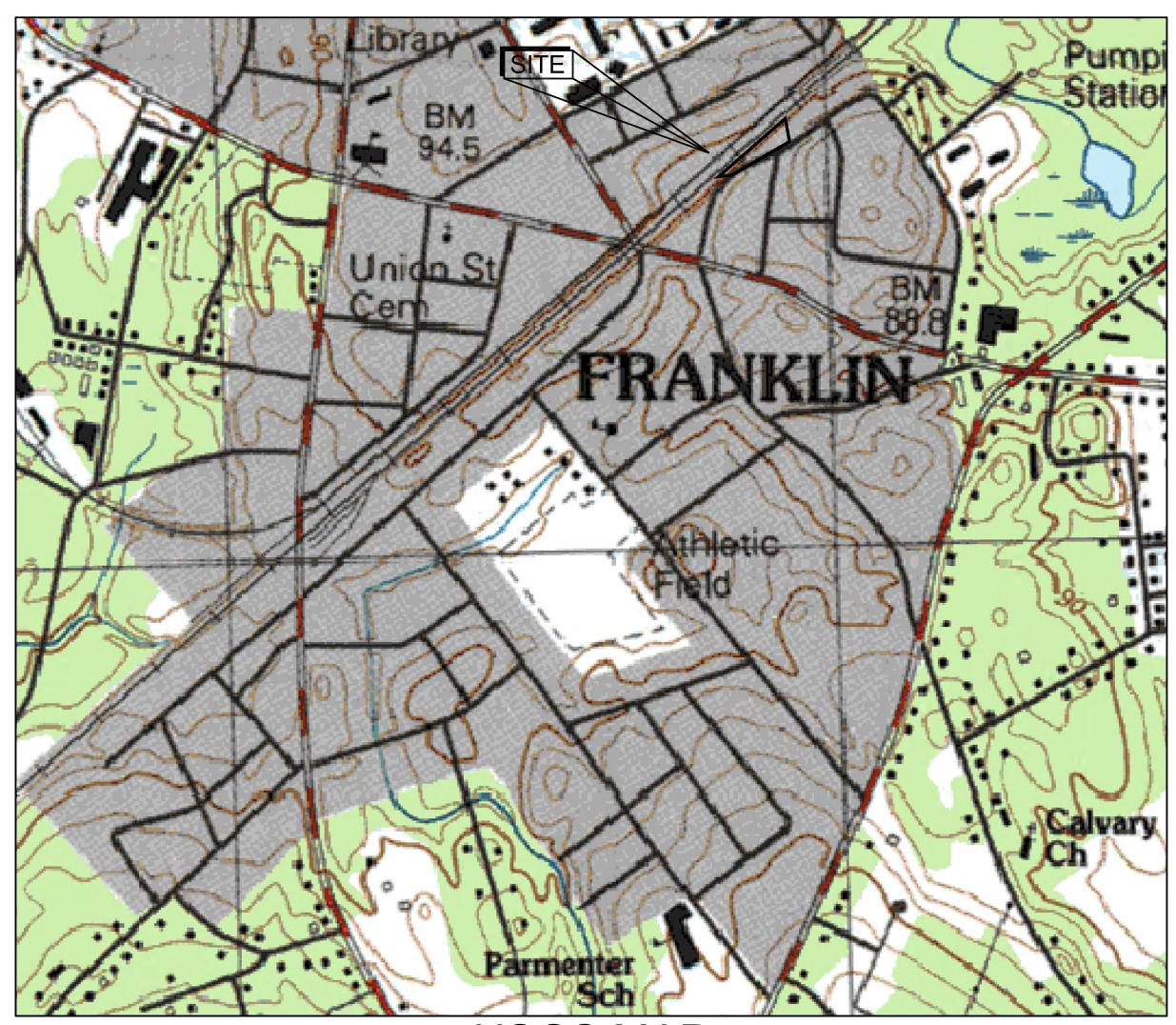
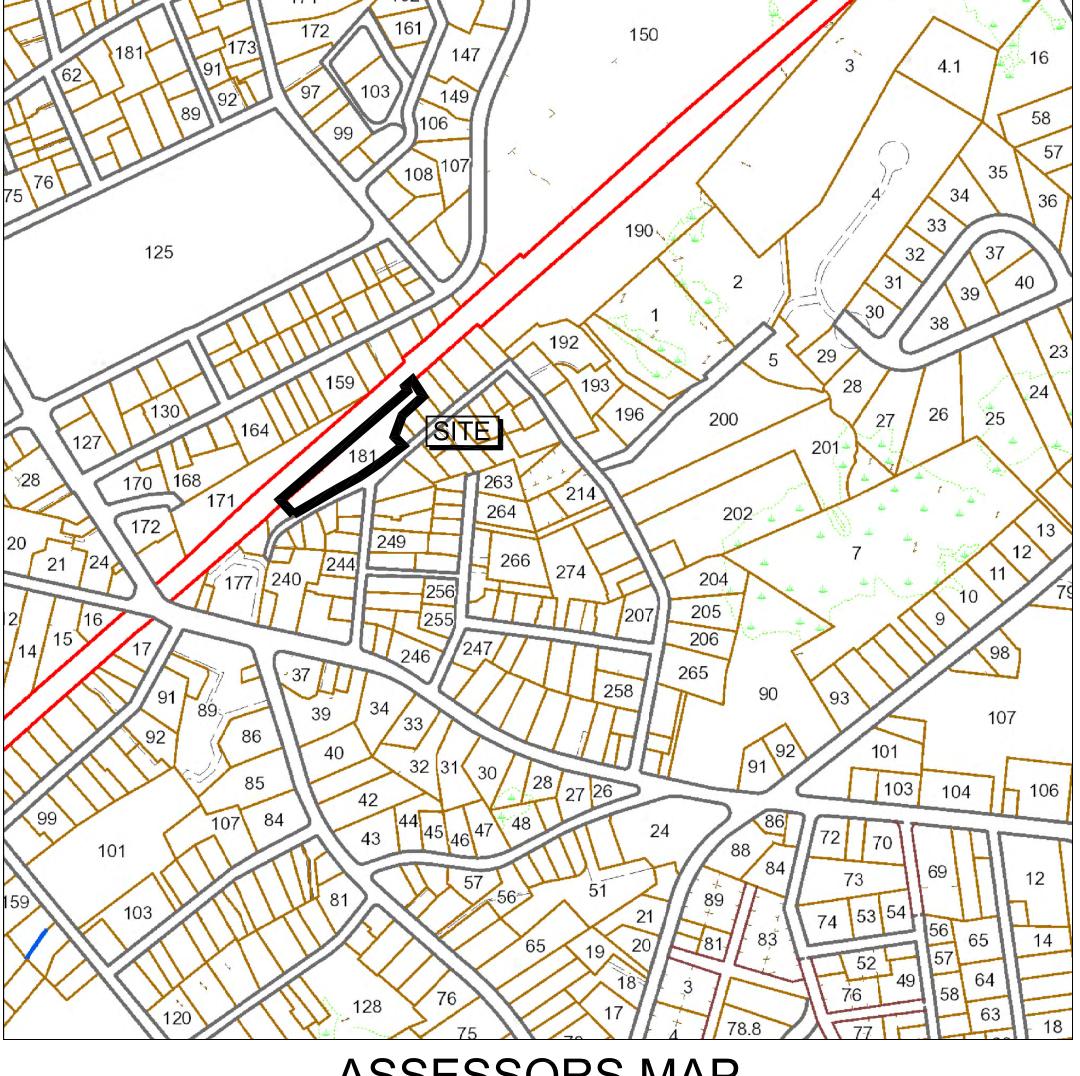
# THE ENGINE YARD

# SITE REDEVELOPMENT 40 ALPINE ROW

FRANKLIN, MASSACHUSETTS





## **USGS MAP**

#### SCALE: 1"= 1,000'±

Town of Franklin

Planning Board

CERTIFICATE OF VOTE

Site Plan Modification 40 Alpine Row

"The Engineer Yard, Site Redevelopment, 40 Alpine Row"

Please be advised that at its meeting on Monday, November 1, 2021 the Planning Board voted (4-0-1), 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

Page 1 of 3

Landscape Network, LLC

5 Mount Royal Ave, Suite 40

Level Design Group, Plainville, MA

Marlborough, MA 01752

Walker Development & Construction, Inc.

Franklin, MA 02038

Map 279 Lot 181

conditions of approval shall be referenced on the site plan.

November 3, 2021

Town of Franklin

355 East Central Street

Franklin, MA 02038

Applicant:

Surveyor/ Engineer:

Dear Mrs. Danello:

Property Location: 40 Alpine Row

cc: Owner/Applicant/ Applicant's Engineer

Nancy Danello, Town Clerk

#### CERTIFICATE OF VOTE Site Plan Modification

- 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 work, 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 that by an affirmative vote of the members of the Board at a duly posted meeting and upon the issuance of a written amerided 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. 5. Prior to the endorsement of the site plan, the following shall be done:

shall have been paid in full.

- The owner/applicant shall provide the entire list of conditions and this Certificate of Vote on the
- A notation shall be made on the plans that all erosion mitigation measures shall be in place prior to major construction or soil disturbance commencing on the site. All outstanding invoices for services rendered by the Town's Engineers and other reviewing Departments of the Town relative to their review of the owner/applicant's application and plans
- All required improvements specified in this Certificate of Vote shall be constructed within a one-year period unless the Board grants an extension. No final Certificate of Occupancy shall be issued until all applicant has submitted a Partial Certificate of Completion for the remainder of the required improvements. The applicant's engineer or surveyor, upon completion of all required improvements, shall submit a Certificate of Completion. The Board or its agent(s) shall complete a final inspection of the site upon filing of the Certificate of Completion by the applicant. Said inspection is further outlined

Prior to any work commencing on the subject property, the owner/applicant shall provide plans to limit construction debris and materials on the site. In the event that debris is carried onto any public way, the owner/applicant and his assigns shall be responsible for all cleanup of the roadway. All cleanups shall occur within twenty-four (24) hours after first written notification to the owner/applicant by the Board or its designee. Failure to complete such cleanup may result in suspension of construction of the site until such public way is clear of debris.

- The owner/applicant shall install erosion control devices as necessary and as directed by the Town's
- Maintenance and repair of the parking area, water supply system, sewer pipes, electric distribution 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

Page 2 of 3

CERTIFICATE OF VOTE Special Conditions 40 Alpine Row 1. BETA recommends a condition that requires guardrail to be installed at all parking stalls adjacent to the railroad right-of-way or retaining walls 2. Provide fencing for fall protection where walls exceed 30" in height and/or along the entirety of the railroad right-of-way where none exists today. 3. Final wall design to be provided at the start of construction to confirm parking stall lengths will not be impacted by the wall, fence or guardrail. 4. Final plans to provide a ramp at westerly accessible aisle prior to endorsement. 5. All easements to be in place to the satisfaction of the DPW prior to the issuance of a certificate of 6. All roof top units should be screened in accordance with the Proposed Roof Plan, dated October 8, 7. Provide a detailed grading at bases of retaining wall at the time of construction adjacent to residential properties to ensure positive drainage. 8. Applicant will provide pavement per §300-10.F(4). 9. DPW and Applicant are to resolve the encroachment issue prior to the start of construction.

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10. 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

ASSESSORS MAP

SCALE: 1"= 250'±

APPROVED DATE: \_ FRANKLIN PLANNING BOARD RESPONSE TO COMMENTS 3 10/04/2021 RESPONSE TO COMMENTS 4 10/19/2021 RESPONSE TO COMMENTS 5 11/30/2021 APPROVAL CONDITIONS **BEING A MAJORITY** 

#### **APPLICANT:**

WALKER DEVELOPMENT & CONSTRUCTION 5 MT. ROYAL AVE MARLBOROUGH, MA 01752

#### **CIVIL ENGINEER:**



249 SOUTH STREET UNIT 1 PLAINVILLE, MA 02762

#### PROPERTY ADDRESS:

**40 ALPINE ROW** FRANKLIN, MASSACHUSETTS

#### ASSESSORS MAP/PARCEL:

279-181-000-000

**ZONING DISTRICT:** DOWNTOWN COMMERCIAL

#### DRAWING LIST:

COVER

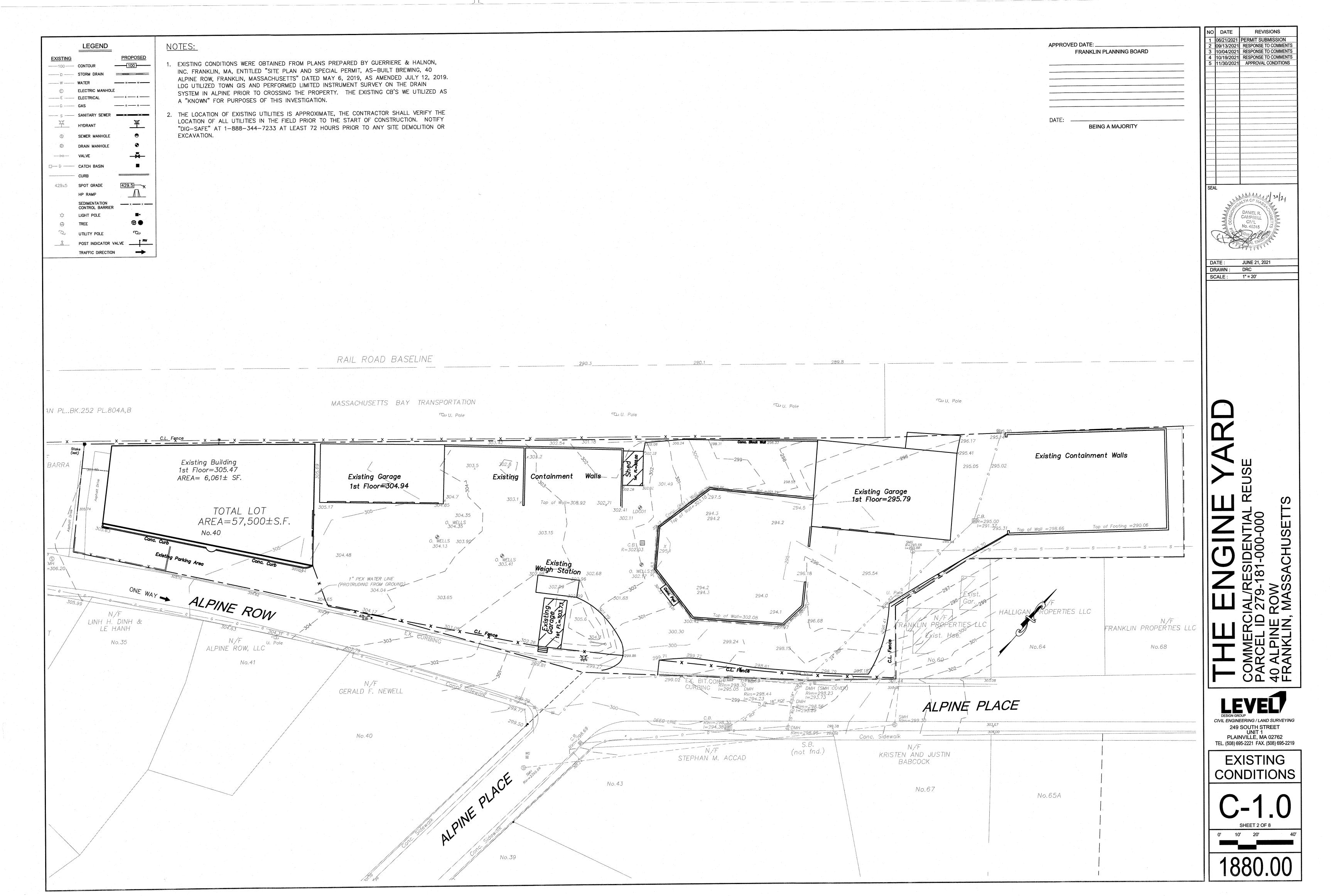
**EXISTING CONDITIONS** LAYOUT AND MATERIALS **GRADING AND UTILITIES** C-3.1 **EROSION CONTROL** TYPICAL DETAILS TYPICAL DETAILS LA-01-LA-04 LANDSCAPE PLANS

PHOTOMETRIC AL-001

EXISTING BUILDING ELEVATIONS **EXTERNAL ELEVATIONS** 

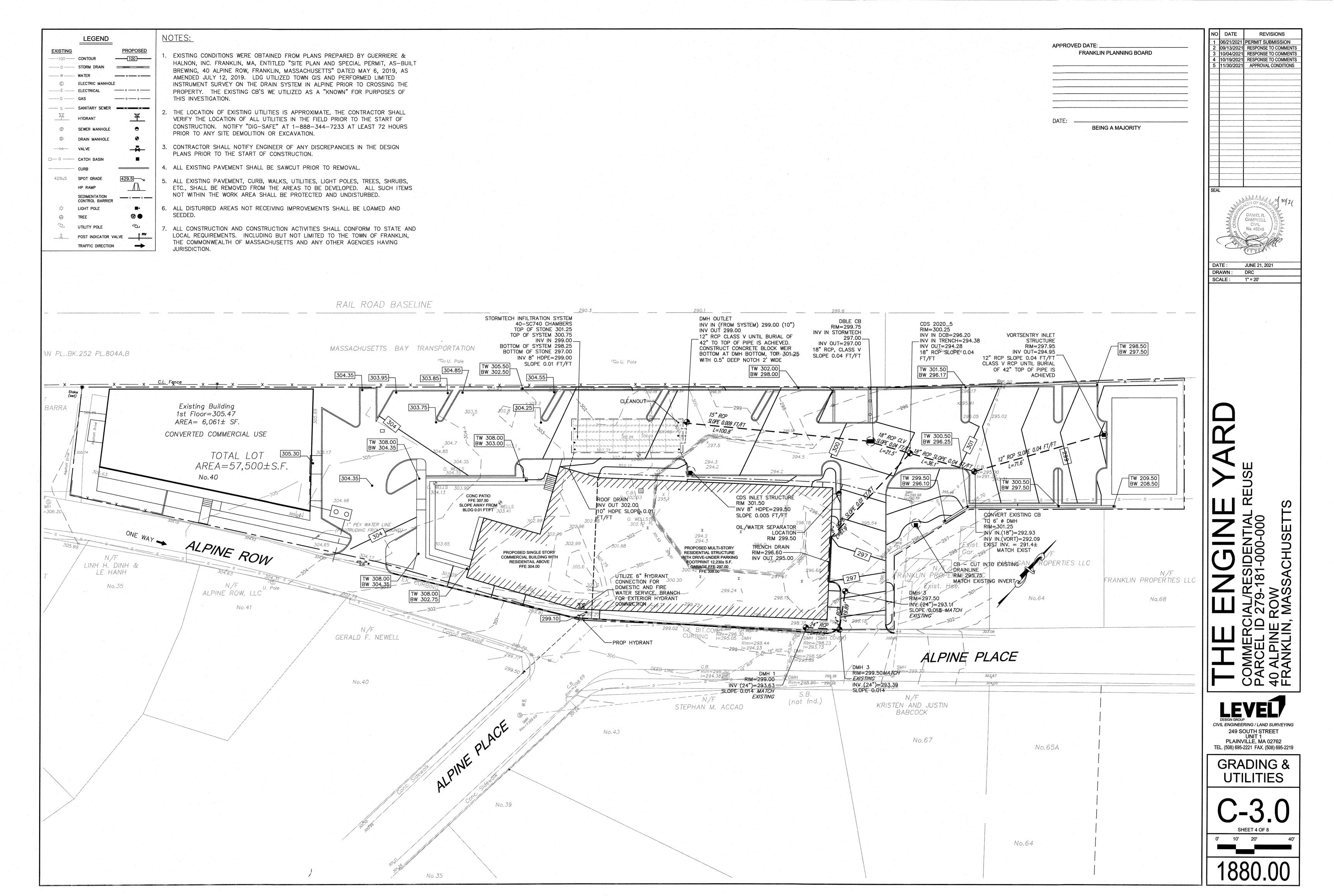
**EXTERNAL ELEVATIONS EXTERNAL ELEVATIONS** EXTERNAL SIGNAGE

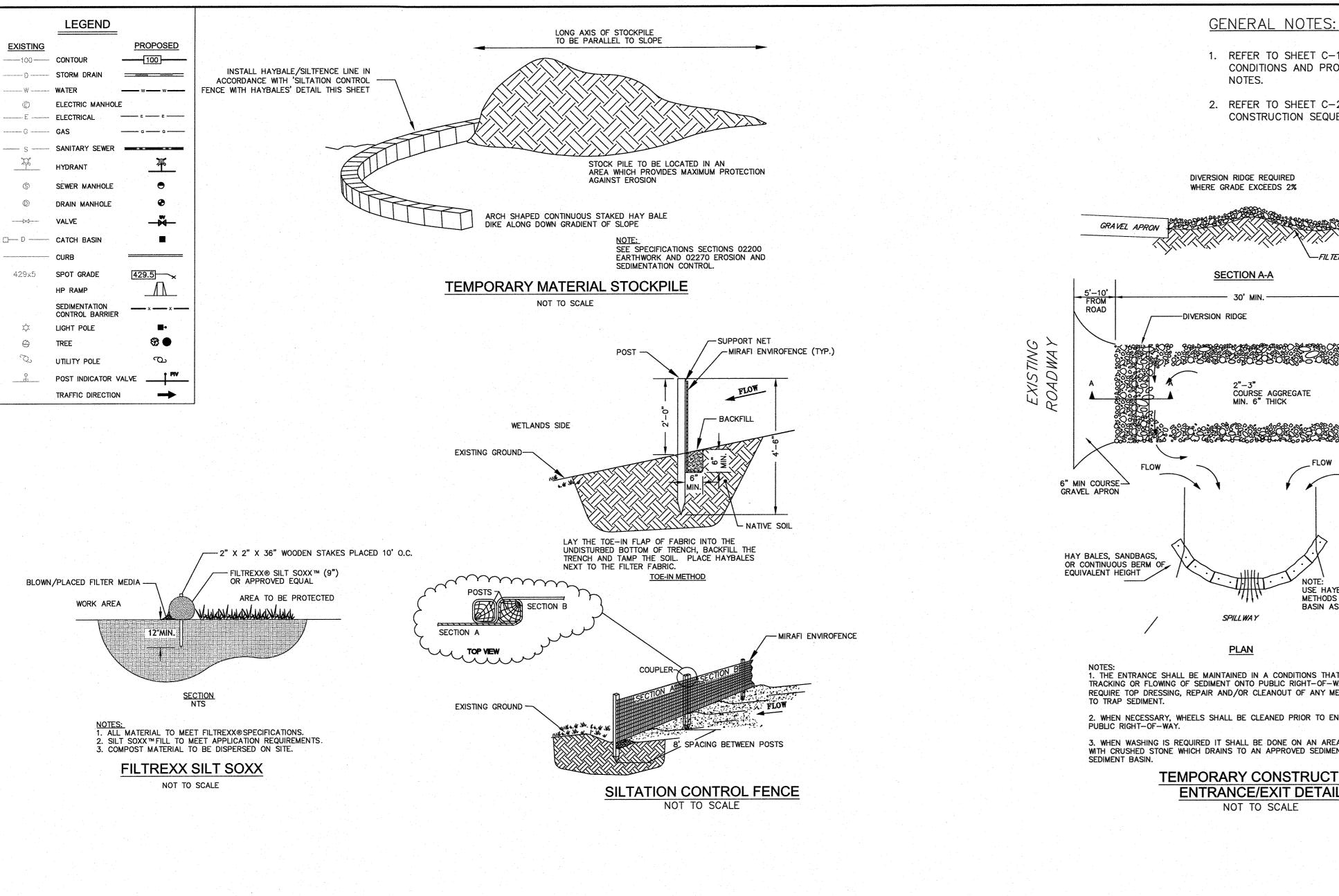
PROPOSED BUILDING RENDERINGS

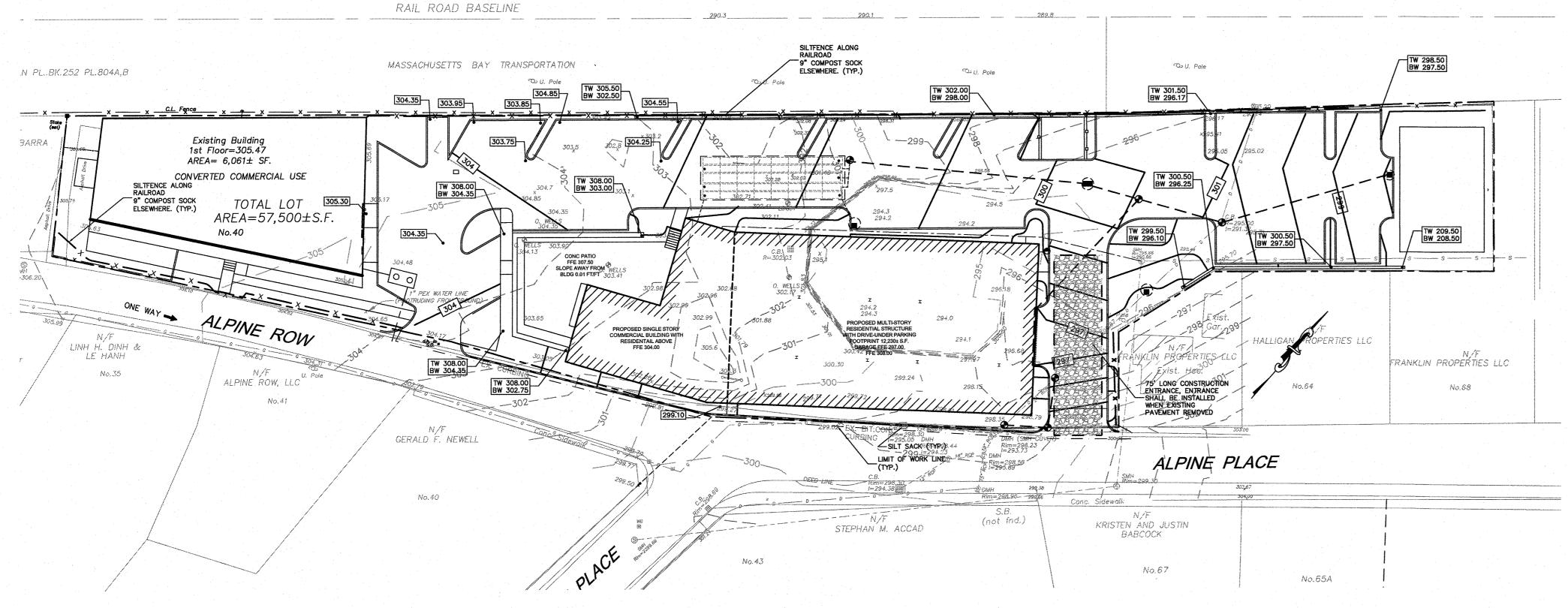


| LEGEND   | ZONING BY-LAW REQUIREMENTS   | NOTES:   | FENCE AND GUARDRAIL NOTES:   |  | NO DATE REVISION 1 06/21/2021 PERMIT SUBMISS   |
|--|--|--|--|--|--|
| EXISTING         PROPOSE           100         CONTOUR         100   | COL. COMMENCE TO THE PROPERTY AND A PROPERTY OF THE PROPERTY O | 1. EXISTING CONDITIONS WERE OBTAINED FROM PLANS PREPARED BY GUERRIERE &  | 1. GUARDRAIL SHALL BE INSTALLED AT ALL PARKING STALLS ADJACENT TO THE  | APPROVED DATE: FRANKLIN PLANNING BOARD   | 1 06/21/2021 PERMIT SUBMISS<br>2 09/13/2021 RESPONSE TO COI<br>3 10/04/2021 RESPONSE TO COI<br>4 10/19/2021 RESPONSE TO COI  |
| D STORM DRAIN  | MIN. LOT AREA 5,000 57,500   | DPOSED HALNON, INC. FRANKLIN, MA, ENTITLED "SITE PLAN AND SPECIAL PERMIT, AS—BUILT BREWING, 40 ALPINE ROW, FRANKLIN, MASSACHUSETTS" DATED MAY 6, 2019, AS  | RAILROAD RIGHT—OF—WAY.  2. GUARDRAIL SHALL BE INSTALLED AT ALL PARKING STALLS ADJACENT TO THE RETAINING WALLS  |  | 4  10/19/2021   RESPONSE TO COI<br>5  11/30/2021   APPROVAL COND   |
| W WATER  | FRONT YARD SETBACK 5'* 19.0'/5   | AMENDED JULY 12, 2019. LDG UTILIZED TOWN GIS AND PERFORMED LIMITED  5.5' INSTRUMENT SURVEY ON THE DRAIN SYSTEM IN ALPINE PRIOR TO CROSSING THE   | 3. FENCING SHALL BE INSTALLED FOR FALL PROTECTION ALONG ANY WALL IN EXCESS OF 30" IN HEIGHT. THE FENCE SHALL BE A MINIMUM OF 48" IN HEIGHT.  |  |  |
| E ELECTRICAL   | REAR YARD SETBACK*** 15' 1'/43.0   | O' THIS INVESTIGATION.   | 4. FENCING SHALL BE INSTALLED ALONG THE RAILROAD RIGHT—OF—WAY IN ALL LOCATIONS WHERE THERE WOULD OTHERWISE BE A GAP IN FENCE ALONG THE   |  |  |
| S — SANITARY SEWER ———————————————————————————————————   | % OF LOT UPLAND COVERAGE   | 2. THIS SITE IS NOT WITHIN THE WATER RESOURCE DISTRICT.  | RIGHT-OF-WAY.  |  |  |
| SEWER MANHOLE  | STRUCTURES & PAVEMENT 90% 92.8%/78   |  |  | DATE: BEING A MAJORITY   |  |
| © DRAIN MANHOLE  | PARKING REQUIREMENTS REQUIRED PROVID  USE: MULTI-FAMILY (28 UNITS)  42   | 4. ALL STRIPING AND SIGNAGE SHALL CONFORM TO THE MUTCD.  |  |  |  |
| VALVE — → CATCH BASIN ■  | USE: COMMERCIAL (6,061± S.F.) 12.12  | 5. THE ARCHITECT OR THEIR ASSIGNS WILL PROVIDE PLANS AND CALCULATIONS FOR THE PROPOSED FIRE PROTECTION.  |  |  |  |
| CURB   | 1 SPACE / 500 S.F.   |  |  |  |  |
| 429x5 SPOT GRADE 429.5 HP RAMP   | ×   1 SDACE / 500 SE   |  |  |  | SEAL   |
| SEDIMENTATION × × × ×  | HANDICAP SPACES 3 4  |  |  |  | MEALTH OF MASS   |
| C  | ANNUALIN FINE ET CETTACK ON FIDET EL CODICTDEET L'ENEL LIDDED EL CODIC CAN   |  |  |  | DANIEL R. CAMPBELL CIVIL   |
| UTILITY POLE CO.  POST INDICATOR VALVE   | REAR LINE IS WAIVED IN ACCORDANCE WITH 185-25 DUE TO THE ADJACENT RAILROAD.  |  |  |  | No. 46245 6  |
| TRAFFIC DIRECTION  |  |  |  |  |  |
|  |  |  |  |  | DATE: JUNE 21, 2021  |
|  |  |  |  |  | DRAWN: DRC  SCALE: 1" = 20'  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  | RAIL ROAD BASELINE   |  |  |  |
|  |  | RAIL ROAD BASELINE   | CONCRETE WALL, OR APPROVED   |  |  |
|  |  | PROPOSED CONCRETE OR   | EQUAL AS NEEDED TO MEET  GRADES ALONG THE RAILROAD,  TOP MOUNTED GUARDRAIL AND  ADDED 4' HIGH CHAINLINK FENCE  6' HIGH CHAINLINK FENCE ALONG THE RAILROAD WHEN NOT ATOP  |  |  |
|  | RAIL ROAD PLAN PL.BK.252 PL.804A,B   | MASSACHUSETTS BAY TRANSPORTATION  MASSACHUSETTS BAY TRANSPORTATION  HDCP RAMP TRANSITION AT  PROPOSED CONCRETE OR ARTICULATED BLOCK WALL, GRADES PER PLAN. WALL IN EXCESS  | ADDED 4 HIGH CHAINLINK FENCE  WHEN OVER 30" IN HEIGHT (TYP)  DUMPSTER PAD  AND ENCLOSURE  THE WALL (TYP)   |  |  |
|  | V V C.L. Fence   | EDGE OF DRIVEWAY (TYP.)  OF 4' IN HEIGHT WILL REQUIRE BUILDING DEPARTMENT REVIEW.  | (TYP.)   |  |  |
|  | X X X X X X X X X X X X X X X X X X X  | X X X X X X X X X X X X X X X X X X X  | (FP) / (S) / |  |  |
|  | HECTOR IBARRA Existing Buil  1st Floor=30  AREA= 6,061   | 05.47 TRANSITION AT SECTION OF THE PROPERTY OF |  |  |  |
|  | No.30 CONVERTED COM  | MMERCIAL USE     I LOADING AREA (TYP)  | SIGN-"ONE WAY-DO NOT   GRASS P WINTERS   | AY SURFACE IOW STORAGE   |  |
|  | TC AREA  | DTAL LOT   | PCC (TYP.)  ANDSCAPE RED  3  |  |  |
|  | No.40  |  | LANDSCAPE BED 2  |  | IJ▮▮₩₩   |
|  | LANDSCAPE BED  | CONC PATIO FFE 307.50 SLOPE AWAY FROM  | LANDSCAPE BED  HDCP PAMP   |  |  |
|  |  | ACCESSIBLE SIDEWALK GRADE 50   | ACCESSIBLE PATH  (TYP.)  ACCESSIBLE PATH  (TYP.)  TO DRIVEWAY (TYP.)  ACCESSIBLE PATH  (TYP.)  CONCRETE WAI  EQUAL AS NEE  GRADES AT AE  | L, OR APPROVED DED TO MEET   |  |
|  | ONE WAY  | DISTANCE OF LEGS  EYE HEIGHT= 36   | GRADES AT AE PROPERTIES, AT ACTUAL TO THE PROPERTIES AT AC | OF MOUNTED   |  |
| The second secon | 39.00  |  | PROPOSED MULTI OTORY   | JACENT TO AND ADDED 4'   |  |
| No.27  | No.31 N/F  | VE ROW  PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTIAL ABOVE FFE 304.00  | PROPOSED MULTI-STORY RESIDENTIAL STRUCTURE WITH DRIVE-UNDER PARKING FOOTPRINT 12,2304 S.F.  GARAGE FEE 297.00  HALLIGAN ROPERTIES LLC  | L, OR APPROVED DED TO MEET UTTING DP MOUNTED JACENT TO AND ADDED 4' K FENCE WHEN EIGHT (TYP) |  |
| N/F  | No.31  N/F  LINH H. DINH &  LE HANH  | PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTAL ABOVE FFE 304.00   | GARAGE FFE 297.00 FFE 308.00  FRANKLIN PROPERTIES LLC  FRANKLIN  | JACENT TO AND ADDED 4' ( FENCE WHEN EIGHT (TYP)  N/F PROPERTIES LLC                          | SIDEN<br>81-000-   |
| N/F  | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTIAL ABOVE FFE 304.00  N/F NE ROW, LLC   | GARAGE FFE 297.00 FFE 308.00  FRANKLIN PROPERTIES LLC  | N/F<br>PROPERTIES LLC<br>No.68 No.72   | NRESIDEN<br>9-181-000-   |
| N/F<br>MURCUS AND JENNIFER<br>COLLIGAN   | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTAL ABOVE FFE 304.00  N/F NE ROW, LLC  HDCP RAMP TRANSITION AT EDGE OF DRIVEWAY (TYP.)   | GARAGE FFE 297.00 FFE 308.00  FRANKLIN PROPERTIES LLC  Exist. Hse.  No.64  LANDSCAPE BED  RET. No.60   | N/F<br>PROPERTIES LLC  | ENGW<br>AL/RESIDEN<br>279-181-000-   |
| N/F<br>MURCUS AND JENNIFER COLLIGAN  | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTIAL ABOVE FFE 304.00  N/F NE ROW, LLC   | GARAGE FFE 297.00 FFE 308.00  FRANKLIN PROPERTIES LLC  Exist. Hse.  No.64  I ANISCADE BED  | N/F<br>PROPERTIES LLC<br>No.68 No.72   | ENW<br>CIAL/RESIDEN<br>D 279-181-000-  |
| N/F  | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTAL ABOVE FFE 304.00  N/F  NO.41  PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTAL ABOVE FFE 304.00  N/F  NO.41  PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTAL ABOVE FFE 304.00  N/F  NO.41  NO.41  | GARAGE FFE 297.00 FFE 308.00  FRANKLIN PROPERTIES LLC  Exist. Hse.  No.64  LANDSCAPE BED  RET. No.60   | N/F<br>PROPERTIES LLC<br>No.68 No.72   | ERCIAL/RESIDENT ID 279-181-000-  |
| N/F<br>MURCUS AND JENNIFER COLLIGAN  | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTAL ABOVE FFE 304.00  N/F  NO.41  PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTAL ABOVE FFE 304.00  N/F  NO.41  PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTAL ABOVE FFE 304.00  N/F  NO.41  NO.41  | GARAGE FFE 297.00 FFE 308.00 FFE 308.00 FRANKLIN PROPERTIES LLC Exist. Hse.  No.64  No.64  STOPPING SIGHT DISTANCE  CURBING  DEED LINE  STOPPING SIGHT DISTANCE  | N/F<br>PROPERTIES LLC<br>No.68 No.72   | HERCIAL/RESIDENTEL ID 279-181-000-   |
| N/F<br>MURCUS AND JENNIFER COLLIGAN  | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTAL ABOVE FFE 304.00  N/F NE ROW, LLC  HDCP RAMP TRANSITION AT EDGE OF DRIVEWAY (TYP.)  STORMAG STORY  OS  N/F  GERALD F. NEWELL   | GARAGE FFE 27.00 FFE 308.00 FFE 308.00 FRANKLIN PROPERTIES LLC Exist. Hse.  No.64  No.60  IB3'+  STOPPING SIGHT DISTANCE  CURBING  CONC. Sidewalk  S.B.  Conc. Sidewalk  | N/F<br>PROPERTIES LLC<br>No.68 No.72   | THE ENGLANTESIDENTES ID 279-181-000-0  |
| N/F<br>MURCUS AND JENNIFER<br>COLLIGAN   | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | PROPOSED SINGLE SWITTY COMMERCIAL BUILDING WITTY COMMERCIAL BUILDING W | GARAGE FFE 207 00 FFE 905.00 FRANKLIN PROPERTIES LLC Exist. Hse.  No.64  INJECTION OF THE HEIGHT 3.5  No.60  EX. VEH TICON CURBING CURBING CURBING STOPPING SIGHT DISTANCE  STOPPING SIGHT DISTANCE  ALPINE PLACE  STOPPING SIGHT DISTANCE  Conc. Sidewalk  N/F STEPHAN M. ACCAD  KRISTEN AND JUSTIN BABCOCK   | N/F<br>PROPERTIES LLC<br>No.68 No.72   | THE EN<br>COMMERCIAL/RES<br>VARCEL ID 279-181  |
| N/F<br>MURCUS AND JENNIFER<br>COLLIGAN   | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | PROPOSARE BEED COMMERCIAL BILLENOR WITH RESIDENTIAL ABOVE FFE 34.00  N/F NE ROW, LLC  HDCP RAMP TRANSITION AT EDGE OF DRIVEWAY (TYP.)  STORMAN STORY S | ALPINE PLACE  STOPPING SIGHT DISTANCE  CUREING  NO.43  NO.43  NO.43  NO.43  NO.43  NO.67   | N/F<br>PROPERTIES LLC<br>No.68 No.72   | THE EN<br>COMMERCIAL/RES<br>PARCEL ID 279-181  |
| N/F<br>MURCUS AND JENNIFER<br>COLLIGAN   | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTIAL ABOVE FEE 304.00  N/F N/F NO.41  NO.40  PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTIAL ABOVE FEE 304.00  PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTIAL ABOVE FEE 304.00  PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTIAL ABOVE FEE 304.00  PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTIAL ABOVE FEE 304.00  PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTIAL ABOVE FEE 304.00  N/F N/F SOURCE  NO.40  NO.40  NO.40  | GRANGE FFE 20100  GRANGE FFE 20100  FRANKLIN PROPERTIES LLC  FRANKLIN PROPERTIES LLC  Exist. Hse.  No.60  IBJ4  STOPPING SIGHT DISTANCE  CURBING  CURBING  CURBING  SIGHT DISTANCE  STOPPING SIGHT DISTANCE  STOPPING SIGHT DISTANCE  TOTAL SIGHT DISTANCE  S.B.  (not find.)  N/F  STEPHAN M. ACCAD  NO.43  | N/F<br>PROPERTIES LLC<br>No.68 No.72   | THE EN<br>COMMERCIAL/RES<br>PARCEL ID 279-181  |
| N/F<br>MURCUS AND JENNIFER COLLIGAN  | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTIAL ABOVE FEE 304.00  N/F N/F NO.41  NO.40  PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTIAL ABOVE FEE 304.00  PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTIAL ABOVE FEE 304.00  PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTIAL ABOVE FEE 304.00  PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTIAL ABOVE FEE 304.00  PROPOSED SINGLE STORY COMMERCIAL BUILDING WITH RESIDENTIAL ABOVE FEE 304.00  N/F N/F SOURCE  NO.40  NO.40  NO.40  | ALPINE PLACE  STOPPING SIGHT DISTANCE  CUREING  NO.43  NO.43  NO.43  NO.43  NO.43  NO.67   | N/F<br>PROPERTIES LLC<br>No.68 No.72   | THE TOTAL PRING LINE ROW  TO AI PINE ROW  TO AI PINE ROW  TO AI PINE ROW   |
| N/F<br>MURCUS AND JENNIFER<br>COLLIGAN   | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | PROPOSARE BEED COMMERCIAL BILLENOR WITH RESIDENTIAL ABOVE FFE 34.00  N/F NE ROW, LLC  HDCP RAMP TRANSITION AT EDGE OF DRIVEWAY (TYP.)  STORMAN STORY S | ALPINE PLACE  STOPPING SIGHT DISTANCE  CUREING  NO.43  NO.43  NO.43  NO.43  NO.43  NO.67   | N/F PROPERTIES LLC  No.68  No.72  No.76  | COMMERCIAL/RES COMMERCIAL/RES AD A DINE BOW THE BOW TH |
| N/F<br>MURCUS AND JENNIFER COLLIGAN  | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | PROPOSED STORY  SEE TO STORY  N/F  N/F  N/F  N/F  SERVICE AND STORY  N/F  GERALD F. NEWELL  NO.40  PROPOSED STORY  COMMERCIAL BUILDING WITH  RESIDENT STORY  | ALPINE PLACE  STOPPING SIGHT DISTANCE  CUREING  NO.43  NO.43  NO.43  NO.43  NO.43  NO.67   | N/F PROPERTIES LLC  No.68  No.72  No.76  | COMMERCIAL PLAND SUFFER CIVIL ENGINEER IN 1 PLAINVILLE, MA 027 TEL. (508) 695-2221 FAX. (508)  |
| N/F<br>MURCUS AND JENNIFER<br>COLLIGAN   | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | PROPOSED STORY  SEE TO STORY  N/F  N/F  N/F  N/F  SERVICE AND STORY  N/F  GERALD F. NEWELL  NO.40  PROPOSED STORY  COMMERCIAL BUILDING WITH  RESIDENT STORY  | ALPINE PLACE  STOPPING SIGHT DISTANCE  CUREING  NO.43  NO.43  NO.43  NO.43  NO.43  NO.67   | N/F PROPERTIES LLC  No.68  No.72  No.76  | THE COMMERCIAL PARCEL ID 279-181  COMMERCIAL/RES  COMMERCIAL/RES  TEL. (208) 695-2221 FAX. (208)  COMMERCIAL/RES  COMMERCIAL/R |
| N/F<br>MURCUS AND JENNIFER COLLIGAN  | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | PROPOSED STORY  SEE TO STORY  N/F  N/F  N/F  N/F  SERVICE AND STORY  N/F  GERALD F. NEWELL  NO.40  PROPOSED STORY  COMMERCIAL BUILDING WITH  RESIDENT STORY  | COREING  STEPHAN M. ACCAD  CANCEL TE STORY  STEPHAN M. ACCAD  CANCEL TE STORY  FRANKLIN PROPERTIES LLC  Levist. Hise.  No.80  ALPINE PLACE  FRANKLIN  No.80  ALPINE PLACE  FRANKLIN  FRANKLIN  FRANKLIN  FRANKLIN  No.80  ALPINE PLACE  No.87  FRANKLIN  FRANKLIN  FRANKLIN  FRANKLIN  FRANKLIN  FRANKLIN  No.84  No.85  ALPINE PLACE  No.85  No.85  No.67  No.65  No.65  No.65  | N/F PROPERTIES LLC  No.68  No.72  No.76  | COMMERCIAL/RES COMMERCIAL/RES COMMERCIAL/RES TO A DINE BOW |
| N/F<br>MURCUS AND JENNIFER<br>COLLIGAN   | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | PROPOSED STORY  SEE TO STORY  N/F  N/F  N/F  N/F  SERVICE AND STORY  N/F  GERALD F. NEWELL  NO.40  PROPOSED STORY  COMMERCIAL BUILDING WITH  RESIDENT STORY  | COREING  STEPHAN M. ACCAD  CANCEL TE STORY  STEPHAN M. ACCAD  CANCEL TE STORY  FRANKLIN PROPERTIES LLC  Levist. Hise.  No.80  ALPINE PLACE  FRANKLIN  No.80  ALPINE PLACE  FRANKLIN  FRANKLIN  FRANKLIN  FRANKLIN  No.80  ALPINE PLACE  No.87  FRANKLIN  FRANKLIN  FRANKLIN  FRANKLIN  FRANKLIN  FRANKLIN  No.84  No.85  ALPINE PLACE  No.85  No.85  No.67  No.65  No.65  No.65  | N/F PROPERTIES LLC  No.68  No.72  No.76  | THE COMMERCIAL PARCEL ID 279-181  COMMERCIAL/RES  COMMERCIAL/RES  TEL. (208) 695-2221 FAX. (208)  COMMERCIAL/RES  COMMERCIAL/R |
| N/F<br>MURCUS AND JENNIFER<br>COLLIGAN   | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | N/F SERALD F. NEWELL.  No.40  PROPOSED RESIDENT ALL SERVICE SERVICE STATES AND STORY OF THE SOLUTION AND STORY OF THE SOLU | COREING  STEPHAN M. ACCAD  CANCEL TE STORY  STEPHAN M. ACCAD  CANCEL TE STORY  FRANKLIN PROPERTIES LLC  Levist. Hise.  No.80  ALPINE PLACE  FRANKLIN  No.80  ALPINE PLACE  FRANKLIN  FRANKLIN  FRANKLIN  FRANKLIN  No.80  ALPINE PLACE  No.87  FRANKLIN  FRANKLIN  FRANKLIN  FRANKLIN  FRANKLIN  FRANKLIN  No.84  No.85  ALPINE PLACE  No.85  No.85  No.67  No.65  No.65  No.65  | N/F PROPERTIES LLC  No.68  No.72  No.76  | THE COMMERCIAL PLAND STATES (208) 695-2221 FAX. (208) COMMERCIAL PLAND STATES (208) COMMERCIAL PLAND STATE |
| N/F<br>MURCUS AND JENNIFER COLLIGAN  | No.31  N/F  N/F  KR KRISHNA TRUST  HILLARY MURTY  No.35  | N/F SERALD F. NEWELL.  No.40  PROPOSED RESIDENT ALL SERVICE SERVICE STATES AND STORY OF THE SOLUTION AND STORY OF THE SOLU | COREING  STEPHAN M. ACCAD  CANCEL TE STORY  STEPHAN M. ACCAD  CANCEL TE STORY  FRANKLIN PROPERTIES LLC  Levist. Hise.  No.80  ALPINE PLACE  FRANKLIN  No.80  ALPINE PLACE  FRANKLIN  FRANKLIN  FRANKLIN  FRANKLIN  No.80  ALPINE PLACE  No.87  FRANKLIN  FRANKLIN  FRANKLIN  FRANKLIN  FRANKLIN  FRANKLIN  No.84  No.85  ALPINE PLACE  No.85  No.85  No.67  No.65  No.65  No.65  | N/F PROPERTIES LLC  No.68  No.72  No.76  | Sesign Group  Commercial Experiments  Commercial Exper |

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- 1. REFER TO SHEET C-1.0 FOR EXISTING CONDITIONS AND PROPERTY BOUNDARY
- 2. REFER TO SHEET C-2.0 FOR CONSTRUCTION SEQUENCE AND NOTES.

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|                     | GRAVEL APRON                                |   |   |           |                                  |  |           |
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| E) 20               |   | <b>A</b>                                | COURSE AGGRI<br>MIN. 6" THICK           | EGATE     |                                  |  | ACCES     |
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| 6"<br>GR            | MIN COURSE AVEL APRON                       | 1                                       |   |           | . 20                             |  |           |
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| HA                  | AY BALES, SANDBAGS,<br>R CONTINUOUS BERM OF | $\times$                                |   |           |                                  |  |           |
| EC                  | QUIVALENT HEIGHT                            |   |   | NOTE:     |                                  |  |           |
|                     |   |   | 4                                       | USE HAYBA | ALES OR OTH<br>TO CHANNELI       | IER APPRO  | VED<br>TO |
|                     |   |   | SPILLWAY                                | BASIN AS  | REQUIRED.                        |  | . , •     |
|                     |   |   | orillina i                              |           |                                  |  |           |
|                     |   |   |   |           |                                  |  |           |

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITIONS THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED

2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO

3. WHEN WASHING IS REQUIRED IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS TO AN APPROVED SEDIMENT TRAP OR

> TEMPORARY CONSTRUCTION ENTRANCE/EXIT DETAIL

| FRAN | KLIN PL | ANNING | ANNING BOARD |  |  |
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BEING A MAJORITY

#### **EROSION CONTROL NOTES**

SILTATION CONTROL USING EROSION CONTROL FENCE WITH STRAW WATTLE, OR APPROVED EQUAL EROSION CONTROL LINE IS TO BE VISUALLY INSPECTED AFTER EVERY RAIN FALL AND REPAIRS MADE AS REQUIRED TO THE SILTATION CONTROL FENCE AND STRAW WATTLE AFTER EACH RAIN FALL. CLEANOUT OF ACCUMULATED SEDIMENT BEHIND THE WATTLE IS NECESSARY IF 1/2 OF THE ORIGINAL HEIGHT OF THE WATTLE APPEARS TO HAVE BEEN INUNDATED WITH SEDIMENT.

SITE OWNERS AND OPERATORS MUST PRESERVE EXISTING TOPSOIL ON THE CONSTRUCTION SITE TO THE MAXIMUM EXTENT FEASIBLE AND AS NECESSARY TO SUPPORT HEALTHY VEGETATION, PROMOTE SOIL STABILIZATION. AND INCREASE STORMWATER INFILTRATION RATES IN THE POST-CONSTRUCTION PHASE OF TH PROJECT.

#### STABILIZATION OF SOILS

UPON COMPLETION AND ACCEPTANCE OF SITE PREPARATION AND INITIAL INSTALLATION OF EROSION, RUNOF AND SEDIMENT CONTROLS AND TEMPORARY POLLUTION PREVENTION MEASURES, THE OPERATOR SHALL INITIATE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION PRACTICES DURING ALL PHASES OF CONSTRUCTION ON ALL DISTURBED AREAS AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED. SLOPES IN EXCESS OF 3:1 SHALL HAVE 22 MONTH EROSION CONTROL FABRIC INSTALLED OVER A SLOPE MIX SEED MIX WITH TACKIFIER UNLESS OTHERWISE SPECIFIED.

ANY DISTURBED AREAS THAT WILL NOT HAVE ACTIVE CONSTRUCTION ACTIVITY OCCURRING WITHIN 14 DAYS MUST BE STABILIZED USING THE CONTROL MEASURES DEPICTED IN SITE PLANS, IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN, AND PER MANUFACTURER PRODUCT SPECIFICATIONS.

ONLY AREAS THAT CAN BE REASONABLY EXPECTED TO HAVE ACTIVE CONSTRUCTION WORK BEING PERFORMED WITHIN 14 DAYS OF DISTURBANCE WILL BE CLEARED/GRUBBED AT ANY ONE TIME. IT IS NOT ACCEPTABLE TO CLEAR AND GRUB THE ENTIRE CONSTRUCTION SITE IF PORTIONS WILL NOT BE ACTIVE WITHIN THE 14-DAY TIME FRAME. PROPER PHASING OF CLEARING AND GRUBBING ACTIVITIES SHALL INCLUDE TEMPORARY STABILIZATION TECHNIQUES FOR AREAS CLEARED AND GRUBBED THAT WILL NOT BE ACTIVE WITHIN THE 14-DAY TIME FRAME.

#### STORMWATER INLET PROTECTION

INLET PROTECTION - WILL BE UTILIZED TO PREVENT SOIL AND DEBRIS FROM ENTERING STORM DRAIN INLETS AND SHALL BE INSTALLED WITHIN BASINS DOWNSTREAM OF DISTURBANCE WITHIN 200' OF THE PROPOSED DISTURBANCE. THESE MEASURES ARE USUALLY TEMPORARY AND ARE IMPLEMENTED BEFORE A SITE IS DISTURBED.

MAINTENANCE - THE OPERATOR MUST CLEAN, OR REMOVE AND REPLACE THE INLET PROTECTION MEASURES AS SEDIMENT ACCUMULATES, THE FILTER BECOMES CLOGGED, AND/OR AS PERFORMANCE IS COMPROMISED. ACCUMULATED SEDIMENT ADJACENT TO THE INLET PROTECTION MEASURES SHOULD BE REMOVED BY THE END OF THE SAME WORK DAY IN WHICH IT IS FOUND OR BY THE END OF THE FOLLOWING WORK DAY IF REMOVAL BY THE SAME WORK DAY IS NOT FEASIBLE.

STORMWATER BASINS - ALL AREAS CONTAINING STORMWATER BASINS (ABOVE OR BELOW GROUND) SHALL PROTECTED THROUGHOUT CONSTRUCTION. THESE ARES ARE NOT BE USED FOR MATERIAL STOCKPILES OR FO PARKING EQUIPMENT. SURFACE BASINS ARE TO BE ROUGH GRADED AND PROTECTED UNTIL STABILIZED AND BROUGHT ON-LINE FOR STORMWATER MANAGEMENT OF THE STABILIZED SITE.

#### CONSTRUCTION ENTRANCES

CONSTRUCTION ENTRANCES SHALL BE USED IN CONJUNCTION WITH THE STABILIZATION OF CONSTRUCTION ROADS TO REDUCE THE AMOUNT OF SEDIMENT TRACKING OFF THE PROJECT. ANY CONSTRUCTION SITE ACCESS POINT MUST EMPLOY THE CONTROL MEASURES ON THE APPROVED SITE PLANS AND IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN. CONSTRUCTION ENTRANCES SHALL BE USED IN CONJUNCTION WITH THE STABILIZATION OF CONSTRUCTION ROADS TO REDUCE THE AMOUNT OF MUD PICKED UP BY CONSTRUCTION VEHICLES. ALL CONSTRUCTION ACCESS ROADS SHALL BE CONSTRUCTED PRIOR TO AN ROADWAY ACCEPTING CONSTRUCTION TRAFFIC.

THE SITE OWNER AND OPERATOR MUST WILL RESTRICT VEHICLE USE TO PROPERLY DESIGNATED EXIT POINTS USE PROPERLY DESIGNED AND CONSTRUCTED CONSTRUCTION ENTRANCES AT ALL POINTS THAT EXIT ONTO PAVED ROADS SO THAT SEDIMENT REMOVAL OCCURS PRIOR TO VEHICLE EXIT. WHEN AND WHERE NECESSARY USE ADDITIONAL CONTROLS TO REMOVE SEDIMENT FROM VEHICLE TIRES PRIOR TO EXIT (I.E. WHEEL WASHING RACKS, RUMBLE STRIPS, AND RATTLE PLATES). WHERE SEDIMENT HAS BEEN TRACKED OUT FROM THE CONSTRUCTION SITE ONTO THE SURFACE OF OFF-SITE STREETS, OTHER PAVED AREAS, AND SIDEWALKS, DEPOSITED SEDIMENT MUST BE REMOVED BY THE END OF THE SAME WORK DAY IN WHICH THE TRACK OUT OCCURS. TRACK-OUT MUST BE REMOVED BY SWEEPING, SHOVELING, OR VACUUMING THESE SURFACES, OR BY USING OTHER SIMILARLY EFFECTIVE MEANS OF SEDIMENT REMOVAL

#### STOCKPILE CONTAINMENT

SHALL BE USED ONSITE TO MINIMIZE OR ELIMINATE THE DISCHARGE OF SOIL, TOPSOIL, BASE MATERIAL OR RUBBLE, FROM ENTERING DRAINAGE SYSTEMS OR SURFACE WATERS. ALL STOCKPILES MUST BE LOCATED WITHIN THE LIMIT OF DISTURBANCE, PROTECTED FROM RUN-ON WITH THE USE OF TEMPORARY SEDIMENT BARRIERS AND PROVIDED WITH COVER OR STABILIZATION TO AVOID CONTACT WITH PRECIPITATION AND WIND WHERE AND WHEN PRACTICAL. STOCK PILE MANAGEMENT CONSISTS OF PROCEDURES AND PRACTICES DESIGNED TO MINIMIZE OR ELIMINATE THE DISCHARGE OF STOCKPILED MATERIAL (SOIL, TOPSOIL, BASE MATERIAL, RUBBLE) FROM ENTERING DRAINAGE SYSTEMS OR SURFACE WATERS.

FOR ANY STOCKPILES OR LAND CLEARING DEBRIS COMPOSED, IN WHOLE OR IN PART, OF SEDIMENT OR SOIL YOU MUST COMPLY WITH THE FOLLOWING REQUIREMENTS - LOCATE PILES WITHIN THE DESIGNATED LIMITS OF DISTURBANCE OUTSIDE OF THE 100-FOOT BUFFER ZONE, PROTECT FROM CONTACT WITH STORMWATER (INCLUDING RUN-ON) USING A TEMPORARY PERIMETER SEDIMENT BARRIER; WHERE PRACTICABLE, PROVIDE COVER OR APPROPRIATE TEMPORARY VEGETATIVE OR STRUCTURAL STABILIZATION TO AVOID DIRECT CONTAC WITH PRECIPITATION OR TO MINIMIZE SEDIMENT DISCHARGE; NEVER HOSE DOWN OR SWEEP SOIL OR SEDIMEN' ACCUMULATED ON PAVEMENT OR OTHER IMPERVIOUS SURFACES INTO ANY STORMWATER CONVEYANCE, STORM DRAIN INLET, OR SURFACE WATER; TO THE MAXIMUM EXTENT PRACTICABLE, CONTAIN AND SECURELY PROTECT FROM WIND.

#### TEMPORARY SEDIMENT BASINS

IF REQUIRED. ADDITIONAL TEMPORARY SEDIMENT BASINS SHALL BE CONSTRUCTED TO MITIGATE THE POTENTIAL SEDIMENT LOADING TO THE ADJACENT RESOURCE AREAS. TEMPORARY SEDIMENT BASINS ARE T BE LOCATED OUTSIDE OF THE 50-FOOT BUFFER ZONE TO THE BORDERING VEGETATED WETLANDS AND SHAL NOT BE LOCATED IN AN AREA WHERE AN INFILTRATION BASIN IS PROPOSED. TEMPORARY SEDIMENT BASIN GRADING LOCATION SHALL BE DICTATED BY THE DESIGN ENGINEER. AT A MINIMUM THE THE VOLUME OF T TEMPORARY SEDIMENT BASIN, AS MEASURED FROM THE BOTTOM OF THE BASE TO THE ELEVATION OF THE CREST OF THE PRINCIPAL SPILLWAY SHALL BE AT LEAST 3,600 CUBIC FEET PER ACRE OF DRAINAGE AREA. THIS 3,600 CUBIC FEET IS EQUIVALENT TO 1.0 INCH OF SEDIMENT PER ACRE OF DRAINAGE AREA. ADDITIONAL STORAGE IN THE FORM OF A PERMANENT WET POOL SHALL BE PROVIDED WHENEVER PRACTICABLE, BUT MAY NOT BE USED TO FULFILL THE TEMPORARY STORAGE VOLUME REQUIREMENT.

SEDIMENT BASINS SHALL BE CLEANED OUT WHEN THE VOLUME REMAINING AS DESCRIBED ABOVE IS REDUCED BY SEDIMENTATION TO 1,800 CUBIC FEET PER ACRE OF DRAINAGE AREA (50 PERCENT FULL). IN NO CASE SHALL THE SEDIMENT LEVEL BE PERMITTED TO BUILD UP HIGHER THAN ONE FOOT BELOW THE PRINCIPAL SPILLWAY CREST. AT THIS ELEVATION, CLEANOUT SHALL BE PERFORMED TO RESTORE THE ORIGINAL DESIGN VOLUME TO THE SEDIMENT BASIN. THE ELEVATION OF THE MAXIMUM ALLOWABLE SEDIMENT LEVEL SHALL BE DETERMINED AND SHALL BE STATED IN THE DESIGN DATA AS A DISTANCE BELOW THE TOP OF THE RISER AND BE CLEARLY MARKED ON THE RISER. NO AREA OF DETENTION SHALL BE UTILIZED FOR TEMPORARY EROSION CONTROL OR DEWATERING ACTIVITIES.

| 1  |   | 100/21/2021  | I LIMBI OCCION  |
|----|---|--------------|---|
|    | 2                                       | 09/13/2021   |   |
|    | 3                                       | 10/04/2021   | RESPONSE TO COMMENTS  |
|    | 4                                       | 10/19/2021   | RESPONSE TO COMMENTS  |
|    | 5                                       | 11/30/2021   | APPROVAL CONDITIONS   |
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REVISIONS

NO DATE

#### JUNE 21, 2021 DRAWN: DRC SCALE: 1" = 20'

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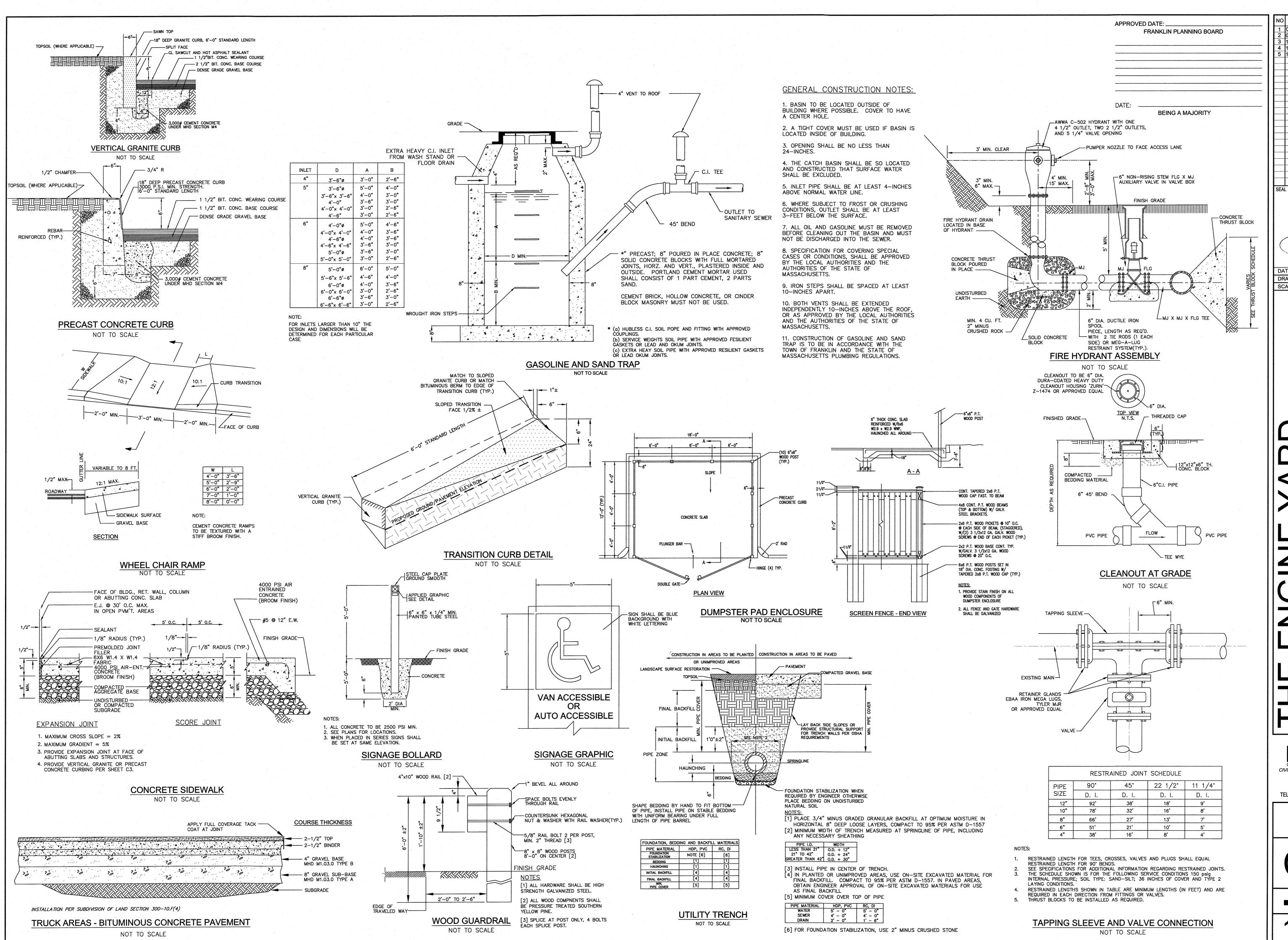
CIVIL ENGINEERING / LAND SURVEYING 249 SOUTH STREET UNIT 1 PLAINVILLE, MA 02762 TEL. (508) 695-2221 FAX. (508) 695-2219

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**EROSION** CONTROL

SHEET 5 OF 8 0' 15' 30'



THE ENGINE YARD

DESIGN GROUP

CIVIL ENGINEERING / LAND SURVEYING

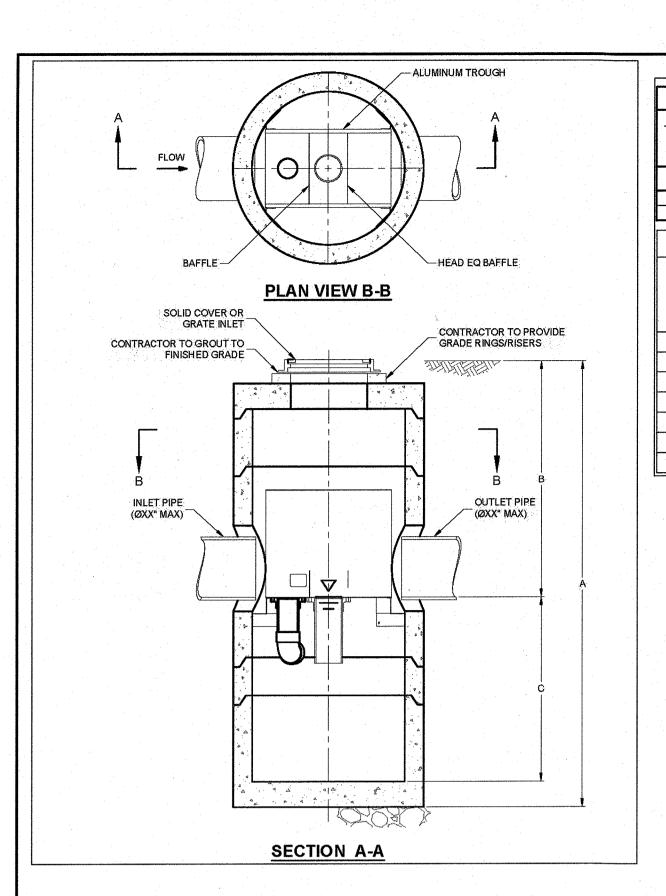
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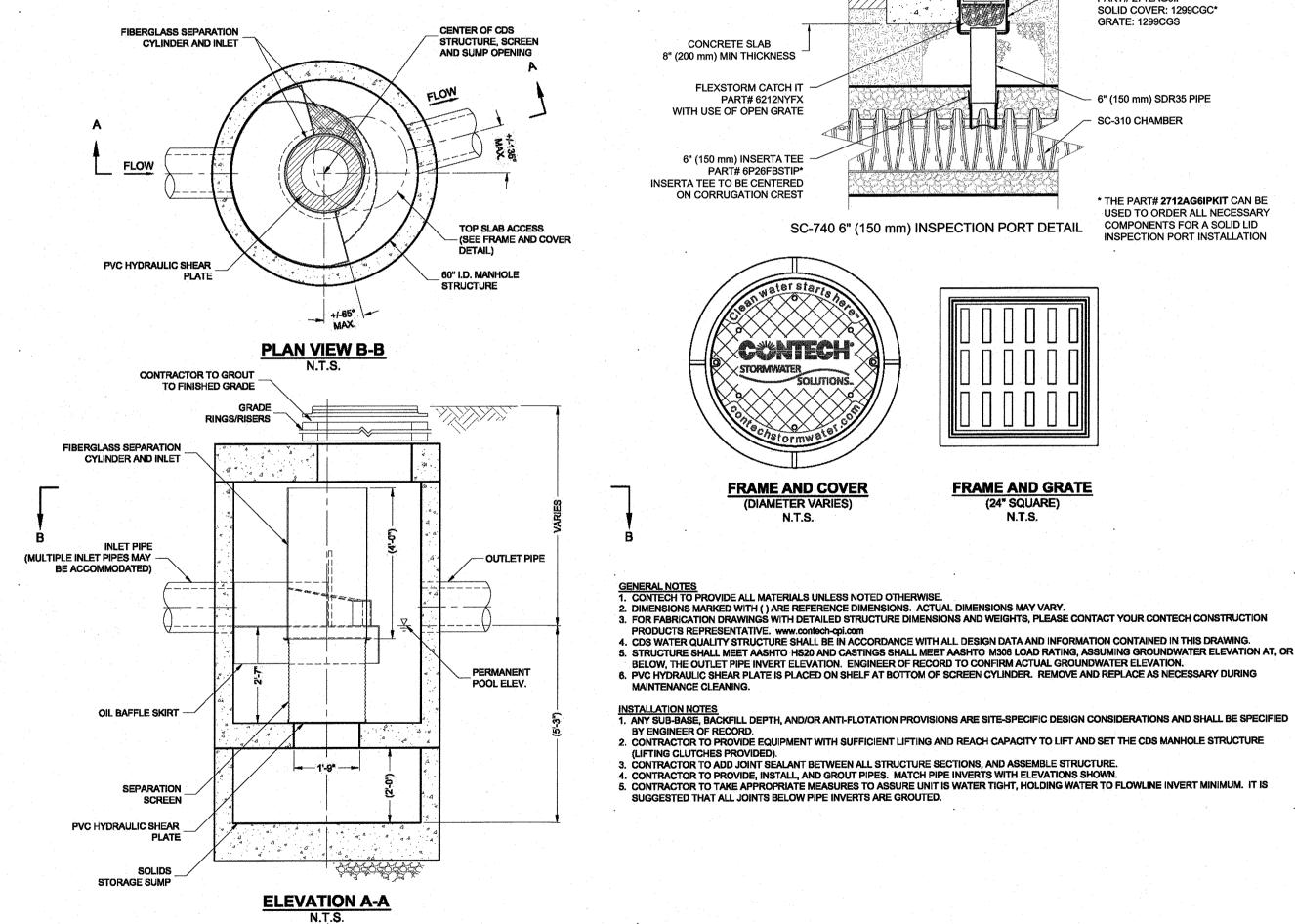
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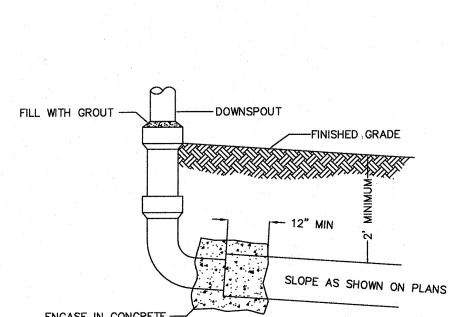
SHEET 6 OF 8





## CDS 2020-5-G UNIT (STANDARD)

|   | CDS2020-5-C DESIGN               | NOTES                        |                  |   |
|---|----------------------------------|------------------------------|------------------|---|
| CDS2020-5-C RATED TREATMENT CAPACITY IS:                                      | 2 CFS, OR PER LOCAL REGULATIONS. |                              |                  |   |
| THE STANDARD CDS2020-5-C CONFIGURATION CONFIGURATIONS MAY BE COMBINED TO SUIT |                                  | NS ARE AVAILABLE AND ARE LIS | STED BELOW. SOME |   |
| CONFIGURATION DESCRIPTION   |                                  |                              |                  |   |
| GRATED INLET ONLY (NO INLET PIPE)   |                                  |                              |                  |   |
| GRATED INLET WITH INLET PIPE OR PIPES   |                                  |                              |                  |   |
| CURB INLET ONLY (NO INLET PIPE)   |                                  |                              |                  |   |
| CURB INLET WITH INLET PIPE OR PIPES   |                                  |                              |                  |   |
|   |                                  |                              |                  | , |
| SEPARATE OIL BAFFLE (SINGLE INLET PIPE REC                                    | JIRED FOR THIS CONFIGURATION)    |                              |                  |   |



**VORTSENTRY HS DESIGN NOTES** 

Typical Depth

Below Invert

m FT m FT mm FT m IN mm

(inside)

900 | 10.16 | 3.10 | 4.08 | 1.24 | 5.58 | 1702 | 3.00 | 0.91 | 18 | 450

1200 | 13.25 | 4.04 | 6.00 | 1.83 | 6.75 | 2057 | 4.00 | 1.22 | 24 | 600

1500 | 15.13 | 4.61 | 6.50 | 1.98 | 7.96 | 2426 | 4.82 | 1.47 | 30 | 750

1800 | 16.56 | 5.05 | 6.75 | 2.06 | 9.15 | 2788 | 5.59 | 1.70 | 36 | 900

2100 | 18.85 | 5.75 | 7.75 | 2.36 | 10.35 | 3156 | 5.00 | 1.52 | 42 | 1050

8 | 2400 | 20.87 | 6.36 | 8.50 | 2.59 | 11.54 | 3518 | 6.91 | 2.11 | 48 | 1200

Minimum

to Invert

Distance Rim Diameter (ID)

Maximum Pipe

CONCRETE COLLAR NOT REQUIRED

12" (300 mm) NYLOPLAST INLINE DRAIN BODY W/SOLID HINGED COVER OR GRATE 4.

FOR UNPAVED APPLICATION

PART# 2712AG6IP\* SOLID COVER: 1299CGC\*

GRATE: 1299CGS

6" (150 mm) SDR35 PIPE

THE PART# 2712AG6IPKIT CAN BE USED TO ORDER ALL NECESSARY

COMPONENTS FOR A SOLID LID

INSPECTION PORT INSTALLATION

SC-310 CHAMBER

THE STANDARD SOLID COVER CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW

VORTSENTRY HS GENERAL INFORMATION

Distance Rim

to Invert

CONFIGURATION OPTION DESCRIPTION

Distance Rim

to Outside

Bottom

GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.

DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.

CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com

VORTSENTRY HS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).

FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR

STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET AASHTO M306 LOAD RATING, ASSUMING

GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO

CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE

CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.

CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.

INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

. VORTSENTRY HS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION

INSTALLATION NOTES

1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS

CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE

**VORTSENTRY DETAILS AND SPECIFICATIONS** 

NOT TO SCALE

SC-740 6" (150 mm) INSPECTION PORT DETAIL

FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH CONSTRUCTION

CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE

S. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS

I. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWII

BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.

CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.

CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN

18" (450 mm) MIN WIDTH

FRAME AND GRATE

N.T.S.

GRATE INLET (NO INLET PIPE

**GRATE INLET WITH INLET PIPE** 

Manhole

Diameter (ID)

CONTAINED IN THIS DRAWING

CONFIRM ACTUAL GROUNDWATER ELEVATION.

CONCRETE COLLAR

CONCRETE SLAB

FLEXSTORM CATCH IT

WITH USE OF OPEN GRATE

6" (150 mm) INSERTA TEE

ON CORRUGATION CREST

INSERTA TEE TO BE CENTERED

PART# 6P26FBSTIP\*

CCATECH

TORMWATER SOLUTIONS

(DIAMETER VARIES)

ENERAL NOTES
CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE

SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

BY ENGINEER OF RECORD

DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY

PART# 6212NYFX

8" (200 mm) MIN THICKNESS

PAVEMENT

AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.

DOWNSPOUT CONNECTION TO DRAINAGE OUTLET NOT TO SCALE

#### STORMTECH CHAMBER SPECIFICATIONS CHAMBERS SHALL BE STORMTECH SC-740 OR SC-310.

CHAMBERS SHALL BE MANUFACTURED FROM VIRGIN POLYPROPYLENE OR POLYETHYLENE RESINS CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR

THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRED BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1 LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.

CHAMBERS SHALL MEET ASTM F2922 (POLYETHYLENE) OR ASTM F2418-16 (POLYPROPYLENE), "STANDARD SPECIFICATION FOR THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS

CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOADS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS

ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. THE CHAMBER MANUFACTURER SHALL SUBMIT THE FOLLOWING UPON REQUEST TO THE SITE DESIGN ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:

a. A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL 2. TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY AASHTO FOR THERMOPLASTIC PIPE.

b. A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET. THE 50 YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2418 OR ASTM F2922 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE

STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL EVALUATION IS

CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED

#### IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-310/SC-740 SYSTEM

STORMTECH SC-310 & SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS

STORMTECH SC-310 & SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE". CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED

OVER THE CHAMBERS STORMTECH RECOMMENDS 3 BACKFILL METHODS: STONESHOOTER LOCATED OFF THE CHAMBER BED. BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE

OR SUBGRADE. BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR

THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING

EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR

JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.

THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.

ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

#### NOTES FOR CONSTRUCTION EQUIPMENT

MANUFACTURING FACILITY.

STORMTECH SC-310 & SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE"

THE USE OF CONSTRUCTION EQUIPMENT OVER SC-310 & SC-740 CHAMBERS IS LIMITED: NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.

 NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE". WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE

\_\_\_\_\_

<u>PLAN</u>

"STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".

FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY

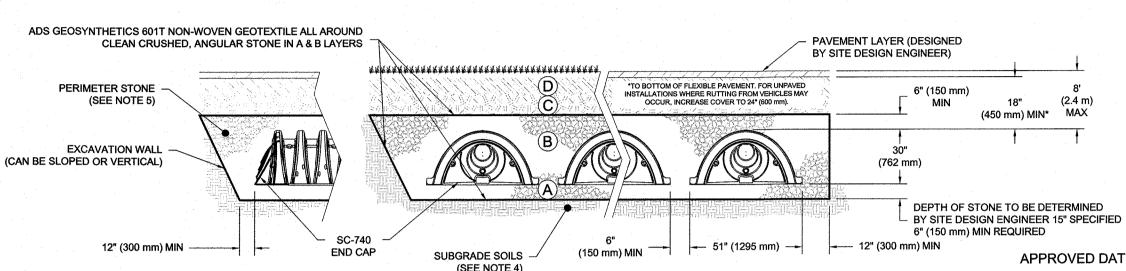
CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

#### COMPACTION / DENSITY AASHTO MATERIAL MATERIAL LOCATION DESCRIPTION CLASSIFICATIONS REQUIREMENT FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER PREPARE PER SITE DESIGN ENGINEER'S PLANS. FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM PAVED INSTALLATIONS MAY HAVE STRINGENT ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT N/A OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED MATERIAL AND PREPARATION REQUIREMENTS. GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE SUBGRADE REQUIREMENTS. MAY BE PART OF THE 'D' LAYER BEGIN COMPACTIONS AFTER 12" (300 mm) OF AASHTO M1451 MATERIAL OVER THE CHAMBERS IS REACHED. A-1, A-2-4, A-3 COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX INITIAL FILL: FILL MATERIAL FOR LAYER 'C' GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% LIFTS TO A MIN. 95% PROCTOR DENSITY FOR STARTS FROM THE TOP OF THE EMBEDMENT FINES OR PROCESSED AGGREGATE WELL GRADED MATERIAL AND 95% RELATIVE STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE DENSITY FOR PROCESSED AGGREGATE MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU TOP OF THE CHAMBER, NOTE THAT PAVEMENT AASHTO M431 MATERIALS. ROLLER GROSS VEHICLE WEIGHT SUBBASE MAY BE A PART OF THE 'C' LAYER. OF THIS LAYER. 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89 NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC 9, 10 FORCE NOT TO EXCEED 20,000 lbs (89 kN). EMBEDMENT STONE: FILL SURROUNDING THE AASHTO M431 CHAMBERS FROM THE FOUNDATION STONE ('A' CLEAN, CRUSHED, ANGULAR STONE NO COMPACTION REQUIRED. 3, 357, 4, 467, 5, 56, 57 LAYER) TO THE 'C' LAYER ABOVE.

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.

CLEAN, CRUSHED, ANGULAR STONE



(SEE NOTE 4)

FRANKLIN PLANNING BOARD

NO DATE

11/30/2021

REVISIONS

APPROVAL CONDITIONS

06/21/2021 PERMIT SUBMISSION

09/13/2021 RESPONSE TO COMMENTS

10/04/2021 RESPONSE TO COMMENTS

JUNE 21, 2021

DRC

SCALE: 1" = 20'

DRAWN:

BEING A MAJORITY

1 10/19/2021 RESPONSE TO COMMENTS

1. SC-7410 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS

SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS

3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMEN AND FILL MATERIALS.

4. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.

5. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.

6. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

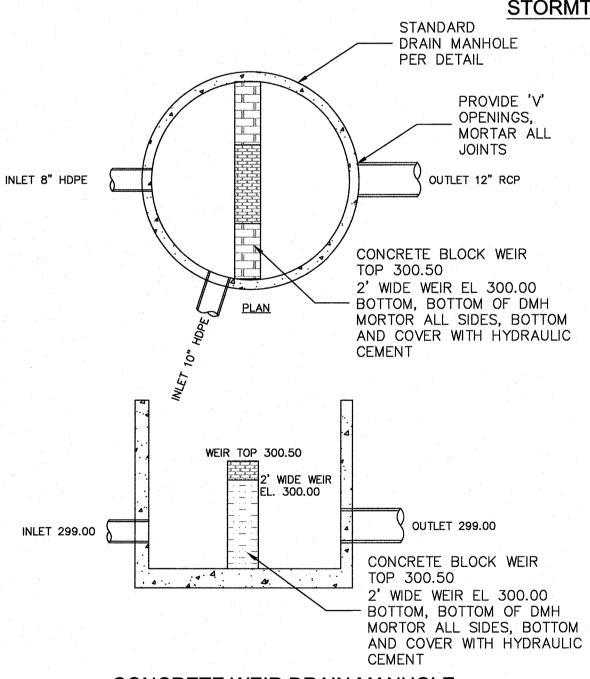
#### SC-740 CROSS SECTION DETAIL

AASHTO M431

3, 357, 4, 467, 5, 56, 57

PLATE COMPACT OR ROLL TO ACHIEVE A FLAT

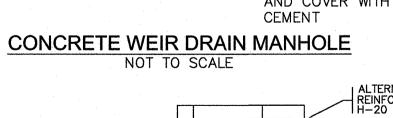


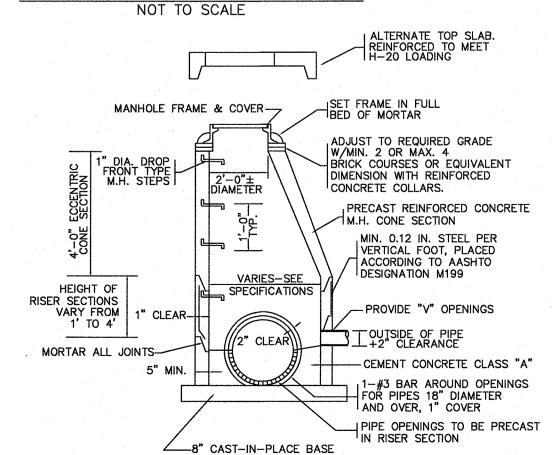


FOUNDATION STONE: FILL BELOW CHAMBERS

OF THE CHAMBER.

FROM THE SUBGRADE UP TO THE FOOT (BOTTOM)





PRECAST CONCRETE DRAIN MANHOLE NOT TO SCALE

VERTICAL FOOT, PLACED

ACCORDING TO AASHTO

PROVIDE "V" OPENINGS

VARIES DEPENDING

ON DIAM. OF PIPE

SEPARATOR TO BE

"NEENAH R-3705"

OR APPROVED EQUAL

(MINIMUM 12")

DESIGNATION M199

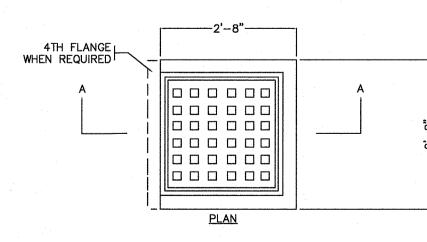
OUTSIDE OF PIPE

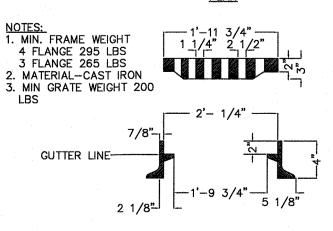
+2" CLEARANCE

NOTES: 1. STANDARD COVER MIN. WEIGHT 200 LBS. (COVER) ---34"---2. TYPE-A FRAME MIN. WEIGHT 265 LBS. MATERIAL-CAST IRON 3. STAMPED TO READ 'DRAIN' FOR DRAIN MANHOLE 1"-|---26 1/4"------|-INSTILLATION & 'SEWER' FOR SEWER MANHOL INSTALLATION

STANDARD MANHOLE FRAME & COVER NOT TO SCALE

SECTION A-A





STANDARD CATCH BASIN FRAME & GRATE

NOT TO SCALE

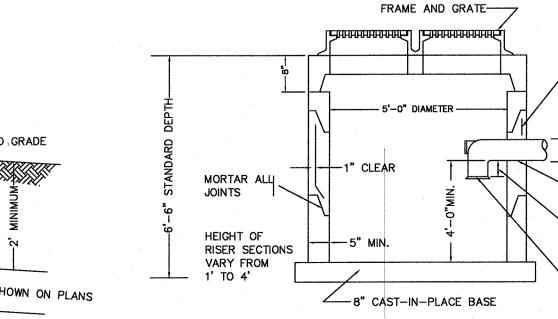
SECTION A-A

-000-SZ CD

> CIVIL ENGINEERING / LAND SURVEYING 249 SOUTH STREET PLAINVILLE, MA 02762 TEL. (508) 695-2221 FAX. (508) 695-2219

**TYPICAL** DETAILS

SHEET 7 OF 8



PRECAST CONCRETE DOUBLE CATCH BASIN WITH GAS AND OIL SEPARATOR

CDS UNIT DETAILS AND SPECIFICATIONS

NOT TO SCALE

APPROVED DATE: \_\_\_ FRANKLIN PLANNING BOARD **BEING A MAJORITY** 

#### REINFORCED CONCRETE NOTES

- R1. ALL CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", AND ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS". MAXIMUM SLUMP SHALL BE 4 INCHES.
- R2. ALL CONCRETE SHALL BE CONTROLLED, MIXED, AND PLACED UNDER THE SUPERVISION OF AN APPROVED CONCRETE TESTING AGENCY.
- R3. UNLESS NOTED OTHERWISE, ALL CONCRETE SHALL BE NORMAL WEIGHT WITH A MINIMUM COMPRESSIVE STRENGTH AT THE END OF 28 DAYS AS FOLLOWS:

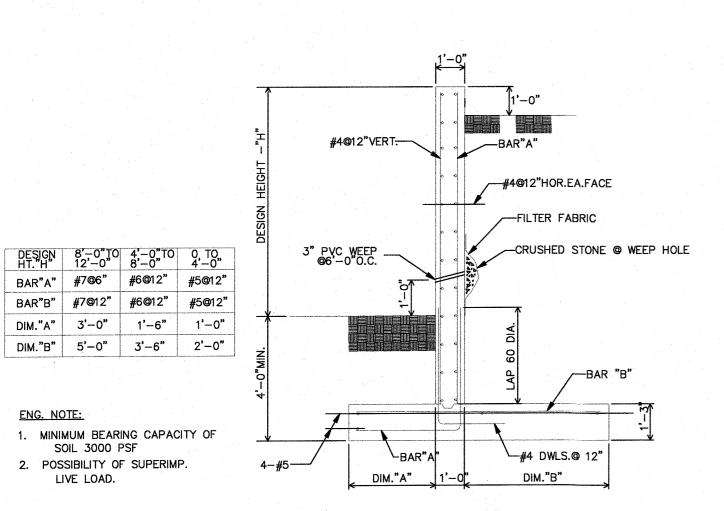
STRENGTH (PSI) AGGREGATE SIZE (in.) ENTRAINED AIR (%) APPLICATION

3000 R4. THE USE OF "FLY ASH" IN CONCRETE MIX DESIGN IS NOT ALLOWED.

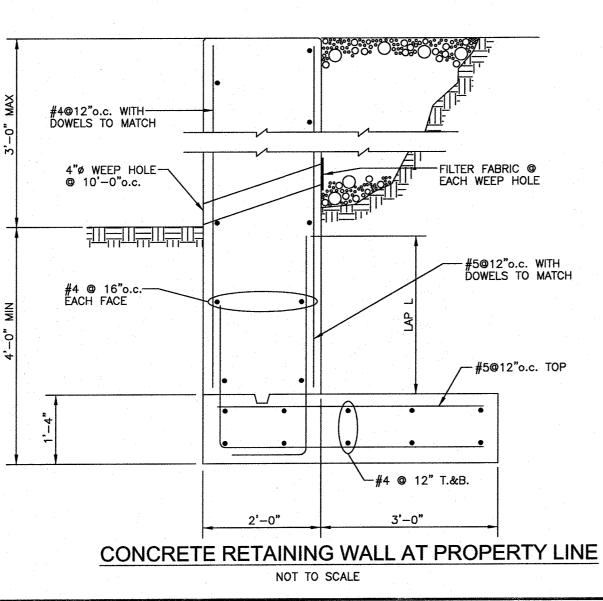
- R5. NO ADMIXTURES OTHER THAN LOW RANGE WATER REDUCER WILL BE ALLOWED.
- R6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER REMOVAL OF FORMWORK. FORMS SHALL
- BE REMOVED ONLY AFTER CONCRETE HAS ATTAINED SUFFICIENT STRENGTH TO SUPPORT ITS OWN WEIGHT. CONSTRUCTION LOADS AND LATERAL LOADS SHOULD BE PLACED WITHOUT DAMAGE TO THE STRUCTURE OR CAUSE ANY EXCESSIVE DEFLECTION.
- R7. CONSTRUCTION JOINT LOCATIONS, OTHER THAN THOSE SHOWN ON THE DRAWINGS, ARE PERMITTED SUBJECT TO PRIOR APPROVAL OF THE ENGINEER. CONTROL JOINTS AND EXPANSION JOINTS ARE

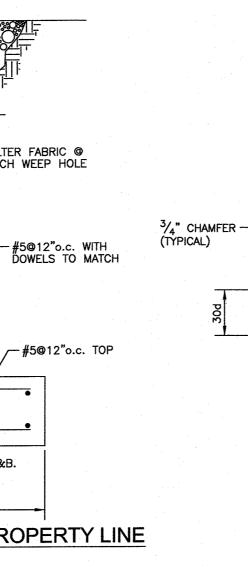
EXTERIOR CONCRETE

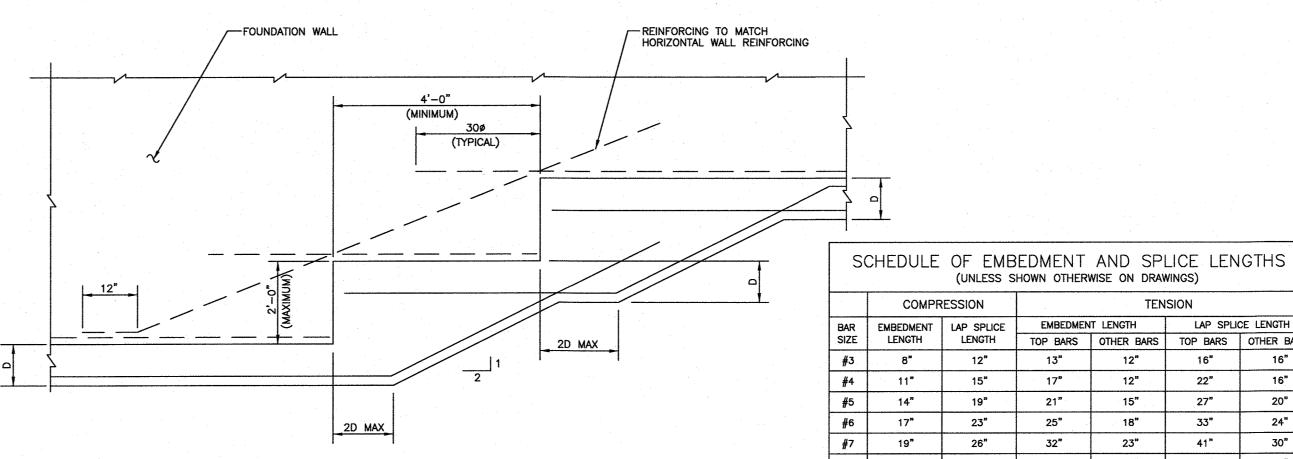
- R8. PROVIDE 3/4 INCH CHAMFER AT ALL CONTINUOUSLY EXPOSED CONCRETE EDGES, SUCH AS CURBS, EQUIPMENT PADS, AND EDGE OF WALLS.
- R9. PROVIDE FLANGED STEEL SLEEVES WHERE PIPES PASS THROUGH CONCRETE.
- R10. ALL DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE LATEST ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCING".
- R11. REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60. UNLESS NOTED OTHERWISE ON THE DRAWINGS, THE CLEAR CONCRETE COVER OVER BARS SHALL BE AS FOLLOWS:
  - A. SURFACES PLACED IN CONTACT WITH THE GROUND ... B. FORMED SURFACE EXPOSED TO GROUND... C. INSIDE FACE OF FORMED WALL.
  - D. WALL PIER TIES...
- E. SLAB REINFORCING. R12. PROVIDE CLASS B SPLICES FOR ALL CONTINUOUS REINFORCEMENT UNLESS NOTED OTHERWISE.
- R13. SET AND TIE ALL REINFORCEMENT BEFORE PLACING CONCRETE. SETTING OF ANCHOR BOLTS, DOWELS AND REINFORCEMENT INTO WET CONCRETE IS PROHIBITED.
- R14. ALL KEYS SHALL BE 2"x4" (NOMINAL) UNLESS NOTED OTHERWISE.
- R15. USE NON-SHRINK, NON-METALLIC GROUT WHERE INDICATED.
- R16. PROVIDE SEALANT FOR ALL EXPOSED TO VIEW CONSTRUCTION AND/OR CONTROL JOINTS.



REINFORCED CONCRETE RETAINING WALL NOT TO SCALE







TYPICAL ELEVATION OF CONTINUOUS STEPPED WALL FOOTING NOT TO SCALE

© CONSTRUCTION JOINT, 90'-0" MAXIMUM TO CORNER OR BETWEEN JOINTS

CAULK 3/4"

JOINT SEALANT -

HORIZONTAL REINFORCING -

NO REGLET REQUIRED -

IF WALL NOT EXPOSED

AT CORNERS

|         | 1 " |     |                                  | : 1                         |     | l . ' | 1   |
|---------|-----|-----|----------------------------------|-----------------------------|-----|-------|-----|
|         | #10 | 28" | 38"                              | 67"                         | 48" | 88"   | 63" |
|         | #11 | 31" | 42"                              | 83"                         | 59" | 108"  | 77" |
|         |     |     |                                  |                             |     |       |     |
|         |     |     |                                  |                             |     |       |     |
| TYPICAL |     | 30d | SAME SIZE A HORIZONTAL  O" (TYP) | ND SPACING<br>REINFORCING - | 30d |       |     |

15"

19"

30"

22"

(UNLESS SHOWN OTHERWISE ON DRAWINGS)

42"

AT WALL END & OPENINGS

EMBEDMENT LENGTH

TOP BARS OTHER BARS TOP BARS OTHER BARS

22" 27"

55"

20"

24"

30"

39"

49"

12"

12"

15"

18"

23"

30"

AT CONSTRUCTION JOINTS **AT INTERSECTIONS** TYPICAL FOUNDATION WALL DETAILS

-EXTERIOR FACE

-2x CONTINUOUS KEY

RESIDE 9-181-000 PAF PAF FR/

NO DATE

SEAL

REVISIONS

1 06/21/2021 PERMIT SUBMISSION

DANIEL R. CAMPBELL No. 46245

JUNE 21, 2021

1" = 20'

DRAWN: DRC

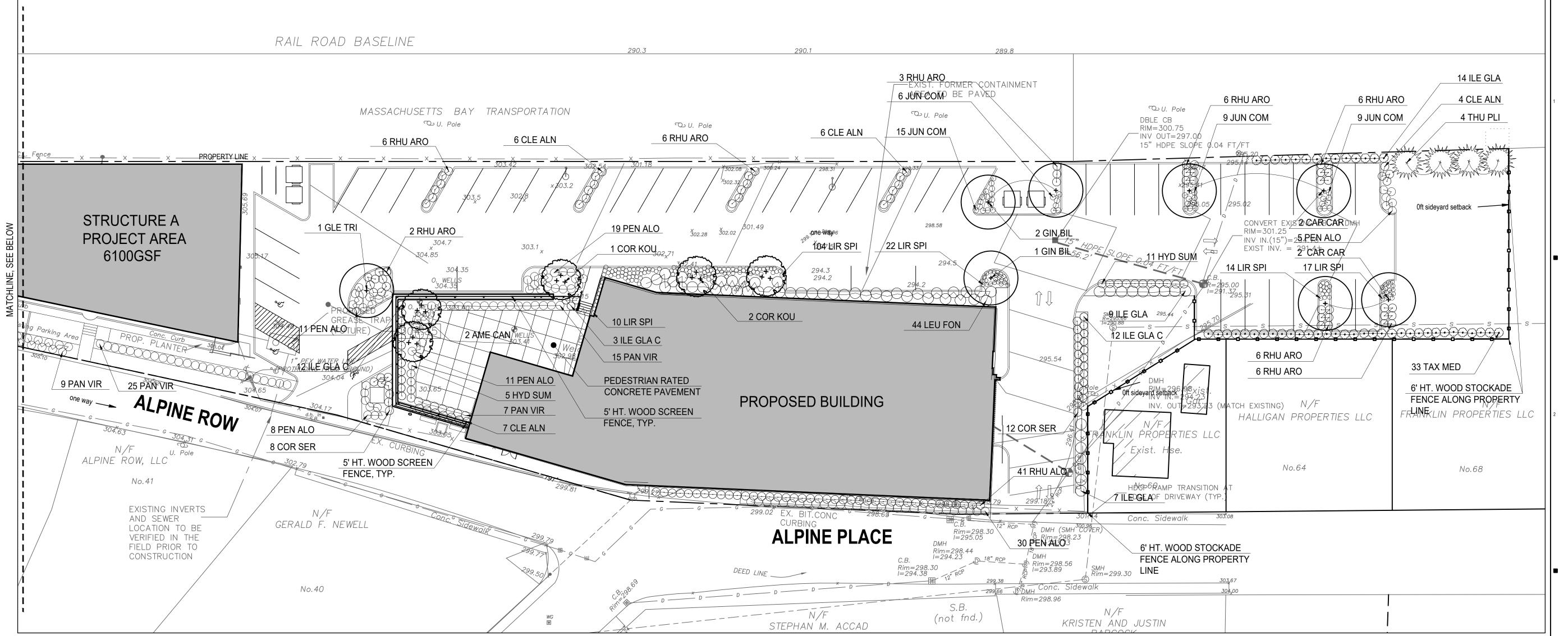
? 09/13/2021 RESPONSE TO COMMENTS

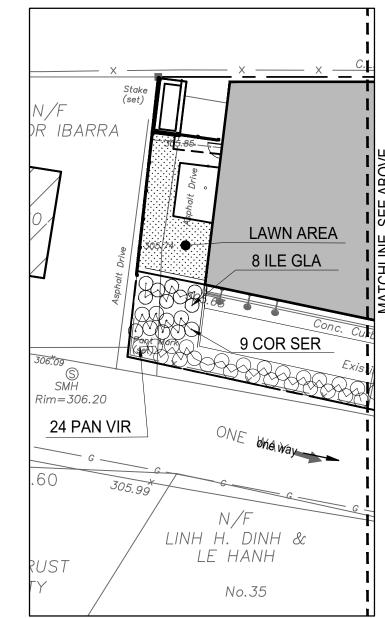
10/04/2021 RESPONSE TO COMMENTS 10/19/2021 RESPONSE TO COMMENTS 5 11/30/2021 APPROVAL CONDITIONS

249 SOUTH STREET UNIT 1 PLAINVILLE, MA 02762 TEL. (508) 695-2221 FAX. (508) 695-2219 **TYPICAL DETAILS** 

CIVIL ENGINEERING / LAND SURVEYING

SHEET 8 OF 8





#### PLANTING NOTES

- 1. BASE FILE SURVEY INFORMATION PROVIDED BY JOE THE ARCHITECT, MAY 05, 2021.
- 2. IF DISCREPANCIES EXIST BETWEEN THE NUMBER OF PLANTS DRAWN ON THE PLANTING PLAN AND THE NUMBER OF PLANTS IN THE PLANT LIST, THE PLANTING PLAN SHALL GOVERN.
- 3. ALL NEW PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED FOR NURSERY STOCK PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. IN ADDITION, ALL NEW PLANT MATERIAL FOR THE PROJECT SHALL BE OF SPECIMEN QUALITY.
- 4. ALL NEW PLANTS TO BE BALLED AND BURLAPPED OR CONTAINER-GROWN, UNLESS OTHERWISE NOTED ON THE PLANT LIST.
- THE PLANTING SHOWN ON THE DRAWINGS.

  6. ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT

5. THE CONTRACTOR SHALL SUPPLY ALL NEW PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE

- OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE, AND ONLY AFTER WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
- 7. CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING UTILITY LINES PRIOR TO PLANTING AND SHALL REPORT ANY CONFLICTS TO THE LANDSCAPE ARCHITECT.
- 8. STAKE LOCATION OF ALL PROPOSED PLANTING FOR APPROVAL BY OWNER'S REP PRIOR TO THE COMMENCEMENT OF PLANTING.
- 9. NEW SHRUBS AND GROUND COVER SHALL BEAR THE SAME RELATIONSHIP TO GRADE AS IT BORE TO PREVIOUS GRADE. TREES SHALL BE SET 3" HIGHER THAN PREVIOUS GRADE. NO TREES SHALL BE PLANTED BEFORE ACCEPTANCE OF ROUGH GRADING.
- 10. ALL PLANT BEDS TO RECEIVE THREE INCHES (3") OF BARK MULCH AS PER THE SPECIFICATIONS.
- 11. ALL EXISTING TREES TO REMAIN SHALL BE PROPERLY PROTECTED DURING CONSTRUCTION. PROTECTION TECHNIQUES SHALL BE REVIEWED AND APPROVED BY THE OWNER'S REP.
- 12. PRUNE EXISTING AND NEW TREES IN ACCORDANCE WITH THE SPECIFICATIONS.
- 13. CONTRACTOR SHALL PROVIDE FULL DEPTHS OF LOAM AS NOTED ON DETAILS AND AS SPECIFIED, FOR ALL PLANTING.
- 14. ALL TREES TO BE REMOVED FROM SCOPE OF WORK SHALL INCLUDE GRINDING OF STUMP AND REMOVAL OFF-SITE.
- 15. ANY EXISTING TREES AFFECTED BY CONSTRUCTION SHALL HAVE ROOTS PRUNED PER THE SPECIFICATIONS.
- 16. ALL PLANTS ON THE PLANTING SCHEDULE COMPLY WITH THE TOWN OF FRANKLIN'S BEST DEVELOPMENT PRACTICES GUIDEBOOK. PLANTS INDICATED AS NATIVE CAN BE FOUND ON THE TOWN'S RECOMMENDED LIST OF PLANTS. ALL OTHER PLANTS INDICATED ARE NON-INVASIVE AND PER THE GUIDEBOOK ARE APPROVED TO BE INSTALLED IN THIS LOCATION. THEY HAVE BEEN SELECTED FOR HARDINESS, TOLERANCE TO SALT, POLLUTION AND SOLAR ORIENTATION PREFERENCES.

| _ANTII       | NG SC     | HEDULE                            |                            |              |                        |
|--------------|-----------|-----------------------------------|----------------------------|--------------|------------------------|
| SYM          | QTY       | BOTANICAL NAME                    | COMMON NAME                | SIZE         | SPACING/NOTES          |
| SHADE TREES  |           |                                   | ·                          | <b>-</b>     | <b>'</b>               |
| GIN BIL      | 3         | Ginkgo biloba                     | Ginkgo                     | 2 - 2 ½" CAL | B&B                    |
| GLE TRI      | 1         | Gleditsia triacanthos             | Honeylocust                | 2 - 2 ½" CAL | B&B                    |
| CAR CAR      | 4         | Carpus carolinia                  | American Hornbeam          | 2 - 2 ½" CAL | B&B, NATIVE            |
| ORNAMENTAL 1 | TREES     | •                                 |                            | •            | •                      |
| AME CAN      | 2         | Amelanchier canadensis            | Serviceberry               | 8-10' HT.    | B&B Multi-stem, NATIVE |
| COR KOU      | 3         | Cornus kousa                      | Kousa Dogwood              | 8-10' HT.    | B&B Multi-stem         |
| EVERGREEN TR | REES      |                                   |                            | •            |                        |
| THU PLI      | 4         | Thuja plicata 'Nana'              | Dwarf Western Arbovitae    | 8-10' HT.    | B&B                    |
| EVERGREEN    | SHRUBS    |                                   |                            |              |                        |
| ILE GLA C    | 27        | llex glabra 'compacta'            | Compact Inkberry           | 24"-36" HT   | 36" O.C. NATIVE        |
| ILE GLA      | 38        | llex glabra                       | Inkberry                   | 24"-36" HT   | 42" O.C. NATIVE        |
| LEU FON      | 44        | Leucothoe fontanesiana 'Compacta' | Compact Drooping Leucothoe | 2 Gal.       | 48" O.C. NATIVE        |
| TAX MED      | 33        | Taxus media 'Hill's Upright'      | Hill's Upright Yew         | 36"-48" HT   | 36" O.C.               |
| DECIDUOUS SH | IRUBS     |                                   |                            | •            |                        |
| CLE ALN      | 23        | Clethra alnifolia 'Compacta;      | Compact Summersweet        | 3 Gal.       | 48" O.C. NATIVE        |
| COR SER      | 29        | Cornus Sericea 'kelseyi'          | Kelsey Dogwood             | 3 Gal.       | 48" O.C. NATIVE        |
| HYD SUM      | 16        | Hydrangea 'Endless Summer'        | Endless Summer Hydrangea   | 3 Gal.       | 36" O.C.               |
| RHU ARO      | 83        | Rhus aromatica 'Gro Low'          | Gro-Low Fragrant Sumac     | 3 Gal.       | 36" O.C. NATIVE        |
| ORNAMENTAL ( | GRASSES A | ND PERENNIALS                     | •                          | •            |                        |
| JUN COM      | 21        | Juniperus communis                | Common Juniper             | 1 Gal.       | 24" O.C. NATIVE        |
| LIR SPI      | 177       | Liriope spicata                   | Lily Turf                  | 1 Gal.       | 18" O.C.               |
| PAN VIR      | 80        | Pannicum virgatum 'Shenandoah'    | Switch Grass               | 1 Gal.       | 36" O.C. NATIVE        |
| PEN ALO      | 84        | Pennisetum alopecuroides 'hameln' | Hameln Fountain Grass      | 1 Gal.       | 36" O.C.               |



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KEY PLAN

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ISSUE CHA

SHEET NAME

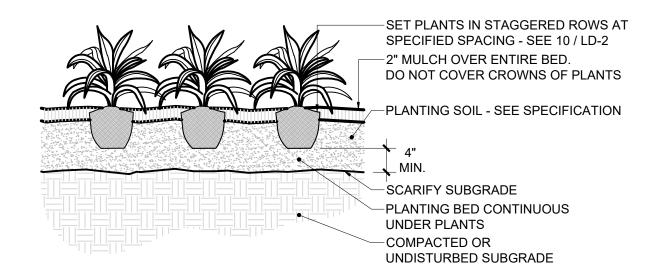
SHEET NUMBER

| DATE           | OCTOBER 8, 2021 |
|----------------|-----------------|
| PROJECT NUMBER | 440             |
| CHECKED        | JL              |
| APPROVED       | JL              |
| SCALE          | 1"= 20'-0"      |

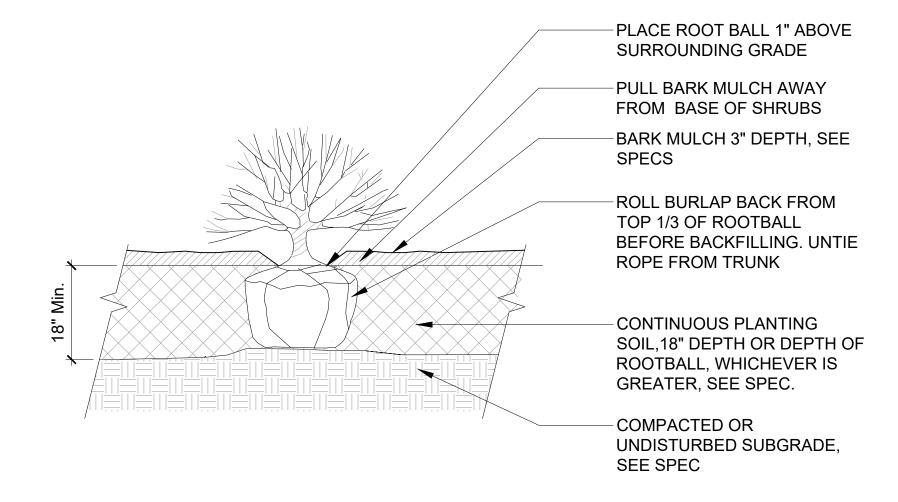
### SITE LANDSCAPE PLAN



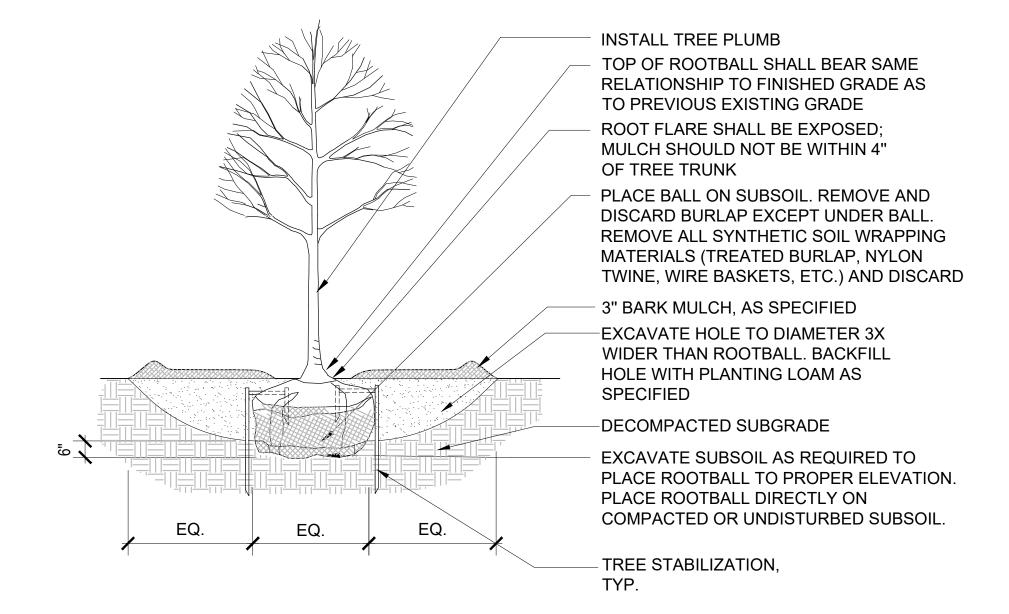
LA-01



## PERENNIAL/GROUNDCOVER PLANTING SCALE: NTS

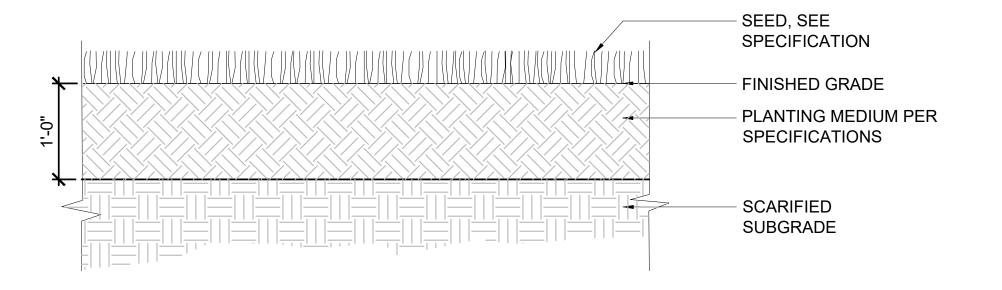


5 SHRUB PLANTING
SCALE: NTS



DECIDUOUS TREE PLANTING SCALE: NTS INSTALL TREE PLUMB -ROOTFLARE SHALL BE EXPOSED; BARK MULCH SHOULD NOT BE WITHIN 4" OF TREE TRUNK TOP OF ROOTBALL SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS TO PREVIOUS EXISTING GRADE BARK MULCH 3" DEPTH, SEE SPECIFICATION CONTINUOUS PLANTING SOIL, SEE SPECIFICATION FOR SOIL VOLUME REQUIREMENTS EXCAVATE SUBSOIL AS REQUIRED TO PLACE ROOTBALL TO PROPER ELEVATION. PLACE ROOTBALL DIRECTLY ON COMPACTED OR UNDISTURBED SUBSOIL SOIL. BACKFILL TREE HOLE WITH SPECIFIED PLANTING SOIL. 3:1 -DECOMPACTED OR UNDISTURBED SUBGRADE, SEE SPECS TREES STAPLES, TYP. (3) PER TREE, SEE DETAIL 8 / LD-4G EQ EQ EQ

2 EVERGREEN TREE PLANTING
SCALE: NTS



SEEDED LAWN

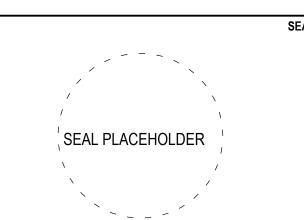
Joe The Architect, LLC
343 Medford Street, Suite 4C Somerville, MA 02145
t: +1(617) 764-3593 e: askjoe@joethearchitect.com



www.joethearchitect.com

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CONSULTANT



KEY PLAN

APPROVED DATE:

FRANKLIN PLANNING BOARD

DATE:

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ISSUE CHART

OCTOBER 8, 2021

440

PROJECT NUMBER

JL CHECKED

JL APPROVED

1"= 20'-0"

SCALE

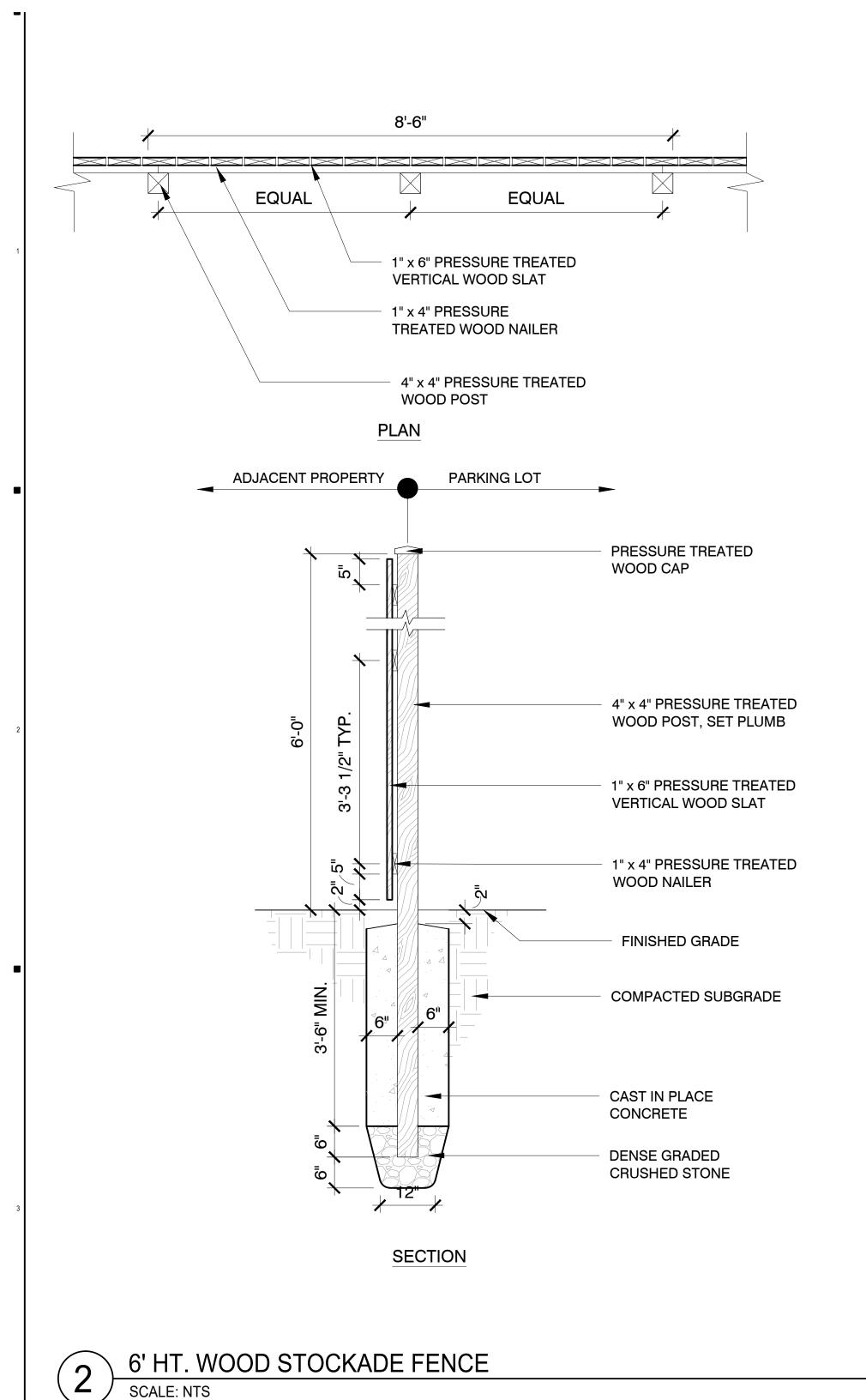
SHEET NAME

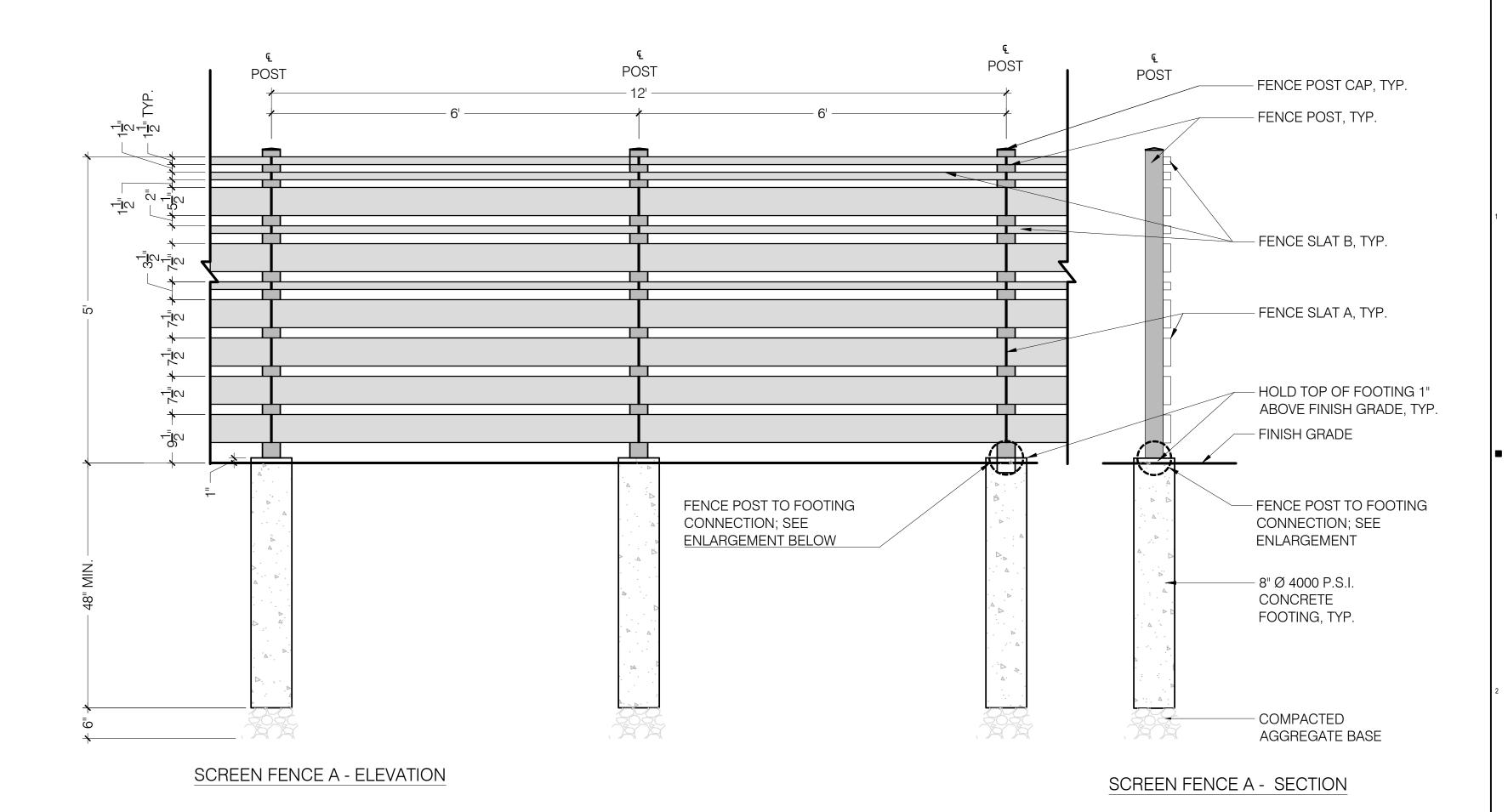
# SITE LANDSCAPE DETAILS

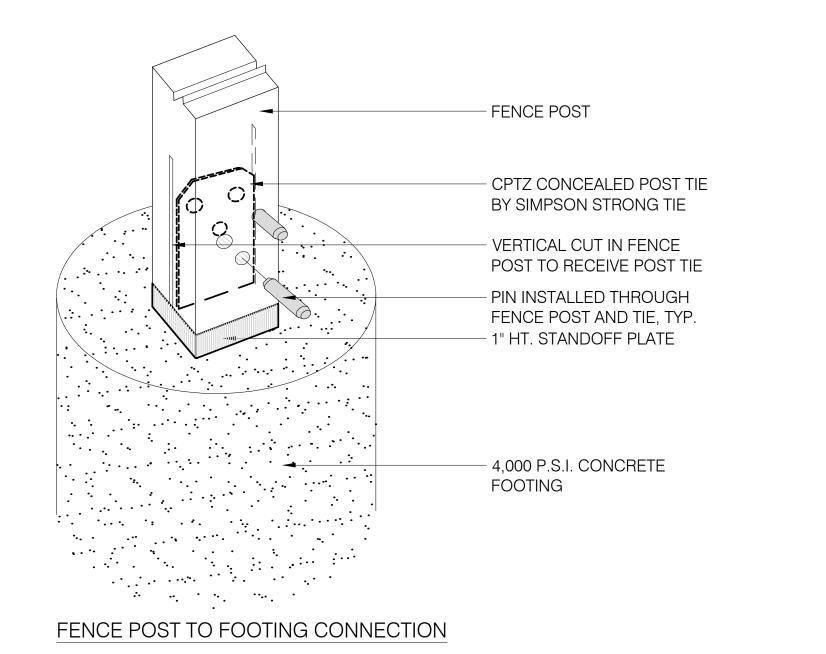


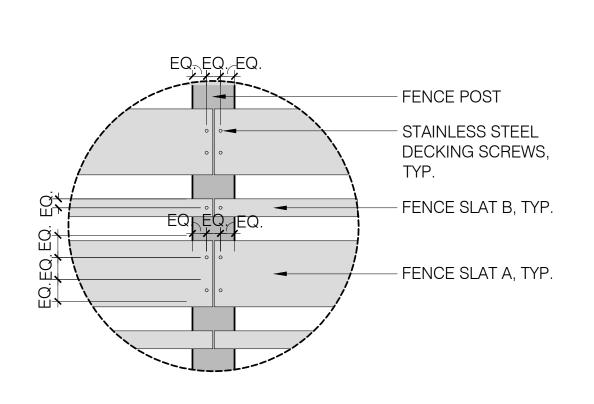
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SHEET NUMBER









#### FENCE SLAT CONNECTION

#### NOTES:

- 1. FENCE POST SHALL BE 4X4 NOM. EASTERN RED CEDAR POST
- 2. FENCE SLAT 'A' SHALL BE 2X6 NOM. EASTERN RED CEDAR BOARD 3. FENCE SLAT 'B' SHALL BE 2X2 NOM. EASTERN RED CEDAR BOARD
- 4. GAPS BETWEEN FENCE SLATS SHALL BE 2" CLEAR, TYP. EXCEPT
- WHERE SHOWN ON THE DETAIL
- 5. ALL FENCE PANELS SHALL BE INSTALLED PARALLEL WITH VARYING
- HORIZONTAL, AND LINEAR OFFSETS.
- 6. PROVIDE SHOP DRAWINGS PRIOR TO FABRICATION.





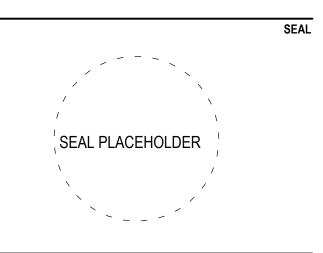


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**KEY PLAN** 



APPROVED DATE: \_\_\_\_\_ FRANKLIN PLANNING BOARD

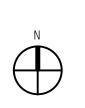
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OCTOBER 8, 2021 PROJECT NUMBER CHECKED APPROVED SCALE 1"= 20'-0" SHEET NAME

## SITE LANDSCAPE **DETAILS**



SHEET NUMBER

DECIDUOUS TREES -Carpinus caroliniana

American Hornbeam Ginkgo biloba Maidenhair Tree Thornless Honeylocust Gledistia tricanthos

ORNAMENTAL TREES -

Amelanchier canadensis Serviceberry Cornus kousa Kousa Dogwood

**EVERGREEN TREES -**

Thuja plicata 'Nana' Dwarf Western Arbovitae













EVERGREEN SHRUBS -

DECIDUOUS SHRUBS -

Taxus media 'Hill's Upright'

llex glabra 'Compacta'

Rhus aromatica 'Gro-low'

Pennisetum alopecuroides

Juniperus communis

Panicum virgatum 'Shenandoah'

Clethra alnifolia

Cornus sericia

Liriope muscari

llex glabra

Hill's Upright Yew

Compact Inkberry

Gro-low Fragrant Sumac

Summersweet Clethra

Shenandoah Switch Grass

Redtwig Dogwood

Blue Lilyturf

Fountain Grass

Common Juniper

Inkberry

Hydrangea macrophylla 'Endless Summer' Endless Summer Hydragea

PERENNIALS/GRASSES/GROUNDCOVER -

TREE PLANTING OPTIONS MAY 17, 2021





Elf a little and a

















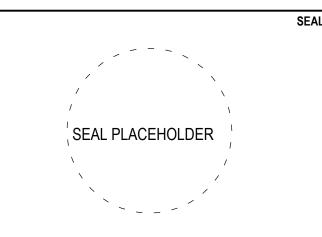
SHRUB & PERENNIAL PLANTING OPTIONS

MAY 17, 2021

343 Medford Street, Suite 4C Somerville, MA 02145 t: +1(617) 764-3593 e: askjoe@joethearchitect.com

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| DATE           |        | OCTOBER 8, 2021 |
|----------------|--------|-----------------|
| PROJECT NUMBER | 440    |                 |
| CHECKE         | JL     |                 |
| APPROVE        | JL     |                 |
| SCALE          | 20'-0" | 1"= :           |
| SHEET NAME     | ·      |                 |

## SITE LANDSCAPE **PLANT IMAGERY**



SHEET NUMBER



SCALE

BEING A MAJORITY DRAWN BY: DATE: 06/23/21 NOTES:

Avg/Min Max/Min

N.A.

N.A.

N.A.

N.A.

N.A.

29.50

N.A.

0.0 0.0 0 TOTAL LOT 1.5 2.5 2.4 1.8 1.2 MH: 15 2.7 2.0 1.3 2<u>.2</u>3.2 2.9 2.0 1.3 WL3 2.5 2.4 1.8 1.2 1.4 2 2.2 2.1 1.5 1.0 0.00.0 0.0KRISTEN AND JUSTIN No.40No.67 No.65ANo.43 No.39 No.64

Luminaire Schedule

Qty

12

5

Label

LL1

WL1

DL1

WL3

SL4

WL5

BL1

WALL LIGHT

LLF Description

0.900 | SG1-10-3K

0.900 | FM-W9100-FINISH

0.900 RWL1-48L-25-3K7-3-U

0.900 | RAR-1-80L-50-3K7-4W-BC

0.900 | RWL1-48L-45-3K7-4W-U

0.900 | FL1A-BLT(BLACK)-RND-C4-K1-118-0 / M | 428

0.900 | H18110-91(BLACK)-1-2-HL-A-91(BLACK) | 1295

0.900 | S-KK0103US-16A-0870007A-730-16US | 1255

Lum. Lumens

924

3587

3663

1346

5484

Arrangement

SINGLE

SINGLE

SINGLE

SINGLE

SINGLE

SINGLE

SINGLE

SINGLE

Calculation Summary

BASKETBALL COURT

STRUCTURE A STORAGE AREA

STRUCTURE A STREET AREA

**GREEN SPACE** 

PARKING LOT

SIDEWALK

SPILL LIGHT

TRACKS

CalcType

Illuminance

Illuminance

Illuminance

Illuminance

Illuminance

Illuminance

Illuminance

Illuminance

Units

Fc

Fc

Fc

Fc

Fc

0.86

1.60

1.61

1.05

1.34 5.9

1.48 4.4

7.3

0.00 0.1 0.0

0.0

0.0

0.0

0.0

0.2

0.0

6.70

N.A.

N.A.