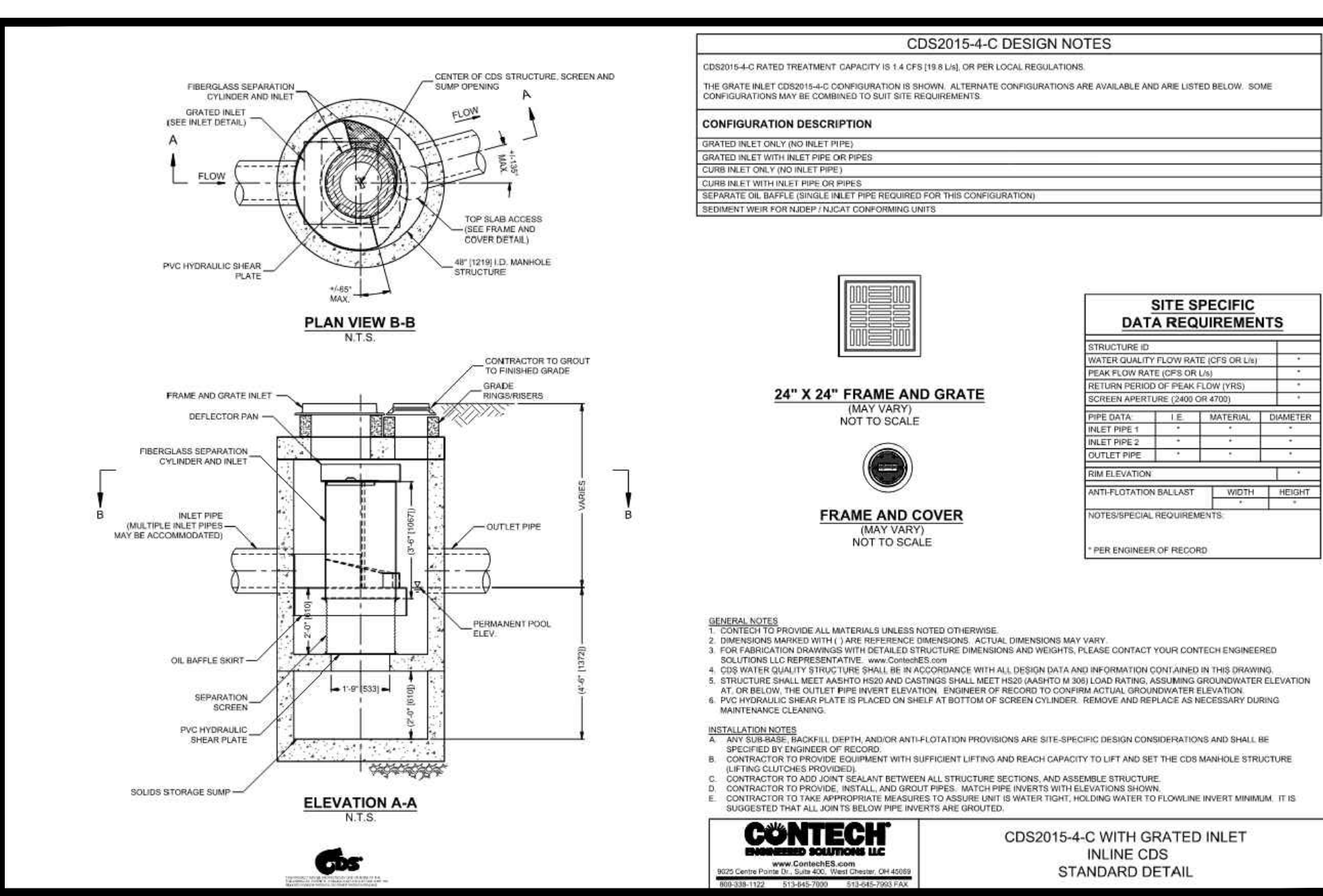
ACCESS WILL BE PROVIDED VIA A MANHOLE(S) LOCATED AT THE END(S) OF THE ROW FOR CLEAN OUT.

MAINTENANCE OF THE SEPARATOR ROW IS TO BE ACCOMPLISHED WITH A JETVAC PROCESS.

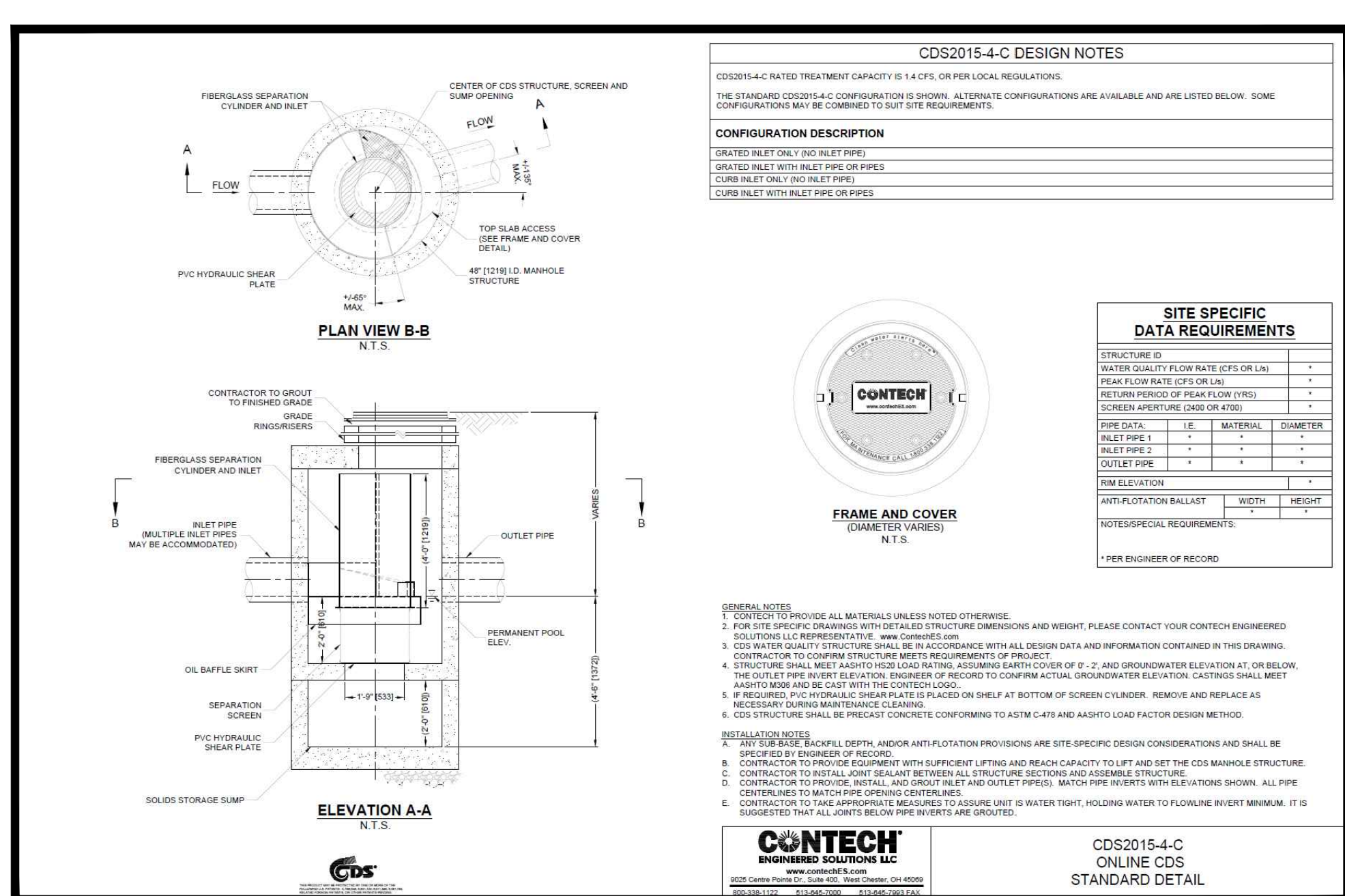
THE JETVAC IS TO BE SENT DOWN THE ENTIRE LENGTH OF THE SEPARATOR ROW. AS THE HIGH PRESSURE WATER NOZZLE IS RETRIEVED, THE CAPTURED SEDIMENTS ARE PUSHED BACK INTO THE MANHOLE FOR VACUUMING.



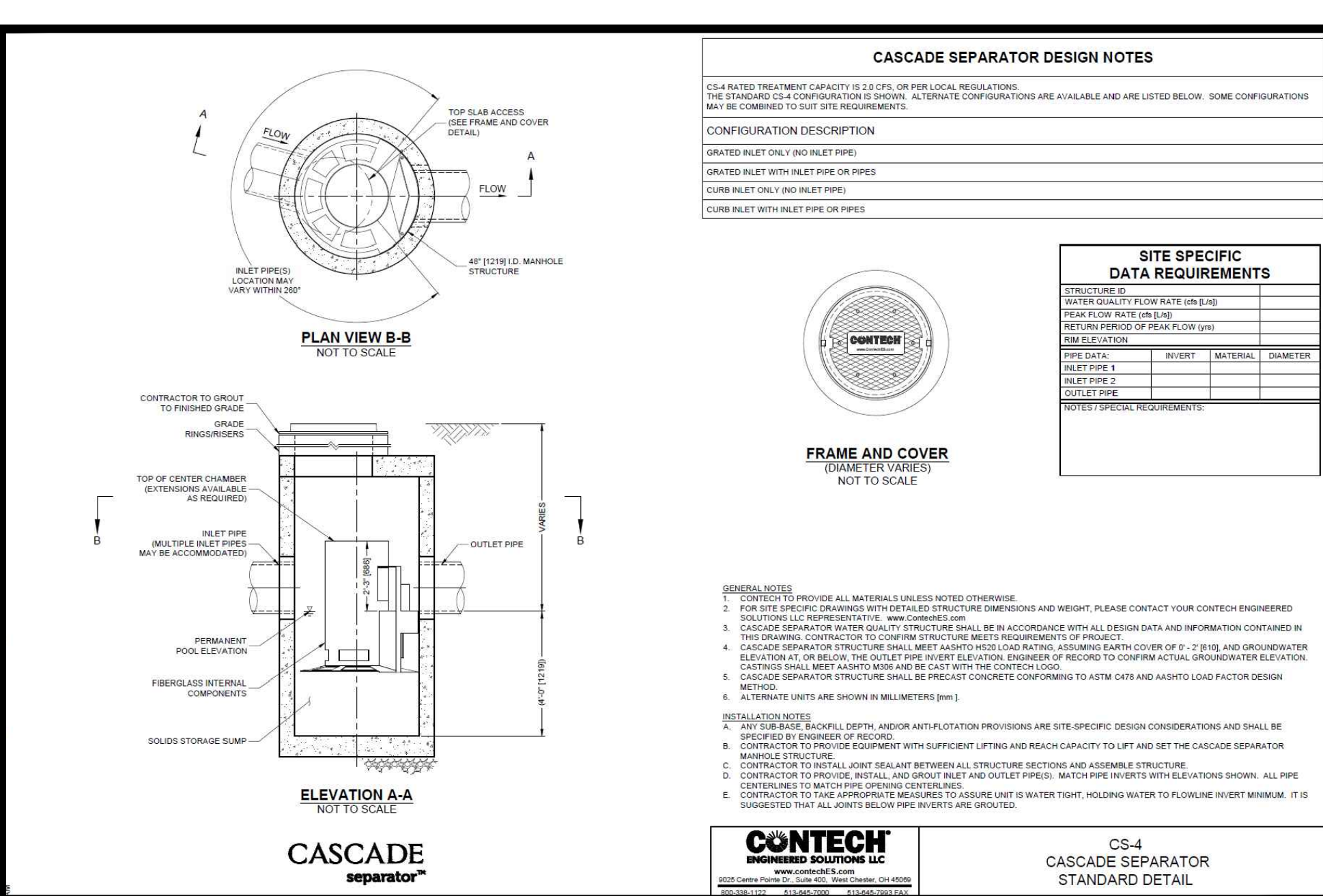
SCICLONEX SCX-06 (WQU-7) NOT TO SCALE **B2**



CONTECH CDS2015-4-C WITH GRATED INLET (WQU-5) NOT TO SCALE **B1**



CONTECH CDS2015-4-C (WQU-3) NOT TO SCALE **A2**



CONTECH CASCADE CS-4 (WQU-1) NOT TO SCALE **A1**

CULTEC SEPARATOR (ISOLATOR) ROW NOTES NOT TO SCALE **A3**

**HIGHPOINT ENGINEERING, INC.**  
LAND PLANNING  
PERMIT EXPEDITING  
CIVIL ENGINEERING  
CONSULTING

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SEAL:  
COMMONWEALTH OF MASSACHUSETTS  
DOUGLAS J. HERTZETT  
REGISTERED PROFESSIONAL ENGINEER  
No. 12776

12-07-2023

**WAREHOUSE/INDUSTRIAL DEVELOPMENT**

100/200 FINANCIAL PARK  
FRANKLIN, MA

OWNER/APPLICANT: BERKELEY PARTNERS

REV	DATE	DESCRIPTION
1	07.17.2023	RESPONSE TO COMMENTS
2	08.14.2023	RESPONSE TO COMMENTS
3	08.25.2023	RESPONSE TO COMMENTS
4	10.05.2023	RESPONSE TO COMMENTS
5	10.19.2023	RESPONSE TO COMMENTS
6	10.26.2023	RESPONSE TO COMMENTS
7	12.07.2023	PLANNING BOARD ENDORSEMENT

ISSUE TYPE:  
PERMIT SET  
ISSUE DATE:  
05/11/2023  
PROJECT NUMBER:  
22051

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SHEET TITLE:  
**DETAIL SHEET**

SHEET NUMBER:  
**C603**

ISSUED FOR: PERMIT





12-07-2023

WAREHOUSE/INDUSTRIAL DEVELOPMENT  
100/200 FINANCIAL PARK  
FRANKLIN, MA  
OWNER/APPLICANT: BERKELEY PARTNERS

REV	DATE	DESCRIPTION
7	12-07-2023	PLANNING BOARD ENDORSEMENT
6	10-26-2023	RESPONSE TO COMMENTS
5	10-19-2023	RESPONSE TO COMMENTS
4	10-05-2023	RESPONSE TO COMMENTS
3	08-15-2023	RESPONSE TO COMMENTS
2	08-14-2023	RESPONSE TO COMMENTS
1	07-17-2023	RESPONSE TO COMMENTS

ISSUE TYPE:  
PERMIT SET  
ISSUE DATE:  
05/11/2023  
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**DETAIL SHEET**

SHEET NUMBER:  
**C604**

ISSUED FOR: PERMIT

**INLET PIPE SIZING CALCULATION:**

PEAK FLOW WITHIN 18" HDPE PIPE FROM DMH-17= 3.82 CFS (PROVIDED FROM SSA)  
MAXIMUM FLOW WITHIN A 12" HDPE PIPE AT 1.0% SLOPE = 3.85 CFS  
MANIFOLD CONSISTS OF 2-12" HDPE PIPES

Inputs	Results
Pipe diameter, d <sub>p</sub> 12 in	Flow, Q (See notes) 3.85(3) cfs
Manning roughness, n 0.012	Full flow QD 3.85(3) cfs
Pressure slope (possibly 7 equal to pipe slope), S <sub>p</sub> 1.0 % riserun	Ratio to full flow, Q/QD (1.000) fraction
Relative flow depth, y/d <sub>p</sub> 1.0 fraction	

CALCULATOR SOURCE: WWW.HAWSEDC.COM/ENG/CALCS/MANNINGS-PIPE-FLOW.PHP

**NOTE:**

- CONTRACTOR TO SUBMIT PIPE/FITTINGS CONFIGURATIONS FOR ALL STORMWATER INLET AND OUTLET MANIFOLDS TO RECORD ENGINEER FOR REVIEW PRIOR TO INSTALLATION

SWM-2 INLET MANIFOLD NOT TO SCALE **B2**

**INLET PIPE SIZING CALCULATION:**

PEAK FLOW WITHIN 12" HDPE HEADER PIPE FROM ICS-1 = 0.61 CFS (PROVIDED FROM SSA)  
MAXIMUM FLOW WITHIN A 12" HDPE PIPE AT 0.60 % SLOPE = 2.98 CFS

THEREFORE:  
0.61 CFS = 2.98 (X)  
X = 1 PIPE; PROPOSED DESIGN PROVIDES (3) 12" HDPE PIPES

Inputs	Results
Pipe diameter, d <sub>p</sub> 12 in	Flow, Q (See notes) 2.98(4) cfs
Manning roughness, n 0.012	Full flow QD 2.98(4) cfs
Pressure slope (possibly 7 equal to pipe slope), S <sub>p</sub> 0.6 % riserun	Ratio to full flow, Q/QD (1.000) fraction
Relative flow depth, y/d <sub>p</sub> 1.0 fraction	

CALCULATOR SOURCE: WWW.HAWSEDC.COM/ENG/CALCS/MANNINGS-PIPE-FLOW.PHP

**NOTE:**

- CONTRACTOR TO SUBMIT PIPE/FITTINGS CONFIGURATIONS FOR ALL STORMWATER INLET AND OUTLET MANIFOLDS TO RECORD ENGINEER FOR REVIEW PRIOR TO INSTALLATION

SWM-4 INLET MANIFOLD NOT TO SCALE **B1**

**INLET PIPE SIZING CALCULATION:**

PEAK FLOW WITHIN 30" HDPE HEADER PIPE FROM ICS-2 = 11.30 CFS (PROVIDED FROM SSA)  
MAXIMUM FLOW WITHIN A 18" HDPE PIPE AT 0.23 % SLOPE = 5.45 CFS

THEREFORE:  
11.30 CFS = 5.45(X)  
X = 2.07 PIPES; PROPOSED DESIGN PROVIDES (4) 18" HDPE PIPES

Inputs	Results
Pipe diameter, d <sub>p</sub> 18 in	Flow, Q (See notes) 5.45(3) cfs
Manning roughness, n 0.012	Full flow QD 5.45(3) cfs
Pressure slope (possibly 7 equal to pipe slope), S <sub>p</sub> 0.23 % riserun	Ratio to full flow, Q/QD (1.000) fraction
Relative flow depth, y/d <sub>p</sub> 1.0 fraction	

CALCULATOR SOURCE: WWW.HAWSEDC.COM/ENG/CALCS/MANNINGS-PIPE-FLOW.PHP

**NOTE:**

- CONTRACTOR TO SUBMIT PIPE/FITTINGS CONFIGURATIONS FOR ALL STORMWATER INLET AND OUTLET MANIFOLDS TO RECORD ENGINEER FOR REVIEW PRIOR TO INSTALLATION

SWM-3 INLET AND OUTLET MANIFOLDS NOT TO SCALE **A2**

**INLET CONTROL STRUCTURE & INLET MANIFOLD SCHEDULE**

INLET CONTROL STRUCTURE	PIPE(S) INVERT INTO ICS	PIPE INVERT OUT TO SEPARATOR ROW	PIPE INVERT INTO SEPARATOR ROW	PIPE INVERT OUT TO HEADER MANIFOLD	HEADER CONNECTED TO
ICS-1	247.00 (12" RCP CB-13) 247.00 (12" RCP CB-16) 247.00 (12" RCP CB-10)	246.10 (12" RCP)	246.00 (12" RCP)	246.55 (12" HDPE @ 0.00%)	(3) - 12" HDPE PIPES 246.50   S=0.60%
ICS-2	246.30 (30" RCP DMH-27)	246.05 (24" RCP)	245.97 (24" RCP)	246.25 (30" HDPE @ 0.00%)	(4) - 18" HDPE PIPES 246.20   S=0.23%

INLET CONTROL STRUCTURE NOT TO SCALE **A1**

**INLET PIPE SIZING CALCULATION:**

PEAK FLOW WITHIN 36" HDPE PIPE FROM BUILDING #1 ROOF NORTH = 20.90 CFS (PROVIDED FROM SSA)  
MAXIMUM FLOW WITHIN A 12" HDPE PIPE AT 1.0% SLOPE = 3.85 CFS  
THEREFORE:  
20.90 CFS = 3.85(X)  
X = 5.4 PIPES; PROPOSED DESIGN PROVIDES (6) 12" HDPE PIPES

Inputs	Results
Pipe diameter, d <sub>p</sub> 12 in	Flow, Q (See notes) 3.85(6) cfs
Manning roughness, n 0.012	Full flow QD 3.85(6) cfs
Pressure slope (possibly 7 equal to pipe slope), S <sub>p</sub> 1.0 % riserun	Ratio to full flow, Q/QD (1.000) fraction
Relative flow depth, y/d <sub>p</sub> 1.0 fraction	

CALCULATOR SOURCE: WWW.HAWSEDC.COM/ENG/CALCS/MANNINGS-PIPE-FLOW.PHP

**NOTE:**

- CONTRACTOR TO SUBMIT PIPE/FITTINGS CONFIGURATIONS FOR ALL STORMWATER INLET AND OUTLET MANIFOLDS TO RECORD ENGINEER FOR REVIEW PRIOR TO INSTALLATION

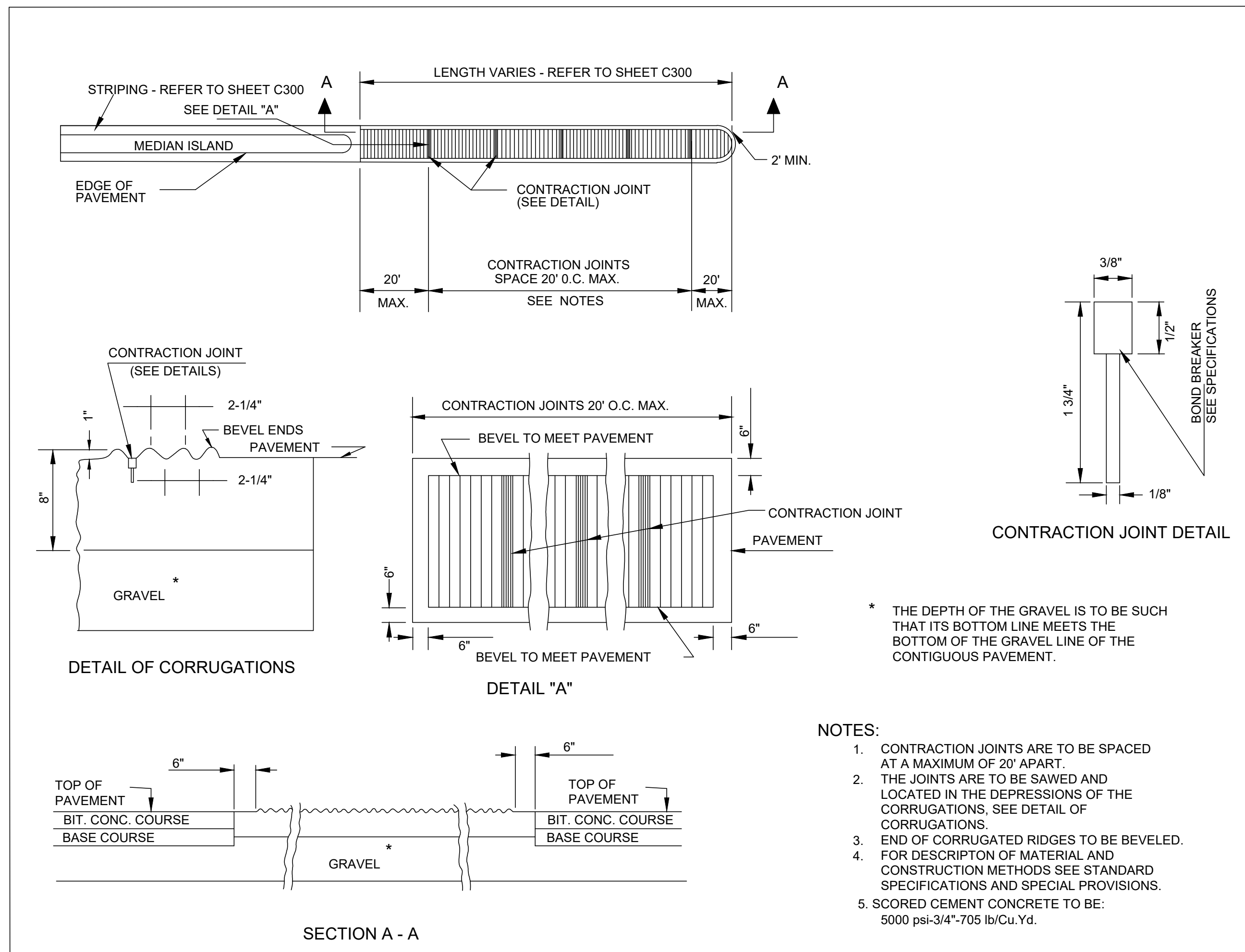
SWM-6 INLET AND OUTLET MANIFOLDS NOT TO SCALE **A3**



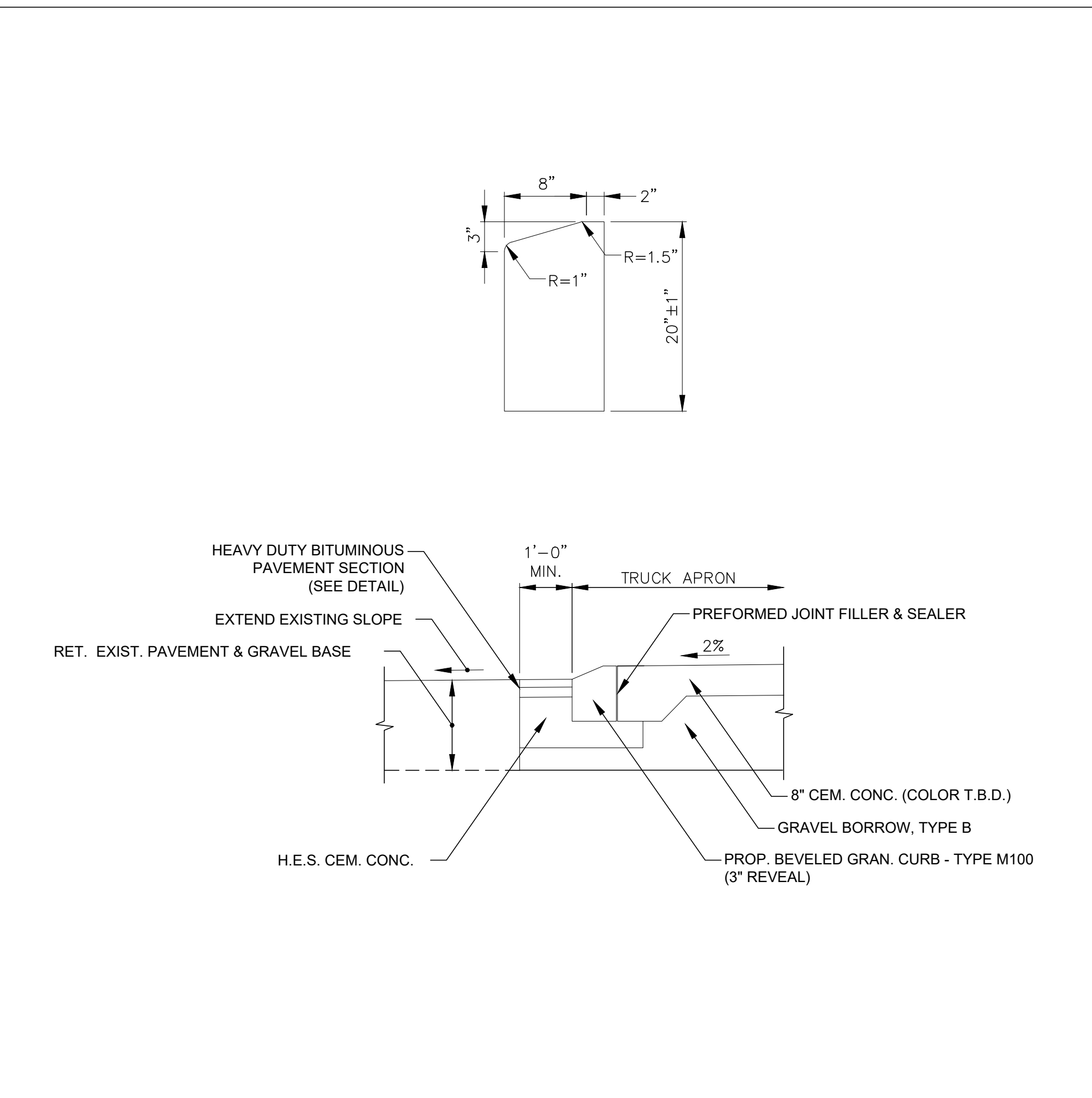


WAREHOUSE/INDUSTRIAL DEVELOPMENT  
100/200 FINANCIAL PARK  
FRANKLIN, MA

OWNER/APPLICANT: BERKELEY PARTNERS



FLUSH SCORED CONCRETE  
NOT TO SCALE **A2**



BEVELED CONCRETE CURB AND MOUNTABLE CONCRETE TRUCK APRON  
NOT TO SCALE **A1**

REV	DATE	DESCRIPTION
7	12.07.2023	PLANNING BOARD ENDORSEMENT
6	10.26.2023	RESPONSE TO COMMENTS
5	10.19.2023	RESPONSE TO COMMENTS
4	10.05.2023	RESPONSE TO COMMENTS
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2	08.14.2023	RESPONSE TO COMMENTS
1	07.17.2023	RESPONSE TO COMMENTS

ISSUE TYPE:  
PERMIT SET  
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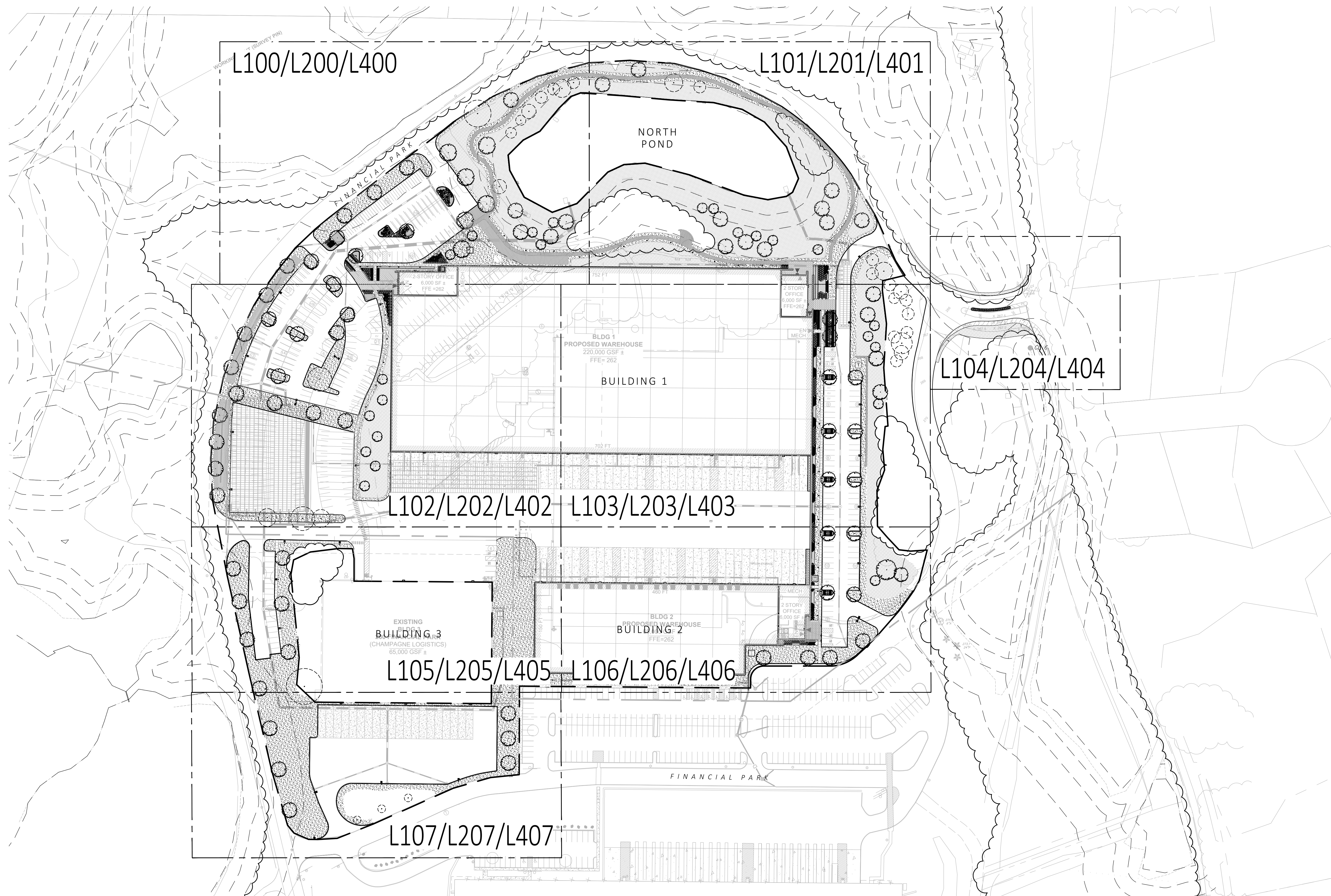
SHEET TITLE:  
**DETAIL SHEET**

SHEET NUMBER:  
**C605**

ISSUED FOR: PERMIT



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1 LANDSCAPE SHEET LAYOUT - KEY PLAN  
SCALE: 1" = 80'-0"

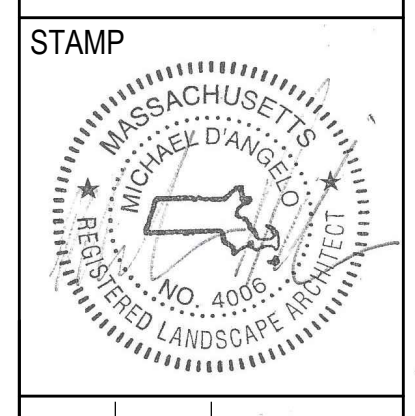


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MICHAEL D'ANGELO landscape architecture

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840 SUMMER STREET  
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**CLIENT**  
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1 WASHINGTON MALL, SUITE 701  
BOSTON, MA

**PROJECT**  
WAREHOUSE / INDUSTRIAL DEV.  
100 / 200 FINANCIAL PARK  
FRANKLIN, MA

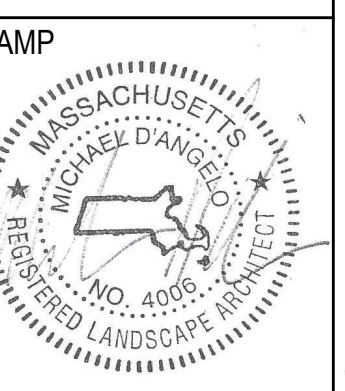


REV. NO.	DATE	DESCRIPTION
	5/11/23	FOR PERMIT
1	7/17/23	RESPONSE TO COMMENTS
2	8/10/23	RESPONSE TO COMMENTS
3	8/23/23	RESPONSE TO COMMENTS

LANDSCAPE  
KEY PLAN

DRAWN: AA, NC	L000
CHECKED: NC	
SCALE: AS NOTED	
DATE: 5/11/2023	
SHEET 1 OF 28	





REV. NO.	DATE	DESCRIPTION
	5/11/23	FOR PERMIT
1	7/17/23	RESPONSE TO COMMENTS
2	8/10/23	RESPONSE TO COMMENTS
3	8/28/23	RESPONSE TO COMMENTS

MATERIALS PLAN

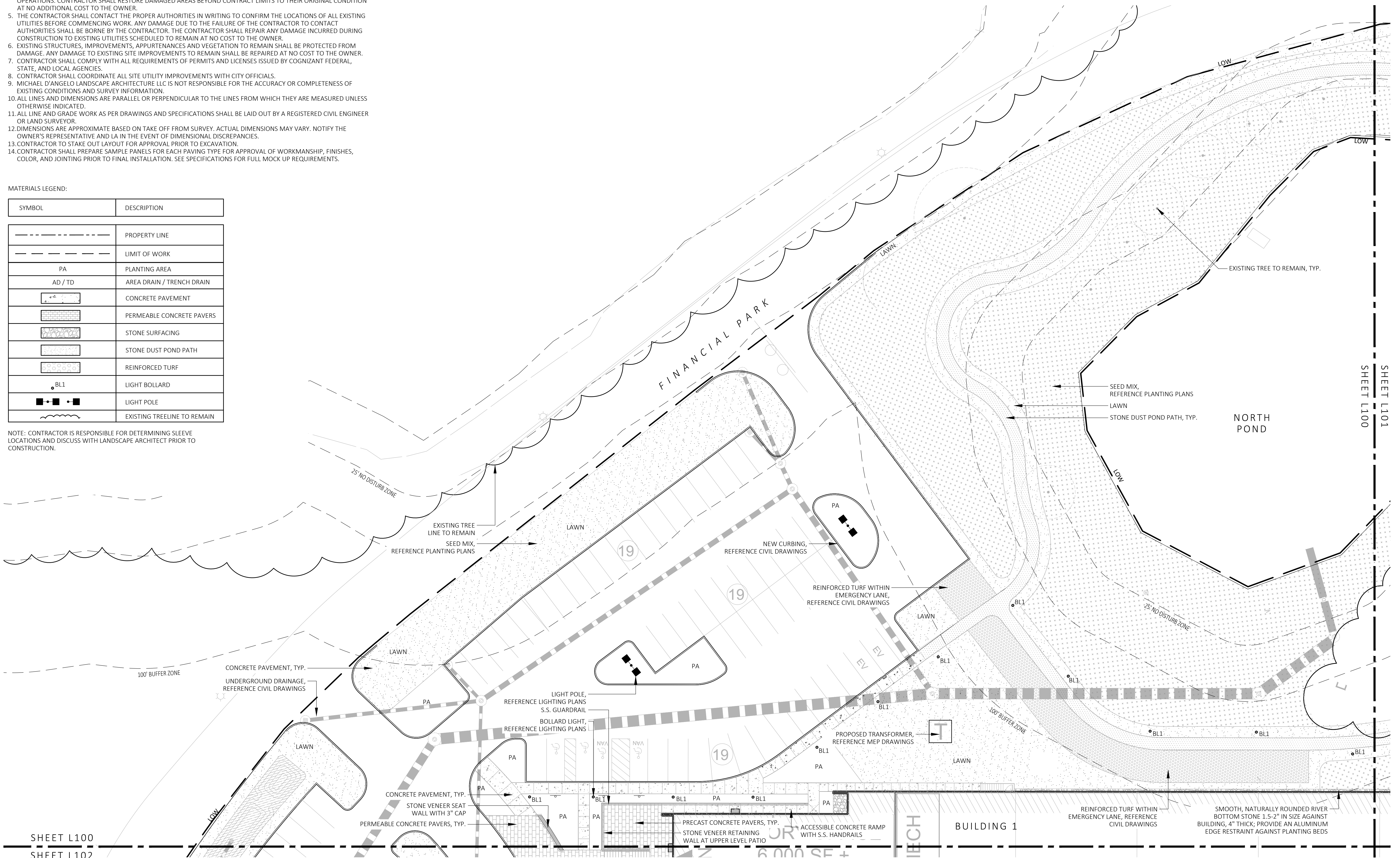
DRAWN: AA, NC	L100
CHECKED: NC	
SCALE: AS NOTED	
DATE: 5/11/2023	
SHEET 2 OF 28	

- MATERIALS NOTES:
- CONSULT ALL DRAWINGS AND SPECIFICATIONS FOR COORDINATION REQUIREMENTS BETWEEN ALL TRADES PRIOR TO COMMENCING NEW CONSTRUCTION.
  - CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD AND REPORT ANY AND ALL DISCREPANCIES TO THE ENGINEER. ANY ALTERATIONS TO THESE DRAWINGS MADE IN THE FIELD SHALL BE PROMPTLY REPORTED BY THE CONTRACTOR TO THE LANDSCAPE ARCHITECT (LA) AND RECORDED ON RECORD DRAWINGS.
  - CONTRACTOR SHALL NOTIFY THE LA OF ANY AND ALL CONFLICTS BETWEEN PROPOSED SITE WORK AND WORK OF ALL OTHER TRADES.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE INSIDE AND OUTSIDE THE LIMIT OF WORK LINE DUE TO CONTRACT OPERATIONS. CONTRACTOR SHALL RESTORE DAMAGED AREAS BEYOND CONTRACT LIMITS TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
  - THE CONTRACTOR SHALL CONTACT THE PROPER AUTHORITIES IN WRITING TO CONFIRM THE LOCATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. ANY DAMAGE DUE TO THE FAILURE OF THE CONTRACTOR TO CONTACT AUTHORITIES SHALL BE BORNE BY THE CONTRACTOR. THE CONTRACTOR SHALL REPAIR ANY DAMAGE INCURRED DURING CONSTRUCTION TO EXISTING UTILITIES SCHEDULED TO REMAIN AT NO COST TO THE OWNER.
  - EXISTING STRUCTURES, IMPROVEMENTS, APPURTENANCES AND VEGETATION TO REMAIN SHALL BE PROTECTED FROM DAMAGE. ANY DAMAGE TO EXISTING SITE IMPROVEMENTS TO REMAIN SHALL BE REPAIRED AT NO COST TO THE OWNER.
  - CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF PERMITS AND LICENSES ISSUED BY COGNIZANT FEDERAL, STATE, AND LOCAL AGENCIES.
  - CONTRACTOR SHALL COORDINATE ALL SITE UTILITY IMPROVEMENTS WITH CITY OFFICIALS.
  - MICHAEL D'ANGELO LANDSCAPE ARCHITECTURE LLC IS NOT RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF EXISTING CONDITIONS AND SURVEY INFORMATION.
  - ALL LINES AND DIMENSIONS ARE PARALLEL OR PERPENDICULAR TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.
  - ALL LINE AND GRADE WORK AS PER DRAWINGS AND SPECIFICATIONS SHALL BE LAID OUT BY A REGISTERED CIVIL ENGINEER OR LAND SURVEYOR.
  - DIMENSIONS ARE APPROXIMATE BASED ON TAKE OFF FROM SURVEY. ACTUAL DIMENSIONS MAY VARY. NOTIFY THE OWNER'S REPRESENTATIVE AND LA IN THE EVENT OF DIMENSIONAL DISCREPANCIES.
  - CONTRACTOR TO STAKE OUT LAYOUT FOR APPROVAL PRIOR TO EXCAVATION.
  - CONTRACTOR SHALL PREPARE SAMPLE PANELS FOR EACH PAVING TYPE FOR APPROVAL OF WORKMANSHIP, FINISHES, COLOR, AND JOINTING PRIOR TO FINAL INSTALLATION. SEE SPECIFICATIONS FOR FULL MOCK UP REQUIREMENTS.

MATERIALS LEGEND:

SYMBOL	DESCRIPTION
---	PROPERTY LINE
- - -	LIMIT OF WORK
PA	PLANTING AREA
AD / TD	AREA DRAIN / TRENCH DRAIN
[Pattern]	CONCRETE PAVEMENT
[Pattern]	PERMEABLE CONCRETE PAVERS
[Pattern]	STONE SURFACING
[Pattern]	STONE DUST POND PATH
[Pattern]	REINFORCED TURF
BL1	LIGHT BOLLARD
[Symbol]	LIGHT POLE
[Symbol]	EXISTING TREELINE TO REMAIN

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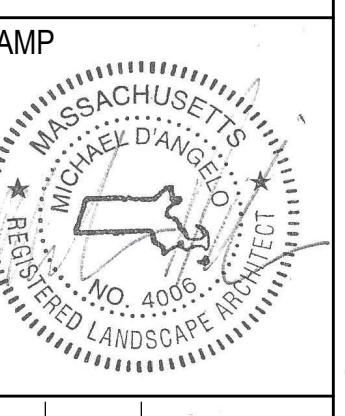
SHEET L100  
SHEET L102

1 MATERIALS PLAN  
SCALE: 1" = 20'-0"





FOR PERMIT ONLY  
NOT FOR CONSTRUCTION



REV. NO.	DATE	DESCRIPTION
	5/11/23	FOR PERMIT
1	7/17/23	RESPONSE TO COMMENTS
2	8/10/23	RESPONSE TO COMMENTS
3	8/23/23	RESPONSE TO COMMENTS

MATERIALS PLAN

DRAWN: AA, NC	L101
CHECKED: NC	
SCALE: AS NOTED	
DATE: 5/11/2023	
SHEET 3 OF 28	

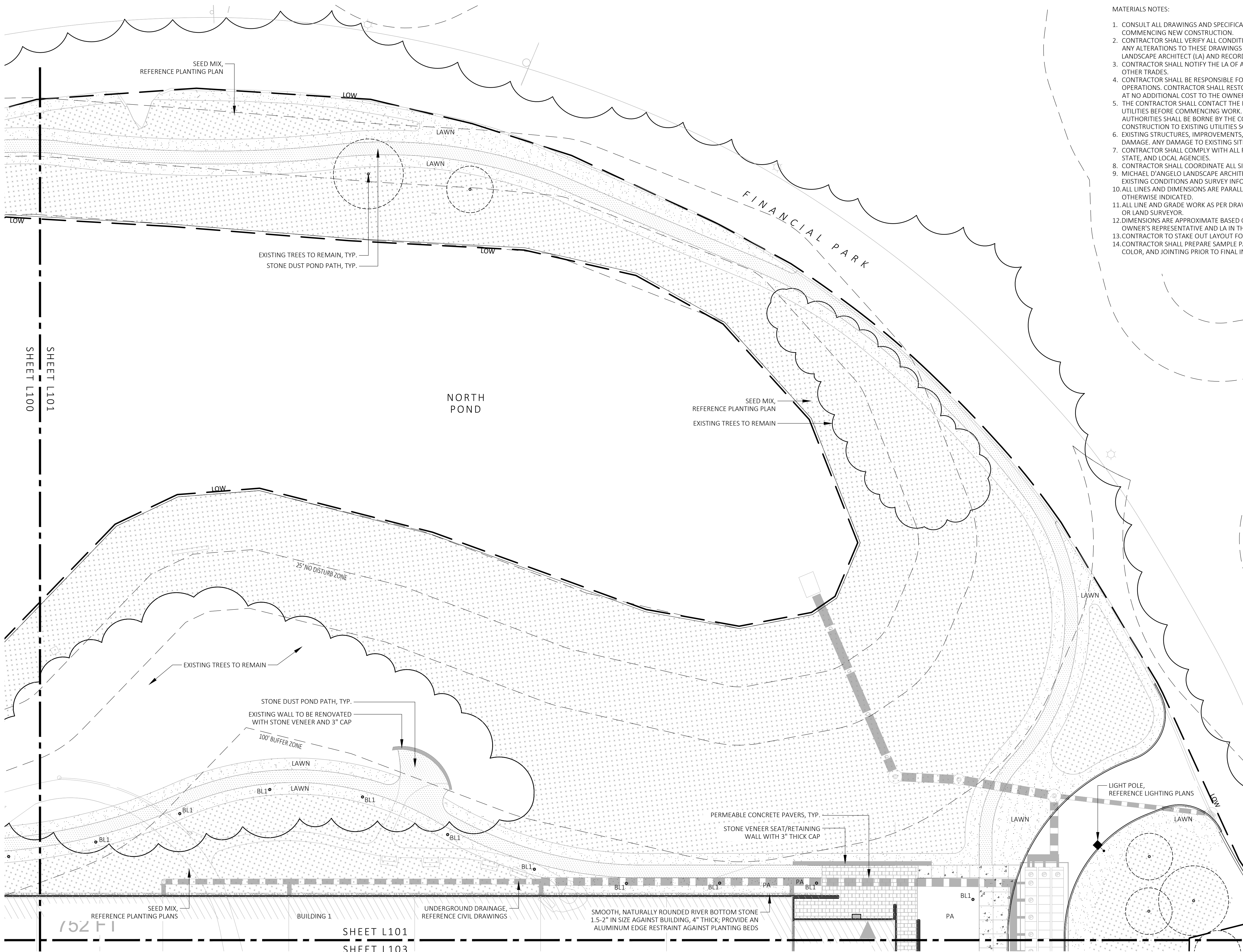
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MATERIALS LEGEND:

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AD / TD	AREA DRAIN / TRENCH DRAIN
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[Pattern]	PERMEABLE CONCRETE PAVERS
[Pattern]	STONE SURFACING
[Pattern]	STONE DUST POND PATH
[Pattern]	REINFORCED TURF
BL1	LIGHT BOLLARD
[Symbol]	LIGHT POLE
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SCALE: 1" = 20'-0"

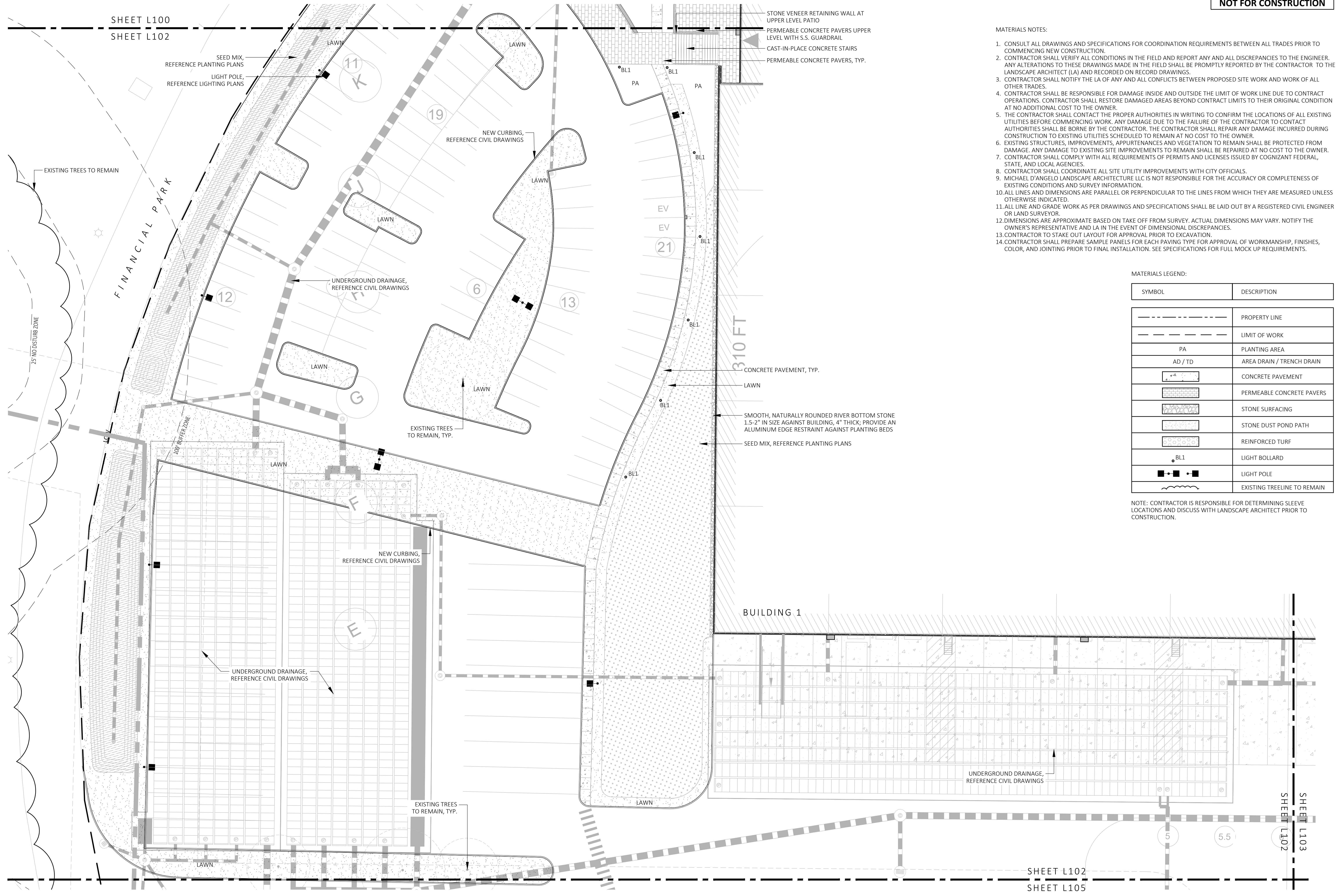


SHEET L101  
SHEET L103

SHEET L104



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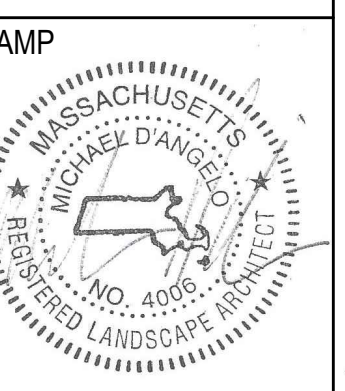


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**MATERIALS PLAN**

DRAWN: AA, NC	<b>L102</b>
CHECKED: NC	
SCALE: AS NOTED	
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SHEET 4 OF 28	

**1 MATERIALS PLAN**  
SCALE: 1" = 20'-0"





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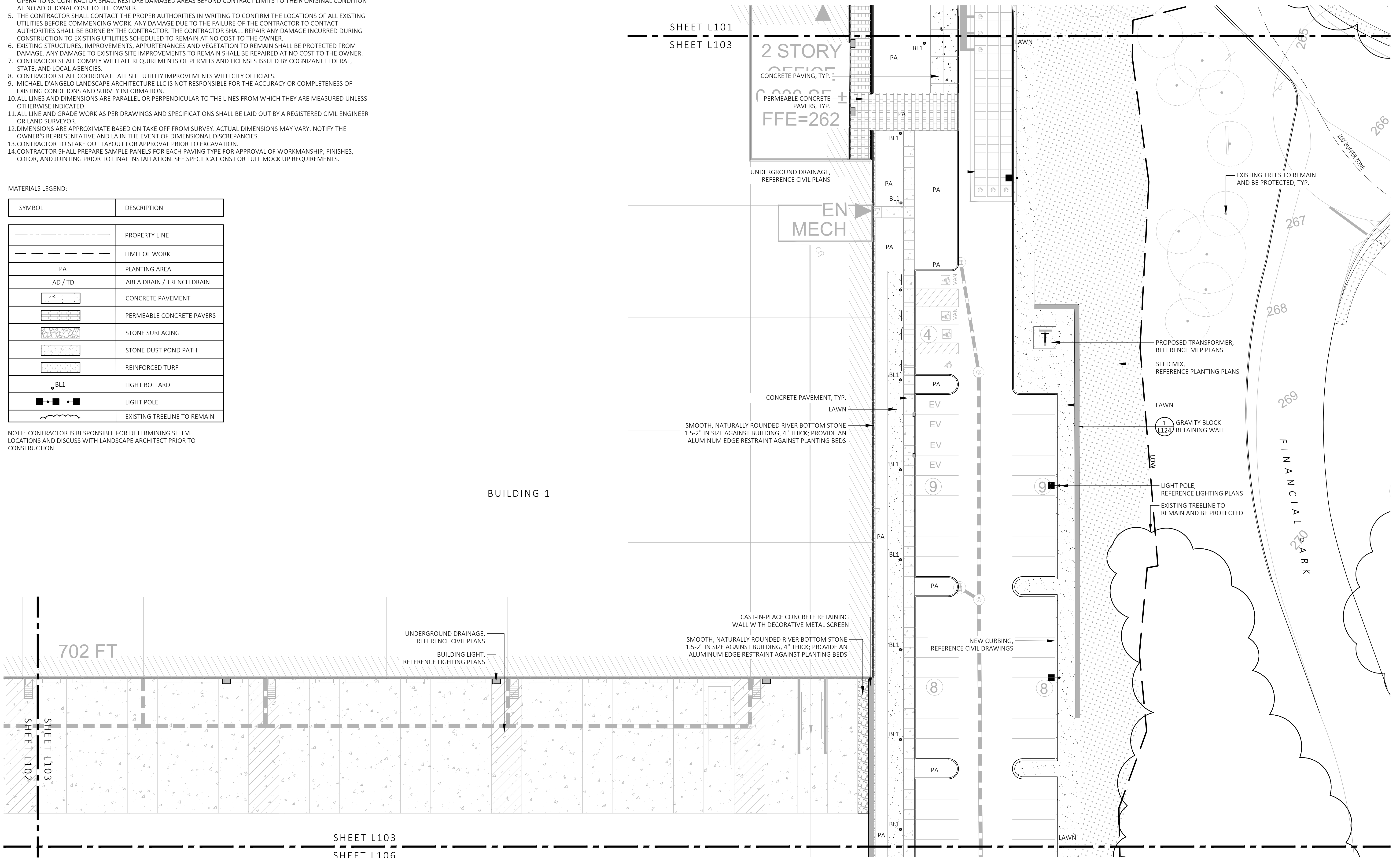
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1 MATERIALS PLAN  
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**MDLA**  
MICHAEL D'ANGELO landscape architecture

MICHAEL D'ANGELO LANDSCAPE ARCHITECTURE LLC  
840 SUMMER STREET  
SUITE 281A  
BOSTON, MA 02127  
T. 203.592.4788  
www.m-d-a.com

---

**CLIENT**  
BERKELEY PARTNERS  
1 WASHINGTON MALL, SUITE 701  
BOSTON, MA

---

**PROJECT**  
WAREHOUSE / INDUSTRIAL DEV.  
100 / 200 FINANCIAL PARK  
FRANKLIN, MA

---

**STAMP**

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**MATERIALS PLAN**

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DRAWN: AA, NC	<b>L103</b>
CHECKED: NC	
SCALE: AS NOTED	
DATE: 5/11/2023	

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SHEET 5 OF 28

plot date: 10/25/2023



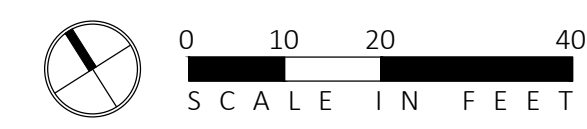
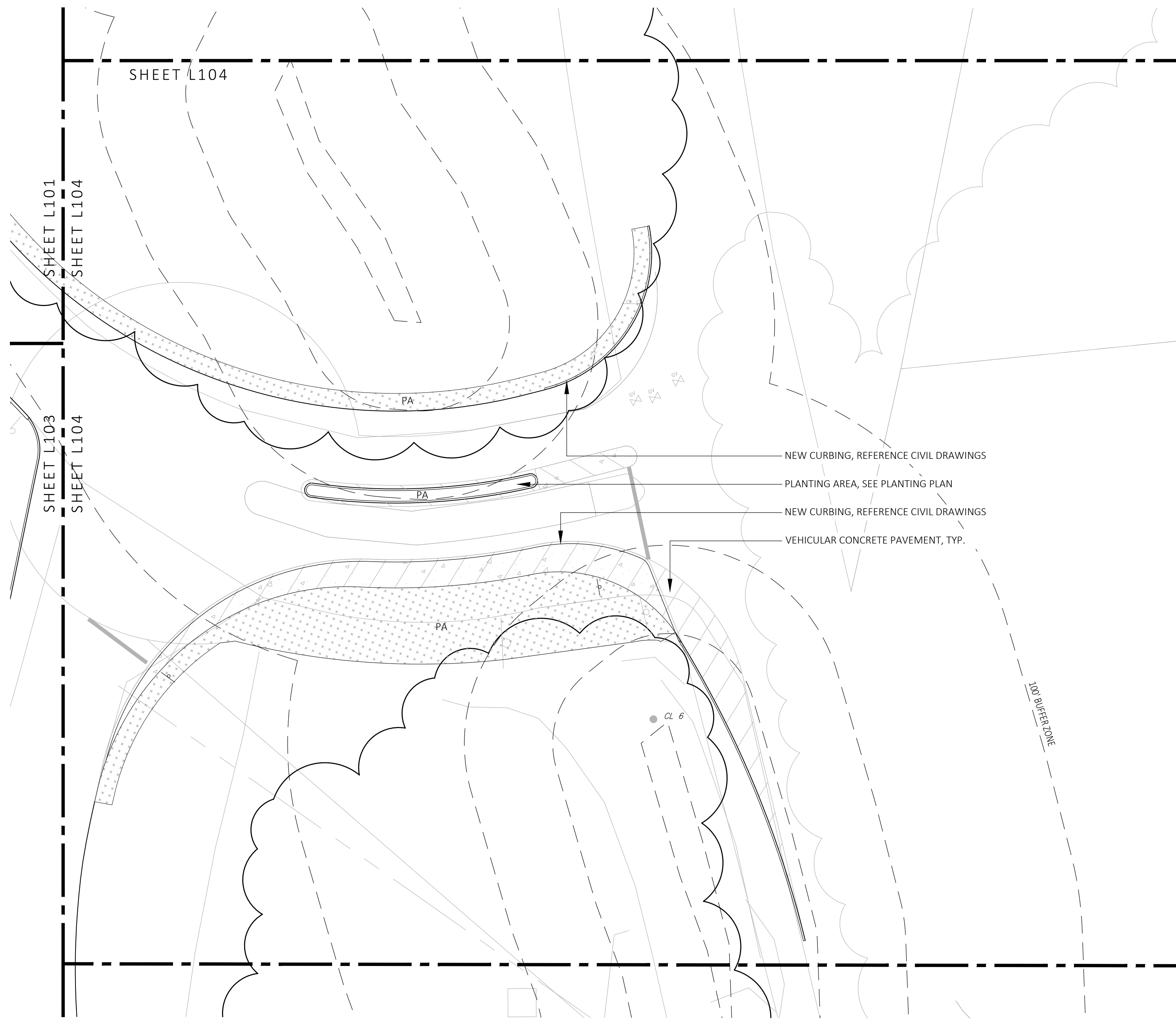
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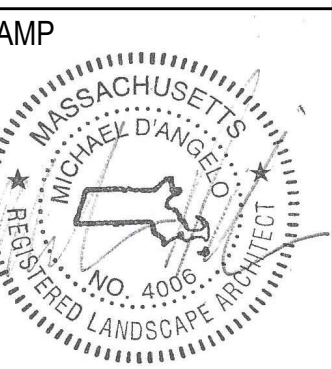
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MATERIALS PLAN

DRAWN: AA, NC	L104
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SHEET 6 OF 28	



MATERIALS NOTES:

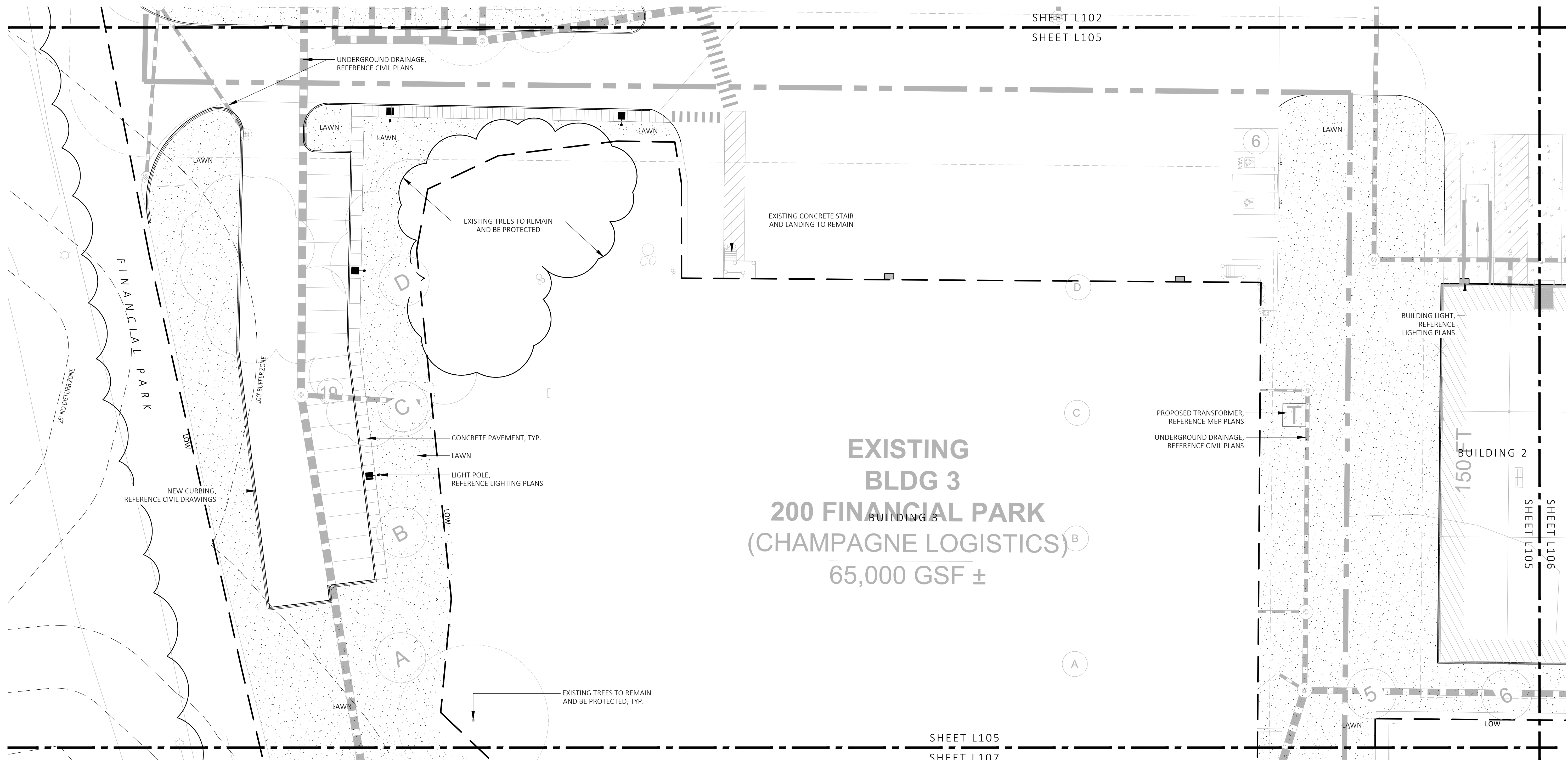
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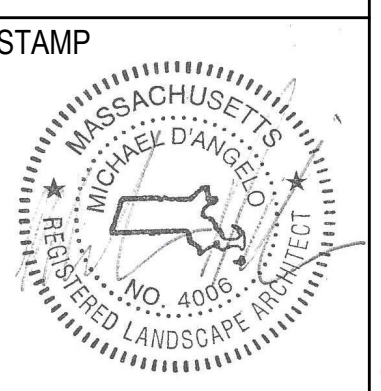
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**EXISTING  
BLDG 3  
200 FINANCIAL PARK  
(CHAMPAGNE LOGISTICS)**  
65,000 GSF ±

1 MATERIALS PLAN  
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MATERIALS PLAN

DRAWN: AA, NC  
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**L105**



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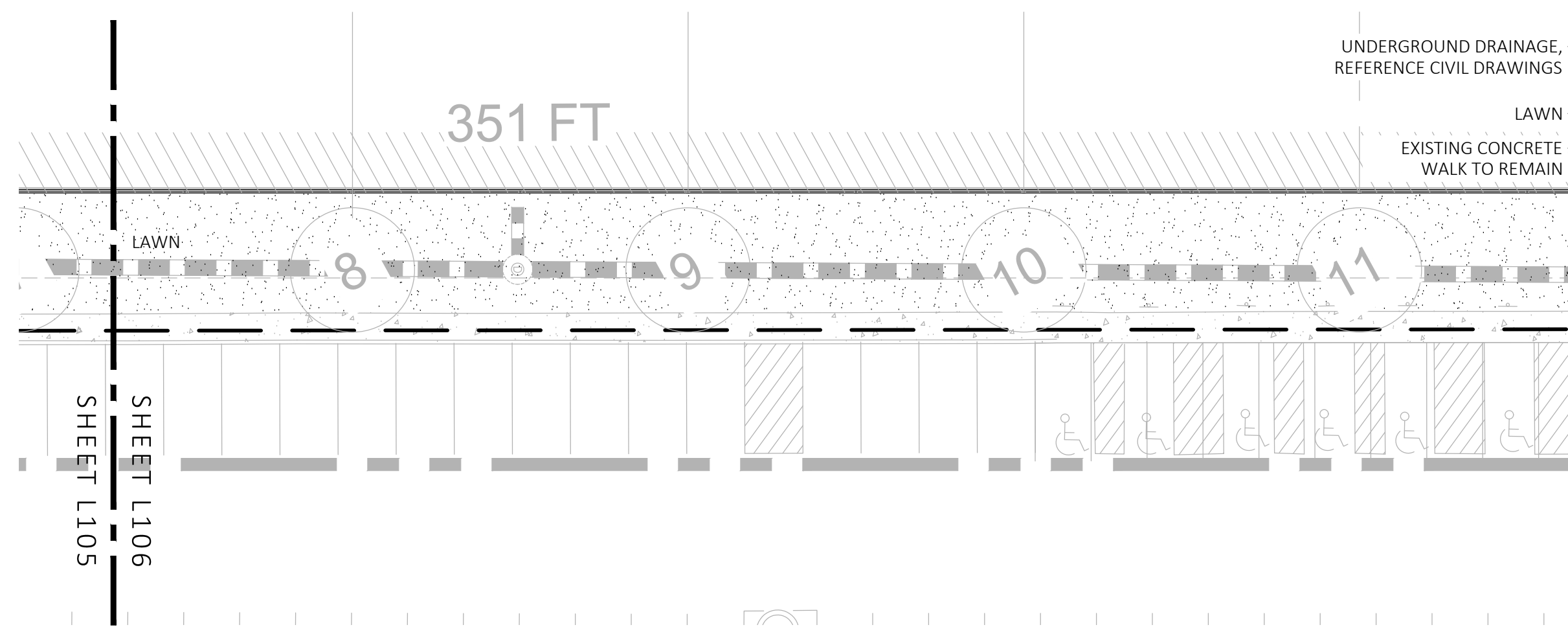
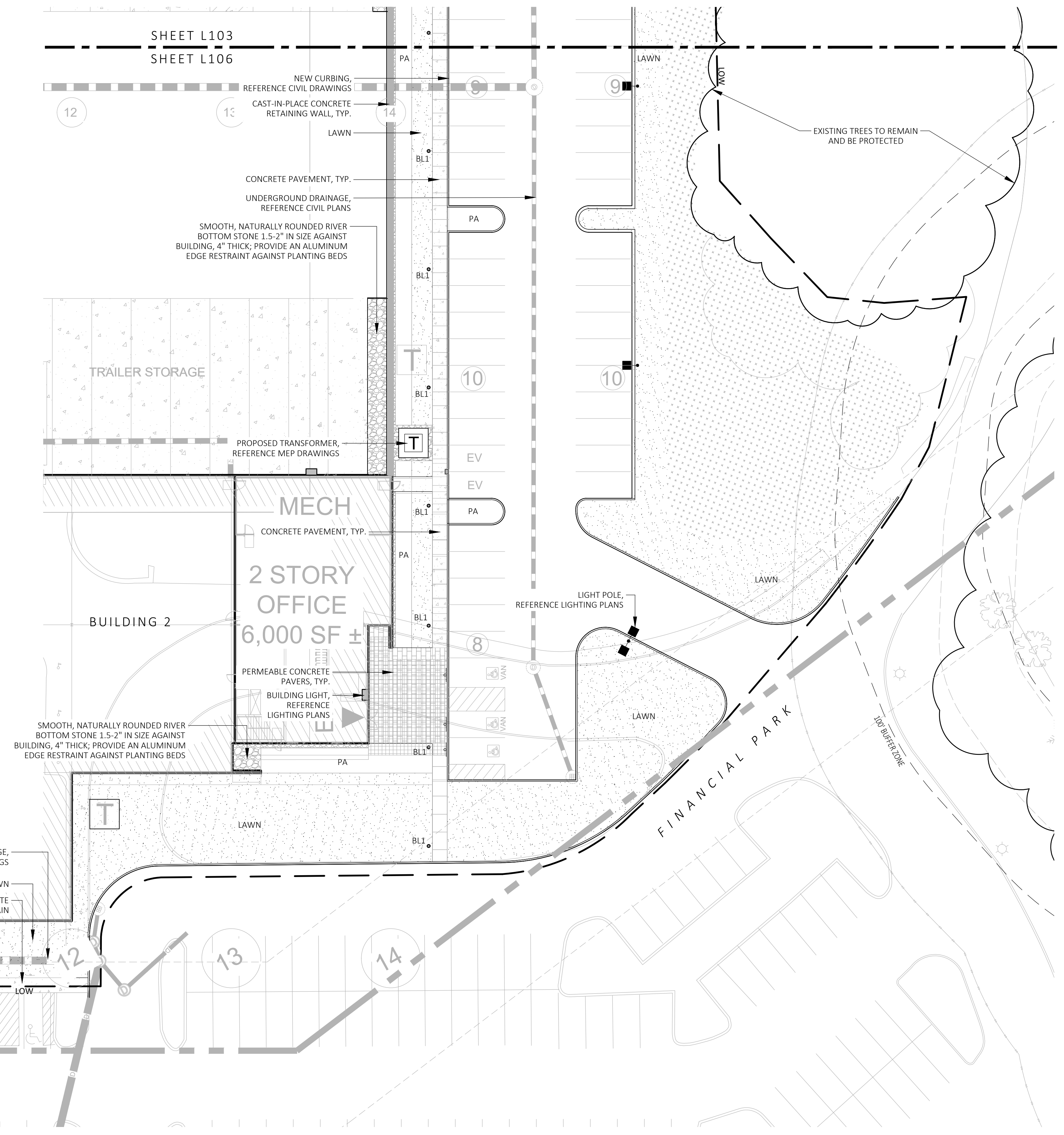
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14. CONTRACTOR SHALL PREPARE SAMPLE PANELS FOR EACH PAVING TYPE FOR APPROVAL OF WORKMANSHIP, FINISHES, COLOR, AND JOINTING PRIOR TO FINAL INSTALLATION. SEE SPECIFICATIONS FOR FULL MOCK UP REQUIREMENTS.

MATERIALS LEGEND:

SYMBOL	DESCRIPTION
---	PROPERTY LINE
- - - -	LIMIT OF WORK
PA	PLANTING AREA
AD / TD	AREA DRAIN / TRENCH DRAIN
[Pattern]	CONCRETE PAVEMENT
[Pattern]	PERMEABLE CONCRETE PAVERS
[Pattern]	STONE SURFACING
[Pattern]	STONE DUST POND PATH
[Pattern]	REINFORCED TURF
BL1	LIGHT BOLLARD
[Symbol]	LIGHT POLE
[Symbol]	EXISTING TREELINE TO REMAIN

NOTE: CONTRACTOR IS RESPONSIBLE FOR DETERMINING SLEEVE LOCATIONS AND DISCUSS WITH LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.



1 MATERIALS PLAN  
SCALE: 1" = 20'-0"



**MDLA**  
MICHAEL D'ANGELO landscape architecture

MICHAEL D'ANGELO LANDSCAPE ARCHITECTURE LLC  
840 SUMMER STREET  
SUITE 201A  
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CLIENT  
BERKELEY PARTNERS  
1 WASHINGTON MALL, SUITE 701  
BOSTON, MA

PROJECT  
WAREHOUSE / INDUSTRIAL DEV.  
100 / 200 FINANCIAL PARK  
FRANKLIN, MA

STAMP  
MICHAEL D'ANGELO  
REGISTERED LANDSCAPE ARCHITECT  
NO. 4098

REV. NO.	DATE	DESCRIPTION
	5/11/23	FOR PERMIT
1	7/17/23	RESPONSE TO COMMENTS
2	8/10/23	RESPONSE TO COMMENTS
3	8/23/23	RESPONSE TO COMMENTS

MATERIALS PLAN

DRAWN: AA, NC  
CHECKED: NC  
SCALE: L106  
AS NOTED  
DATE: 5/11/2023

SHEET 8 OF 28

plot date: 10/26/2023



MATERIALS NOTES:

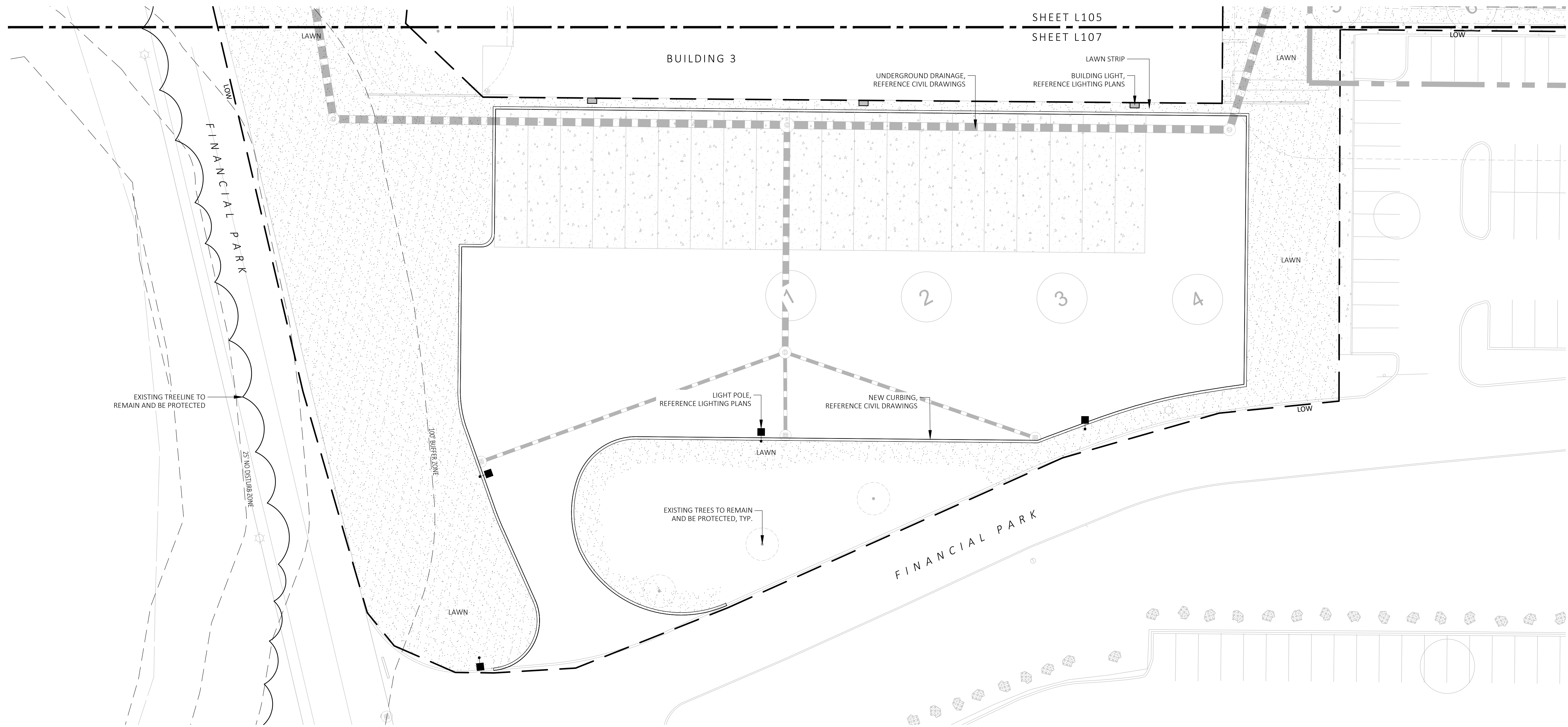
1. CONSULT ALL DRAWINGS AND SPECIFICATIONS FOR COORDINATION REQUIREMENTS BETWEEN ALL TRADES PRIOR TO COMMENCING NEW CONSTRUCTION.
2. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD AND REPORT ANY AND ALL DISCREPANCIES TO THE ENGINEER. ANY ALTERATIONS TO THESE DRAWINGS MADE IN THE FIELD SHALL BE PROMPTLY REPORTED BY THE CONTRACTOR TO THE LANDSCAPE ARCHITECT (LA) AND RECORDED ON RECORD DRAWINGS.
3. CONTRACTOR SHALL NOTIFY THE LA OF ANY AND ALL CONFLICTS BETWEEN PROPOSED SITE WORK AND WORK OF ALL OTHER TRADES.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE INSIDE AND OUTSIDE THE LIMIT OF WORK LINE DUE TO CONTRACT OPERATIONS. CONTRACTOR SHALL RESTORE DAMAGED AREAS BEYOND CONTRACT LIMITS TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
5. THE CONTRACTOR SHALL CONTACT THE PROPER AUTHORITIES IN WRITING TO CONFIRM THE LOCATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. ANY DAMAGE DUE TO THE FAILURE OF THE CONTRACTOR TO CONTACT AUTHORITIES SHALL BE BORNE BY THE CONTRACTOR. THE CONTRACTOR SHALL REPAIR ANY DAMAGE INCURRED DURING CONSTRUCTION TO EXISTING UTILITIES SCHEDULED TO REMAIN AT NO COST TO THE OWNER.
6. EXISTING STRUCTURES, IMPROVEMENTS, APPURTENANCES AND VEGETATION TO REMAIN SHALL BE PROTECTED FROM DAMAGE. ANY DAMAGE TO EXISTING SITE IMPROVEMENTS TO REMAIN SHALL BE REPAIRED AT NO COST TO THE OWNER.
7. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF PERMITS AND LICENSES ISSUED BY COGNIZANT FEDERAL, STATE, AND LOCAL AGENCIES.
8. CONTRACTOR SHALL COORDINATE ALL SITE UTILITY IMPROVEMENTS WITH CITY OFFICIALS.
9. MICHAEL D'ANGELO LANDSCAPE ARCHITECTURE LLC IS NOT RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF EXISTING CONDITIONS AND SURVEY INFORMATION.
10. ALL LINES AND DIMENSIONS ARE PARALLEL OR PERPENDICULAR TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.
11. ALL LINE AND GRADE WORK AS PER DRAWINGS AND SPECIFICATIONS SHALL BE LAID OUT BY A REGISTERED CIVIL ENGINEER OR LAND SURVEYOR.
12. DIMENSIONS ARE APPROXIMATE BASED ON TAKE OFF FROM SURVEY. ACTUAL DIMENSIONS MAY VARY. NOTIFY THE OWNER'S REPRESENTATIVE AND LA IN THE EVENT OF DIMENSIONAL DISCREPANCIES.
13. CONTRACTOR TO STAKE OUT LAYOUT FOR APPROVAL PRIOR TO EXCAVATION.
14. CONTRACTOR SHALL PREPARE SAMPLE PANELS FOR EACH PAVING TYPE FOR APPROVAL OF WORKMANSHIP, FINISHES, COLOR, AND JOINTING PRIOR TO FINAL INSTALLATION. SEE SPECIFICATIONS FOR FULL MOCK UP REQUIREMENTS.

MATERIALS LEGEND:

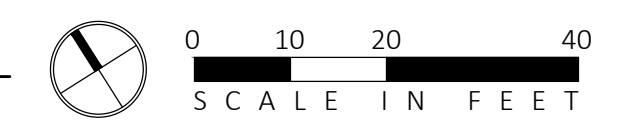
SYMBOL	DESCRIPTION
---	PROPERTY LINE
- - - - -	LIMIT OF WORK
PA	PLANTING AREA
AD / TD	AREA DRAIN / TRENCH DRAIN
	CONCRETE PAVEMENT
	PERMEABLE CONCRETE PAVERS
	STONE SURFACING
	STONE DUST POND PATH
	REINFORCED TURF
• BL1	LIGHT BOLLARD
■ ■ ■	LIGHT POLE
	EXISTING TREELINE TO REMAIN

NOTE: CONTRACTOR IS RESPONSIBLE FOR DETERMINING SLEEVE LOCATIONS AND DISCUSS WITH LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.

FOR PERMIT ONLY  
NOT FOR CONSTRUCTION



1 MATERIALS PLAN  
SCALE: 1" = 20'-0"

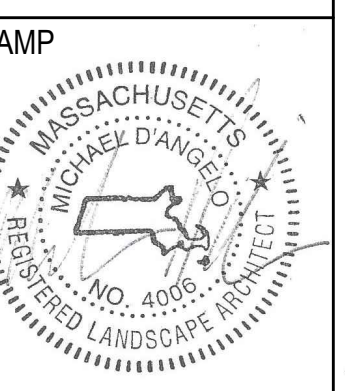


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REV. NO.	DATE	DESCRIPTION
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2	7/17/23	RESPONSE TO COMMENTS
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4	8/23/23	RESPONSE TO COMMENTS

MATERIALS PLAN

DRAWN: AA, NC  
CHECKED: NC  
SCALE: AS NOTED  
DATE: 5/11/2023  
**L107**

SHEET 9 OF 28



BIORETENTION PLANT SCHEDULE			
SYMBOL	QTY.	LATIN NAME	COMMON NAME
<b>TREES</b>			
NS	2	NYSSA SYLVATICA	BLACK GUM
QB	2	QUERCUS BICOLOR	SWAMP WHITE OAK
QP	3	QUERCUS PALustris	PIN OAK
<b>SHRUBS</b>			
CA		CLETHRA ALNIFOLIA	SWEET PEPPERBUSH
CS		CORNUS SERICEA	RED OSIER DOGWOOD
IG		ILEX GLABRA	INKBERRY
IV		ILEX VERTICILLATA	WINTERBERRY
LB		LINDERA BENZOIN	SPICEBUSH
VD		VIBURNUM DENTATUM	ARROWWOOD
<b>GRASSES</b>			
AG		ANDROPOGON VIRGINICUS	BROOMSEDE
DC		DESCHAMPSIA CESPITOSA	TUFTED HAIRGRASS
HH		HEDERA HELIX	ENGLISH IVY
LC		LOTUS CORNICULATUS	BIRD'S-FOOT TREFOIL
PV		PANICUM VIRGATUM	SWITCH GRASS
RL		RUDBECKIA LACINIATA	GREEN-HEADED CONEFLOWER
SS		SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM

PLANT SCHEDULE					
SYMBOL	QTY.	LATIN NAME	COMMON NAME	SIZE	NOTES
<b>TREES</b>					
AR	24	ACER RUBRUM	RED MAPLE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
AC	5	AMELANCHIER CANADENSIS	SHADBLow SERVICEBERRY	8-10' HT	B&B, MULTI-STEM
BP	10	BETULA POPULIFOLIA	GRAY BIRCH	3"-3.5" CAL.	B&B, MULTI-STEM
PS	10	PINUS STROBUS	EASTERN WHITE PINE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
PSC	17	PRUNUS SEROTINA	BLACK CHERRY	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
PH	16	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
TA	16	TILIA AMERICANA	BASSWOOD	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
<b>SHRUBS &amp; ORNAMENTAL GRASSES - TYPE A</b>					
		CLETHRA ALNIFOLIA	PEPPERBUSH	5 GAL	36" O.C. B&B
		HYDRANGEA QUERCIFOLIA	OAK-LEAVED HYDRANGEA	3"-3.5" TALL	36" O.C. B&B
		ILEX GLABRA	INKBERRY	3"-3.5" TALL	36" O.C. B&B
		ILEX VERTICILLATA	COMMON WINTERBERRY	3"-3.5" TALL	36" O.C. B&B
		KALMIA LATIFOLIA	MOUNTAIN LAUREL	3" TALL	36" O.C. B&B
		RHUS AROMATICA	FRAGRANT SUMAC	3"-3.5" TALL	36" O.C. B&B
		VIBURNUM DENTATUM	ARROWWOOD	3"-3.5" TALL	36" O.C. B&B
<b>SHRUBS &amp; ORNAMENTAL GRASSES - TYPE B</b>					
		COMPTONIA PEREGRINA	SWEET-FERN	2 GAL	24" O.C. CONTAINER
		IRIS VERSICOLOR	BLUE FLAG IRIS	2 GAL	24" O.C. CONTAINER
		PEROVSKIA ATRIPPLICIFOLIA	RUSSIAN SAGE	2.5'-3" TALL	24" O.C. B&B
<b>PERENNIALS</b>					
		CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	1 GAL	18" O.C. CONTAINER
		ECHINACEA PURPUREA	PURPLE CONEFLOWER	1 GAL	18" O.C. CONTAINER
		GERANIUM DALMATIcUM	CRANESBILL	1 GAL	18" O.C. CONTAINER
<b>SEED MIX</b>					
		ERNST SEEDS 800-873-3321	ERNST MIX (ERNMX-181-1 & 181-2) NATIVE STEEP SLOPE MIX	75 LB/ACRE	APPLY COVER CROP; FALL: GRAIN RYE, SPRING: OAT; SEE SPEC SHEET
		ERNST SEEDS 800-873-3321	ERNST MIX (ERNMX-180) RAIN GARDEN MIX	20 LB/ACRE	APPLY COVER CROP OF GRAIN RYE; SEE SPEC SHEET

ALL PROPOSED PLANTINGS COME FROM THE BEST DEVELOPMENT PRACTICES GUIDEBOOK (§185-31-C.(K))

LIGHT SCHEDULE						
SYMBOL	LABEL	MODEL	MOUNT	ARRANGEMENT	OPTIONS	REP
BL1	ARLUCE KLOU180 BOLLARD RWL1-48L-25-3K7-4W-U		CONCRETE FOOTING; KEEP 3" ABOVE GRADE	PEDESTRIAN BOLLARD	COLOR: GRAY	
SL3	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-3-U BEACON 555-B POLE 555-B-20-40-A-1-B3-FINISH		CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
SL4	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON 555-B POLE 555-B-20-40-A-1-B3-FINISH		CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	
SL4-2	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON 555-B POLE 555-B-20-40-A-2-B3-FINISH		CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	BACK BACK	COLOR: BLK	
WL1	BEACON RATIO WALL FIXTURE RWL1-48L-25-3K7-4W-U		BUILDING MOUNT	SINGLE	COLOR: BLK	
WL2	BEACON RATIO WALL FIXTURE RWL2-160L-135-3K7-4-U		BUILDING MOUNT	SINGLE	COLOR: BLK	
WL3	DL-ES-15-O-30K-HC-24-A-DL- ALUM-U-8		ALUMINUM CHANNEL	RECESSED WALL LIGHT	COLOR: BLK	

SUBMIT CUT SHEETS FOR APPROVAL; SEE PHOTOMETRIC PLAN PROVIDED WITH THIS DRAWING SET FOR MORE INFORMATION.

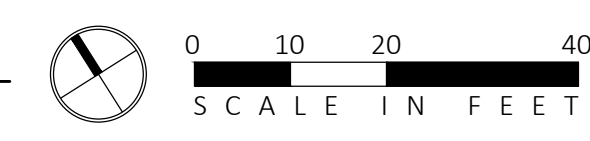
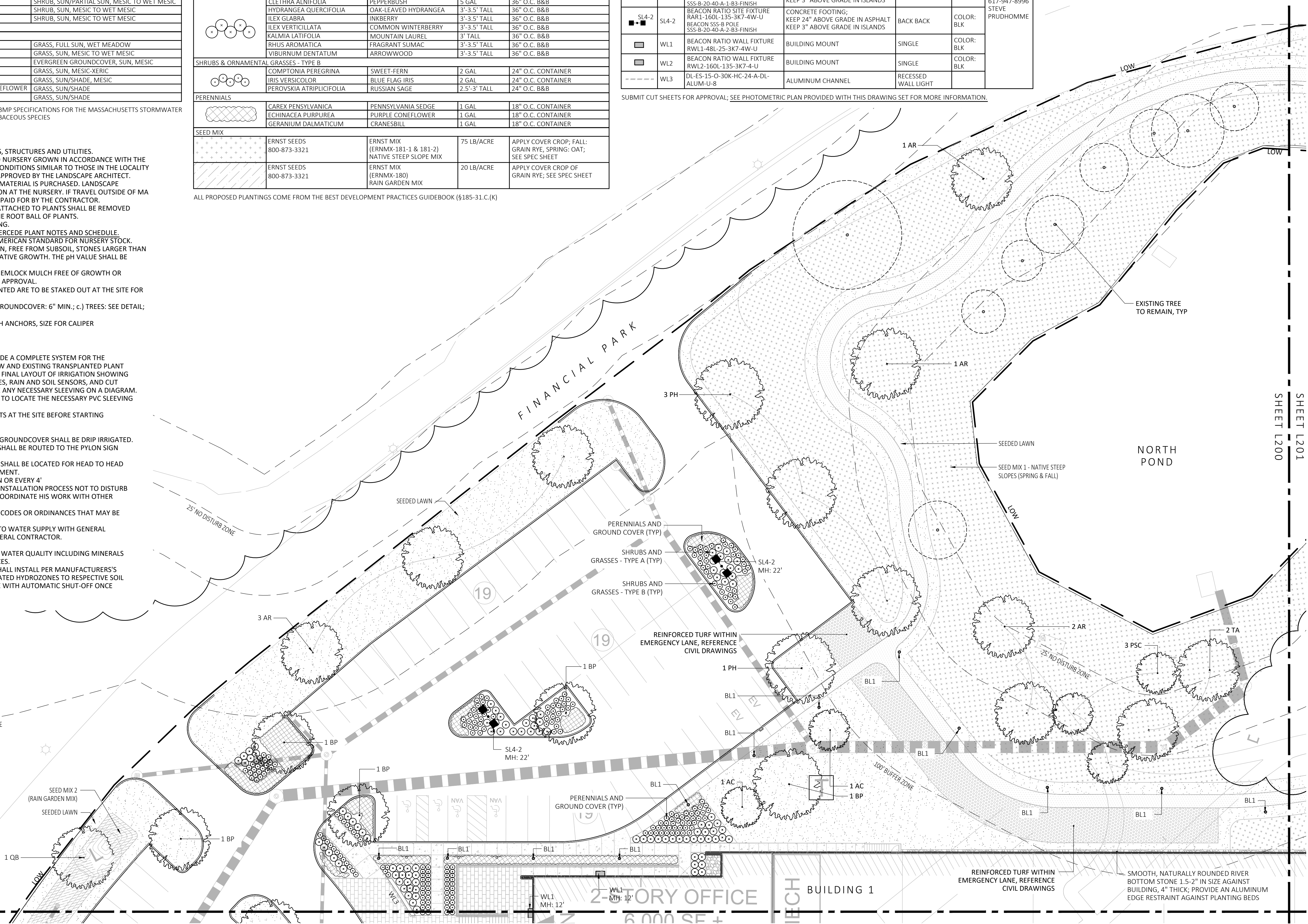
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- PLANTING:**
- DURING CONSTRUCTION, PROTECT ALL EXISTING SITE FEATURES, STRUCTURES AND UTILITIES.
  - PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY GROWN IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. SUBSTITUTIONS WILL BE PERMITTED ONLY IF APPROVED BY THE LANDSCAPE ARCHITECT.
  - LANDSCAPE ARCHITECT APPROVAL IS REQUIRED BEFORE PLANT MATERIAL IS PURCHASED. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO SEE ALL MATERIAL IN PERSON AT THE NURSERY. IF TRAVEL OUTSIDE OF MA IS REQUIRED, LANDSCAPE ARCHITECT'S TRAVEL COSTS SHALL BE PAID FOR BY THE CONTRACTOR.
  - ALL EXPOSED BURLAP, WIRE BASKETS AND OTHER MATERIALS ATTACHED TO PLANTS SHALL BE REMOVED PRIOR TO PLANTING. CARE SHALL BE TAKEN NOT TO DISTURB THE ROOT BALL OF PLANTS.
  - THOROUGHLY WATER ALL PLANTS IMMEDIATELY AFTER PLANTING.
  - WHERE DISCREPANCIES IN QUANTITIES OCCUR, DRAWINGS SUPERCEDE PLANT NOTES AND SCHEDULE.
  - TRANSPLANTING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK.
  - LOAM USED IN PLANT BEDS SHALL BE UNIFORM IN COMPOSITION, FREE FROM SUBSOIL, STONES LARGER THAN 1", NOXIOUS SEEDS AND SUITABLE FOR THE SUPPORT OF VEGETATIVE GROWTH. THE pH VALUE SHALL BE BETWEEN 5.5 AND 6.5.
  - MULCH IN TREE AND SHRUB BEDS SHALL BE NATURAL, NATIVE HEMLOCK MULCH FREE OF GROWTH OR GERMINATION INHIBITING INGREDIENTS. SUBMIT SAMPLES FOR APPROVAL.
  - LOCATIONS FOR PLANTS AND/OR OUTLINE OF AREAS TO BE PLANTED ARE TO BE STAKED OUT AT THE SITE FOR APPROVAL BY THE LANDSCAPE ARCHITECT.
  - SOIL DEPTHS: a.) SHRUBS AND PERENNIAL BEDS: 18" MIN.; b.) GROUND COVER: 6" MIN.; c.) TREES: SEE DETAIL; d.) SOD/SEED: 6" MIN.
  - PROVIDE A SUBSURFACE ROOTBALL ANCHOR BY PLATIPUS EARTH ANCHORS, SIZE FOR CALIPER

- GENERAL IRRIGATION NOTES:**
- THE DESIGN/BUILD IRRIGATION SUB-CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM FOR THE IRRIGATION AREAS SHOWN ON THE PLAN, WHICH INCLUDES NEW AND EXISTING TRANSPLANTED PLANT MATERIALS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR FINAL LAYOUT OF IRRIGATION SHOWING LOCATIONS AND SIZES OF MAIN LINES AND LATERAL LINES, ZONES, RAIN AND SOIL SENSORS, AND CUT SHEETS FOR CONTROLLER SYSTEM AND COMPONENTS. INCLUDE ANY NECESSARY SLEEVING ON A DIAGRAM.
  - IRRIGATION TO BE COORDINATED WITH GENERAL CONTRACTOR TO LOCATE THE NECESSARY PVC SLEEVING TO COMPLETE IRRIGATION PROGRAM.
  - IRRIGATION CONTRACTOR SHALL VERIFY PSI/GPM REQUIREMENTS AT THE SITE BEFORE STARTING CONSTRUCTION.
  - TREES SHOULD BE ON A SEPARATE ZONE.
  - ALL TREES, SHRUBS, PERENNIALS, ORNAMENTAL GRASSES, AND GROUND COVER SHALL BE DRIP IRRIGATED. CONTRACTOR SHALL BE AWARE THAT THE IRRIGATION SYSTEM SHALL BE ROUTED TO THE PYLON SIGN PLANTER AND PLANTERS AT THE BUILDING.
  - ALL LAWN AREAS SHALL BE SPRAY HEAD IRRIGATED. THE HEADS SHALL BE LOCATED FOR HEAD TO HEAD COVERAGE WITH ABSOLUTELY NO OVER SPRAY ONTO THE PAVEMENT.
  - INSTALL DRIP TUBING, .6GPH, 12" CENTERS, STAKED EVERY TURN OR EVERY 4'
  - THE CONTRACTOR SHALL BE EXTREMELY CAREFUL DURING THE INSTALLATION PROCESS NOT TO DISTURB NEW OR EXISTING PLANT MATERIALS. THE CONTRACTOR IS TO COORDINATE HIS WORK WITH OTHER SUB-CONTRACTORS.
  - THE IRRIGATION CONTRACTOR SHALL CONFORM TO ANY LOCAL CODES OR ORDINANCES THAT MAY BE REQUIRED TO COMPLETE THE WORK.
  - WATER SUPPLY AND CONTROLLER: COORDINATE CONNECTION TO WATER SUPPLY WITH GENERAL CONTRACTOR. COORDINATE CONTROLLER LOCATION WITH GENERAL CONTRACTOR.
  - MFP CONTRACTOR TO PROVIDE BACK FLOW PREVENTION.
  - THE IRRIGATION CONTRACTOR SHALL TEST WATER SOURCE FOR WATER QUALITY INCLUDING MINERALS THAT MAY CAUSE STAINING OF CONCRETE AND PAVING SURFACES.
  - INSTALLER SHALL INSTALL MOISTURE SENSORS. CONTRACTOR SHALL INSTALL PER MANUFACTURER'S SPECIFICATIONS AND SHALL BE RESPONSIBLE TO PROGRAM RELATED HYDROZONES TO RESPECTIVE SOIL MOISTURE SENSORS. PROVIDE ONE FOR EACH IRRIGATION ZONE WITH AUTOMATIC SHUT-OFF ONCE MOISTURE REQUIREMENTS ARE MET.

SHEET L200  
SHEET L202

1 PLANTING & LIGHTING PLAN  
SCALE: 1" = 20'-0"



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**PLANTING & LIGHTING PLAN**

AA:NC  
NC  
SCALE: L200  
AS NOTED  
DATE: 5/11/2023

SHEET 10 OF 28

plot date: 10/25/2023



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PLANTING &  
LIGHTING PLAN

DRAWN: AA, NC  
CHECKED: NC  
SCALE: AS NOTED  
DATE: 5/11/2023

SHEET 11 OF 28

plot date: 10/25/2023

LIGHT SCHEDULE					
SYMBOL	LABEL	MODEL	MOUNT	ARRANGEMENT	OPTIONS   REP
○	BL1	ARLUCE KLOU180 BOLLARD RWL1-48L-25-3K7-4W-U	CONCRETE FOOTING; KEEP 3" ABOVE GRADE	PEDESTRIAN BOLLARD	COLOR: GRAY
■	SL3	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-3-U BEACON 555-B POLE 555-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK
■	SL4	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON 555-B POLE 555-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK
■	SL4-2	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON 555-B POLE 555-B-20-40-A-2-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	BACK BACK	COLOR: BLK
■	WL1	BEACON RATIO WALL FIXTURE RWL1-48L-25-3K7-4W-U	BUILDING MOUNT	SINGLE	COLOR: BLK
■	WL2	BEACON RATIO WALL FIXTURE RWL2-160L-135-3K7-4-U	BUILDING MOUNT	SINGLE	COLOR: BLK
---	WL3	DL-ES-15-O-30K-HC-24-A-DL- ALUM-U-8	ALUMINUM CHANNEL	RECESSED WALL LIGHT	

SUBMIT CUT SHEETS FOR APPROVAL; SEE PHOTOMETRIC PLAN PROVIDED WITH THIS DRAWING SET FOR MORE INFORMATION.

PLANT SCHEDULE					
SYMBOL	QTY.	LATIN NAME	COMMON NAME	SIZE	NOTES
<b>TREES</b>					
AR	24	ACER RUBRUM	RED MAPLE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
AC	5	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	8-10' HT	B&B, MULTI-STEM
BP	10	BETULA POPULIFOLIA	GRAY BIRCH	3"-3.5" CAL.	B&B, MULTI-STEM
PS	10	PINUS STROBUS	EASTERN WHITE PINE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
PSC	17	PRUNUS SEROTINA	BLACK CHERRY	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
PH	16	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
TA	16	TILIA AMERICANA	BASSWOOD	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
<b>SHRUBS &amp; ORNAMENTAL GRASSES - TYPE A</b>					
		CLETHRA ALNIFOLIA	PEPPERBUSH	5 GAL	36" O.C. B&B
		HYDRANGEA QUERCIFOLIA	OAK-LEAVED HYDRANGEA	3"-3.5" TALL	36" O.C. B&B
		ILEX GLABRA	INKBERRY	3"-3.5" TALL	36" O.C. B&B
		ILEX VERTICILLATA	COMMON WINTERBERRY	3"-3.5" TALL	36" O.C. B&B
		KALMIA LATIFOLIA	MOUNTAIN LAUREL	3" TALL	36" O.C. B&B
		RHUS AROMATICA	FRAGRANT SUMAC	3"-3.5" TALL	36" O.C. B&B
		VIBURNUM DENTATUM	ARROWWOOD	3"-3.5" TALL	36" O.C. B&B
<b>SHRUBS &amp; ORNAMENTAL GRASSES - TYPE B</b>					
		COMPTONIA PEREGRINA	SWEET-FERN	2 GAL	24" O.C. CONTAINER
		IRIS VERSICOLOR	BLUE FLAG IRIS	2 GAL	24" O.C. CONTAINER
		PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	2.5" 3" TALL	24" O.C. B&B
<b>PERENNIALS</b>					
		CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	1 GAL	18" O.C. CONTAINER
		ECHINACEA PURPUREA	PURPLE CONEFLOWER	1 GAL	18" O.C. CONTAINER
		GERANIUM DALMATIUM	CRANESBILL	1 GAL	18" O.C. CONTAINER
<b>SEED MIX</b>					
		ERNST SEEDS 800-873-3321	ERNST MIX (ERNMX-181-1 & 181-2) NATIVE STEEP SLOPE MIX	75 LB/ACRE	APPLY COVER CROP: FALL; GRAIN RYE, SPRING; OAT; SEE SPEC SHEET
		ERNST SEEDS 800-873-3321	ERNST MIX (ERNMX-180) RAIN GARDEN MIX	20 LB/ACRE	APPLY COVER CROP OF GRAIN RYE; SEE SPEC SHEET

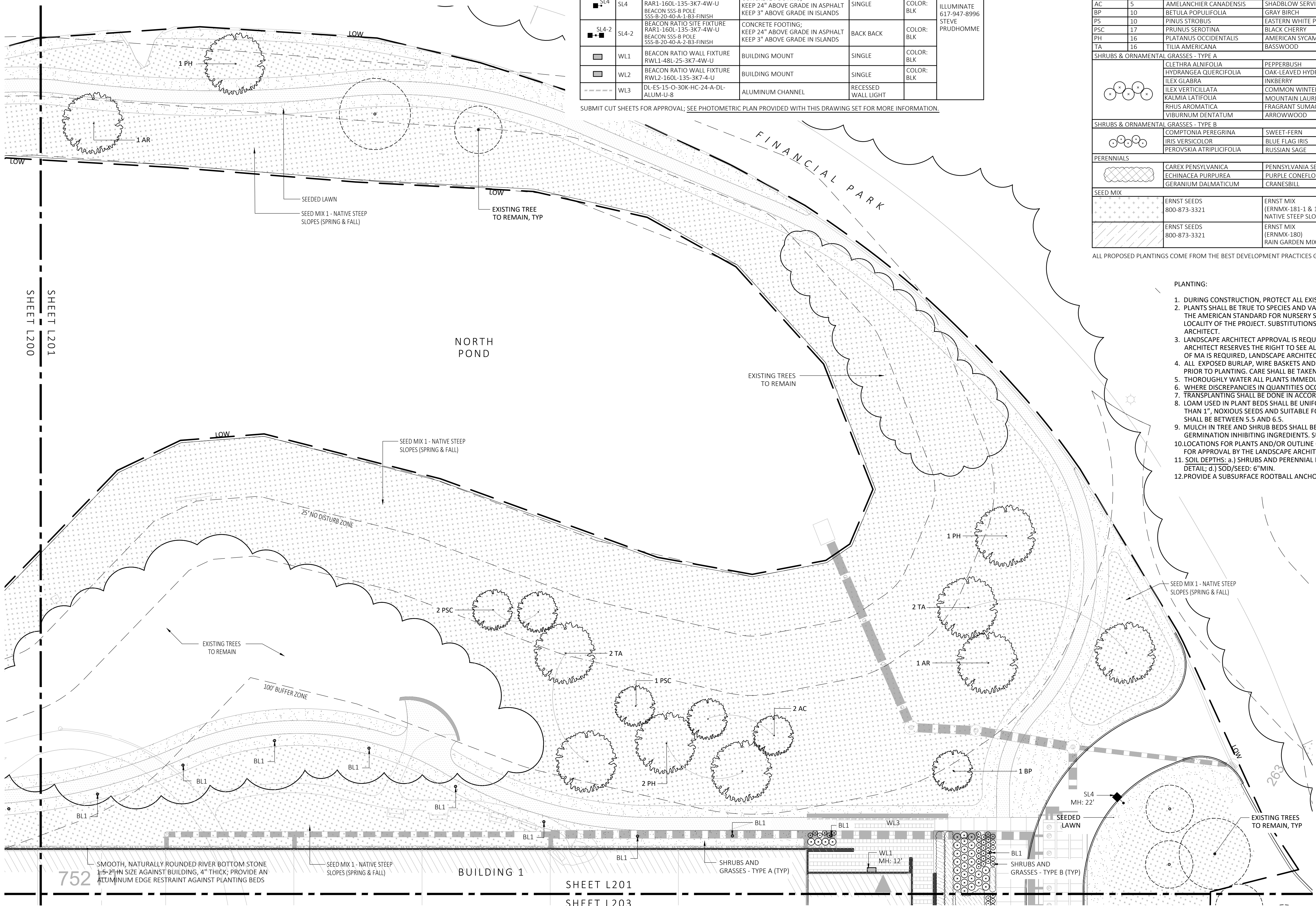
ALL PROPOSED PLANTINGS COME FROM THE BEST DEVELOPMENT PRACTICES GUIDEBOOK (§185-31.1.C.(K))

PLANTING:

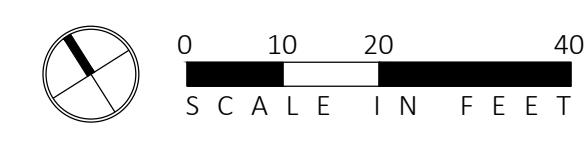
- DURING CONSTRUCTION, PROTECT ALL EXISTING SITE FEATURES, STRUCTURES AND UTILITIES.
- PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY GROWN IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. SUBSTITUTIONS WILL BE PERMITTED ONLY IF APPROVED BY THE LANDSCAPE ARCHITECT.
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- LOAM USED IN PLANT BEDS SHALL BE UNIFORM IN COMPOSITION, FREE FROM SUBSOIL, STONES LARGER THAN 1", NOXIOUS SEEDS AND SUITABLE FOR THE SUPPORT OF VEGETATIVE GROWTH. THE pH VALUE SHALL BE BETWEEN 5.5 AND 6.5.
- MULCH IN TREE AND SHRUB BEDS SHALL BE NATURAL, NATIVE HEMLOCK MULCH FREE OF GROWTH OR GERMINATION INHIBITING INGREDIENTS. SUBMIT SAMPLES FOR APPROVAL.
- LOCATIONS FOR PLANTS AND/OR OUTLINE OF AREAS TO BE PLANTED ARE TO BE STAKED OUT AT THE SITE FOR APPROVAL BY THE LANDSCAPE ARCHITECT.
- SOIL DEPTHS: a.) SHRUBS AND PERENNIAL BEDS: 18" MIN.; b.) GROUND COVER: 6" MIN.; c.) TREES: SEE DETAIL; d.) SOD/SEED: 6" MIN.
- PROVIDE A SUBSURFACE ROOTBALL ANCHOR BY PLATYPUS EARTH ANCHORS, SIZE FOR CALIPER

GENERAL IRRIGATION NOTES:

- THE DESIGN/BUILD IRRIGATION SUB-CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM FOR THE IRRIGATION AREAS SHOWN ON THE PLAN, WHICH INCLUDES NEW AND EXISTING TRANSPLANTED PLANT MATERIALS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR FINAL LAYOUT OF IRRIGATION SHOWING LOCATIONS AND SIZES OF MAIN LINES AND LATERAL LINES, ZONES, RAIN AND SOIL SENSORS, AND CUT SHEETS FOR CONTROLLER SYSTEM AND COMPONENTS. INCLUDE ANY NECESSARY SLEEVING ON A DIAGRAM.
- IRRIGATION TO BE COORDINATED WITH GENERAL CONTRACTOR TO LOCATE THE NECESSARY PVC SLEEVING TO COMPLETE IRRIGATION PROGRAM.
- IRRIGATION CONTRACTOR SHALL VERIFY PSI/GPM REQUIREMENTS AT THE SITE BEFORE STARTING CONSTRUCTION.
- TREES SHOULD BE ON A SEPARATE ZONE.
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- INSTALL DRIP TUBING, .6GPH, 12" CENTERS, STAKED EVERY TURN OR EVERY 4'
- THE CONTRACTOR SHALL BE EXTREMELY CAREFUL DURING THE INSTALLATION PROCESS NOT TO DISTURB NEW OR EXISTING PLANT MATERIALS. THE CONTRACTOR IS TO COORDINATE HIS WORK WITH OTHER SUB-CONTRACTORS.
- THE IRRIGATION CONTRACTOR SHALL CONFORM TO ANY LOCAL CODES OR ORDINANCES THAT MAY BE REQUIRED TO COMPLETE THE WORK.
- WATER SUPPLY AND CONTROLLER: COORDINATE CONNECTION TO WATER SUPPLY WITH GENERAL CONTRACTOR. COORDINATE CONTROLLER LOCATION WITH GENERAL CONTRACTOR.
- MEP CONTRACTOR TO PROVIDE BACK FLOW PREVENTION.
- THE IRRIGATION CONTRACTOR SHALL TEST WATER SOURCE FOR WATER QUALITY INCLUDING MINERALS THAT MAY CAUSE STAINING OF CONCRETE AND PAVING SURFACES.
- INSTALLER SHALL INSTALL MOISTURE SENSORS. CONTRACTOR SHALL INSTALL PER MANUFACTURER'S SPECIFICATIONS AND SHALL BE RESPONSIBLE TO PROGRAM RELATED HYDROZONES TO RESPECTIVE SOIL MOISTURE SENSORS. PROVIDE ONE FOR EACH IRRIGATION ZONE WITH AUTOMATIC SHUT-OFF ONCE MOISTURE REQUIREMENTS ARE MET.



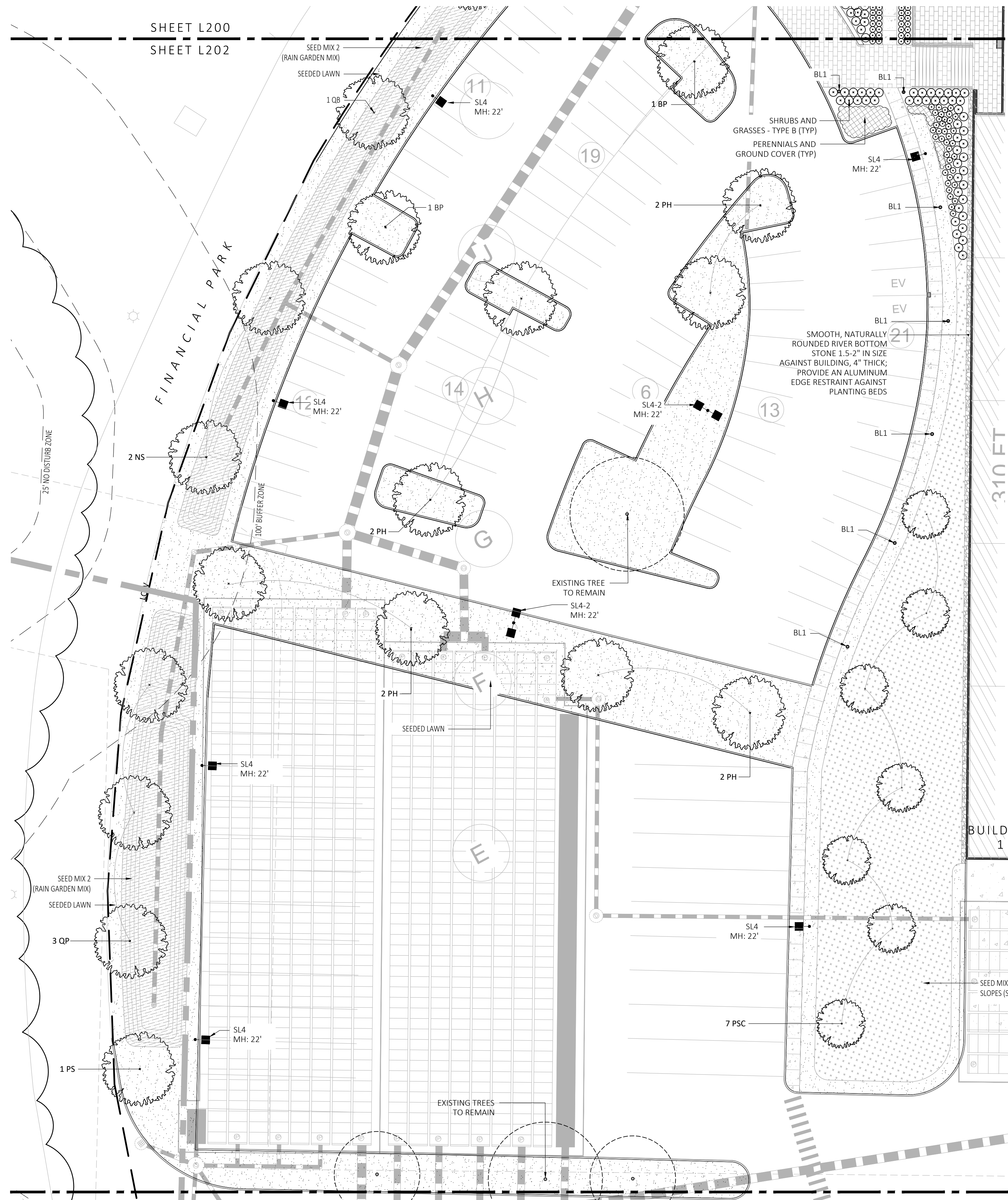
1 PLANTING & LIGHTING PLAN  
SCALE: 1" = 20'-0"



SHEET L201  
SHEET L203

SHEET L200  
SHEET L201





SYMBOL	QTY.	LATIN NAME	COMMON NAME	SIZE	NOTES
<b>PLANT SCHEDULE</b>					
<b>TREES</b>					
AR	24	ACER RUBRUM	RED MAPLE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
AC	5	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	8-10' HT	B&B, MULTI-STEM
BP	10	BETULA POPULIFOLIA	GRAY BIRCH	3"-3.5" CAL.	B&B, MULTI-STEM
PS	10	PINUS STROBUS	EASTERN WHITE PINE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
PSC	17	PRUNUS SEROTINA	BLACK CHERRY	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
PH	16	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
TA	16	TILIA AMERICANA	BASSWOOD	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
<b>SHRUBS &amp; ORNAMENTAL GRASSES - TYPE A</b>					
		CLETHRA ALNIFOLIA	PEPPERBUSH	5 GAL	36" O.C. B&B
		HYDRANGEA QUERCIFOLIA	OAK-LEAVED HYDRANGEA	3"-3.5" TALL	36" O.C. B&B
		ILEX GLABRA	INKBERRY	3"-3.5" TALL	36" O.C. B&B
		ILEX VERTICILLATA	COMMON WINTERBERRY	3"-3.5" TALL	36" O.C. B&B
		KALMIA LATIFOLIA	MOUNTAIN LAUREL	3' TALL	36" O.C. B&B
		RHUS AROMATICA	FRAGRANT SUMAC	3"-3.5" TALL	36" O.C. B&B
		VIBURNUM DENTATUM	ARROWWOOD	3"-3.5" TALL	36" O.C. B&B
<b>SHRUBS &amp; ORNAMENTAL GRASSES - TYPE B</b>					
		COMPTONIA PEREGRINA	SWEET-FERN	2 GAL	24" O.C. CONTAINER
		IRIS VERSICOLOR	BLUE FLAG IRIS	2 GAL	24" O.C. CONTAINER
		PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	2.5"-3" TALL	24" O.C. B&B
<b>PERENNIALS</b>					
		CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	1 GAL	18" O.C. CONTAINER
		ECHINACEA PURPUREA	PURPLE CONEFLOWER	1 GAL	18" O.C. CONTAINER
		GERANIUM DALMATIUM	CRANESBILL	1 GAL	18" O.C. CONTAINER
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SYMBOL	QTY.	LATIN NAME	COMMON NAME	NOTES
<b>BIORETENTION PLANT SCHEDULE</b>				
<b>TREES</b>				
NS	2	NYSSA SYLVATICA	BLACK GUM	TREE, SUN, MESIC-HYDRIC
QB	2	QUERCUS BICOLOR	SWAMP WHITE OAK	TREE, SUN/PARTIAL SUN, MESIC TO WET MESIC
QP	3	QUERCUS PALUSTRIS	PIN OAK	TREE, SUN, MESIC-HYDRIC
<b>SHRUBS</b>				
CA		CLETHRA ALNIFOLIA	SWEET PEPPERBUSH	SHRUB, SUN/PARTIAL SUN, MESIC TO WET MESIC
CS		CORNUS SERICEA	RED OSIER DOGWOOD	SHRUB, SUN/SHADE, MESIC-HYDRIC
IG		ILEX GLABRA	INKBERRY	SHRUB, SUN/PARTIAL SUN, MESIC TO WET MESIC
IV		ILEX VERTICILLATA	WINTERBERRY	SHRUB, SUN/PARTIAL SUN, MESIC TO WET MESIC
LB		LINDERA BENZOIN	SPICEBUSH	SHRUB, SUN, MESIC TO WET MESIC
VD		VIBURNUM DENTATUM	ARROWWOOD	SHRUB, SUN, MESIC TO WET MESIC
<b>GRASSES</b>				
AG		ANDROPOGON VIRGINICUS	BROOMSEDGE	GRASS, FULL SUN, WET MEADOW
DC		DESCHAMPSIA CESPITOSA	TUFTED HAIRGRASS	GRASS, SUN, MESIC TO WET MESIC
HH		HEDERA HELIX	ENGLISH IVY	EVERGREEN GROUNDCOVER, SUN, MESIC
LC		LOTUS CORNICULATUS	BIRD'S-FOOT TREFLOID	GRASS, SUN, MESIC-XERIC
PV		PANICUM VIRGATUM	SWITCH GRASS	GRASS, SUN/SHADE, MESIC
RL		RUDBECKIA LACINIATA	GREEN-HEADED CONEFLOWER	GRASS, SUN/SHADE
SS		SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	GRASS, SUN/SHADE

SYMBOL	LABEL	MODEL	MOUNT	ARRANGEMENT	OPTIONS	REP
BL1		ARCLUCE KLOU180 BOLLARD RWL1-48L-25-3K7-4W-U	CONCRETE FOOTING; KEEP 3" ABOVE GRADE	PEDESTRIAN BOLLARD	COLOR: GRAY	
SL3		BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-3-U BEACON SSS-B POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	
SL4		BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON SSS-B POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
SL4-2		BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON SSS-B POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	BACK BACK	COLOR: BLK	
WL1		BEACON RATIO WALL FIXTURE RWL1-48L-25-3K7-4W-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
WL2		BEACON RATIO WALL FIXTURE RWL2-160L-135-3K7-4-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
WL3		DL-ES-15-O-30K-HC-24-A-DL-ALUM-U-8	ALUMINUM CHANNEL	RECESSED WALL LIGHT	COLOR: BLK	

ALL PROPOSED PLANTINGS COME FROM THE BEST DEVELOPMENT PRACTICES GUIDEBOOK (\$185-31-C.K.)

ALL PROPOSED PLANTINGS FROM VOLUME 2, CHAPTER 2: STRUCTURAL BMP SPECIFICATIONS FOR THE MASSACHUSETTS STORMWATER HANDBOOK - PLANT SPECIES SUITABLE FOR USE IN BIORETENTION - HERBACEOUS SPECIES

SUBMIT CUT SHEETS FOR APPROVAL; SEE PHOTOMETRIC PLAN PROVIDED WITH THIS DRAWING SET FOR MORE INFORMATION.

**FOR PERMIT ONLY  
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**MDLA**  
MICHAEL D'ANGELO Landscape Architecture

MICHAEL D'ANGELO LANDSCAPE ARCHITECTURE LLC  
840 SUMMER STREET SUITE 203A BOSTON, MA 02127 T. 203.592.4788 www.m-d-a.com

**CLIENT**  
BERKELEY PARTNERS  
1 WASHINGTON MALL, SUITE 701  
BOSTON, MA

**PROJECT**  
WAREHOUSE / INDUSTRIAL DEV.  
100 / 200 FINANCIAL PARK  
FRANKLIN, MA

**STAMP**  
MICHAEL D'ANGELO  
REGISTERED LANDSCAPE ARCHITECT  
NO. 4098

REV. NO.	DATE	DESCRIPTION
	5/11/23	FOR PERMIT
1	7/17/23	RESPONSE TO COMMENTS
2	8/10/23	RESPONSE TO COMMENTS
3	8/23/23	RESPONSE TO COMMENTS

**PLANTING & LIGHTING PLAN**

SCALE: 1" = 20'-0"

DATE: 5/11/2023

SHEET 12 OF 28

plot date: 10/25/2023



FOR PERMIT ONLY  
NOT FOR CONSTRUCTION



REV. NO.	DATE	DESCRIPTION
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**PLANTING & LIGHTING PLAN**

DRAWN: AA:NC	<b>L203</b>
CHECKED: NC	
SCALE: AS NOTED	
DATE: 5/11/2023	
SHEET 13 OF 28	

PLANT SCHEDULE					
SYMBOL	QTY.	LATIN NAME	COMMON NAME	SIZE	NOTES
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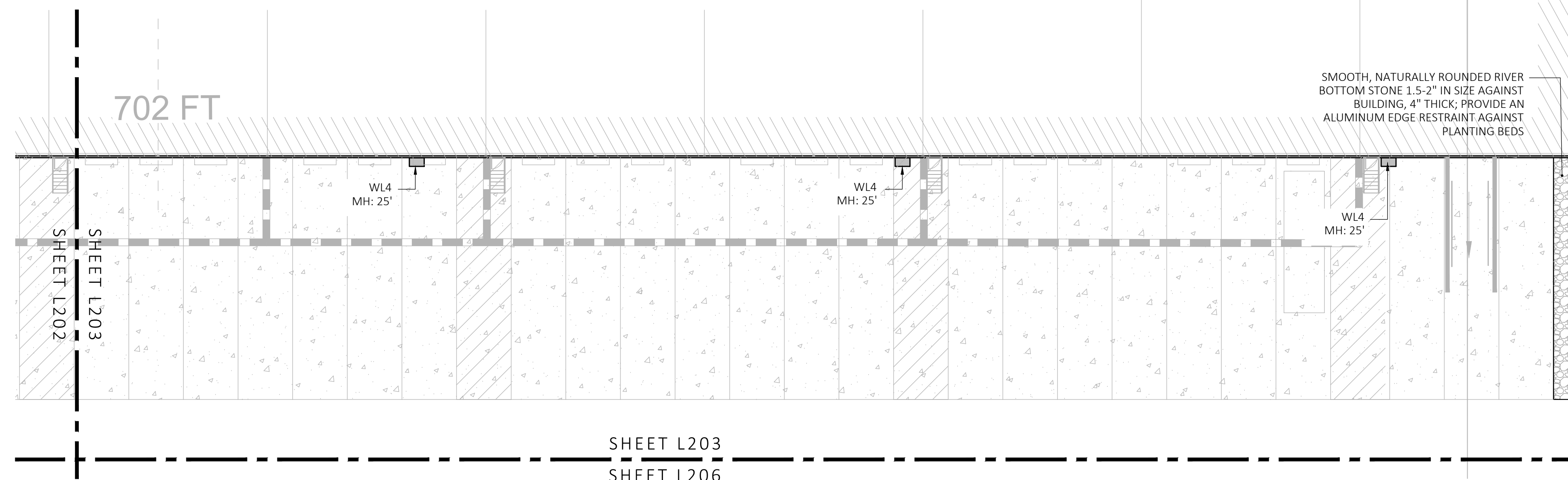
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LIGHT SCHEDULE					
SYMBOL	LABEL	MODEL	MOUNT	ARRANGEMENT	OPTIONS   REP
○	BL1	ARCLUCE KLOU180 BOLLARD RWL1-48L-25-3K7-4W-U	CONCRETE FOOTING; KEEP 3" ABOVE GRADE	PEDESTRIAN BOLLARD	COLOR: GRAY
■	SL3	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-3-U BEACON 555-B POLE 555-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK
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□	WL1	BEACON RATIO WALL FIXTURE RWL1-48L-25-3K7-4W-U	BUILDING MOUNT	SINGLE	COLOR: BLK
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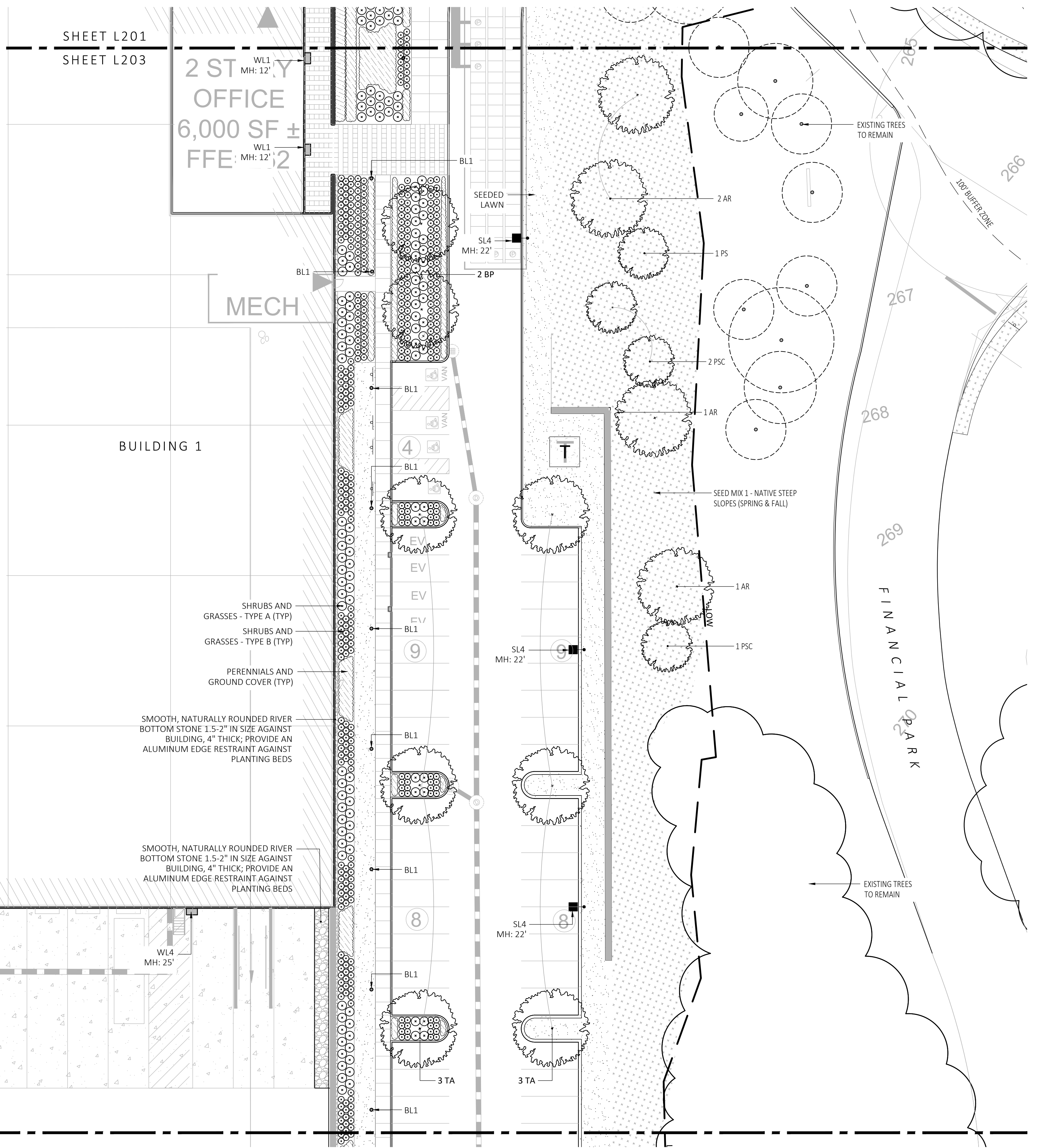
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- IRRIGATION CONTRACTOR SHALL VERIFY PSI/GPM REQUIREMENTS AT THE SITE BEFORE STARTING CONSTRUCTION.
- TREES SHOULD BE ON A SEPARATE ZONE.
- ALL TREES, SHRUBS, PERENNIALS, ORNAMENTAL GRASSES, AND GROUND COVER SHALL BE DRIP IRRIGATED. CONTRACTOR SHALL BE AWARE THAT THE IRRIGATION SYSTEM SHALL BE ROUTED TO THE PYLON SIGN PLANTER AND PLANTERS AT THE BUILDING.
- ALL LAWN AREAS SHALL BE SPRAY HEAD IRRIGATED. THE HEADS SHALL BE LOCATED FOR HEAD TO HEAD COVERAGE WITH ABSOLUTELY NO OVER SPRAY ONTO THE PAVEMENT.
- INSTALL DRIP TUBING, .6GPH, 12" CENTERS, STAKED EVERY TURN OR EVERY 4'
- THE CONTRACTOR SHALL BE EXTREMELY CAREFUL DURING THE INSTALLATION PROCESS NOT TO DISTURB NEW OR EXISTING PLANT MATERIALS. THE CONTRACTOR IS TO COORDINATE HIS WORK WITH OTHER SUB-CONTRACTORS.
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- WATER SUPPLY AND CONTROLLER: COORDINATE CONNECTION TO WATER SUPPLY WITH GENERAL CONTRACTOR. COORDINATE CONTROLLER LOCATION WITH GENERAL CONTRACTOR.
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- INSTALLER SHALL INSTALL MOISTURE SENSORS. CONTRACTOR SHALL INSTALL PER MANUFACTURER'S SPECIFICATIONS AND SHALL BE RESPONSIBLE TO PROGRAM RELATED HYDROZONES TO RESPECTIVE SOIL MOISTURE SENSORS. PROVIDE ONE FOR EACH IRRIGATION ZONE WITH AUTOMATIC SHUT-OFF ONCE MOISTURE REQUIREMENTS ARE MET.



**PLANTING:**

- DURING CONSTRUCTION, PROTECT ALL EXISTING SITE FEATURES, STRUCTURES AND UTILITIES.
- PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY GROWN IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. SUBSTITUTIONS WILL BE PERMITTED ONLY IF APPROVED BY THE LANDSCAPE ARCHITECT.
- LANDSCAPE ARCHITECT APPROVAL IS REQUIRED BEFORE PLANT MATERIAL IS PURCHASED. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO SEE ALL MATERIAL IN PERSON AT THE NURSERY. IF TRAVEL OUTSIDE OF MA IS REQUIRED, LANDSCAPE ARCHITECT'S TRAVEL COSTS SHALL BE PAID FOR BY THE CONTRACTOR.
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- THOROUGHLY WATER ALL PLANTS IMMEDIATELY AFTER PLANTING.
- WHERE DISCREPANCIES IN QUANTITIES OCCUR, DRAWINGS SUPERCEDE PLANT NOTES AND SCHEDULE.
- TRANSPLANTING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK.
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- MULCH IN TREE AND SHRUB BEDS SHALL BE NATURAL, NATIVE HEMLOCK MULCH FREE OF GROWTH OR GERMINATION INHIBITING INGREDIENTS. SUBMIT SAMPLES FOR APPROVAL.
- LOCATIONS FOR PLANTS AND/OR OUTLINE OF AREAS TO BE PLANTED ARE TO BE STAKED OUT AT THE SITE FOR APPROVAL BY THE LANDSCAPE ARCHITECT.
- SOIL DEPTHS: a.) SHRUBS AND PERENNIAL BEDS: 18" MIN.; b.) GROUND COVER: 6" MIN.; c.) TREES: SEE DETAIL; d.) SOD/SEED: 6" MIN.
- PROVIDE A SUBSURFACE ROOTBALL ANCHOR BY PLATIPUS EARTH ANCHORS, SIZE FOR CALIPER



**1 PLANTING & LIGHTING PLAN**  
SCALE: 1" = 20'-0"





FOR PERMIT ONLY  
NOT FOR CONSTRUCTION

PLANT SCHEDULE					
SYMBOL	QTY.	LATIN NAME	COMMON NAME	SIZE	NOTES
<b>TREES</b>					
AR	24	ACER RUBRUM	RED MAPLE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
AC	5	AMELANCHIER CANADENSIS	SHADBLow SERVICEBERRY	8-10' HT	B&B, MULTI-STEM
BP	10	BETULA POPULIFOLIA	GRAY BIRCH	3"-3.5" CAL	B&B, MULTI-STEM
PS	10	PINUS STROBUS	EASTERN WHITE PINE	3"-3.5" CAL	B&B, 6' CLEAR BRANCHING
PSC	17	PRUNUS SEROTINA	BLACK CHERRY	3"-3.5" CAL	B&B, 6' CLEAR BRANCHING
PH	16	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	3"-3.5" CAL	B&B, 6' CLEAR BRANCHING
TA	16	TILIA AMERICANA	BASSWOOD	3"-3.5" CAL	B&B, 6' CLEAR BRANCHING
<b>SHRUBS &amp; ORNAMENTAL GRASSES - TYPE A</b>					
		CLETHRA ALNIFOLIA	PEPPERBUSH	5 GAL	36" O.C. B&B
		HYDRANGEA QUERCIFOLIA	OAK-LEAVED HYDRANGEA	3"-3.5" TALL	36" O.C. B&B
		ILEX GLABRA	INKBERRY	3"-3.5" TALL	36" O.C. B&B
		ILEX VERTICILLATA	COMMON WINTERBERRY	3"-3.5" TALL	36" O.C. B&B
		KALMIA LATIFOLIA	MOUNTAIN LAUREL	3' TALL	36" O.C. B&B
		RHUS AROMATICA	FRAGRANT SUMAC	3"-3.5" TALL	36" O.C. B&B
		VIBURNUM DENTATUM	ARROWWOOD	3"-3.5" TALL	36" O.C. B&B
<b>SHRUBS &amp; ORNAMENTAL GRASSES - TYPE B</b>					
		COMPTONIA PEREGRINA	SWEET-FERN	2 GAL	24" O.C. CONTAINER
		IRIS VERSICOLOR	BLUE FLAG IRIS	2 GAL	24" O.C. CONTAINER
		PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	2.5'-3' TALL	24" O.C. B&B
<b>PERENNIALS</b>					
		CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	1 GAL	18" O.C. CONTAINER
		ECHINACEA PURPUREA	PURPLE CONEFLOWER	1 GAL	18" O.C. CONTAINER
		GERANIUM DALMATICUM	CRANESBILL	1 GAL	18" O.C. CONTAINER
<b>SEED MIX</b>					
		ERNST SEEDS 800-873-3321	ERNST MIX (ERNMX-181-1 & 181-2) NATIVE STEEP SLOPE MIX	75 LB/ACRE	APPLY COVER CROP: FALL: GRAIN RYE, SPRING: OAT; SEE SPEC SHEET
			ERNST SEEDS 800-873-3321	ERNST MIX (ERNMX-180) RAIN GARDEN MIX	20 LB/ACRE

ALL PROPOSED PLANTINGS COME FROM THE BEST DEVELOPMENT PRACTICES GUIDEBOOK (§185-31.C.(K))

LIGHT SCHEDULE						
SYMBOL	LABEL	MODEL	MOUNT	ARRANGEMENT	OPTIONS	REP
○	BL1	ARCLUCE KLOU180 BOLLARD RWL1-48L-25-3K7-4W-U	CONCRETE FOOTING; KEEP 3" ABOVE GRADE	PEDESTRIAN BOLLARD	COLOR: GRAY	
■	SL3	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-3-U BEACON SSS-B POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	
■	SL4	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON SSS-B POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
■	SL4-2	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON SSS-B POLE SSS-B-20-40-A-2-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	BACK BACK	COLOR: BLK	
□	WL1	BEACON RATIO WALL FIXTURE RWL1-48L-25-3K7-4W-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
□	WL2	BEACON RATIO WALL FIXTURE RWL2-160L-135-3K7-4-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
---	WL3	DL-ES-15-O-30K-HC-24-A-DL- ALUM-U-8	ALUMINUM CHANNEL	RECESSED WALL LIGHT		

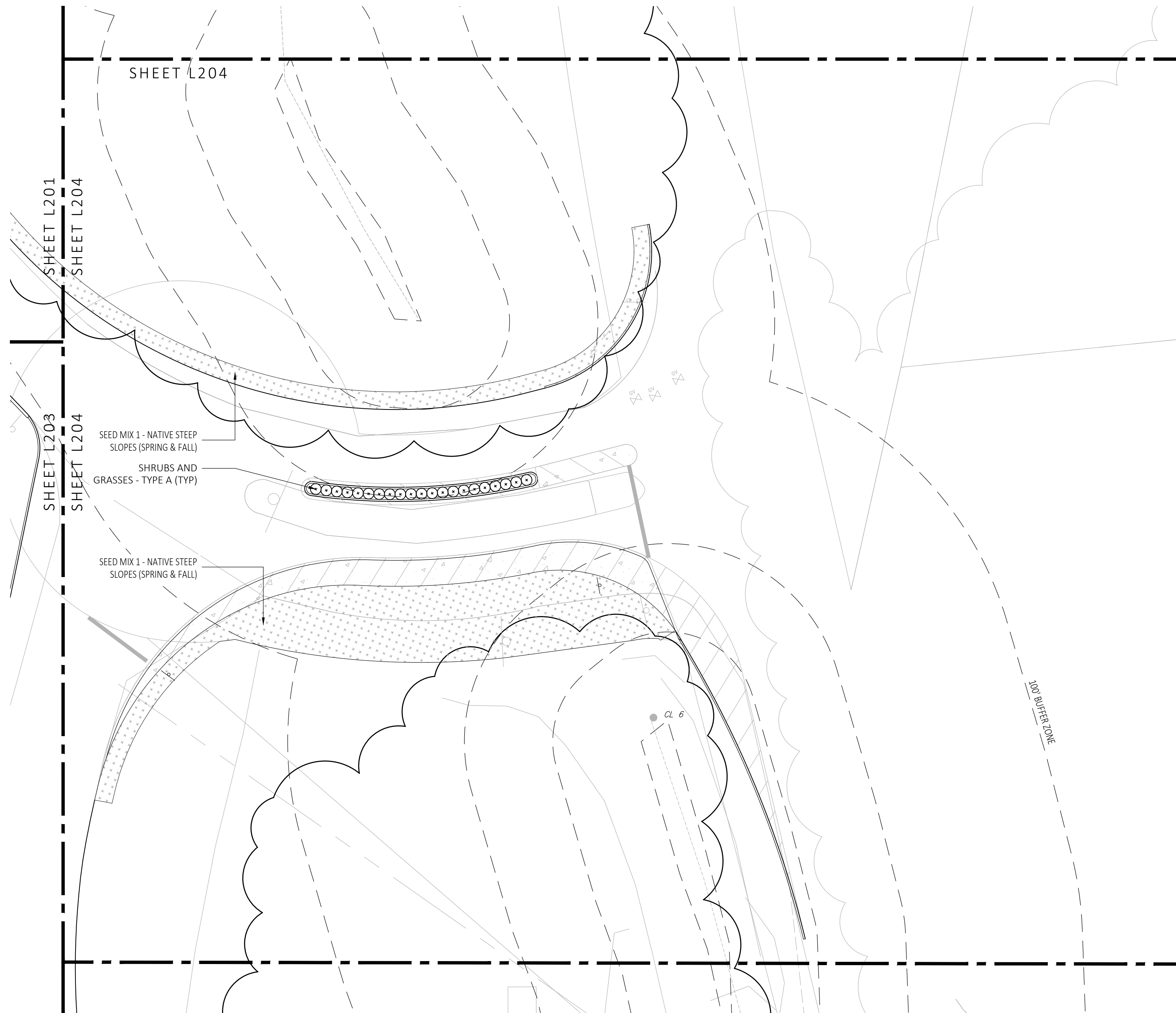
SUBMIT CUT SHEETS FOR APPROVAL; SEE PHOTOMETRIC PLAN PROVIDED WITH THIS DRAWING SET FOR MORE INFORMATION.

GENERAL IRRIGATION NOTES:

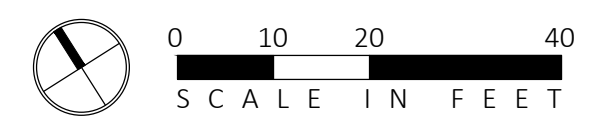
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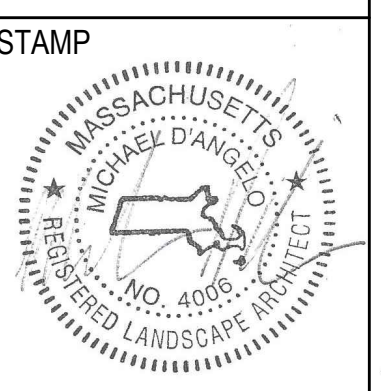
1 PLANTING & LIGHTING PLAN  
SCALE: 1" = 20'-0"



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PROJECT  
WAREHOUSE / INDUSTRIAL DEV.  
100 / 200 FINANCIAL PARK  
FRANKLIN, MA



REV. NO.	DATE	DESCRIPTION
	5/11/23	FOR PERMIT
1	7/17/23	RESPONSE TO COMMENTS
2	8/10/23	RESPONSE TO COMMENTS
3	8/23/23	RESPONSE TO COMMENTS

PLANTING & LIGHTING PLAN

DRAWN: AA, NC  
CHECKED: NC  
SCALE: AS NOTED  
DATE: 5/11/2023  
**L204**



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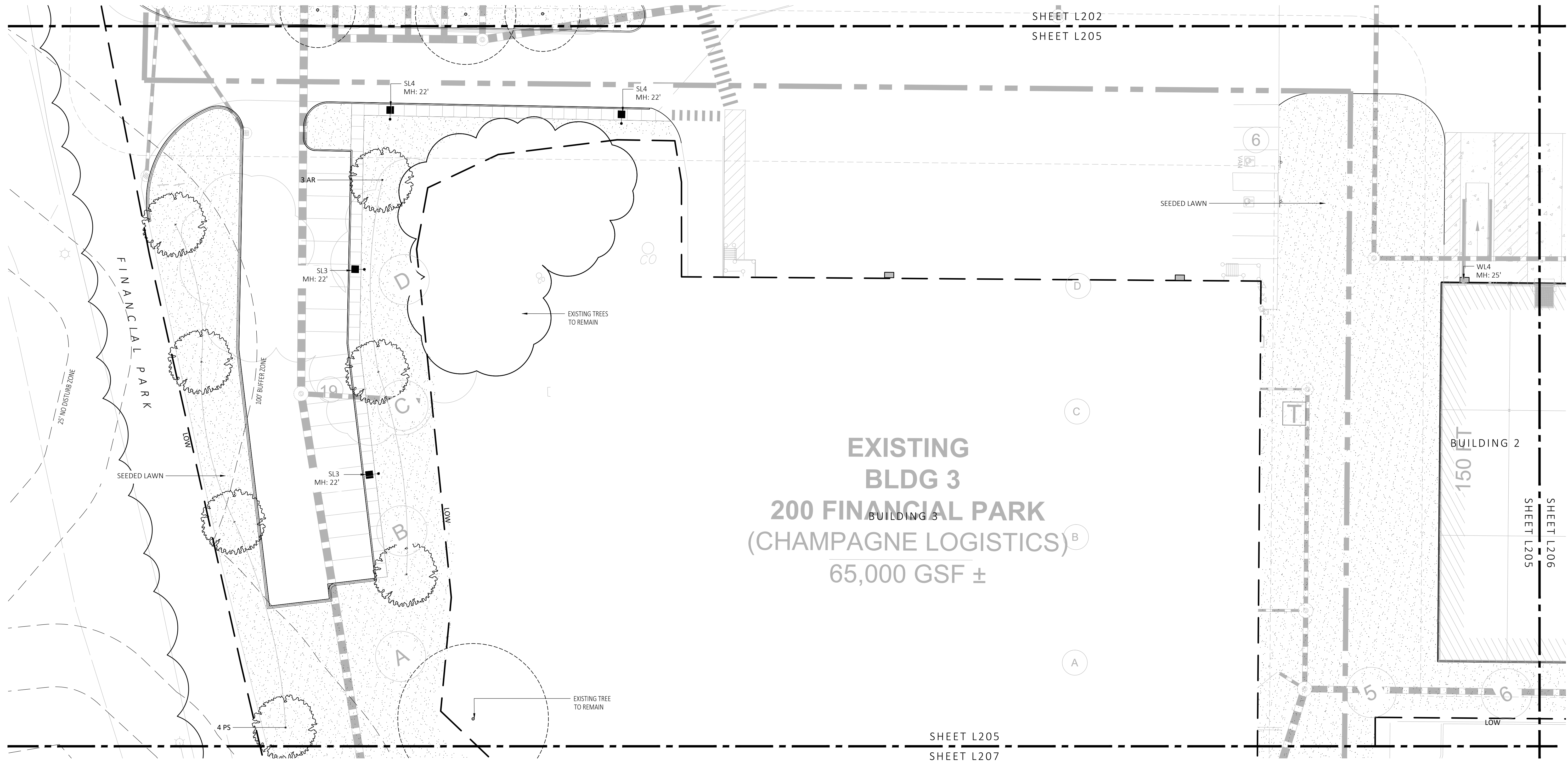
SYMBOL	QTY.	LATIN NAME	COMMON NAME	SIZE	NOTES
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AC	5	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	8-10' HT	B&B, MULTI-STEM
BP	10	BETULA POPULIFOLIA	GRAY BIRCH	3"-3.5" CAL.	B&B, MULTI-STEM
PS	10	PINUS STROBUS	EASTERN WHITE PINE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
PSC	17	PRUNUS SEROTINA	BLACK CHERRY	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
PH	16	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
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<b>SHRUBS &amp; ORNAMENTAL GRASSES - TYPE A</b>					
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		HYDRANGEA QUERCIFOLIA	OAK-LEAVED HYDRANGEA	3'-3.5" TALL	36" O.C. B&B
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		RHUS AROMATICA	FRAGRANT SUMAC	3'-3.5" TALL	36" O.C. B&B
		VIBURNUM DENTATUM	ARROWWOOD	3'-3.5" TALL	36" O.C. B&B
<b>SHRUBS &amp; ORNAMENTAL GRASSES - TYPE B</b>					
		COMPTONIA PEREGRINA	SWEET-FERN	2 GAL	24" O.C. CONTAINER
		IRIS VERSICOLOR	BLUE FLAG IRIS	2 GAL	24" O.C. CONTAINER
		PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	2.5'-3" TALL	24" O.C. B&B
<b>PERENNIALS</b>					
		CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	1 GAL	18" O.C. CONTAINER
		ECHINACEA PURPUREA	PURPLE CONEFLOWER	1 GAL	18" O.C. CONTAINER
		GERANIUM DALMATIICUM	CRANESBILL	1 GAL	18" O.C. CONTAINER
<b>SEED MIX</b>					
		ERNST SEEDS 800-873-3321	ERNST MIX (ERNMX-181-1 & 181-2) NATIVE STEEP SLOPE MIX	75 LB/ACRE	APPLY COVER CROP; FALL: GRAIN RYE, SPRING: OAT; SEE SPEC SHEET
		ERNST SEEDS 800-873-3321	ERNST MIX (ERNMX-180) RAIN GARDEN MIX	20 LB/ACRE	APPLY COVER CROP OF GRAIN RYE; SEE SPEC SHEET

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SYMBOL	LABEL	MODEL	MOUNT	ARRANGEMENT	OPTIONS	REP
○	BL1	ARLUCE KLOU180 BOLLARD RWL1-48L-25-3K7-4W-U	CONCRETE FOOTING; KEEP 3" ABOVE GRADE	PEDESTRIAN BOLLARD	COLOR: GRAY	
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**MDLA**  
MICHAEL D'ANGELO Landscape Architecture

MICHAEL D'ANGELO  
LANDSCAPE ARCHITECTURE LLC  
840 SUMMER STREET  
SUITE 203A  
BOSTON, MA 02127  
1.203.592.4788  
www.m-d-a.com

CLIENT  
BERKELEY PARTNERS  
WAREHOUSE / INDUSTRIAL DEV.  
100 / 200 FINANCIAL PARK  
FRANKLIN, MA

PROJECT  
WAREHOUSE / INDUSTRIAL DEV.  
100 / 200 FINANCIAL PARK  
FRANKLIN, MA

STAMP  
MICHAEL D'ANGELO  
REGISTERED LANDSCAPE ARCHITECT  
NO. 4098

REV. NO.	DATE	DESCRIPTION
1	5/11/23	FOR PERMIT
2	7/17/23	RESPONSE TO COMMENTS
3	8/10/23	RESPONSE TO COMMENTS
4	8/23/23	RESPONSE TO COMMENTS

DRAWN: AA, NC  
CHECKED: NC  
SCALE: L205  
AS NOTED  
DATE: 5/11/2023

SHEET 15 OF 28

plot date: 10/25/2023



FOR PERMIT ONLY  
NOT FOR CONSTRUCTION

PLANT SCHEDULE					
SYMBOL	QTY.	LATIN NAME	COMMON NAME	SIZE	NOTES
<b>TREES</b>					
AR	24	ACER RUBRUM	RED MAPLE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
AC	5	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	8-10' HT	B&B, MULTI-STEM
BP	10	BETULA POPULIFOLIA	GRAY BIRCH	3"-3.5" CAL.	B&B, MULTI-STEM
PS	10	PINUS STROBUS	EASTERN WHITE PINE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
PSC	17	PRUNUS SEROTINA	BLACK CHERRY	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
PH	16	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
TA	16	TILIA AMERICANA	BASSWOOD	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
<b>SHRUBS &amp; ORNAMENTAL GRASSES - TYPE A</b>					
		CLETHRA ALNIFOLIA	PEPPERBUSH	5 GAL	36" O.C. B&B
		HYDRANGEA QUERCIFOLIA	OAK-LEAVED HYDRANGEA	3"-3.5" TALL	36" O.C. B&B
		ILEX GLABRA	INKBERRY	3"-3.5" TALL	36" O.C. B&B
		ILEX VERTICILLATA	COMMON WINTERBERRY	3"-3.5" TALL	36" O.C. B&B
		KALMIA LATIFOLIA	MOUNTAIN LAUREL	3" TALL	36" O.C. B&B
		RHUS AROMATICA	FRAGRANT SUMAC	3"-3.5" TALL	36" O.C. B&B
		VIBURNUM DENTATUM	ARROWWOOD	3"-3.5" TALL	36" O.C. B&B
<b>SHRUBS &amp; ORNAMENTAL GRASSES - TYPE B</b>					
		COMPTONIA PEREGRINA	SWEET-FERN	2 GAL	24" O.C. CONTAINER
		IRIS VERSICOLOR	BLUE FLAG IRIS	2 GAL	24" O.C. CONTAINER
		PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	2.5'-3" TALL	24" O.C. B&B
<b>PERENNIALS</b>					
		CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	1 GAL	18" O.C. CONTAINER
		ECHINACEA PURPUREA	PURPLE CONEFLOWER	1 GAL	18" O.C. CONTAINER
		GERANIUM DALMATIUM	CRANESBILL	1 GAL	18" O.C. CONTAINER
<b>SEED MIX</b>					
		ERNST SEEDS 800-873-3321	ERNST MIX (ERNMX-181-1 & 181-2) NATIVE STEEP SLOPE MIX	75 LB/ACRE	APPLY COVER CROP; FALL: GRAIN RYE, SPRING: OAT; SEE SPEC SHEET
		ERNST SEEDS 800-873-3321	ERNST MIX (ERNMX-180) RAIN GARDEN MIX	20 LB/ACRE	APPLY COVER CROP OF GRAIN RYE; SEE SPEC SHEET

ALL PROPOSED PLANTINGS COME FROM THE BEST DEVELOPMENT PRACTICES GUIDEBOOK (§185-31.C.(K))

LIGHT SCHEDULE						
SYMBOL	LABEL	MODEL	MOUNT	ARRANGEMENT	OPTIONS	REP
○	BL1	ARLUCE KLOU180 BOLLARD RWL1-48L-25-3K7-4W-U	CONCRETE FOOTING; KEEP 3" ABOVE GRADE	PEDESTRIAN BOLLARD	COLOR: GRAY	
■	SL3	BEACON RATIO SITE FIXTURE RARI-160L-135-3K7-3-U BEACON S5S-B POLE S5S-B-20-40A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	
■	SL4	BEACON RATIO SITE FIXTURE RARI-160L-135-3K7-4W-U BEACON S5S-B POLE S5S-B-20-40A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
■	SL4-2	BEACON RATIO SITE FIXTURE RARI-160L-135-3K7-4W-U BEACON S5S-B POLE S5S-B-20-40A-2-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	BACK BACK	COLOR: BLK	
■	WL1	BEACON RATIO WALL FIXTURE RWL1-48L-25-3K7-4W-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
■	WL2	BEACON RATIO WALL FIXTURE RWL2-160L-135-3K7-4-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
---	WL3	DL-ES-15-O-30K-HC-24-A-DL- ALUM-U-8	ALUMINUM CHANNEL	RECESSED WALL LIGHT	COLOR: BLK	

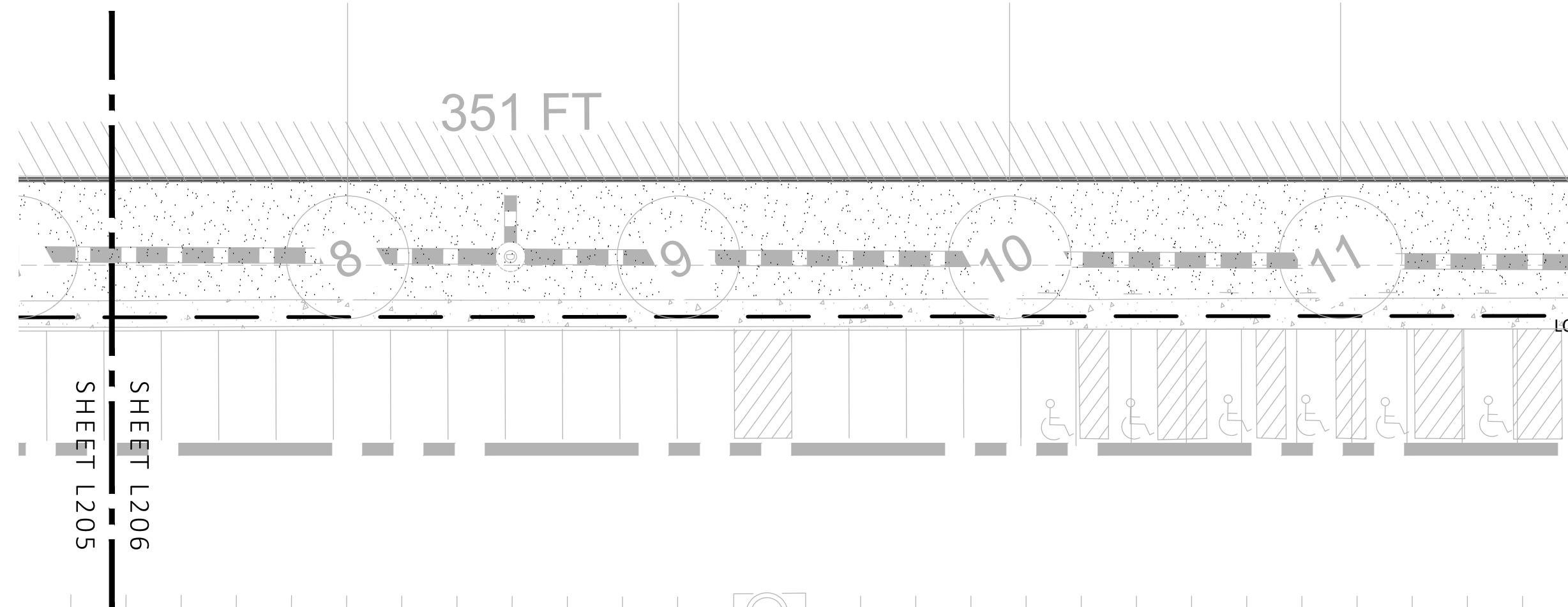
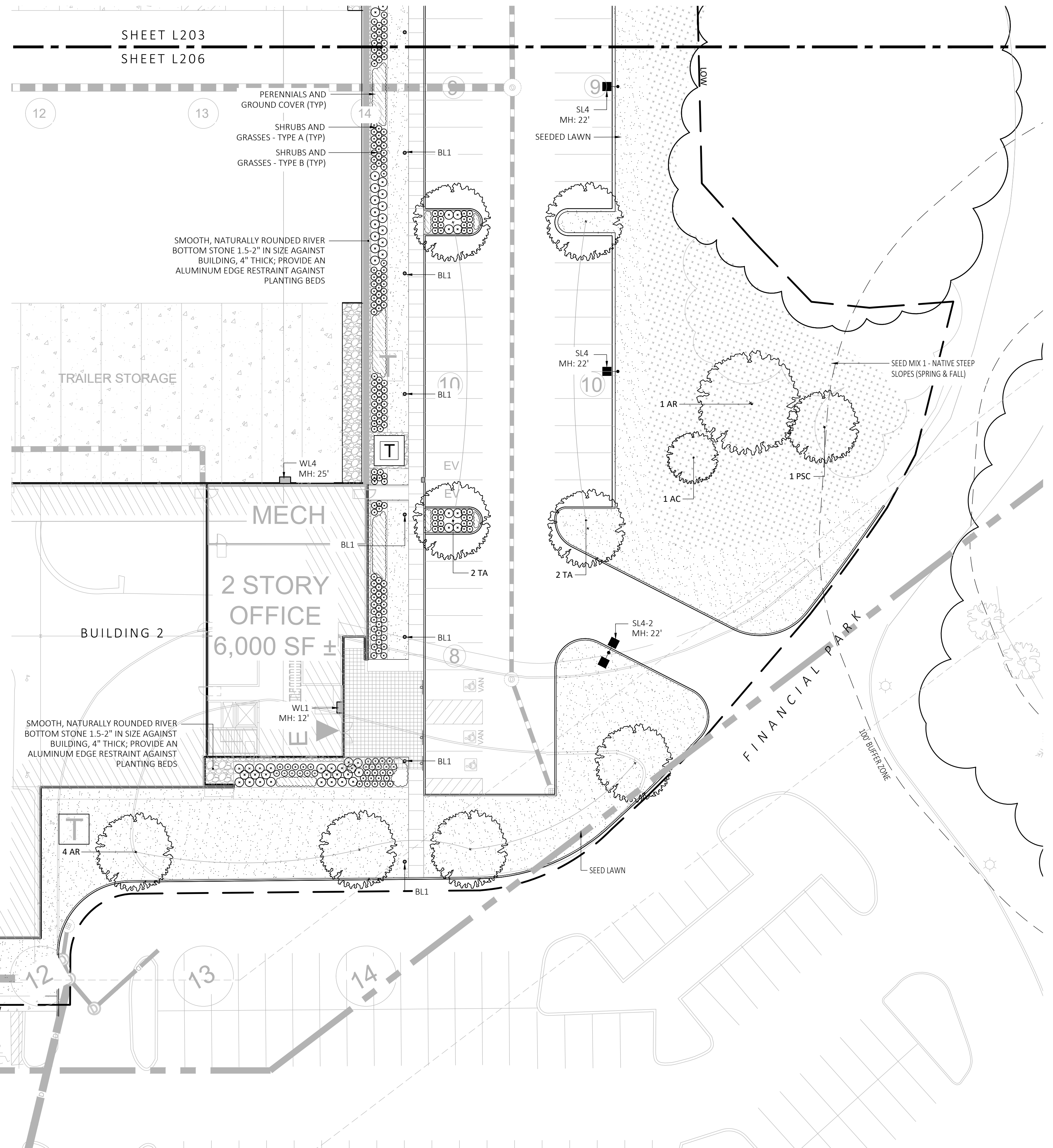
SUBMIT CUT SHEETS FOR APPROVAL; SEE PHOTOMETRIC PLAN PROVIDED WITH THIS DRAWING SET FOR MORE INFORMATION.

GENERAL IRRIGATION NOTES:

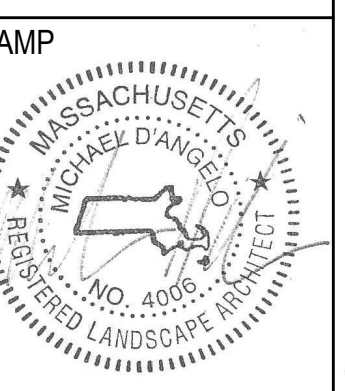
- THE DESIGN/BUILD IRRIGATION SUB-CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM FOR THE IRRIGATION AREAS SHOWN ON THE PLAN, WHICH INCLUDES NEW AND EXISTING TRANSPLANTED PLANT MATERIALS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR FINAL LAYOUT OF IRRIGATION SHOWING LOCATIONS AND SIZES OF MAIN LINES AND LATERAL LINES, ZONES, RAIN AND SOIL SENSORS, AND CUT SHEETS FOR CONTROLLER SYSTEM AND COMPONENTS. INCLUDE ANY NECESSARY SLEEVING ON A DIAGRAM.
- IRRIGATION TO BE COORDINATED WITH GENERAL CONTRACTOR TO LOCATE THE NECESSARY PVC SLEEVING TO COMPLETE IRRIGATION PROGRAM.
- IRRIGATION CONTRACTOR SHALL VERIFY PSI/GPM REQUIREMENTS AT THE SITE BEFORE STARTING CONSTRUCTION.
- TREES SHOULD BE ON A SEPARATE ZONE.
- ALL TREES, SHRUBS, PERENNIALS, ORNAMENTAL GRASSES, AND GROUND COVER SHALL BE DRIP IRRIGATED. CONTRACTOR SHALL BE AWARE THAT THE IRRIGATION SYSTEM SHALL BE ROUTED TO THE PYLON SIGN PLANTER AND PLANTERS AT THE BUILDING.
- ALL LAWN AREAS SHALL BE SPRAY HEAD IRRIGATED. THE HEADS SHALL BE LOCATED FOR HEAD TO HEAD COVERAGE WITH ABSOLUTELY NO OVER SPRAY ONTO THE PAVEMENT.
- INSTALL DRIP TUBING, .6GPH, 12" CENTERS, STAKED EVERY TURN OR EVERY 4'
- THE CONTRACTOR SHALL BE EXTREMELY CAREFUL DURING THE INSTALLATION PROCESS NOT TO DISTURB NEW OR EXISTING PLANT MATERIALS. THE CONTRACTOR IS TO COORDINATE HIS WORK WITH OTHER SUB-CONTRACTORS.
- THE IRRIGATION CONTRACTOR SHALL CONFORM TO ANY LOCAL CODES OR ORDINANCES THAT MAY BE REQUIRED TO COMPLETE THE WORK.
- WATER SUPPLY AND CONTROLLER: COORDINATE CONNECTION TO WATER SUPPLY WITH GENERAL CONTRACTOR. COORDINATE CONTROLLER LOCATION WITH GENERAL CONTRACTOR.
- MEP CONTRACTOR TO PROVIDE BACK FLOW PREVENTION.
- THE IRRIGATION CONTRACTOR SHALL TEST WATER SOURCE FOR WATER QUALITY INCLUDING MINERALS THAT MAY CAUSE STAINING OF CONCRETE AND PAVING SURFACES.
- INSTALLER SHALL INSTALL MOISTURE SENSORS. CONTRACTOR SHALL INSTALL PER MANUFACTURERS'S SPECIFICATIONS AND SHALL BE RESPONSIBLE TO PROGRAM RELATED HYDROZONES TO RESPECTIVE SOIL MOISTURE SENSORS. PROVIDE ONE FOR EACH IRRIGATION ZONE WITH AUTOMATIC SHUT-OFF ONCE MOISTURE REQUIREMENTS ARE MET.

PLANTING:

- DURING CONSTRUCTION, PROTECT ALL EXISTING SITE FEATURES, STRUCTURES AND UTILITIES.
- PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY GROWN IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. SUBSTITUTIONS WILL BE PERMITTED ONLY IF APPROVED BY THE LANDSCAPE ARCHITECT.
- LANDSCAPE ARCHITECT APPROVAL IS REQUIRED BEFORE PLANT MATERIAL IS PURCHASED. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO SEE ALL MATERIAL IN PERSON AT THE NURSERY. IF TRAVEL OUTSIDE OF MA IS REQUIRED, LANDSCAPE ARCHITECT'S TRAVEL COSTS SHALL BE PAID FOR BY THE CONTRACTOR.
- ALL EXPOSED BURLAP, WIRE BASKETS AND OTHER MATERIALS ATTACHED TO PLANTS SHALL BE REMOVED PRIOR TO PLANTING. CARE SHALL BE TAKEN NOT TO DISTURB THE ROOT BALL OF PLANTS.
- THOROUGHLY WATER ALL PLANTS IMMEDIATELY AFTER PLANTING.
- WHERE DISCREPANCIES IN QUANTITIES OCCUR, DRAWINGS SUPERCEDE PLANT NOTES AND SCHEDULE.
- TRANSPLANTING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK.
- LOAM USED IN PLANT BEDS SHALL BE UNIFORM IN COMPOSITION, FREE FROM SUBSOIL, STONES LARGER THAN 1", NOXIOUS SEEDS AND SUITABLE FOR THE SUPPORT OF VEGETATIVE GROWTH. THE PH VALUE SHALL BE BETWEEN 5.5 AND 6.5.
- MULCH IN TREE AND SHRUB BEDS SHALL BE NATURAL, NATIVE HEMLOCK MULCH FREE OF GROWTH OR GERMINATION INHIBITING INGREDIENTS. SUBMIT SAMPLES FOR APPROVAL.
- LOCATIONS FOR PLANTS AND/OR OUTLINE OF AREAS TO BE PLANTED ARE TO BE STAKED OUT AT THE SITE FOR APPROVAL BY THE LANDSCAPE ARCHITECT.
- SOIL DEPTHS: a.) SHRUBS AND PERENNIAL BEDS: 18" MIN.; b.) GROUND COVER: 6" MIN.; c.) TREES: SEE DETAIL; d.) SOIL/SEED: 6" MIN.
- PROVIDE A SUBSURFACE ROOTBALL ANCHOR BY PLATIPUS EARTH ANCHORS, SIZE FOR CALIPER



1 PLANTING & LIGHTING PLAN  
SCALE: 1" = 20'-0"



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PLANTING & LIGHTING PLAN

DRAWN: AA, NC  
CHECKED: NC  
SCALE: L206  
AS NOTED  
DATE: 5/11/2023



**PLANTING:**

- DURING CONSTRUCTION, PROTECT ALL EXISTING SITE FEATURES, STRUCTURES AND UTILITIES.
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- PROVIDE A SUBSURFACE ROOTBALL ANCHOR BY PLATIPUS EARTH ANCHORS, SIZE FOR CALIPER

**GENERAL IRRIGATION NOTES:**

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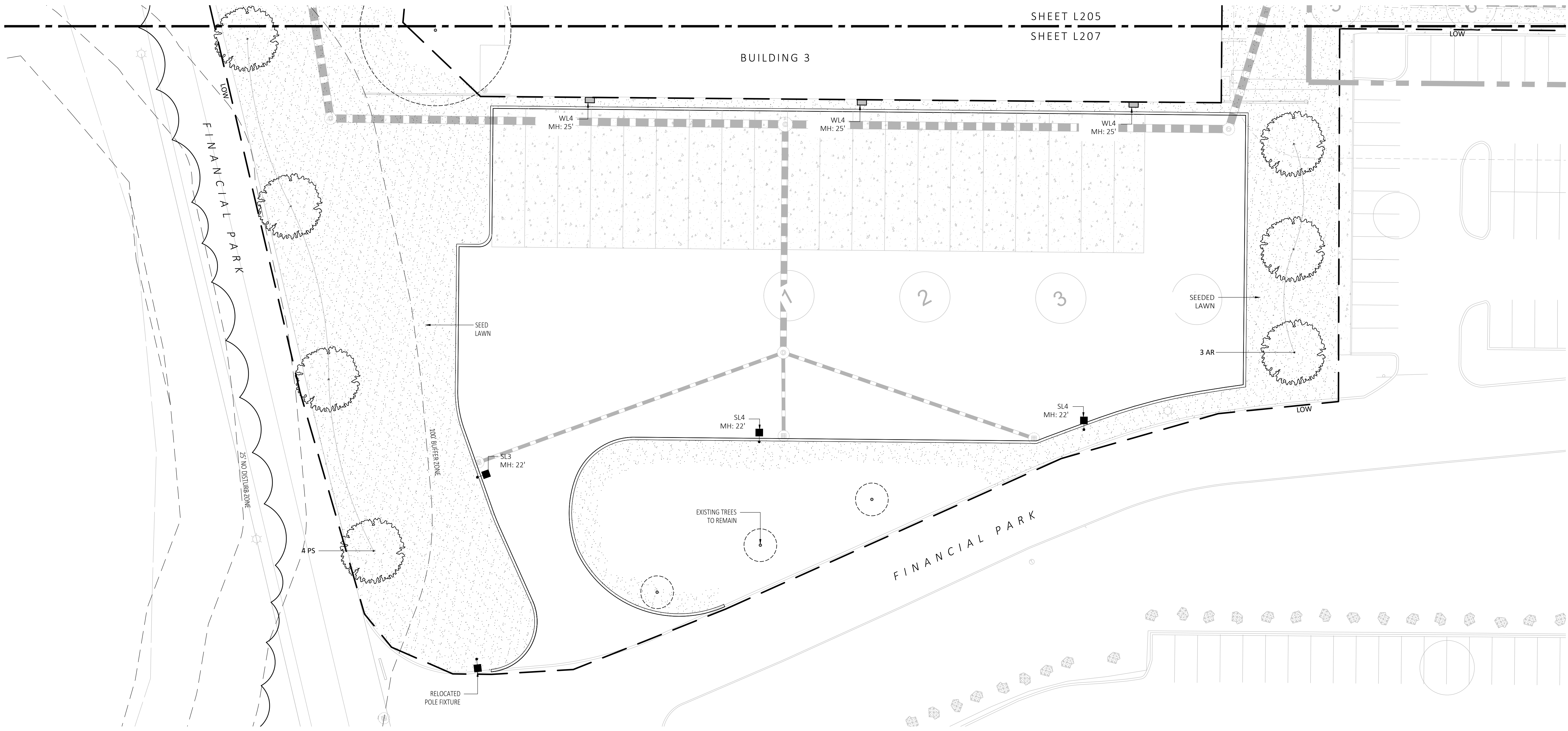
PLANT SCHEDULE					
SYMBOL	QTY.	LATIN NAME	COMMON NAME	SIZE	NOTES
<b>TREES</b>					
AR	24	ACER RUBRUM	RED MAPLE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
AC	5	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	8-10' HT	B&B, MULTI-STEM
BP	10	BETULA POPULIFOLIA	GRAY BIRCH	3"-3.5" CAL.	B&B, MULTI-STEM
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TA	16	TILIA AMERICANA	BASSWOOD	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
<b>SHRUBS &amp; ORNAMENTAL GRASSES - TYPE A</b>					
		CLETHRA ALNIFOLIA	PEPPERBUSH	5 GAL	36" O.C. B&B
		HYDRANGEA QUERCIFOLIA	OAK-LEAVED HYDRANGEA	3"-3.5" TALL	36" O.C. B&B
		ILEX GLABRA	INKBERRY	3"-3.5" TALL	36" O.C. B&B
		ILEX VERTICILLATA	COMMON WINTERBERRY	3"-3.5" TALL	36" O.C. B&B
		KALMIA LATIFOLIA	MOUNTAIN LAUREL	3" TALL	36" O.C. B&B
		RHUS AROMATICA	FRAGRANT SUMAC	3"-3.5" TALL	36" O.C. B&B
		VIBURNUM DENTATUM	ARROWWOOD	3"-3.5" TALL	36" O.C. B&B
<b>SHRUBS &amp; ORNAMENTAL GRASSES - TYPE B</b>					
		COMPTONIA PEREGRINA	SWEET-FERN	2 GAL	24" O.C. CONTAINER
		IRIS VERSICOLOR	BLUE FLAG IRIS	2 GAL	24" O.C. CONTAINER
		PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	2.5'-3' TALL	24" O.C. B&B
<b>PERENNIALS</b>					
		CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	1 GAL	18" O.C. CONTAINER
		ECHINACEA PURPUREA	PURPLE CONEFLOWER	1 GAL	18" O.C. CONTAINER
		GERANIUM DALMATIUM	CRANESBILL	1 GAL	18" O.C. CONTAINER
<b>SEED MIX</b>					
	ERNST SEEDS 800-873-3321	ERNST MIX (ERNMX-181-1 & 181-2) NATIVE STEEP SLOPE MIX	75 LB/ACRE	APPLY COVER CROP: FALL: GRAIN RYE, SPRING: OAT; SEE SPEC SHEET	
	ERNST SEEDS 800-873-3321	ERNST MIX (ERNMX-180) RAIN GARDEN MIX	20 LB/ACRE	APPLY COVER CROP OF GRAIN RYE; SEE SPEC SHEET	

ALL PROPOSED PLANTINGS COME FROM THE BEST DEVELOPMENT PRACTICES GUIDEBOOK (\$185-31.C.(K))

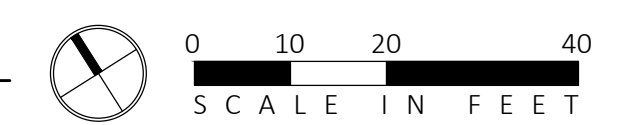
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LIGHT SCHEDULE						
SYMBOL	LABEL	MODEL	MOUNT	ARRANGEMENT	OPTIONS	REP
○	BL1	ARCLUCE KLOU180 BOLLARD RWL1-48L-25-3K7-4W-U	CONCRETE FOOTING; KEEP 3" ABOVE GRADE	PEDESTRIAN BOLLARD	COLOR: GRAY	
■	SL3	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-3-U BEACON SSS-B POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	
■	SL4	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON SSS-B POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
■	SL4-2	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON SSS-B POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	BACK BACK	COLOR: BLK	
□	WL1	BEACON RATIO WALL FIXTURE RWL1-48L-25-3K7-4W-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
□	WL2	BEACON RATIO WALL FIXTURE RWL2-160L-135-3K7-4-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
---	WL3	DL-ES-15-O-30K-HC-24-A-DL- ALUM-U-8	ALUMINUM CHANNEL	RECESSED WALL LIGHT		

SUBMIT CUT SHEETS FOR APPROVAL; SEE PHOTOMETRIC PLAN PROVIDED WITH THIS DRAWING SET FOR MORE INFORMATION.



**1 PLANTING & LIGHTING PLAN**  
SCALE: 1" = 20'-0"

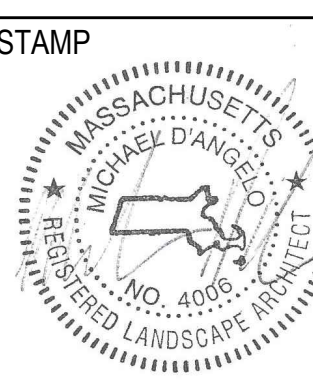


**MDLA**  
MICHAEL D'ANGELO landscape architecture

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840 SUMMER STREET  
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1.203.592.4788  
www.m-d-a.com

**CLIENT**  
BERKELEY PARTNERS  
1 WASHINGTON MALL, SUITE 701  
BOSTON, MA

**PROJECT**  
WAREHOUSE / INDUSTRIAL DEV.  
100 / 200 FINANCIAL PARK  
FRANKLIN, MA



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**PLANTING & LIGHTING PLAN**

DRAWN: AA, NC  
CHECKED: NC  
SCALE: **L207**  
AS NOTED  
DATE: 5/11/2023

SHEET 17 OF 28



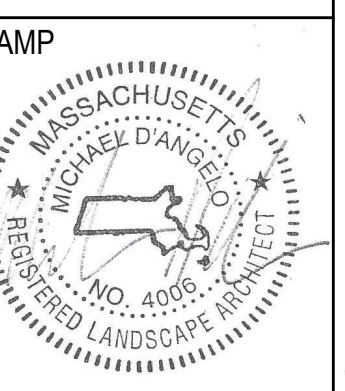
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PLANTING  
SCHEDULE &  
DETAILS

DRAWN:  
AA, NC  
CHECKED:  
NC  
SCALE:  
AS NOTED  
DATE:  
5/11/2023

L300

SHEET 18 OF 28

plot date: 10/25/2023



Ernst Conservation Seeds  
8884 Mercer Pike  
Meadville, PA 16335  
(800) 873-3321 Fax (814) 336-5191  
www.ernstseed.com

Spring

Date: August 28, 2018

Native Steep Slope Mix w/Grain Oats - ERNMX-181-1

Botanical Name	Common Name	Price/lb
40.00 % <i>Avena sativa</i> , Variety Not Stated	Oats, Variety Not Stated	0.22
20.40 % <i>Sorghastrum nutans</i> , NY Ecotype	Indiangrass, NY Ecotype	12.90
8.10 % <i>Andropogon gerardii</i> , 'Niagara'	Big Bluestem, 'Niagara'	13.06
7.50 % <i>Elymus virginicus</i> , PA Ecotype	Virginia Wildrye, PA Ecotype	7.72
5.20 % <i>Elymus canadensis</i>	Canada Wildrye	12.87
4.50 % <i>Schizanthus scoparius</i> , Fort Indiantown Gap-PA Ecotype	Little Bluestem, Fort Indiantown Gap-PA Ecotype	12.00
3.70 % <i>Tridens flavus</i> , Fort Indiantown Gap-PA Ecotype	Purpletop, Fort Indiantown Gap-PA Ecotype	18.78
3.00 % <i>Agrostis perennis</i> , Albany Pine Bush-NY Ecotype	Autumn Bergamoss, Albany Pine Bush-NY Ecotype	14.00
2.30 % <i>Panicum virgatum</i> , 'Shawnee'	Switchgrass, 'Shawnee'	7.51
1.10 % <i>Chamaecrista fasciculata</i> , PA Ecotype	Partridge Pea, PA Ecotype	10.00
1.00 % <i>Echinacea purpurea</i>	Purple Coneflower	36.00
0.80 % <i>Gallardia aridata</i>	Renewal Gallardia (Blanketflower)	32.00
0.80 % <i>Audubonia hirta</i>	Black-eyed Susan	20.00
0.70 % <i>Helopsis helianthoides</i> , PA Ecotype	Cheery Sunflower, PA Ecotype	42.00
0.40 % <i>Aster novae-angliae</i> , PA Ecotype	New England Aster, PA Ecotype	360.00
0.20 % <i>Asclepias syriaca</i> , PA Ecotype	Common Milkweed, PA Ecotype	196.00
0.20 % <i>Liatris spicata</i>	Marsh (Dense) Blazing Star (Spiked Gayfeather)	210.00
0.10 % <i>Penstemon digitalis</i>	Tall White Beardtongue	160.00

100.00 % Mix Price/lb Bulk: \$10.45

Seeding Rate: 75 lb per acre  
Erosion Control & Revegetation

Use this formula with grain oats as a cover crop in the spring and summer (until September 1st). Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

Price quotes guaranteed for 30 days.  
All prices are FOB Meadville, PA.  
Please check our web site at [www.ernstseed.com](http://www.ernstseed.com)  
for current pricing when placing orders.

1 SEED MIX 1 - NATIVE STEEP SLOPES (SPRING)  
SCALE: N.T.S.



Ernst Conservation Seeds  
8884 Mercer Pike  
Meadville, PA 16335  
(800) 873-3321 Fax (814) 336-5191  
www.ernstseed.com

Fall

Date: August 28, 2018

Native Steep Slope Mix w/Grain Rye - ERNMX-181-2

Botanical Name	Common Name	Price/lb
40.00 % <i>Scaevola coccinea</i> , Variety Not Stated	Grain Rye, Variety Not Stated	0.21
20.40 % <i>Sorghastrum nutans</i> , PA Ecotype	Indiangrass, PA Ecotype	10.60
8.10 % <i>Andropogon gerardii</i> , 'Niagara'	Big Bluestem, 'Niagara'	13.06
7.50 % <i>Elymus virginicus</i> , PA Ecotype	Virginia Wildrye, PA Ecotype	7.72
5.20 % <i>Elymus canadensis</i>	Canada Wildrye	12.87
4.50 % <i>Schizanthus scoparius</i> , 'Camper'	Little Bluestem, 'Camper'	12.59
3.70 % <i>Tridens flavus</i>	Purpletop	18.56
3.00 % <i>Agrostis perennis</i> , Albany Pine Bush-NY Ecotype	Autumn Bergamoss, Albany Pine Bush-NY Ecotype	14.00
2.30 % <i>Panicum virgatum</i> , 'Shawnee'	Switchgrass, 'Shawnee'	7.51
1.10 % <i>Chamaecrista fasciculata</i> , PA Ecotype	Partridge Pea, PA Ecotype	10.00
1.00 % <i>Echinacea purpurea</i>	Purple Coneflower	36.00
0.80 % <i>Gallardia aridata</i>	Perennial Gallardia (Blanketflower)	32.00
0.80 % <i>Audubonia hirta</i>	Black-eyed Susan	20.00
0.70 % <i>Helopsis helianthoides</i> , PA Ecotype	Cheery Sunflower, PA Ecotype	42.00
0.40 % <i>Aster lateriflorus</i>	Calico Aster	300.00
0.30 % <i>Liatris spicata</i>	Marsh (Dense) Blazing Star (Spiked Gayfeather)	210.00
0.20 % <i>Asclepias syriaca</i> , PA Ecotype	Common Milkweed, PA Ecotype	196.00

100.00 % Mix Price/lb Bulk: \$9.88

Seeding Rate: 75 lb per acre  
Erosion Control & Revegetation

Use this formula with grain rye as a cover crop (from August 1st-February 15th). Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

Price quotes guaranteed for 30 days.  
All prices are FOB Meadville, PA.  
Please check our web site at [www.ernstseed.com](http://www.ernstseed.com)  
for current pricing when placing orders.

2 SEED MIX 1 - NATIVE STEEP SLOPES (FALL)  
SCALE: N.T.S.



Ernst Conservation Seeds  
8884 Mercer Pike  
Meadville, PA 16335  
(800) 873-3321 Fax (814) 336-5191  
www.ernstseed.com

Date: August 28, 2018

Rain Garden Mix - ERNMX-180

Botanical Name	Common Name	Price/lb
31.50 % <i>Schizanthus scoparius</i> , Albany Pine Bush-NY Ecotype	Little Bluestem, Albany Pine Bush-NY Ecotype	12.02
20.00 % <i>Elymus virginicus</i> , PA Ecotype	Virginia Wildrye, PA Ecotype	7.72
10.00 % <i>Carex vulpinoidea</i> , PA Ecotype	Fox Sedge, PA Ecotype	24.00
10.00 % <i>Panicum virgatum</i> , Coastal Plain NC Ecotype	Redtop Panicgrass, Coastal Plain NC Ecotype	48.00
5.00 % <i>Echinacea purpurea</i>	Purple Coneflower	36.00
3.00 % <i>Coreopsis lanceolata</i>	Lanceleaf Coreopsis	24.00
2.00 % <i>Audubonia hirta</i>	Black-eyed Susan	20.00
2.00 % <i>Carex scoparia</i> , PA Ecotype	Blunt Broom Sedge, PA Ecotype	72.00
2.00 % <i>Chamaecrista fasciculata</i> , PA Ecotype	Partridge Pea, PA Ecotype	10.00
2.00 % <i>Eupatorium coelestinum</i> , VA Ecotype	Milkflower, VA Ecotype	128.00
2.00 % <i>Helopsis helianthoides</i> , PA Ecotype	Cheery Sunflower, PA Ecotype	42.00
2.00 % <i>Pennisetum digitatum</i> , PA Ecotype	Tall White Beardgrass, PA Ecotype	160.00
1.00 % <i>Asclepias incarnata</i> , PA Ecotype	Swamp Milkweed, PA Ecotype	160.00
1.00 % <i>Juncus effusus</i>	Soft Rush	40.00
1.00 % <i>Juncus tenuis</i> , PA Ecotype	Path Rush, PA Ecotype	60.00
1.00 % <i>Liatris spicata</i>	Marsh (Dense) Blazing Star (Spiked Gayfeather)	210.00
0.80 % <i>Aster novae-angliae</i> , PA Ecotype	New England Aster, PA Ecotype	360.00
0.70 % <i>Aster lateriflorus</i> , PA Ecotype	Calico Aster, PA Ecotype	300.00
0.50 % <i>Senna hebecarpa</i> , VA & WV Ecotype	Orange Coneflower, Northern VA Ecotype	24.00
0.40 % <i>Morone fasciata</i> , Fort Indiantown Gap-PA Ecotype	Wild Bergamoss, Fort Indiantown Gap-PA Ecotype	160.00
0.30 % <i>Psycotermum tenuifolium</i>	Narrowleaf Mountainmint	140.00
0.30 % <i>Solidago juncea</i> , PA Ecotype	Early Goldenrod, PA Ecotype	280.00

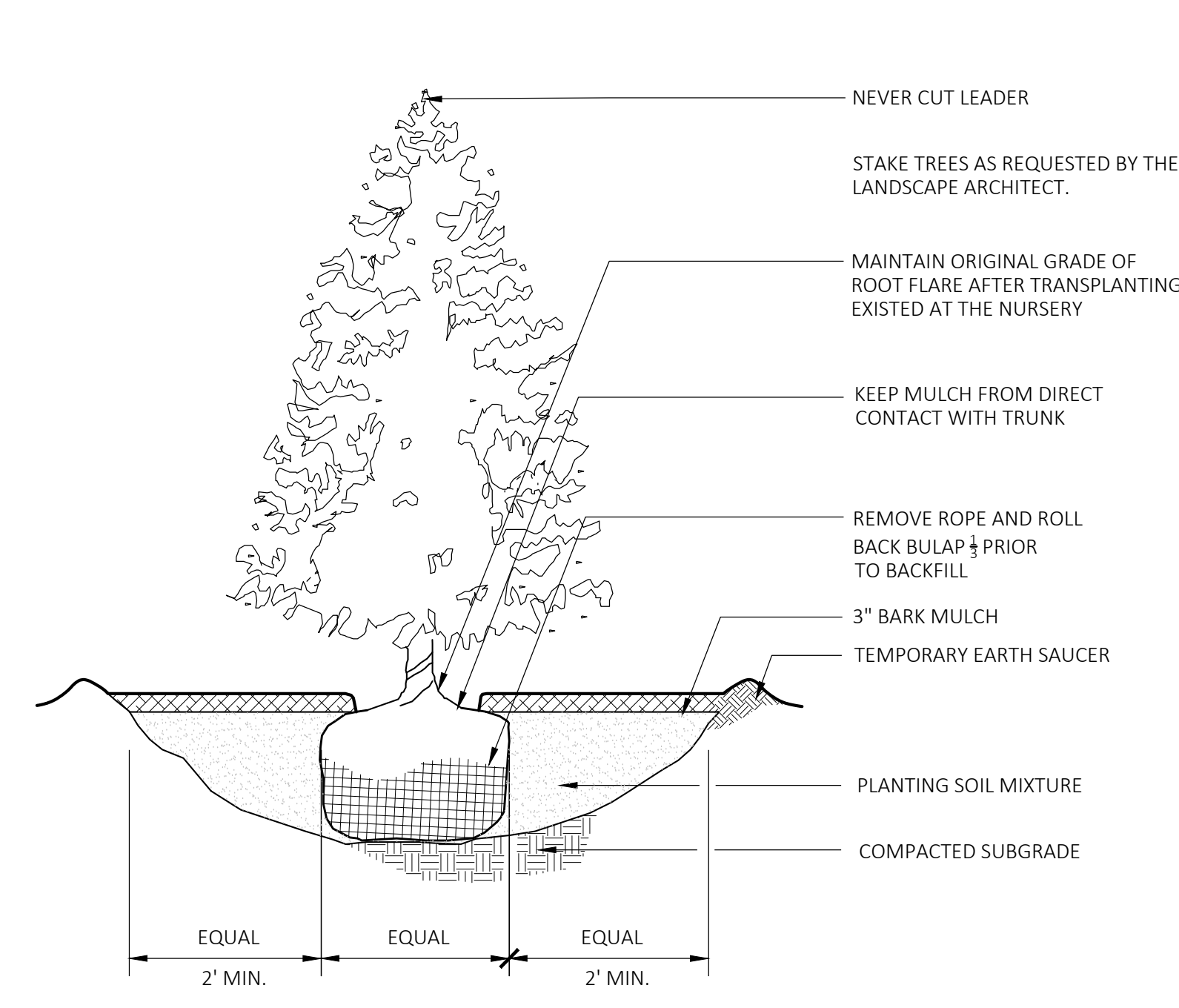
100.00 % Mix Price/lb Bulk: \$37.29

Seeding Rate: 20 lb per acre with a cover crop of grain rye at 30 lb per acre  
Uplands & Meadows

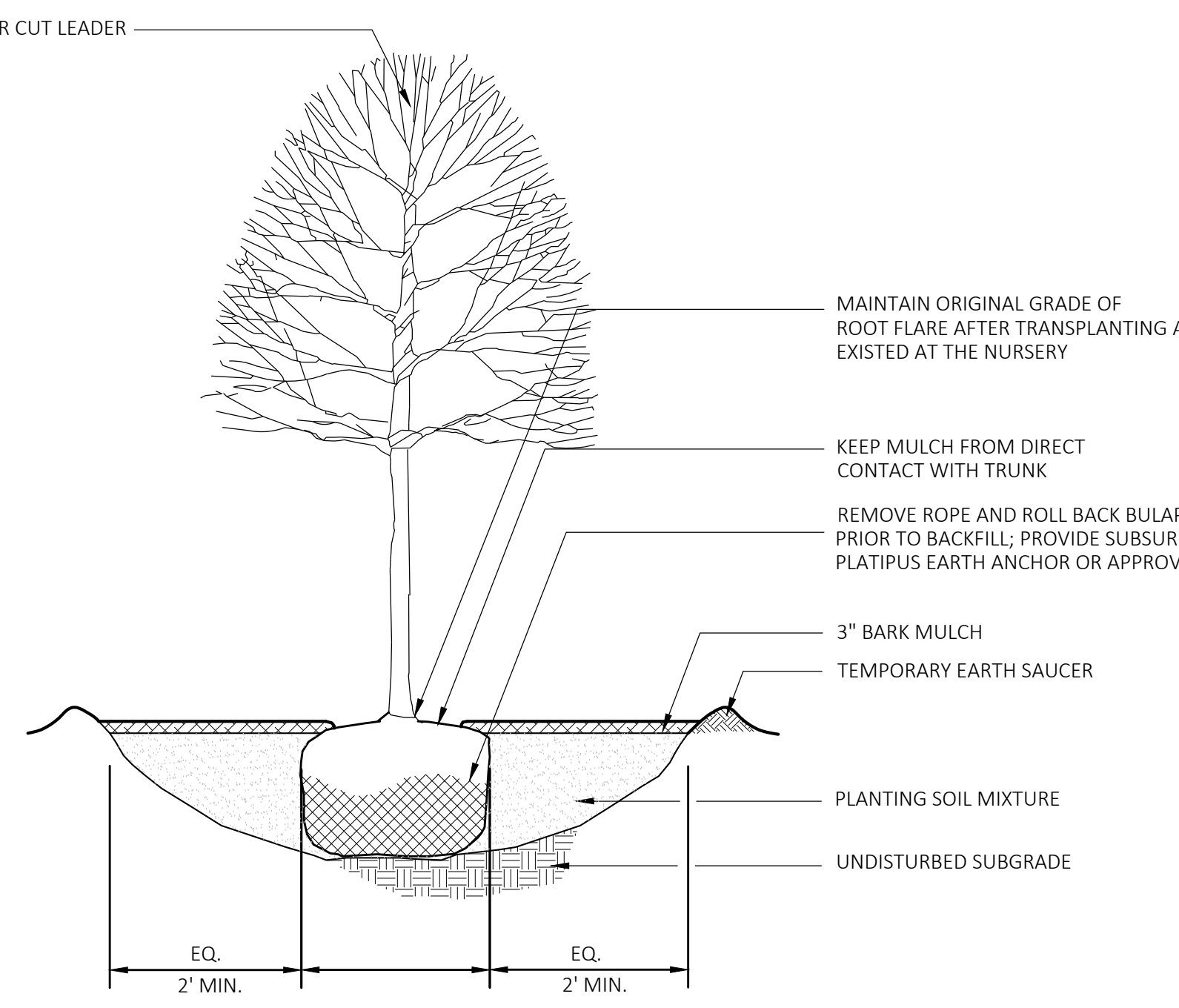
The native perennial forbs and grasses provide food and cover for rain garden biodiversity. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

Price quotes guaranteed for 30 days.  
All prices are FOB Meadville, PA.  
Please check our web site at [www.ernstseed.com](http://www.ernstseed.com)  
for current pricing when placing orders.

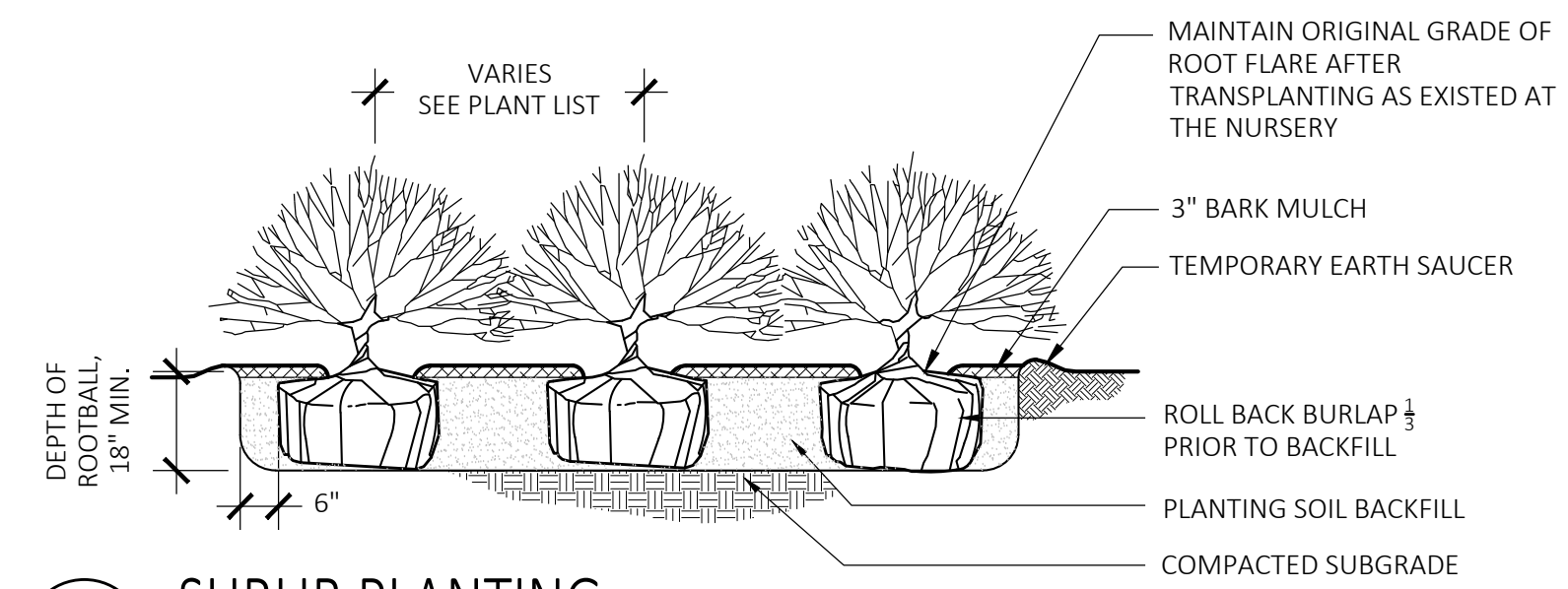
3 SEED MIX 2 - RAIN GARDEN MIX  
SCALE: N.T.S.



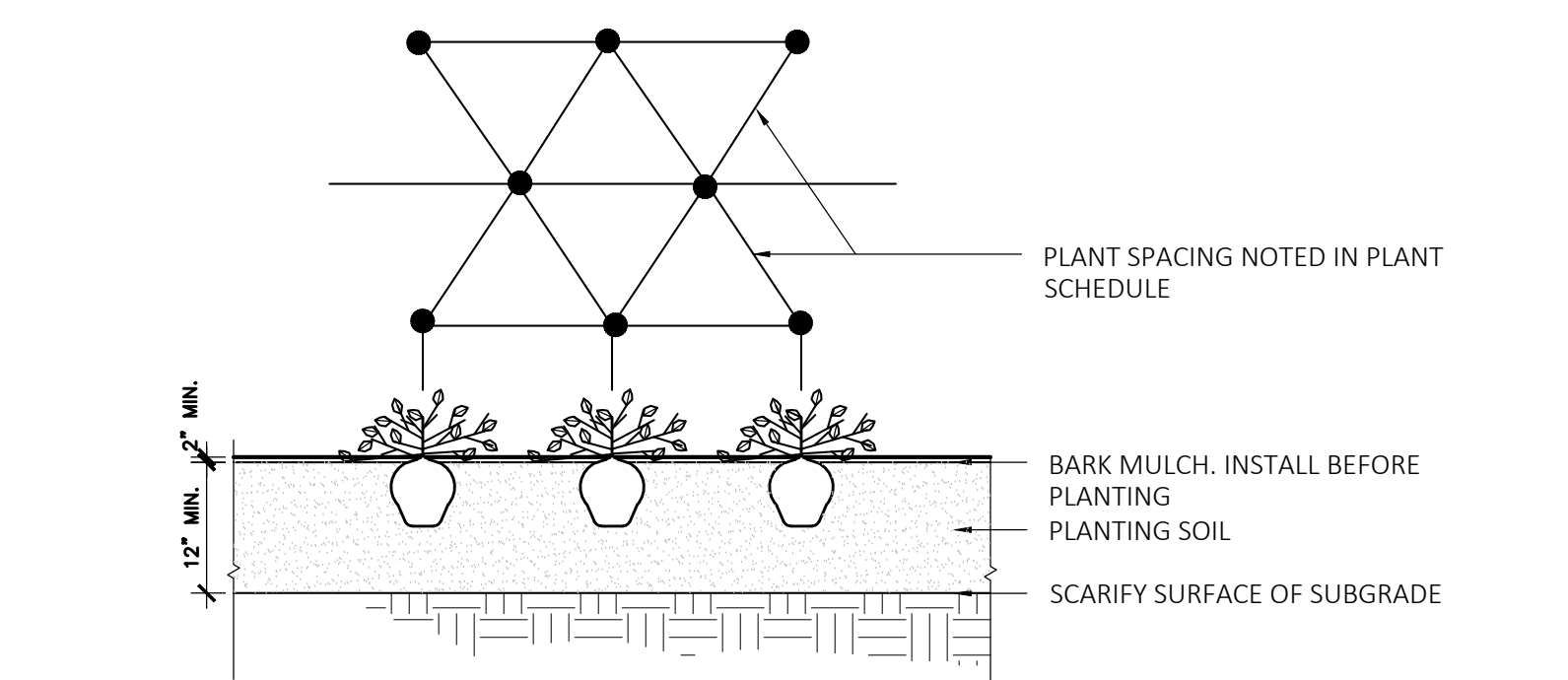
4 EVERGREEN TREE PLANTING  
SCALE: N.T.S.



5 DECIDUOUS TREE PLANTING  
SCALE: N.T.S.



6 SHRUB PLANTING  
SCALE: N.T.S.



7 GROUNDCOVER PLANTING  
SCALE: N.T.S.



FOR PERMIT ONLY  
NOT FOR CONSTRUCTION

Bollard lights		Generated on: 03-22-2023 7:54 pm		<b>Arcluce</b>	
Project					
TYPE					
Catalog#					
NOTES					

**KLOU180**  
large

Arcluce Code: **SL-KL0203US-12S**  
Code Ref: **087100D-830-12US**

Installation instructions | IES photometry

**TECHNICAL INFORMATION**

**Light source:** LED, 3000K, CRB-80  
**Light efficiency:** 73lm/W  
**Power luminaire:** 39W, 1400lm  
**LED life time:** > 60,000h - L80 - B20 (Ta 25°C)  
**High colour consistency:** < 3 SDCM  
**Wiring:** 120-277V 60Hz DIMM  
**Optics:** radial  
**Color:** Black - 12  
**Height:** 24.0" ± 0.1  
**Size:** A: 8" 7" 14  
B: 3" 3" 3"

**Construction**

- Die-cast aluminum body (EN 47100)
- Extruded aluminum pole
- Double layer polyester powder paint resistant to corrosion and self-spraying fog
- Silicone rubber gaskets
- ANSI 316 stainless steel external screws

**Electrical & Optics**

- Universal input voltage: 120-277V 50/60Hz
- 0-10V dimming available
- Wiring on removable galvanneal steel tray
- High-efficiency LEDs with standard 3000K, 4000K (2700K or other CCTs available on request)
- Reflector made of anodized aluminum with non-reflective specular finishing
- UV UVs stabilized, 850° glow wire test resistant, V2 self-extinguishing clear polycarbonate screen

**Listings**

- UL certified to U.S. and Canadian standards, suitable for wet locations (UL wet mark)
- Suitable for mounting within 1.2 m (4 ft) of ground
- Rated IP66 per EN60598
- Luminaire rated for 40°C minimum ambient temperature on selected model variants
- High quality LED sources characterized according to IES TM-30, with high color consistency <3SDCM and long useful life (50,000 hours at L80)

**Installation**

- Surface installation
- Die-cast aluminum base (EN 47100) for anchoring with rebar/plate
- Supplied with steel base plate and shaped anchor bolts
- Available on request: encased steel pillar for reinforced anchoring
- Supplied with power cord (18AWG conductors)

**IP66**  
**IK09**  
**CE**  
**215 F**

**BEACON**  
**RATIO Series**  
AREA/SITE LIGHTER

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_  
TYPE: \_\_\_\_\_ PROJECT: \_\_\_\_\_  
CATALOG #:

**FEATURES**

- Low profile LED available luminaire with a variety of IES distributions for lighting applications such as retail, commercial and campus parking lots
- Featuring Micro Scribe Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass issues
- Visual comfort standard
- Compact and lightweight design with low EPIA
- 3G rated for high vibration applications including bridges and overpasses
- Control options including photo control, occupancy sensing, NX Distributed Intelligence™ and 2-Fin with networked controls
- Best in class surge protection available

**CONTROL TECHNOLOGY**

**NX LIGHTING CONTROLS**

**SPECIFICATIONS**

**CONSTRUCTION**

- Rectilinear form mimics the traditional speedway form factor keeping a simple but updated style and appearance, ideal for retrofit applications
- Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with powder coat paint finish

**OPTICS**

- Entire optical aperture illuminates to create a large luminous surface area resulting in a low glare appearance without sacrificing optical performance
- 80, 90, 320 or 480 midpower LEDs
- 3000K, 4000K or 5000K (70 CRI) CCT
- Zero glare at 0 degrees of tilt
- Field replaceable optics

**INSTALLATION**

- Standard square arm mount, compatible with B3181 pattern
- Optional universal mounting block for ease of install during retrofit applications. Available as an option or accessory for square and round poles.
- Kruecke arm fixer option available for 2.38" OD bases. Max of 60 degrees with degree adjustable increments. (Restrictions apply for 7-pin option)
- NX Distributed Intelligence™ available with in fixture wireless control module. Features dimming and occupancy sensor.

**KEY DATA**

Lumen Range	1300 - 48500
Wattage Range	25 - 340
Efficacy Range (lm/W)	118 - 155
Fixture Projected Life (Hours)	170-60K
Weights lbs. (kg)	13.5 - 24 (6.1 - 10.9)

**BEACON**  
**SSS-B Series Poles**  
SQUARE STRAIGHT STEEL

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_  
TYPE: \_\_\_\_\_ PROJECT: \_\_\_\_\_  
CATALOG #:

**APPLICATIONS**

- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

**CONSTRUCTION**

- SHAFT: One-piece straight steel with square cross section, flat sides and minimum 0.23" radius on all corners; Minimum yield of 46,000 psi (ASTM A500, Grade B). Longitudinal weld seam to appear flush with shaft side wall. Steel base plate with wall bolt circle slots welded flush to pole shaft having minimum yield of 35,000 psi (ASTM A36)
- BASE COVER: Two-piece square aluminum base cover included standard
- POLE CAP: Pole shaft supplied with removable cover when applicable; Tenon and post top configurations also available
- HAND HOSE: Rectangular 3/8" steel hand hose frame (2.38" x 4.38" opening). Mounting provisions for grounding lug located behind gasketed cover
- ANCHOR BOLTS: Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for welding  
Anchor bolt part numbers: 3/4 x 30 x 3 - TAB-30-M3B  
1 x 36 x 4 - TAB-36-M3B

**FINISH**

- Durable thermoplastic powder coat paint finish with nominal 3.0 mil thickness
- Powder paint prime applied over "white metal" steel substrate cleaned via mechanical shot blast method
- Decorative finish coat available in multiple standard colors; Custom colors available; RAL number preferable

**WAREHOUSE STOCKED POLES:**

- SS300-404-HV-09-RDC, SS315-404-HV-08-RDC and SS330-508-4-HV-09-RDC
- The HV designation in the above catalog numbers is a combination drill pattern of the Current S2 pattern and the Beacon B3184 Viper pattern (rectangular arm mounting)

**ORDERING INFORMATION**

Reference page 2 for available configurations

ORDERING EXAMPLE: **SSS-B - 25 - 40 - A/B/C - 2L - B3 - BLT - UL**

STATUS	HEIGHT	SHAFT	THICKNESS	MOUNTING	FINISH	OPTIONS	
SSS-B Square Straight Steel Pole Base	Ordering page 2	Ordering page 2	Ordering page 2	Ordering page 2	1 Single arm mount 2 Two Nuts at 90° 3 Two Nuts at 90° 4 Four Nuts at 90° 5A Inset (2.38" OD x 4" Tall) 5B Inset (2.38" OD x 4" Tall) 5C Inset (1.5" OD x 4" Tall) 6 Inset (1.5" OD x 4" Tall) 7 Inset (1.5" OD x 4" Tall) 8 Inset (1.5" OD x 4" Tall) 9 Inset (1.5" OD x 4" Tall) 10 Inset (1.5" OD x 4" Tall) 11 Inset (1.5" OD x 4" Tall) 12 Inset (1.5" OD x 4" Tall) 13 Inset (1.5" OD x 4" Tall) 14 Inset (1.5" OD x 4" Tall) 15 Inset (1.5" OD x 4" Tall) 16 Inset (1.5" OD x 4" Tall) 17 Inset (1.5" OD x 4" Tall) 18 Inset (1.5" OD x 4" Tall) 19 Inset (1.5" OD x 4" Tall) 20 Inset (1.5" OD x 4" Tall) 21 Inset (1.5" OD x 4" Tall) 22 Inset (1.5" OD x 4" Tall) 23 Inset (1.5" OD x 4" Tall) 24 Inset (1.5" OD x 4" Tall) 25 Inset (1.5" OD x 4" Tall) 26 Inset (1.5" OD x 4" Tall) 27 Inset (1.5" OD x 4" Tall) 28 Inset (1.5" OD x 4" Tall) 29 Inset (1.5" OD x 4" Tall) 30 Inset (1.5" OD x 4" Tall) 31 Inset (1.5" OD x 4" Tall) 32 Inset (1.5" OD x 4" Tall) 33 Inset (1.5" OD x 4" Tall) 34 Inset (1.5" OD x 4" Tall) 35 Inset (1.5" OD x 4" Tall) 36 Inset (1.5" OD x 4" Tall) 37 Inset (1.5" OD x 4" Tall) 38 Inset (1.5" OD x 4" Tall) 39 Inset (1.5" OD x 4" Tall) 40 Inset (1.5" OD x 4" Tall) 41 Inset (1.5" OD x 4" Tall) 42 Inset (1.5" OD x 4" Tall) 43 Inset (1.5" OD x 4" Tall) 44 Inset (1.5" OD x 4" Tall) 45 Inset (1.5" OD x 4" Tall) 46 Inset (1.5" OD x 4" Tall) 47 Inset (1.5" OD x 4" Tall) 48 Inset (1.5" OD x 4" Tall) 49 Inset (1.5" OD x 4" Tall) 50 Inset (1.5" OD x 4" Tall) 51 Inset (1.5" OD x 4" Tall) 52 Inset (1.5" OD x 4" Tall) 53 Inset (1.5" OD x 4" Tall) 54 Inset (1.5" OD x 4" Tall) 55 Inset (1.5" OD x 4" Tall) 56 Inset (1.5" OD x 4" Tall) 57 Inset (1.5" OD x 4" Tall) 58 Inset (1.5" OD x 4" Tall) 59 Inset (1.5" OD x 4" Tall) 60 Inset (1.5" OD x 4" Tall) 61 Inset (1.5" OD x 4" Tall) 62 Inset (1.5" OD x 4" Tall) 63 Inset (1.5" OD x 4" Tall) 64 Inset (1.5" OD x 4" Tall) 65 Inset (1.5" OD x 4" Tall) 66 Inset (1.5" OD x 4" Tall) 67 Inset (1.5" OD x 4" Tall) 68 Inset (1.5" OD x 4" Tall) 69 Inset (1.5" OD x 4" Tall) 70 Inset (1.5" OD x 4" Tall) 71 Inset (1.5" OD x 4" Tall) 72 Inset (1.5" OD x 4" Tall) 73 Inset (1.5" OD x 4" Tall) 74 Inset (1.5" OD x 4" Tall) 75 Inset (1.5" OD x 4" Tall) 76 Inset (1.5" OD x 4" Tall) 77 Inset (1.5" OD x 4" Tall) 78 Inset (1.5" OD x 4" Tall) 79 Inset (1.5" OD x 4" Tall) 80 Inset (1.5" OD x 4" Tall) 81 Inset (1.5" OD x 4" Tall) 82 Inset (1.5" OD x 4" Tall) 83 Inset (1.5" OD x 4" Tall) 84 Inset (1.5" OD x 4" Tall) 85 Inset (1.5" OD x 4" Tall) 86 Inset (1.5" OD x 4" Tall) 87 Inset (1.5" OD x 4" Tall) 88 Inset (1.5" OD x 4" Tall) 89 Inset (1.5" OD x 4" Tall) 90 Inset (1.5" OD x 4" Tall) 91 Inset (1.5" OD x 4" Tall) 92 Inset (1.5" OD x 4" Tall) 93 Inset (1.5" OD x 4" Tall) 94 Inset (1.5" OD x 4" Tall) 95 Inset (1.5" OD x 4" Tall) 96 Inset (1.5" OD x 4" Tall) 97 Inset (1.5" OD x 4" Tall) 98 Inset (1.5" OD x 4" Tall) 99 Inset (1.5" OD x 4" Tall) 100 Inset (1.5" OD x 4" Tall)	BLT Black Matte Textured DST Dark Bronze Matte Textured GTT Graphite Matte Textured LGS Light Grey Gloss Smooth PFS Platinum Silver Smooth WHT White Gloss Smooth WHS White Gloss Smooth VGT Verde Green Textured CC Custom Color	CRF 24 Ang 810 Rebarless and Cover EMF Extra Hardware COP 3" Coating COP 2" Coating MPP Mid-power Luminaire Bracket VM2 2nd mode vibration damper LAB Less Anchor Bolts UL UL Certified

**ACCESSORIES - Order Separately**

Catalog Number	Description
MSXX	2nd mode vibration damper
MSXX	2nd mode vibration damper

**BEACON**  
**RATIO Wall**  
RWL1RWL2 LED WALL PACK

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_  
TYPE: \_\_\_\_\_ PROJECT: \_\_\_\_\_  
CATALOG #:

**FEATURES**

- Low profile LED wall luminaire with a variety of IES distributions for lighting applications such as retail, commercial and industrial building mount
- Featuring Micro Scribe Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass issues
- Visual comfort standard
- Control options including photo control, occupancy sensing, NX Distributed Intelligence™, WISCAPE and 2-Fin with networked controls
- Battery Backup options available for emergency code compliance
- Quick-mount adapter allows easy installation/maintenance
- 347V and 480V versions for industrial applications and Canada

**CONTROL TECHNOLOGY**

**NX LIGHTING CONTROLS** | **WISCAPE**

**SPECIFICATIONS**

**CONSTRUCTION**

- Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with powder coat paint finish
- Powder paint finish provides durability in outdoor environments. Tested to meet 1000 hour salt spray rating

**OPTICS**

- Entire optical aperture illuminates to create a large luminous surface area resulting in a low glare appearance without sacrificing optical performance
- 48 or 90 midpower LEDs
- 3000K, 4000K or 5000K (70 CRI) CCT
- LED optics provide IES type I, II and IV distributions. Type IV available in RWL2 configurations

**INSTALLATION**

- Quick-mount adapter provides easy installation to wall or recessed junction boxes (if square junction box)
- Designed for direct junction box mount
- Integral back box contains 12" conduit hubs
- Integral back box standard with Dual Driver Dual Power Feed, NX, WISCAPE and battery versions (battery version for RWL2 only)
- Integral Battery Backup provides emergency lighting for the required 90 minute path of egress
- Battery Backup suitable for connecting temperatures 25°C to 40°C. RWL1 battery is 12.9V RWL2 battery is 9.9V

**ELECTRICAL**

- 120V-277V universal voltage 50/60Hz 0-10V dimming drivers
- 347V and 480V dimmable driver option for all voltages above 277V
- Ambient operating temperature -40°C to 40°C
- Driver IK08 and IP66

**KEY DATA**

Lumen Range	1300 - 18300
Wattage Range	10 - 155
Efficacy Range (lm/W)	103 - 148
Weights lbs. (kg)	5.5/2.5 (2.5/1.1)

Arcluce North America Inc. 333 Bush Street - San Francisco, CA 94104 - PH: +1 (408) 856-6275 - export@arcluce.com | arcluce-us.com

See accessories in the next page

Current | currentlighting.com/beacon | Page 1 of 8 | Rev: 03/2023 | SEA\_Ratio\_BBL\_1\_2\_Sep\_2021

Current | currentlighting.com/beacon | Page 1 of 4 | Rev: 05/2022 | rpep\_wall\_pack\_beacon\_B01

Current | currentlighting.com/beacon | Page 1 of 7 | Rev: 03/2023 | Ratio\_Wall\_Pack\_Driver\_B01

1 BL1 SCALE: N.T.S.

2 SL3, SL4, SL4-2 FIXTURE SCALE: N.T.S.

3 SL3, SL4, SL4-2 POST SCALE: N.T.S.

4 WL1, WL4 SCALE: N.T.S.

**DURA**  
LAMP  
a brand of TARGETT

**DURATAPE™ ES**  
IP66 OUTDOOR

**KEY FEATURES**

- Energy efficient high-milrow output narrow spaced essential white LED flexible linear light strip for continuous constant color in linear applications
- Ideal for IP66 exterior code, under-counter/above, lighting accents
- Complete with enclosed silicone jacket for outdoor rated IP66, tickle per foot
- Features 2-circuit substrate for optimum heat dissipation, minimizing voltage drop while increasing run lengths per power feed, standardizing electrical flow over entire length of the strip for maximum product reliability
- Features double sided solder joints for maximum conductivity and durability
- Pre-assembled to specific lengths with various connector options for project requirements and efficient power configuration
- Max continuous length: up to 30' per run (5.9W/ft) up to 22' per run (3.9W/ft) up to 19' per run (2.9W/ft) up to 16' per run (1.4W/ft)
- Multiple dimming options available

**DIMENSIONAL DRAWINGS**

0.32" O.C.  
Field cut possible every 4"  
0.16"  
0.48"

**DESIGN INSTALLATION EXAMPLES**

Cove | Under Counter Task | Under Counter Directional Task

**STRIP DATA**

Model	Intensity (lm/W)	Lm/Ft	W/Ft	Model	Wattage	Viewing Angle	Viewing @ 90° dist.
15W/ft	6000*	915	15	15W/ft	0.04W	120°	6000lm/ft
3.2W/ft	6000*	259	3.9	3.9W/ft	0.28W		6000lm/ft
3.9W/ft	9000*	351	3.9	3.9W/ft	0.30W		5000lm/ft
4.4W/ft	9400*	412	4.4	4.4W/ft	0.32W		45000lm/ft

\*Meets Title 24 High efficiency rating.

**TM30 (3.0W/ft model)**

CCT	CRi	Ra	R9	Rf	Rg
2207K	96.5	95	94.2	103.4	
2733K	97.7	95	95.1	101.7	
302K	97.3	94	89.7	97.3	
3507K	96.2	95	89.1	97.8	
4026K	96.6	93	89.3	97.8	

**PRODUCT CODE** | INTENSITY | WATTAGE | IP RATING | COLOR TEMP. | CRI | VOLTAGE | END FEED | MOUNTING | POWER SUPPLY

DL - Duratape™ ES - Essential ES - 15W/ft - 0 - Outdoor IP66 27 - 2700K HC - +95 CR - 24 - 24VDC

WH - White 30 - 3000K 39 - 3.9W/ft 39 - 3500K 44 - 4.4W/ft 40 - 4000K

**QUICK SHIP** | (A) 888074234-08 | (B) 888074234-08 | (C) 888074234-08 | (D) 888074234-08 | (E) 888074234-08 | (F) 888074234-08 | (G) 888074234-08 | (H) 888074234-08 | (I) 888074234-08 | (J) 888074234-08

1 Lead time for stock and follow a 1-2 weeks from processed PO date. Consult factory for quantities over 1000 for custom lead time.

Targett USA - A Targett Group Company - 7150 W. 17th St. Costa Mesa, CA 92627 - Phone (714) 539-1991 - Email targettusa@targett.com - targettusa.com - 0721 - Page 1 of 9

**BEACON**  
**RATIO Series**  
AREA/SITE LIGHTER

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_  
TYPE: \_\_\_\_\_ PROJECT: \_\_\_\_\_  
CATALOG #:

**FEATURES**

- Low profile LED available luminaire with a variety of IES distributions for lighting applications such as retail, commercial and campus parking lots
- Featuring Micro Scribe Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass issues
- Visual comfort standard
- Compact and lightweight design with low EPIA
- 3G rated for high vibration applications including bridges and overpasses
- Control options including photo control, occupancy sensing, NX Distributed Intelligence™ and 2-Fin with networked controls
- Best in class surge protection available

**CONTROL TECHNOLOGY**

**NX LIGHTING CONTROLS**

**SPECIFICATIONS**

**CONSTRUCTION**

- Rectilinear form mimics the traditional speedway form factor keeping a simple but updated style and appearance, ideal for retrofit applications
- Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with powder coat paint finish

**OPTICS**

- Entire optical aperture illuminates to create a large luminous surface area resulting in a low glare appearance without sacrificing optical performance
- 80, 90, 320 or 480 midpower LEDs
- 3000K, 4000K or 5000K (70 CRI) CCT
- Zero glare at 0 degrees of tilt
- Field replaceable optics

**INSTALLATION**

- Standard square arm mount, compatible with B3181 pattern
- Optional universal mounting block for ease of install during retrofit applications. Available as an option or accessory for square and round poles.
- Kruecke arm fixer option available for 2.38" OD bases. Max of 60 degrees with degree adjustable increments. (Restrictions apply for 7-pin option)
- NX Distributed Intelligence™ available with in fixture wireless control module. Features dimming and occupancy sensor.

**KEY DATA**

Lumen Range	1300 - 48500
Wattage Range	25 - 340
Efficacy Range (lm/W)	118 - 155
Fixture Projected Life (Hours)	170-60K
Weights lbs. (kg)	13.5 - 24 (6.1 - 10.9)

**BEACON**  
**SSS-B Series Poles**  
SQUARE STRAIGHT STEEL

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_  
TYPE: \_\_\_\_\_ PROJECT: \_\_\_\_\_  
CATALOG #:

**APPLICATIONS**

- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

**CONSTRUCTION**

- SHAFT: One-piece straight steel with square cross section, flat sides and minimum 0.23" radius on all corners; Minimum yield of 46,000 psi (ASTM A500, Grade B). Longitudinal weld seam to appear flush with shaft side wall. Steel base plate with wall bolt circle slots welded flush to pole shaft having minimum yield of 35,000 psi (ASTM A36)
- BASE COVER: Two-piece square aluminum base cover included standard
- POLE CAP: Pole shaft supplied with removable cover when applicable; Tenon and post top configurations also available
- HAND HOSE: Rectangular 3/8" steel hand hose frame (2.38" x 4.38" opening). Mounting provisions for grounding lug located behind gasketed cover
- ANCHOR BOLTS: Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for welding  
Anchor bolt part numbers: 3/4 x 30 x 3 - TAB-30-M3B  
1 x 36 x 4 - TAB-36-M3B

**FINISH**

- Durable thermoplastic powder coat paint finish with nominal 3.0 mil thickness
- Powder paint prime applied over "white metal" steel substrate cleaned via mechanical shot blast method
- Decorative finish coat available in multiple standard colors; Custom colors available; RAL number preferable

**WAREHOUSE STOCKED POLES:**

- SS300-404-HV-09-RDC, SS315-404-HV-08-RDC and SS330-508-4-HV-09-RDC
- The HV designation in the above catalog numbers is a combination drill pattern of the Current S2 pattern and the Beacon B3184 Viper pattern (rectangular arm mounting)

**ORDERING INFORMATION**

Reference page 2 for available configurations

ORDERING EXAMPLE: **SSS-B - 25 - 40 - A/B/C - 2L - B3 - BLT - UL**

STATUS	HEIGHT	SHAFT	THICKNESS	MOUNTING	FINISH	OPTIONS	
SSS-B Square Straight Steel Pole Base	Ordering page 2	Ordering page 2	Ordering page 2	Ordering page 2	1 Single arm mount 2 Two Nuts at 90° 3 Two Nuts at 90° 4 Four Nuts at 90° 5A Inset (2.38" OD x 4" Tall) 5B Inset (2.38" OD x 4" Tall) 5C Inset (1.5" OD x 4" Tall) 6 Inset (1.5" OD x 4" Tall) 7 Inset (1.5" OD x 4" Tall) 8 Inset (1.5" OD x 4" Tall) 9 Inset (1.5" OD x 4" Tall) 10 Inset (1.5" OD x 4" Tall) 11 Inset (1.5" OD x 4" Tall) 12 Inset (1.5" OD x 4" Tall) 13 Inset (1.5" OD x 4" Tall) 14 Inset (1.5" OD x 4" Tall) 15 Inset (1.5" OD x 4" Tall) 16 Inset (1.5" OD x 4" Tall) 17 Inset (1.5" OD x 4" Tall) 18 Inset (1.5" OD x 4" Tall) 19 Inset (1.5" OD x 4" Tall) 20 Inset (1.5" OD x 4" Tall) 21 Inset (1.5" OD x 4" Tall) 22 Inset (1.5" OD x 4" Tall) 23 Inset (1.5" OD x 4" Tall) 24 Inset (1.5" OD x 4" Tall) 25 Inset (1.5" OD x 4" Tall) 26 Inset (1.5" OD x 4" Tall) 27 Inset (1.5" OD x 4" Tall) 28 Inset (1.5" OD x 4" Tall) 29 Inset (1.5" OD x 4" Tall) 30 Inset (1.5" OD x 4" Tall) 31 Inset (1.5" OD x 4" Tall) 32 Inset (1.5" OD x 4" Tall) 33 Inset (1.5" OD x 4" Tall) 34 Inset (1.5" OD x 4" Tall) 35 Inset (1.5" OD x 4" Tall) 36 Inset (1.5" OD x 4" Tall) 37 Inset (1.5" OD x 4" Tall) 38 Inset (1.5" OD x 4" Tall) 39 Inset (1.5" OD x 4" Tall) 40 Inset (1.5" OD x 4" Tall) 41 Inset (1.5" OD x 4" Tall) 42 Inset (1.5" OD x 4" Tall) 43 Inset (1.5" OD x 4" Tall) 44 Inset (1.5" OD x 4" Tall) 45 Inset (1.5" OD x 4" Tall) 46 Inset (1.5" OD x 4" Tall) 47 Inset (1.5" OD x 4" Tall) 48 Inset (1.5" OD x 4" Tall) 49 Inset (1.5" OD x 4" Tall) 50 Inset (1.5" OD x 4" Tall) 51 Inset (1.5" OD x 4" Tall) 52 Inset (1.5" OD x 4" Tall) 53 Inset (1.5" OD x 4" Tall) 54 Inset (1.5" OD x 4" Tall) 55 Inset (1.5" OD x 4" Tall) 56 Inset (1.5" OD x 4" Tall) 57 Inset (1.5" OD x 4" Tall) 58 Inset (1.5" OD x 4" Tall) 59 Inset (1.5" OD x 4" Tall) 60 Inset (1.5" OD x 4" Tall) 61 Inset (1.5" OD x 4" Tall) 62 Inset (1.5" OD x 4" Tall) 63 Inset (1.5" OD x 4" Tall) 64 Inset (1.5" OD x 4" Tall) 65 Inset (1.5" OD x 4" Tall) 66 Inset (1.5" OD x 4" Tall) 67 Inset (1.5" OD x 4" Tall) 68 Inset (1.5" OD x 4" Tall) 69 Inset (1.5" OD x 4" Tall) 70 Inset (1.5" OD x 4" Tall) 71 Inset (1.5" OD x 4" Tall) 72 Inset (1.5" OD x 4" Tall) 73 Inset (1.5" OD x 4" Tall) 74 Inset (1.5" OD x 4" Tall) 75 Inset (1.5" OD x 4" Tall) 76 Inset (1.5" OD x 4" Tall) 77 Inset (1.5" OD x 4" Tall) 78 Inset (1.5" OD x 4" Tall) 79 Inset (1.5" OD x 4" Tall) 80 Inset (1.5" OD x 4" Tall) 81 Inset (1.5" OD x 4" Tall) 82 Inset (1.5" OD x 4" Tall) 83 Inset (1.5" OD x 4" Tall) 84 Inset (1.5" OD x 4" Tall) 85 Inset (1.5" OD x 4" Tall) 86 Inset (1.5" OD x 4" Tall) 87 Inset (1.5" OD x 4" Tall) 88 Inset (1.5" OD x 4" Tall) 89 Inset (1.5" OD x 4" Tall) 90 Inset (1.5" OD x 4" Tall) 91 Inset (1.5" OD x 4" Tall) 92 Inset (1.5" OD x 4" Tall) 93 Inset (1.5" OD x 4" Tall) 94 Inset (1.5" OD x 4" Tall) 95 Inset (1.5" OD x 4" Tall) 96 Inset (1.5" OD x 4" Tall) 97 Inset (1.5" OD x 4" Tall) 98 Inset (1.5" OD x 4" Tall) 99 Inset (1.5" OD x 4" Tall) 100 Inset (1.5" OD x 4" Tall)	BLT Black Matte Textured DST Dark Bronze Matte Textured GTT Graphite Matte Textured LGS Light Grey Gloss Smooth PFS Platinum Silver Smooth WHT White Gloss Smooth WHS White Gloss Smooth VGT Verde Green Textured CC Custom Color	CRF 24 Ang 810 Rebarless and Cover EMF Extra Hardware COP 3" Coating COP 2" Coating MPP Mid-power Luminaire Bracket VM2 2nd mode vibration damper LAB Less Anchor Bolts UL UL Certified

**ACCESSORIES - Order Separately**

Catalog Number	Description
MSXX	2nd mode vibration damper
MSXX	2nd mode vibration damper

**BEACON**  
**RATIO Wall**  
RWL1RWL2 LED WALL PACK

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_  
TYPE: \_\_\_\_\_ PROJECT: \_\_\_\_\_  
CATALOG #:

**FEATURES**

- Low profile LED wall luminaire with a variety of IES distributions for lighting applications such as retail, commercial and industrial building mount
- Featuring Micro Scribe Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass issues
- Visual comfort standard
- Control options including photo control, occupancy sensing, NX Distributed Intelligence™, WISCAPE and 2-Fin with networked controls
- Battery Backup options available for emergency code compliance
- Quick-mount adapter allows easy installation/maintenance
- 347V and 480V versions for industrial applications and Canada

**CONTROL TECHNOLOGY**

**NX LIGHTING CONTROLS** | **WISCAPE**

**SPECIFICATIONS**

**CONSTRUCTION**

- Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion



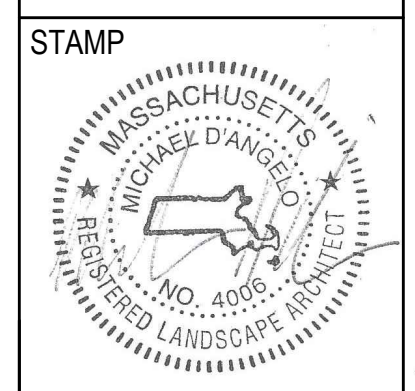
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MICHAEL D'ANGELO landscape architecture

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www.m-d-a.com

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BERKELEY PARTNERS  
1 WASHINGTON MALL, SUITE 701  
BOSTON, MA

**PROJECT**  
WAREHOUSE / INDUSTRIAL DEV.  
100 / 200 FINANCIAL PARK  
FRANKLIN, MA



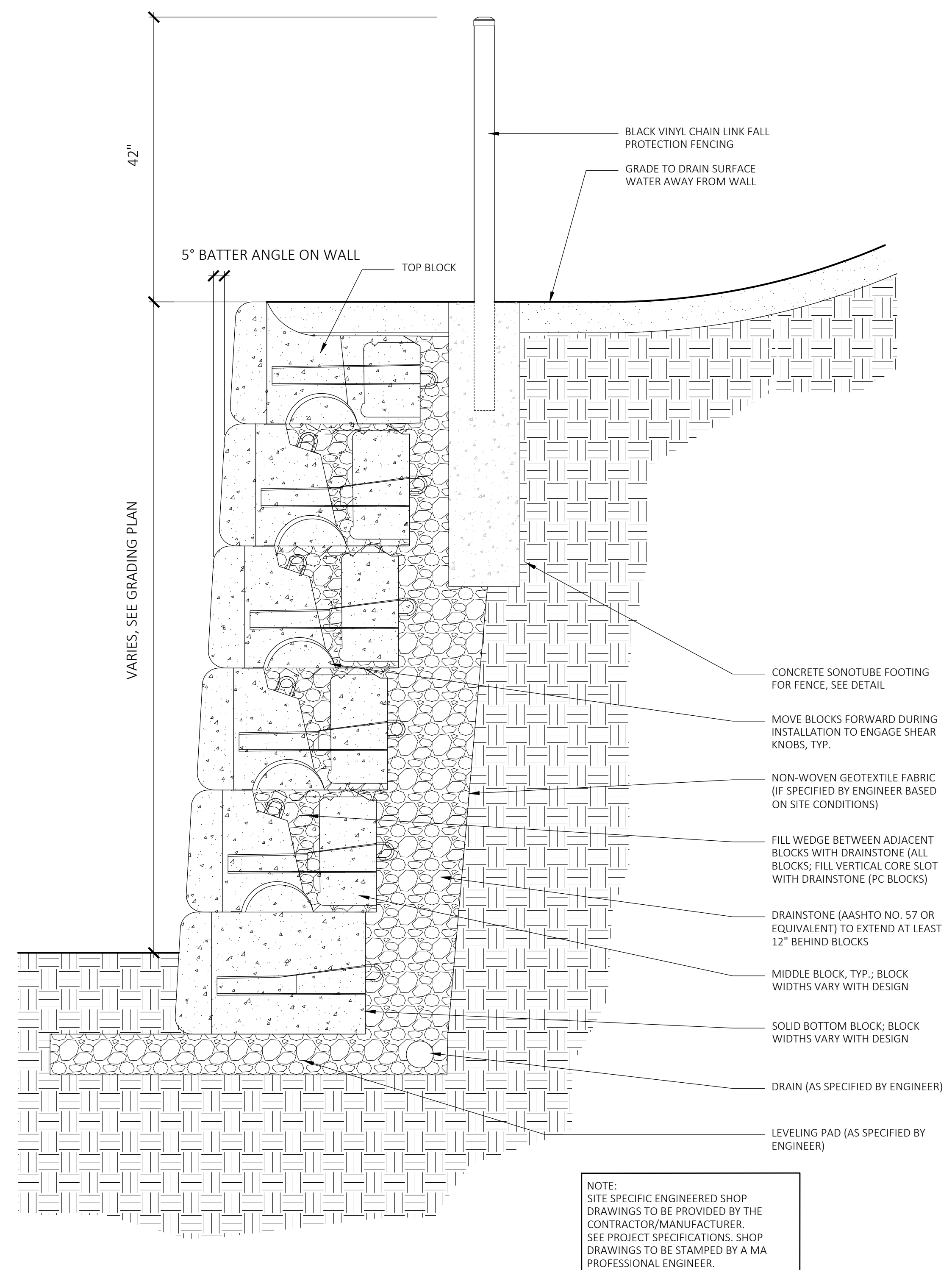
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	5/11/23	FOR PERMIT
1	7/17/23	RESPONSE TO COMMENTS
2	8/10/23	RESPONSE TO COMMENTS
3	8/23/23	RESPONSE TO COMMENTS

LANDSCAPE DETAILS

DRAWN: AA, NC	L302
CHECKED: NC	
SCALE:	
AS NOTED	
DATE: 5/11/2023	

SHEET 20 OF 28

plot date: 10/26/2023



**1 GRAVITY BLOCK RETAINING WALL**  
SCALE: 1" = 1'-0"



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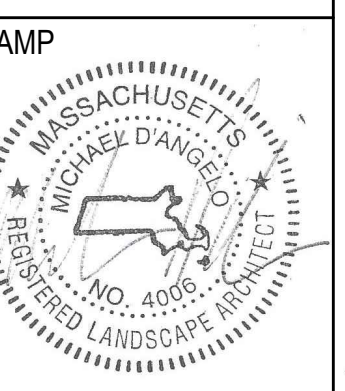
LIGHT SCHEDULE						
SYMBOL	LABEL	MODEL	MOUNT	ARRANGEMENT	OPTIONS	REP
○	BL1	ARLUCE KLOU180 BOLLARD RWL1-48L-25-3K7-4W-U	CONCRETE FOOTING; KEEP 3" ABOVE GRADE	PEDESTRIAN BOLLARD	COLOR: GRAY	
■	SL3	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-3-U BEACON 555-B POLE 555-B-20-40-A-189-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	
■	SL4	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON 555-B POLE 555-B-20-40-A-189-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
■	SL4-2	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON 555-B POLE 555-B-20-40-A-2-189-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	BACK BACK	COLOR: BLK	
□	WL1	BEACON RATIO WALL FIXTURE RWL1-48L-25-3K7-4W-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
□	WL2	BEACON RATIO WALL FIXTURE RWL2-160L-135-3K7-4-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
---	WL3	DL-ES-15-O-30K-HC-24-A-DL- ALUM-U-8	ALUMINUM CHANNEL	RECESSED WALL LIGHT		

SUBMIT CUT SHEETS FOR APPROVAL; SEE PHOTOMETRIC PLAN PROVIDED WITH THIS DRAWING SET FOR MORE INFORMATION.

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CHAMPAGNE BUILDING	illuminance	Fc	1.72	4.7	0.1	17.20	47.00
PARKING AREAS	illuminance	Fc	1.70	30.9	0.0	N.A.	N.A.
SPILL LIGHT	illuminance	Fc	0.10	29.6	0.0	N.A.	N.A.



1 LANDSCAPE PHOTOMETRIC PLAN  
SCALE: 1" = 20'-0"



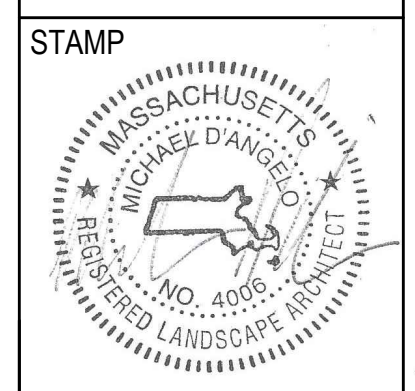
REV. NO.	DATE	DESCRIPTION
	5/11/23	FOR PERMIT
1	7/17/23	RESPONSE TO COMMENTS
2	8/10/23	RESPONSE TO COMMENTS
3	8/28/23	RESPONSE TO COMMENTS

LANDSCAPE  
PHOTOMETRIC  
PLAN

DRAWN: AA,NC	<b>L400</b>
CHECKED: NC	
SCALE: AS NOTED	
DATE: 5/11/2023	
SHEET 21 OF 28	



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REV. NO.	DATE	DESCRIPTION
	5/11/23	FOR PERMIT
1	7/17/23	RESPONSE TO COMMENTS
2	8/10/23	RESPONSE TO COMMENTS
3	8/28/23	RESPONSE TO COMMENTS

LANDSCAPE  
PHOTOMETRIC  
PLAN

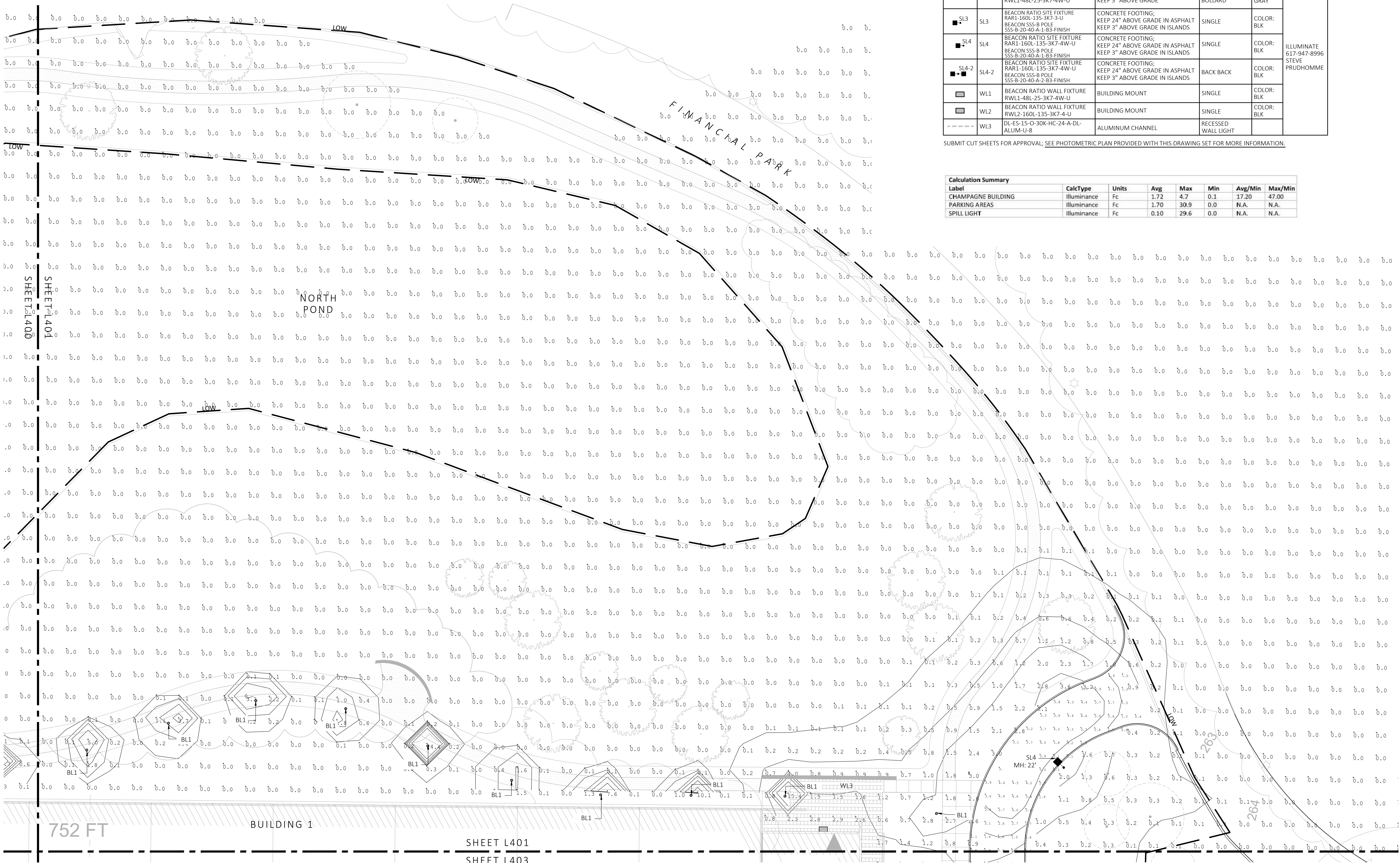
DRAWN:  
AA:NC  
CHECKED:  
NC  
SCALE:  
AS NOTED  
DATE:  
5/11/2023

**L401**

LIGHT SCHEDULE						
SYMBOL	LABEL	MODEL	MOUNT	ARRANGEMENT	OPTIONS	REP
○	BL1	ARCLUCE KLOU180 BOLLARD RWL1-48L-25-3K7-4W-U	CONCRETE FOOTING; KEEP 3" ABOVE GRADE	PEDESTRIAN BOLLARD	COLOR: GRAY	
■	SL3	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-3-U BEACON SSS-B POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
■	SL4	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON SSS-B POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	
■	SL4-2	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON SSS-B POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	BACK BACK	COLOR: BLK	
□	WL1	BEACON RATIO WALL FIXTURE RWL1-48L-25-3K7-4W-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
□	WL2	BEACON RATIO WALL FIXTURE RWL2-160L-135-3K7-4-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
---	WL3	DL-ES-15-O-30K-HC-24-A-DL- ALUM-U-8	ALUMINUM CHANNEL	RECESSED WALL LIGHT		

SUBMIT CUT SHEETS FOR APPROVAL; SEE PHOTOMETRIC PLAN PROVIDED WITH THIS DRAWING SET FOR MORE INFORMATION.

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CHAMPAGNE BUILDING	illuminance	Fc	1.72	4.7	0.1	17.20	47.00
PARKING AREAS	illuminance	Fc	1.70	30.9	0.0	N.A.	N.A.
SPILL LIGHT	illuminance	Fc	0.10	29.6	0.0	N.A.	N.A.



1 LANDSCAPE PHOTOMETRIC PLAN  
SCALE: 1" = 20'-0"



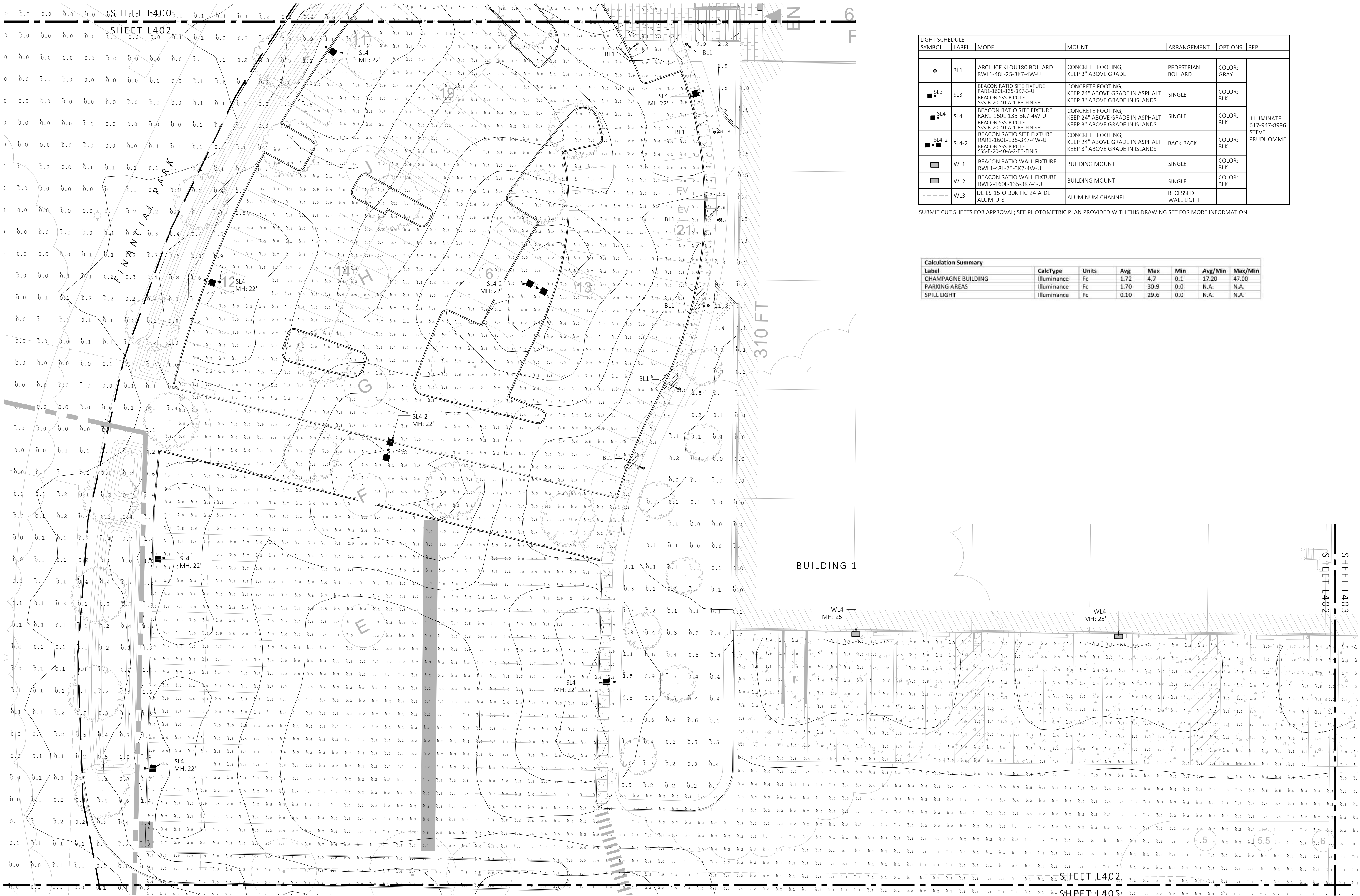
SHEET L401  
SHEET L403

752 FT

BUILDING 1



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NOT FOR CONSTRUCTION



SYMBOL	LABEL	MODEL	MOUNT	ARRANGEMENT	OPTIONS	REP
○	BL1	ARCLUCE KLOU180 BOLLARD RWL1-48L-25-3K7-4W-U	CONCRETE FOOTING; KEEP 3" ABOVE GRADE	PEDESTRIAN BOLLARD	COLOR: GRAY	
■	SL3	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT	SINGLE	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
■	SL4	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT	SINGLE	COLOR: BLK	
■	SL4-2	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT	BACK BACK	COLOR: BLK	
■	SL4-2	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT	BACK BACK	COLOR: BLK	
■	WL1	BEACON RATIO WALL FIXTURE RWL1-48L-25-3K7-4W-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
■	WL2	BEACON RATIO WALL FIXTURE RWL2-160L-135-3K7-4-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
---	WL3	DL-ES-15-O-30K-HC-24-A-DL-ALUM-U-8	ALUMINUM CHANNEL	RECESSED WALL LIGHT		

SUBMIT CUT SHEETS FOR APPROVAL; SEE PHOTOMETRIC PLAN PROVIDED WITH THIS DRAWING SET FOR MORE INFORMATION.

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CHAMPAGNE BUILDING	ILLUMINANCE	Fc	1.72	4.7	0.1	17.20	47.00
PARKING AREAS	ILLUMINANCE	Fc	1.70	30.9	0.0	N.A.	N.A.
SPILL LIGHT	ILLUMINANCE	Fc	0.10	29.6	0.0	N.A.	N.A.

1 LANDSCAPE PHOTOMETRIC PLAN  
SCALE: 1" = 20'-0"



**MDLA**  
MICHAEL D'ANGELO landscape architecture

MICHAEL D'ANGELO  
LANDSCAPE ARCHITECTURE LLC

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1.203.592.4788  
www.m-d-a.com

CLIENT  
BERKELEY PARTNERS  
1 WASHINGTON MALL, SUITE 701  
BOSTON, MA

PROJECT  
WAREHOUSE / INDUSTRIAL DEV.  
100 / 200 FINANCIAL PARK  
FRANKLIN, MA

STAMP  
MICHAEL D'ANGELO  
LANDSCAPE ARCHITECT  
NO. 4098

REV. NO.	DATE	DESCRIPTION
1	5/11/23	FOR PERMIT
2	7/17/23	RESPONSE TO COMMENTS
3	8/10/23	RESPONSE TO COMMENTS
4	8/28/23	RESPONSE TO COMMENTS

LANDSCAPE PHOTOMETRIC PLAN

DRAWN: L402  
CHECKED: NC  
SCALE: AS NOTED  
DATE: 5/11/2023

SHEET 23 OF 28

plot date: 10/25/2023



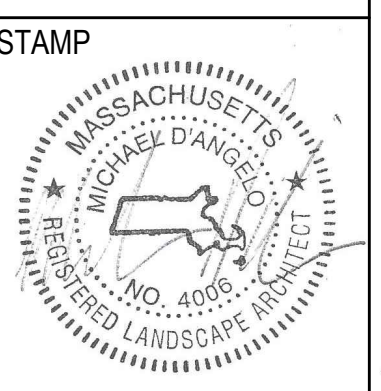
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**MDLA**  
MICHAEL D'ANGELO  
LANDSCAPE ARCHITECTURE

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PROJECT  
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100 / 200 FINANCIAL PARK  
FRANKLIN, MA



REV. NO.	DATE	DESCRIPTION
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4	8/23/23	RESPONSE TO COMMENTS

LANDSCAPE  
PHOTOMETRIC  
PLAN

DRAWN:  
AA:NC  
CHECKED:  
NC  
SCALE:  
AS NOTED  
DATE:  
5/11/2023

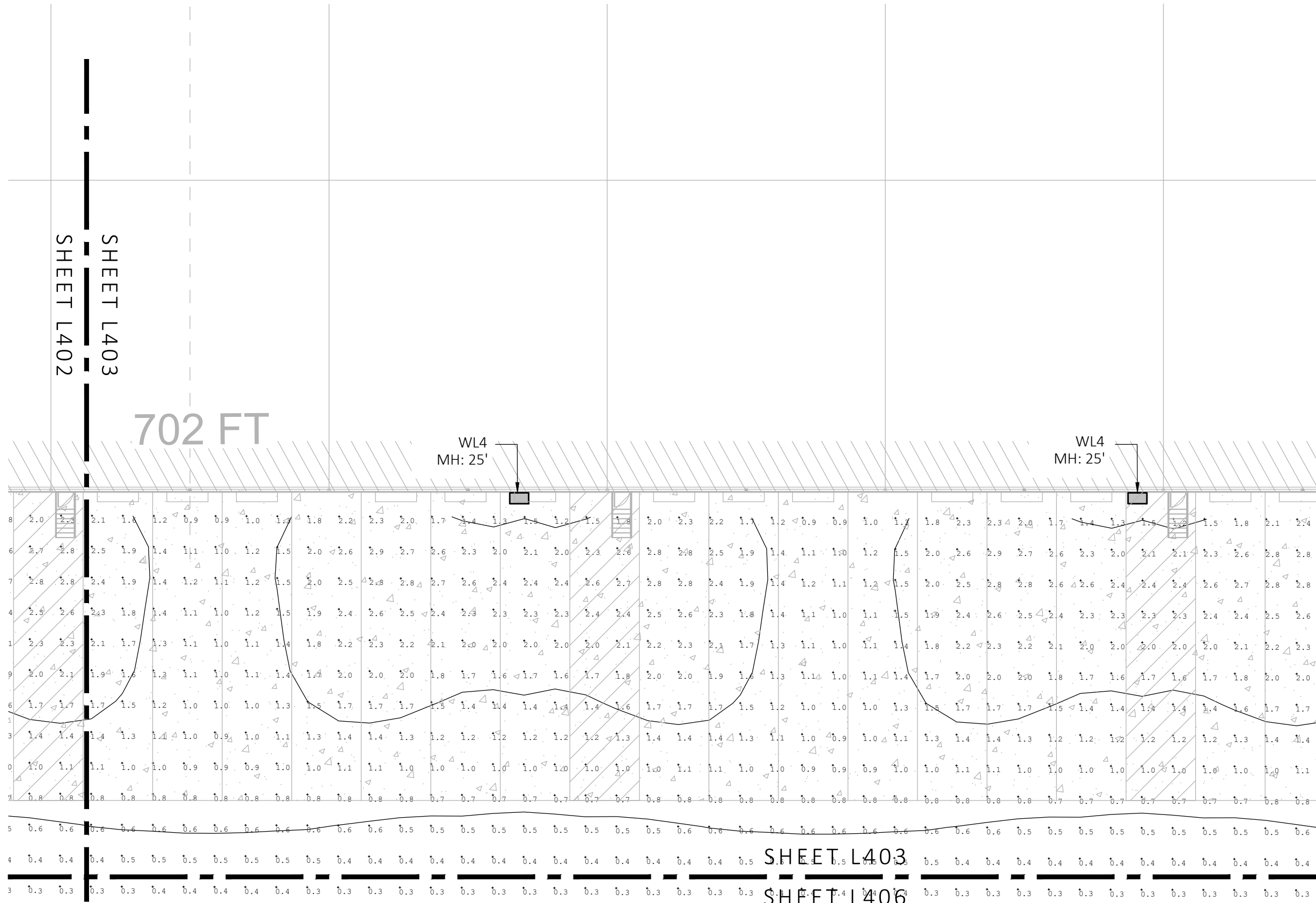
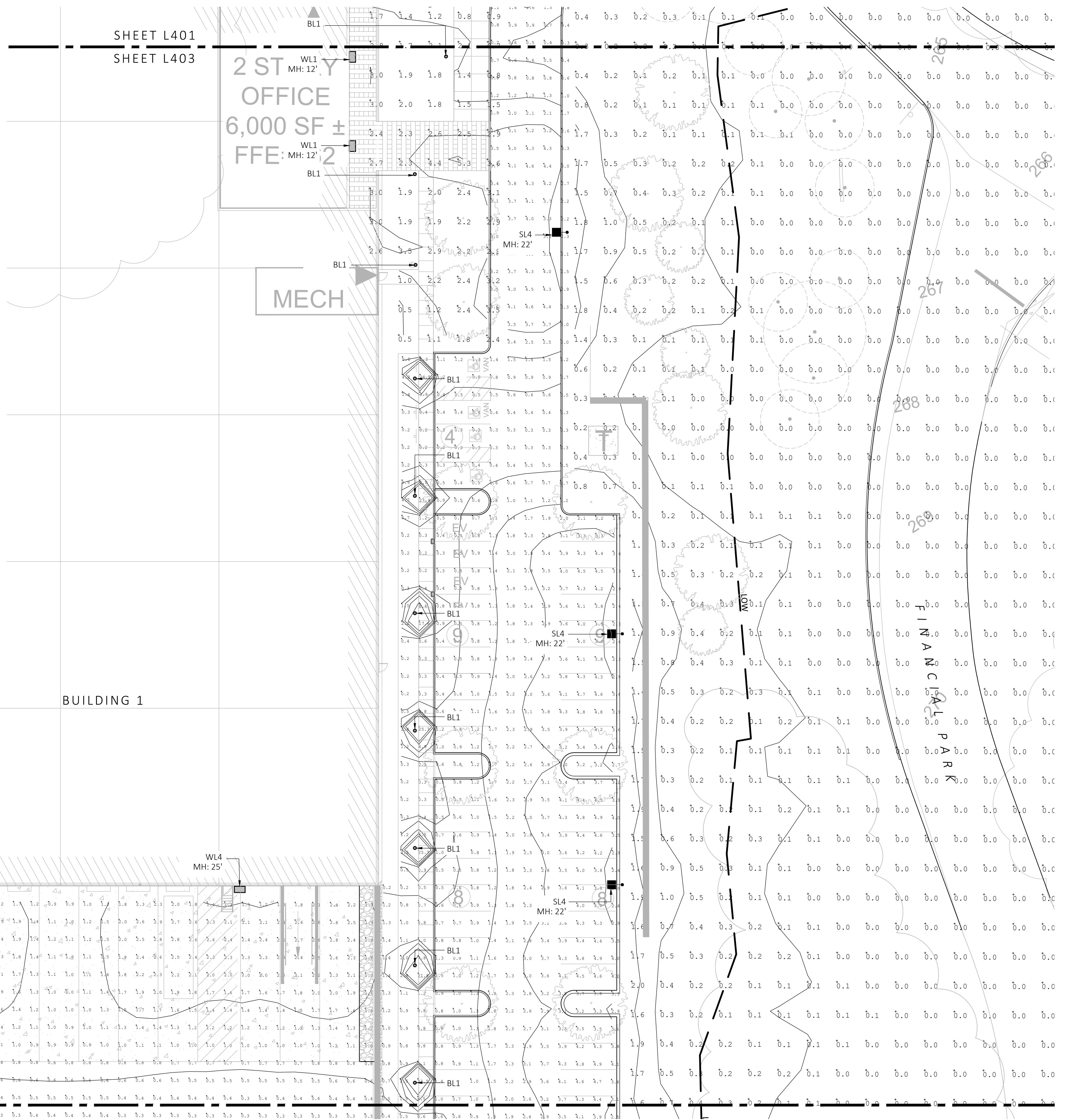
SHEET 24 OF 28

plot date: 10/26/2023

LIGHT SCHEDULE						
SYMBOL	LABEL	MODEL	MOUNT	ARRANGEMENT	OPTIONS	REP
○	BL1	ARCLUCE KLOU180 BOLLARD RWL1-48L-25-3K7-4W-U	CONCRETE FOOTING; KEEP 3" ABOVE GRADE	PEDESTRIAN BOLLARD	COLOR: GRAY	
■	SL3	BEACON RATIO SITE FIXTURE RARI-160L-135-3K7-3-U BEACON SSS-B-POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	
■	SL4	BEACON RATIO SITE FIXTURE RARI-160L-135-3K7-4W-U BEACON SSS-B-POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
■	SL4-2	BEACON RATIO SITE FIXTURE RARI-160L-135-3K7-4W-U BEACON SSS-B-POLE SSS-B-20-40-A-2-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	BACK BACK	COLOR: BLK	
□	WL1	BEACON RATIO WALL FIXTURE RWL1-48L-25-3K7-4W-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
□	WL2	BEACON RATIO WALL FIXTURE RWL2-160L-135-3K7-4-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
---	WL3	DL-ES-15-O-30K-HC-24-A-DL- ALUM-U-8	ALUMINUM CHANNEL	RECESSED WALL LIGHT	COLOR: BLK	

SUBMIT CUT SHEETS FOR APPROVAL; SEE PHOTOMETRIC PLAN PROVIDED WITH THIS DRAWING SET FOR MORE INFORMATION.

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CHAMPAGNE BUILDING	illuminance	Fc	1.72	4.7	0.1	17.20	47.00
PARKING AREAS	illuminance	Fc	1.70	30.9	0.0	N.A.	N.A.
SPILL LIGHT	illuminance	Fc	0.10	29.6	0.0	N.A.	N.A.



1 LANDSCAPE PHOTOMETRIC PLAN  
SCALE: 1" = 20'-0"

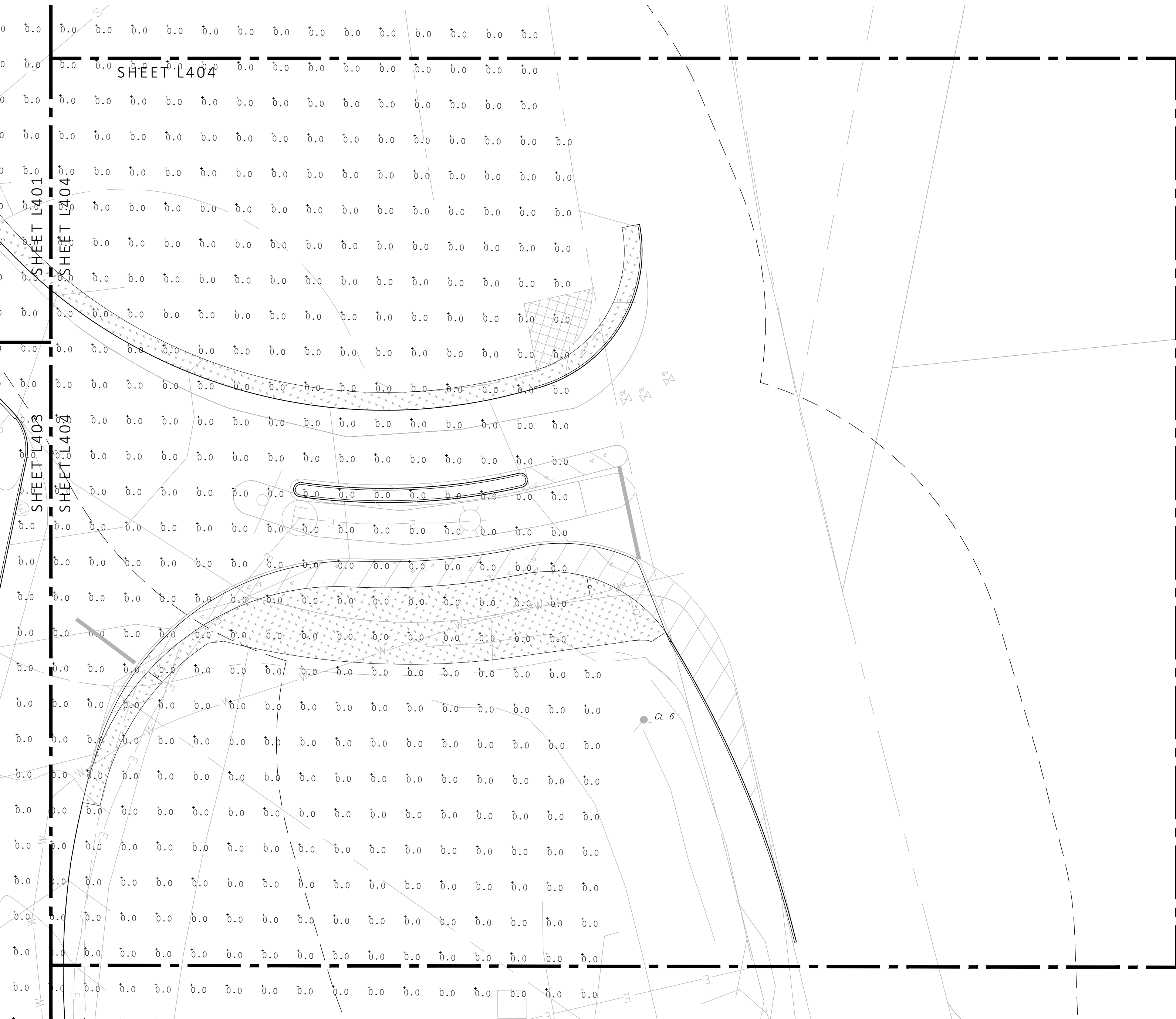




LIGHT SCHEDULE						
SYMBOL	LABEL	MODEL	MOUNT	ARRANGEMENT	OPTIONS	REP
○	BL1	ARLUCE KLOU180 BOLLARD RWL1-48L-25-3K7-4W-U	CONCRETE FOOTING; KEEP 3" ABOVE GRADE	PEDESTRIAN BOLLARD	COLOR: GRAY	
■	SL3	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-3-U BEACON SSS-B POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
■	SL4	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON SSS-B POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	
■	SL4-2	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON SSS-B POLE SSS-B-20-40-A-2-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	BACK BACK	COLOR: BLK	
■	WL1	BEACON RATIO WALL FIXTURE RWL1-48L-25-3K7-4W-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
■	WL2	BEACON RATIO WALL FIXTURE RWL2-160L-135-3K7-4-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
---	WL3	DL-ES-15-O-30K-HC-24-A-DL- ALUM-U-8	ALUMINUM CHANNEL	RECESSED WALL LIGHT		

SUBMIT CUT SHEETS FOR APPROVAL; SEE PHOTOMETRIC PLAN PROVIDED WITH THIS DRAWING SET FOR MORE INFORMATION.

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CHAMPAGNE BUILDING	illuminance	Fc	1.72	4.7	0.1	17.20	47.00
PARKING AREAS	illuminance	Fc	1.70	30.9	0.0	N.A.	N.A.
SPILL LIGHT	illuminance	Fc	0.10	29.6	0.0	N.A.	N.A.



1 LANDSCAPE PHOTOMETRIC PLAN  
SCALE: 1" = 20'-0"

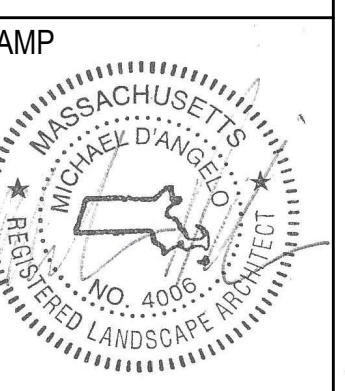
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PROJECT  
WAREHOUSE / INDUSTRIAL DEV.  
100 / 200 FINANCIAL PARK  
FRANKLIN, MA



REV. NO.	DATE	DESCRIPTION
	5/11/23	FOR PERMIT
1	7/17/23	RESPONSE TO COMMENTS
2	8/10/23	RESPONSE TO COMMENTS
3	8/23/23	RESPONSE TO COMMENTS

LANDSCAPE  
PHOTOMETRIC  
PLAN

DRAWN:  
AA, NC  
CHECKED:  
NC  
SCALE:  
AS NOTED  
DATE:  
5/11/2023

**L404**



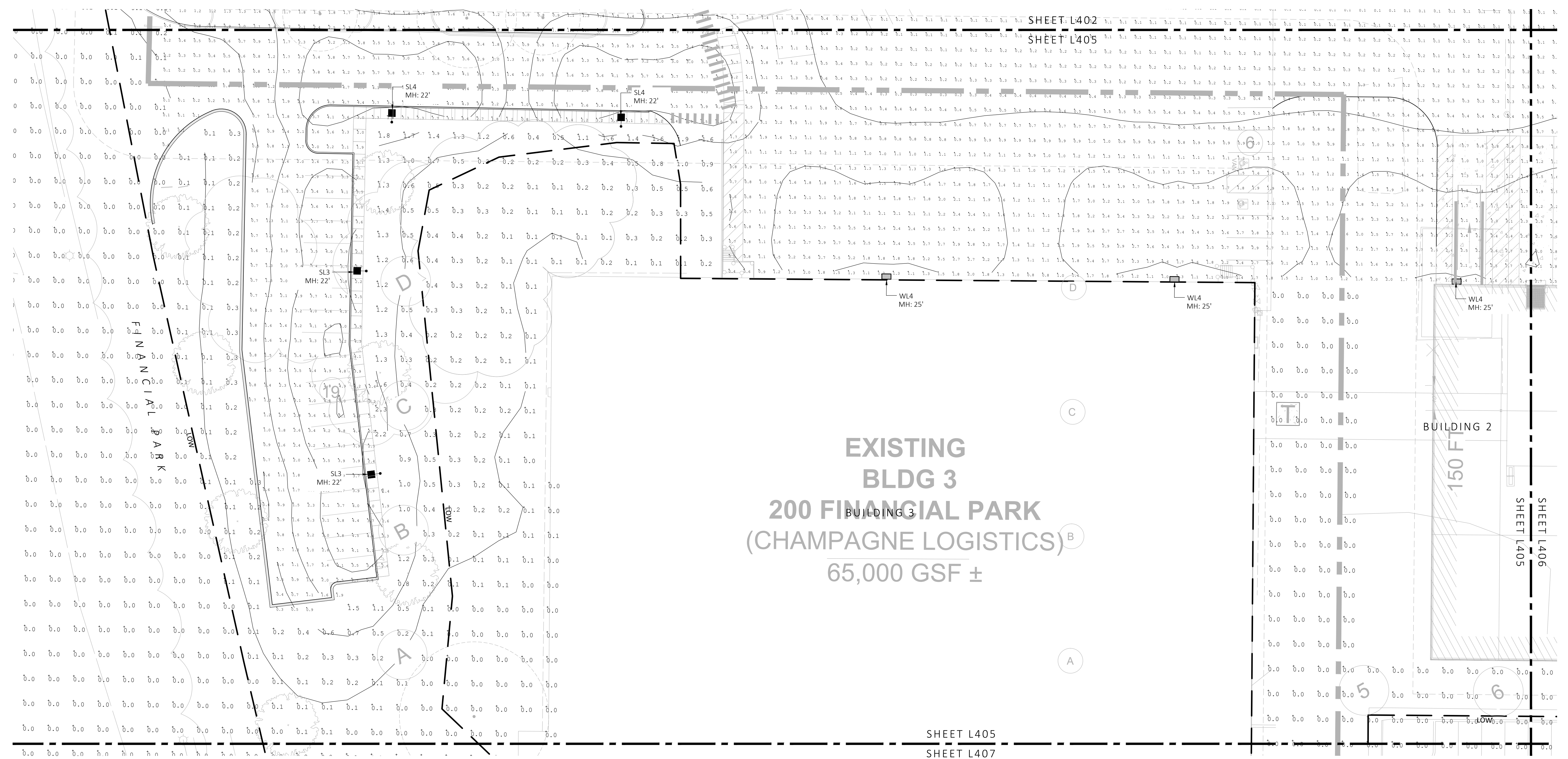


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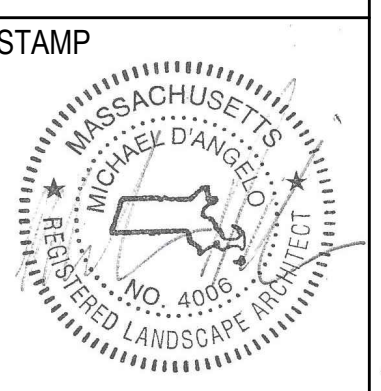
LIGHT SCHEDULE						
SYMBOL	LABEL	MODEL	MOUNT	ARRANGEMENT	OPTIONS	REP
○	BL1	ARLUCE KLOU180 BOLLARD RWL1-48L-25-3K7-4W-U	CONCRETE FOOTING; KEEP 3" ABOVE GRADE	PEDESTRIAN BOLLARD	COLOR: GRAY	
■	SL3	BEACON RATIO SITE FIXTURE RARI-160L-135-3K7-3-U BEACON 555-B POLE 555-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
■	SL4	BEACON RATIO SITE FIXTURE RARI-160L-135-3K7-4W-U BEACON 555-B POLE 555-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	
■	SL4-2	BEACON RATIO SITE FIXTURE RARI-160L-135-3K7-4W-U BEACON 555-B POLE 555-B-20-40-A-2-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	BACK BACK	COLOR: BLK	
□	WL1	BEACON RATIO WALL FIXTURE RWL1-48L-25-3K7-4W-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
□	WL2	BEACON RATIO WALL FIXTURE RWL2-160L-135-3K7-4-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
---	WL3	DL-ES-15-O-30K-HC-24-A-DL- ALUM-U-8	ALUMINUM CHANNEL	RECESSED WALL LIGHT		

SUBMIT CUT SHEETS FOR APPROVAL; SEE PHOTOMETRIC PLAN PROVIDED WITH THIS DRAWING SET FOR MORE INFORMATION.

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CHAMPAGNE BUILDING	ILLUMINANCE	Fc	1.72	4.7	0.1	17.20	47.00
PARKING AREAS	ILLUMINANCE	Fc	1.70	30.9	0.0	N.A.	N.A.
SPILL LIGHT	ILLUMINANCE	Fc	0.10	29.6	0.0	N.A.	N.A.



1 LANDSCAPE PHOTOMETRIC PLAN  
SCALE: 1" = 20'-0"



REV. NO.	DATE	DESCRIPTION
1	5/11/23	FOR PERMIT
2	7/17/23	RESPONSE TO COMMENTS
3	8/10/23	RESPONSE TO COMMENTS
4	8/23/23	RESPONSE TO COMMENTS

LANDSCAPE  
PHOTOMETRIC  
PLAN

DRAWN:  
AA,NC  
CHECKED:  
NC  
SCALE:  
AS NOTED  
DATE:  
5/11/2023

**L405**



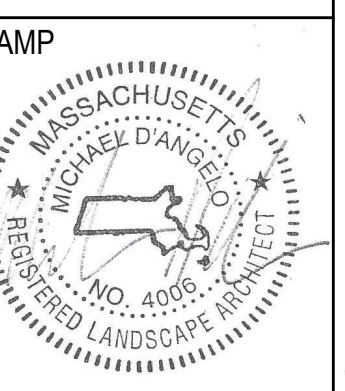
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**PROJECT**  
WAREHOUSE / INDUSTRIAL DEV.  
100 / 200 FINANCIAL PARK  
FRANKLIN, MA



REV. NO.	DATE	DESCRIPTION
1	5/11/23	FOR PERMIT
2	7/17/23	RESPONSE TO COMMENTS
3	8/10/23	RESPONSE TO COMMENTS
4	8/23/23	RESPONSE TO COMMENTS

**LANDSCAPE PHOTOMETRIC PLAN**

DRAWN: AA, NC  
CHECKED: NC  
SCALE: AS NOTED  
DATE: 5/11/2023  
**L406**

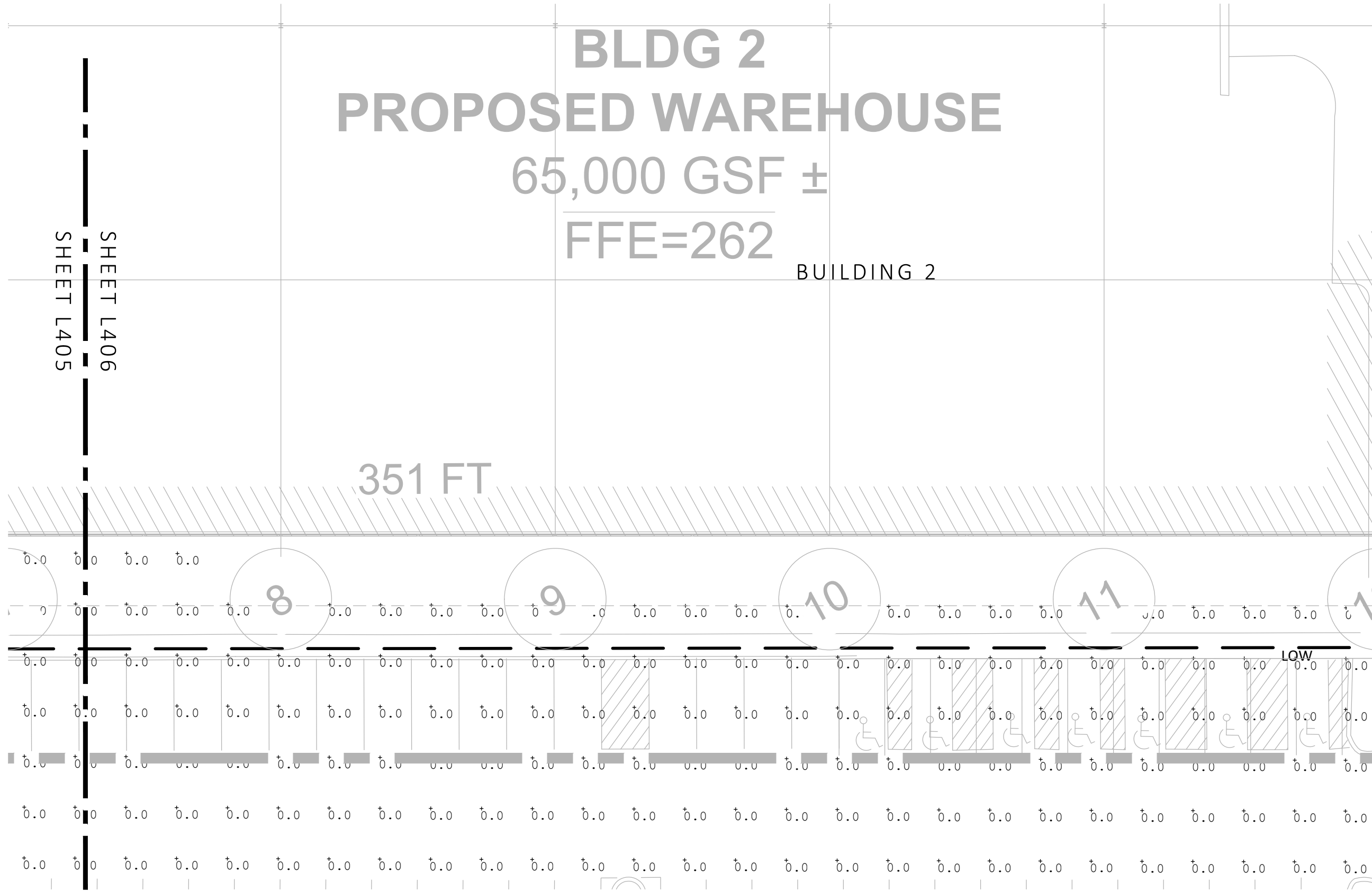
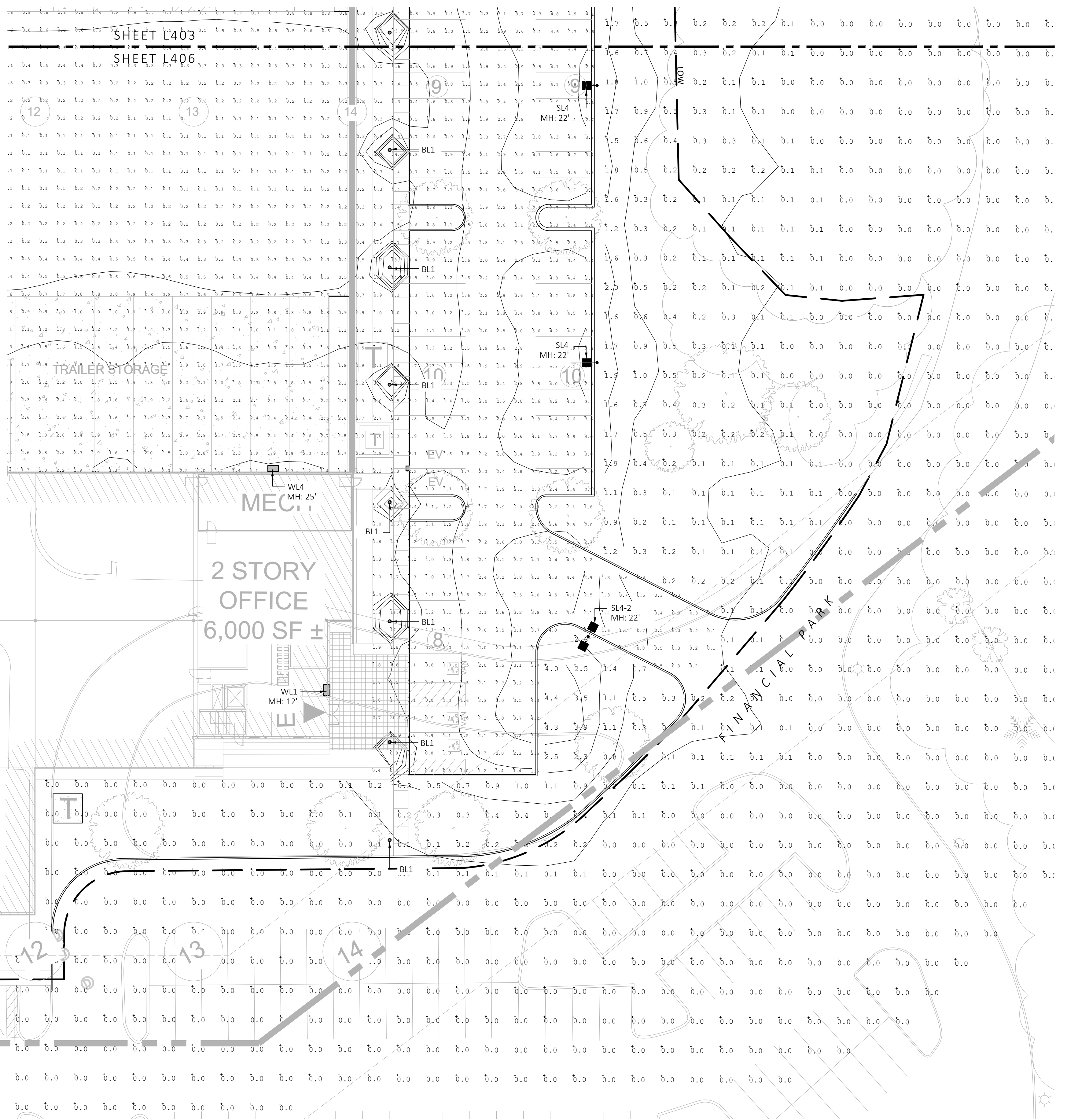
SHEET 27 OF 28

plot date: 10/26/2023

LIGHT SCHEDULE						
SYMBOL	LABEL	MODEL	MOUNT	ARRANGEMENT	OPTIONS	REP
○	BL1	ARLUCE KLOU180 BOLLARD RWL1-48L-25-3K7-4W-U	CONCRETE FOOTING; KEEP 3" ABOVE GRADE	PEDESTRIAN BOLLARD	COLOR: GRAY	
■	SL3	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-3-U BEACON SSS-B POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
■	SL4	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON SSS-B POLE SSS-B-20-40-A-1-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	
■	SL4-2	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON SSS-B POLE SSS-B-20-40-A-2-B3-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	BACK BACK	COLOR: BLK	
□	WL1	BEACON RATIO WALL FIXTURE RWL1-48L-25-3K7-4W-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
□	WL2	BEACON RATIO WALL FIXTURE RWL2-160L-135-3K7-4-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
---	WL3	DL-ES-15-O-30K-HC-24-A-DL- ALUM-U-8	ALUMINUM CHANNEL	RECESSED WALL LIGHT		

SUBMIT CUT SHEETS FOR APPROVAL; SEE PHOTOMETRIC PLAN PROVIDED WITH THIS DRAWING SET FOR MORE INFORMATION.

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CHAMPAGNE BUILDING	illuminance	Fc	1.72	4.7	0.1	17.20	47.00
PARKING AREAS	illuminance	Fc	1.70	30.9	0.0	N.A.	N.A.
SPILL LIGHT	illuminance	Fc	0.10	29.6	0.0	N.A.	N.A.



**1 LANDSCAPE PHOTOMETRIC PLAN**  
SCALE: 1" = 20'-0"





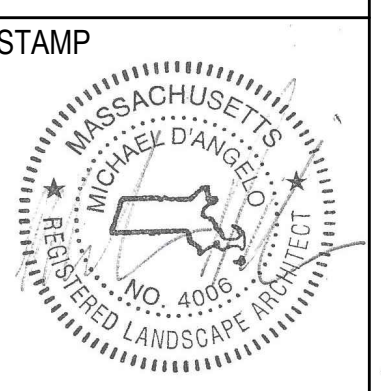
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1	7/17/23	RESPONSE TO COMMENTS
2	8/10/23	RESPONSE TO COMMENTS
3	8/28/23	RESPONSE TO COMMENTS

LANDSCAPE  
PHOTOMETRIC  
PLAN

DRAWN:  
AA:NC  
CHECKED:  
NC  
SCALE:  
AS NOTED  
DATE:  
5/11/2023

**L407**

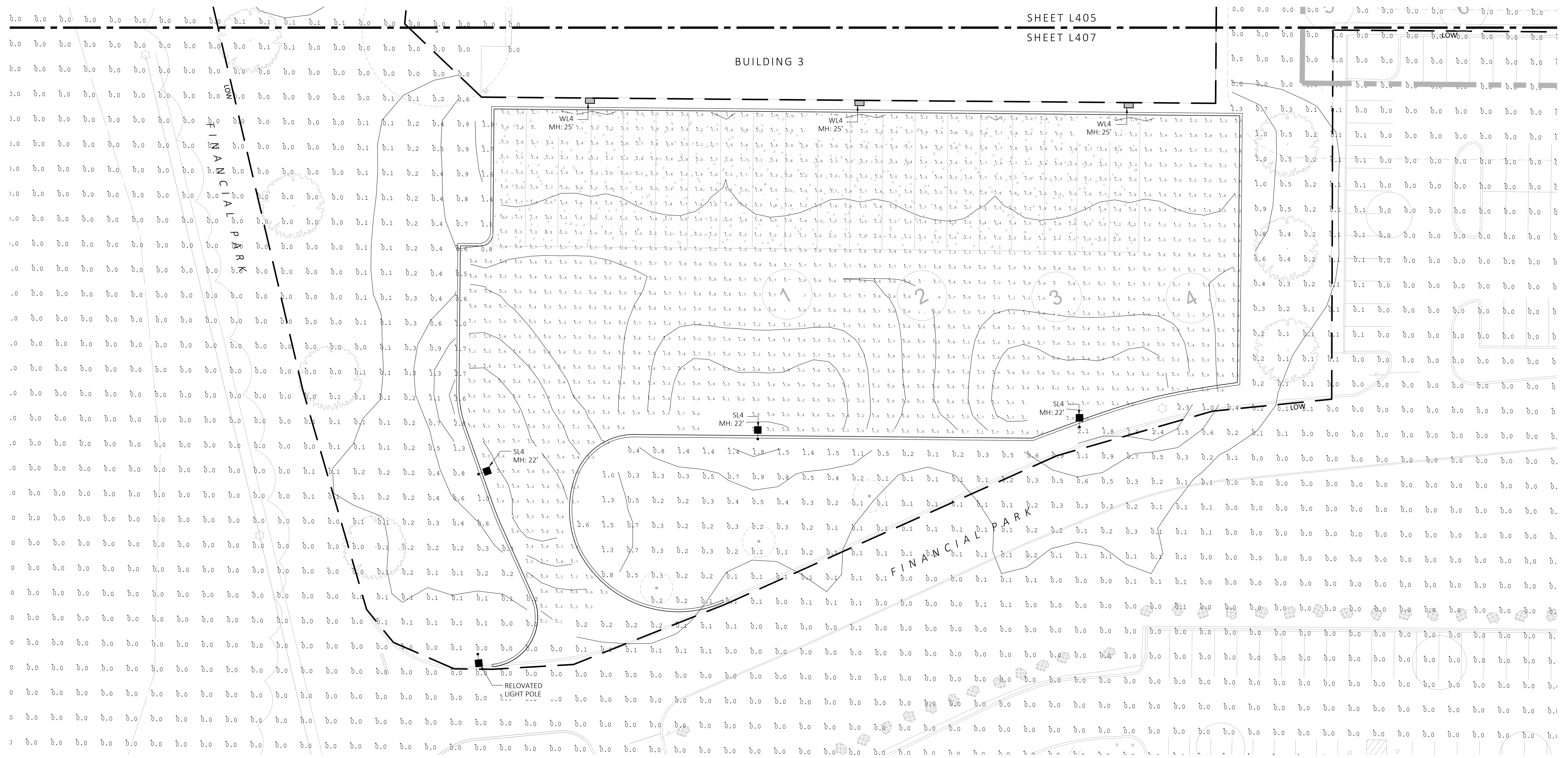
SHEET 28 OF 28

plot date: 10/25/2023

LIGHT SCHEDULE						
SYMBOL	LABEL	MODEL	MOUNT	ARRANGEMENT	OPTIONS	REP
○	BL1	ARCLUCE KLOU180 BOLLARD RWL1-48L-25-3K7-4W-U	CONCRETE FOOTING; KEEP 3" ABOVE GRADE	PEDESTRIAN BOLLARD	COLOR: GRAY	
■	SL3	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-3-U BEACON SSS-B POLE SSS-B-20-40-A-1-83-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	
■	SL4	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON SSS-B POLE SSS-B-20-40-A-1-83-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	SINGLE	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
■	SL4-2	BEACON RATIO SITE FIXTURE RAR1-160L-135-3K7-4W-U BEACON SSS-B POLE SSS-B-20-40-A-1-83-FINISH	CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN ISLANDS	BACK BACK	COLOR: BLK	
□	WL1	BEACON RATIO WALL FIXTURE RWL1-48L-25-3K7-4W-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
□	WL2	BEACON RATIO WALL FIXTURE RWL2-160L-135-3K7-4-U	BUILDING MOUNT	SINGLE	COLOR: BLK	
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1 LANDSCAPE PHOTOMETRIC PLAN  
SCALE: 1" = 20'-0"

