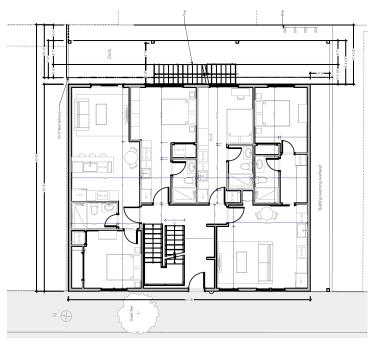
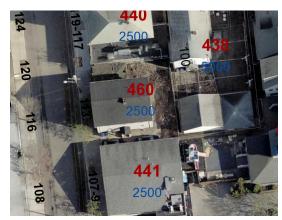
AGENDA ITEM 3 • 113 IVES STREET



Proposed site plan



Aerial view of the site

OVERVIEW

OWNER/

Providence Living, Applicant

APPLICANT:

113 Ives LLC, Owner

PROJECT DESCRIPTION: The applicant is proposing to demolish the existing building and construct a four story, 16 unit residential building on the subject lot.

CASE NO./ 21-037MI

PROJECT TYPE: Preliminary Plan Approval

PROJECT

113 Ives Street

RECOMMENDATION:

Approval of the Preliminary Plan subject

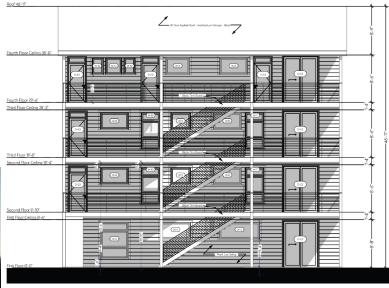
to the noted findings

LOCATION:

AP 17 Lot 460

NEIGHBORHOOD: Fox Point **PROJECT PLANNER:**

Choyon Manjrekar







Building rendering

PROJECT OVERVIEW

The applicant is proposing to demolish an existing two family dwelling and construct a four story building with 16 units.

ANALYSIS AND IDENTIFICATION OF POTENTIAL ISSUES

Use

The subject lot is zoned C-1, where multifamily development is permitted by right.

Dimensions and site design

The 2,500 SF lot is currently occupied by a two family dwelling and shed with a retaining wall to the rear, that will be demolished to construct an approximately 47' tall, four story, 16 unit building. The building will be set to the front and side lot lines.

All units will be accessible from the front entrance which

is oriented to Ives Street. The building will maintain an approximately 11'4" rear yard setback from the R-2 zone where a minimum of 10' is required.

Porches located on the building's rear, are permitted to encroach 8' into the rear yard with steps required to be 4' from any lot line. The building will meet this requirement with the porches encroaching approximately 7'9" into the rear yard and the stairs set back approximately 7'7" from the rear lot line.

The ground floor exterior is composed of brick and glass. The upper stories will be composed of lap siding with vertical slat wood recessed into the façade. The selected materials are permitted by right in the C-1 zone. By employing a consistent theme, the development follows the guidelines for multifamily development outlined in Section 1202 K of the ordinance with projections and recesses providing visual variety to the exterior.

Parking

The lot is exempt for providing parking as it measures less than 10,000 SF in the C-1 zone. However, bicycle parking is provided in the rear of the lot.

Landscaping

With an area of 2,500 SF, the development requires approximately 325 SF of canopy coverage. The development will meet this requirement by retaining the existing tree in front of the building.

Drainage and site management

Stormwater management will be provided onsite with the applicant using an underground infiltration system with a clean washed stone bed for drainage. Provided calculations indicate that site runoff will be reduced for 3 month to 100 year storm events. A site maintenance plan for the stormwater system is also included.

FINDINGS

Section 806 of the Commission's *Development Review Regulations* requires that the City Plan Commission make the following findings as part of their approval of all land development project applications. Based on the analysis contained herein and subject to the conditions contained in this report, staff has prepared the following findings regarding the request for approval of the Master Plan stage:

- 1. Consistency—The proposed development is consistent with the Comprehensive Plan and/or has satisfactorily addressed the issues where there may be inconsistencies.
 - The subject property is located in an area intended for neighborhood commercial/mixed use development according to the future land use map of the comprehensive plan. These areas are intended for neighborhood scale commercial uses with multifamily development encouraged. The development conforms to this designation and provision of housing would conform to objective H-2 of the comprehensive plan which encourages creation of new housing.
- Compliance with Zoning Ordinance—The proposed development is in compliance with the standards and provisions of the Zoning Ordinance.
 - Use: The site is zoned C-1 where multifamily development is permitted by right.
 - Dimension and Design: The development will conform to the dimensional and design requirements of the C-1 zone with the external features meeting the required setbacks.
 - Parking: The site is exempt from providing parking as it is under 10,000 SF.
 - Landscaping: The applicant will meet the canopy coverage requirement based on street trees that exist around the development.
- 3. Environmental Impact—There will be no significant environmental impacts from the proposed development as shown on the final plan, with all required conditions for approval.
 - A drainage and stormwater management plan have been provided. No negative environmental impacts are expected as the applicant is expected to come into conformance with all applicable environmental regulations.
- 4. Buildable Lot—The subdivision or development project, as proposed, will not result in the creation of individual lots with such physical constraints to development that building on those lots according to pertinent regulations and building standards would be impracticable.
 - There are no physical constraints that impact development of this property as it will conform to the dimensional requirements of the zoning ordinance.

5. Street Access—All proposed development projects and all subdivision lots shall have adequate and permanent physical access to a public street. Lot frontage on a public street without physical access shall not be considered compliance with this requirement.

Adequate pedestrian access is provided from Ives Street.

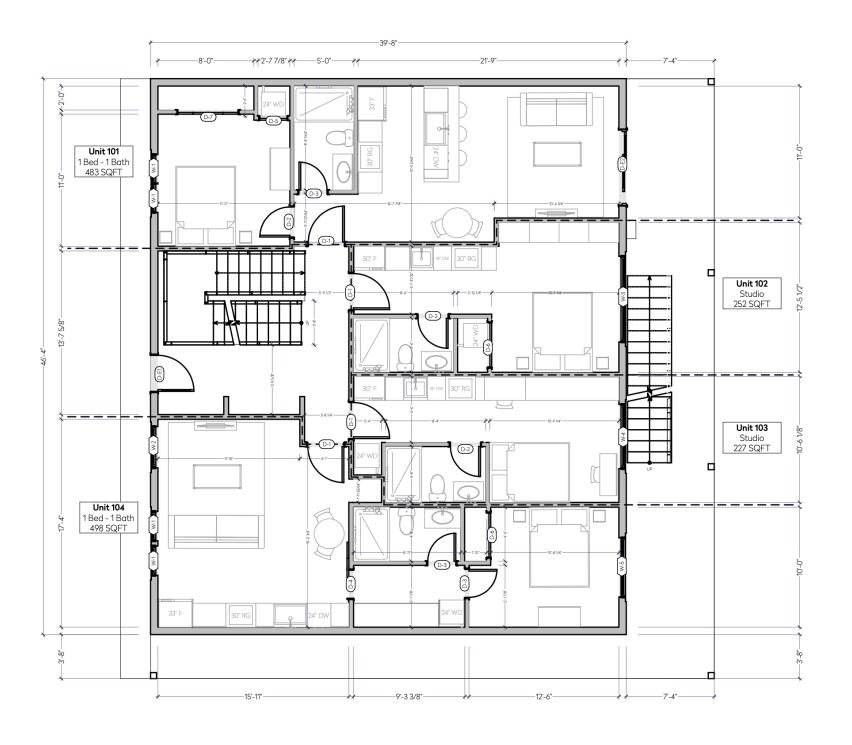
RECOMMENDATION

The CPC should vote to approve the preliminary plan subject to the following condition:

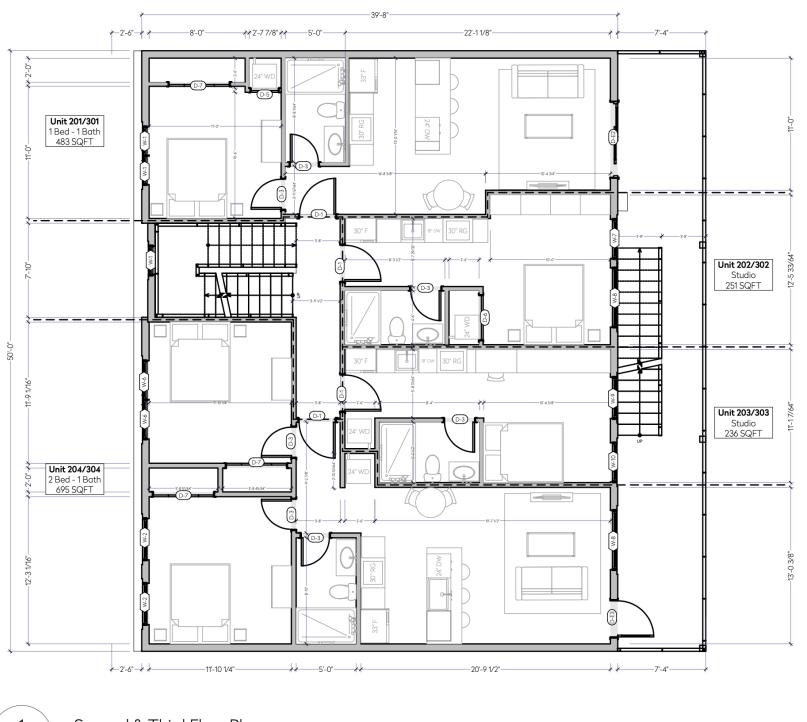
Final plan approval should be delegated to DPD staff.



Providence Architecture 269 Wickenden St, FL 2 Providence, Rhode Island 02903 CPC Render 10/26/21







1 Second & Third Floor Plan

SCALE: 1/8" = 1'-0"

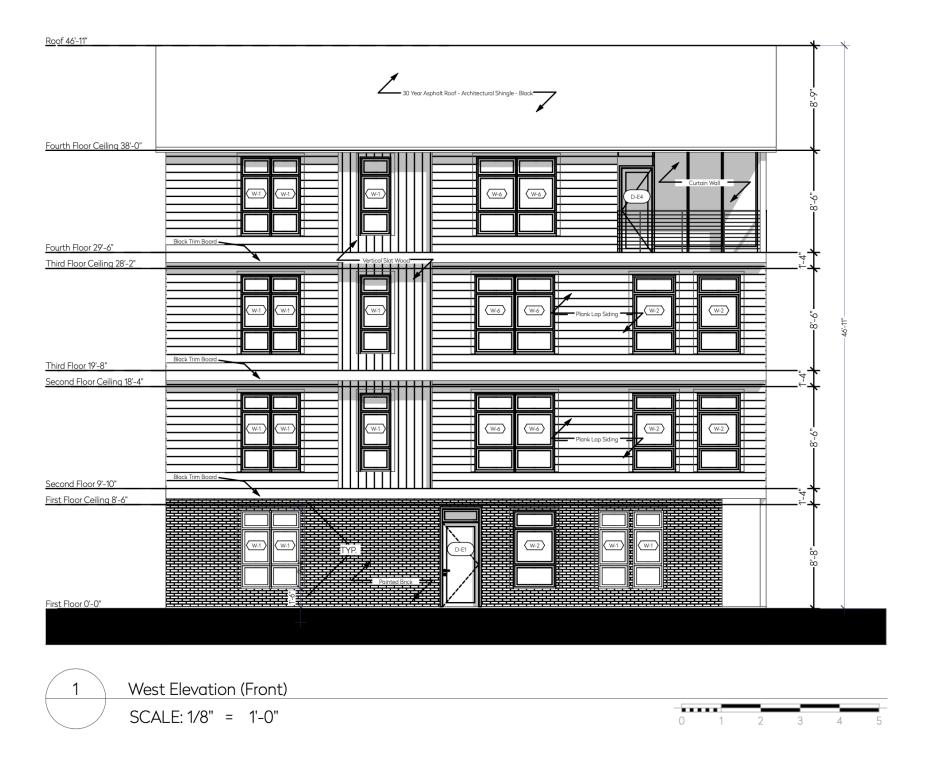
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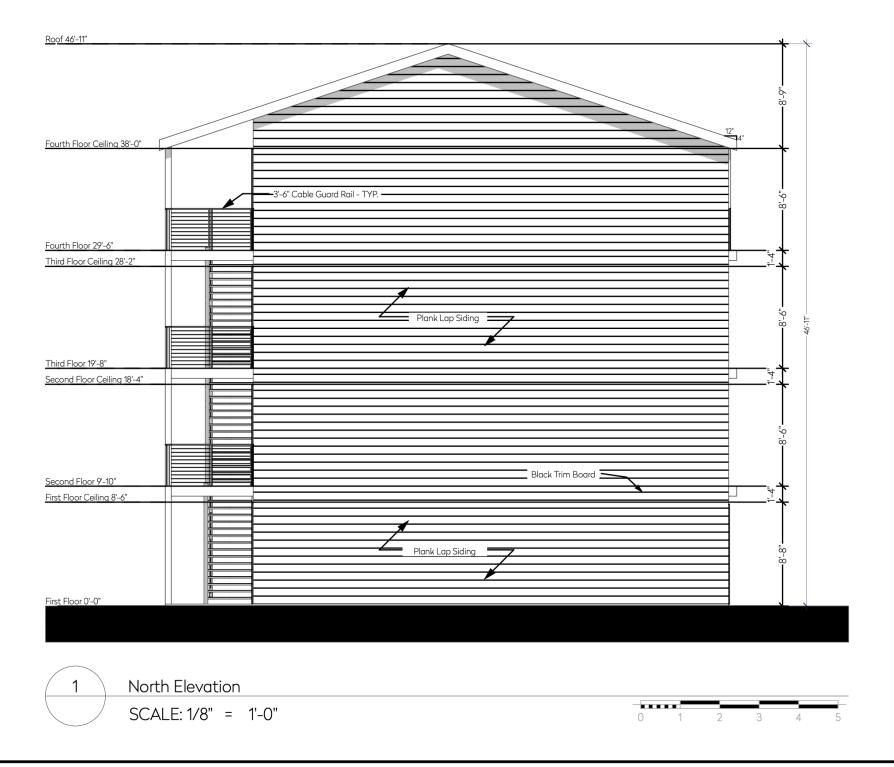


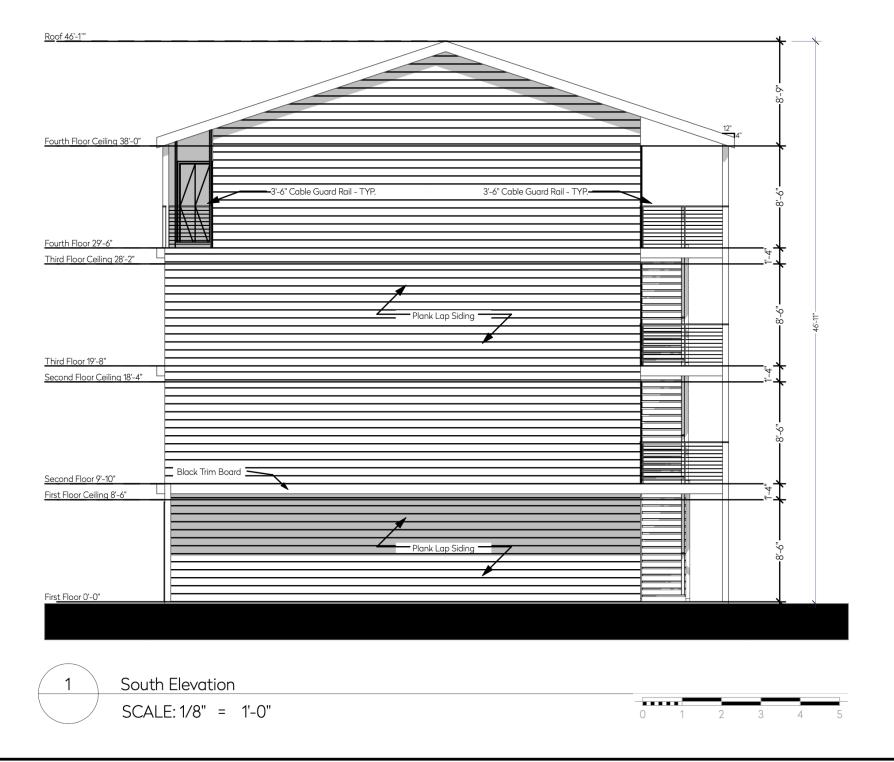
1 Fourth Floor Plan

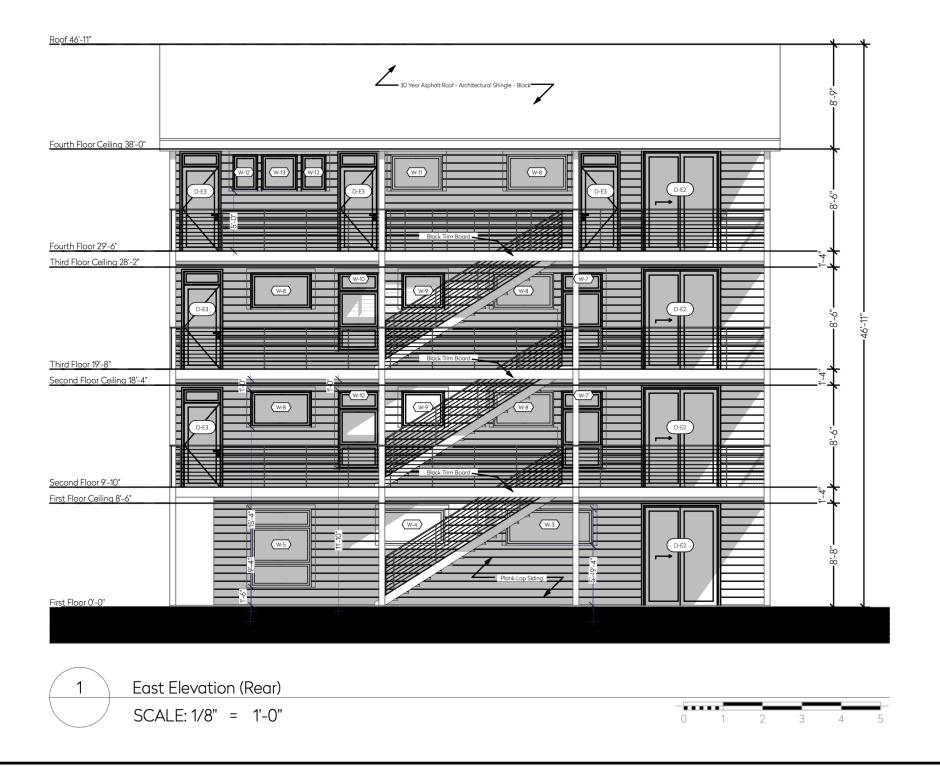
SCALE: 1/8" = 1'-0"

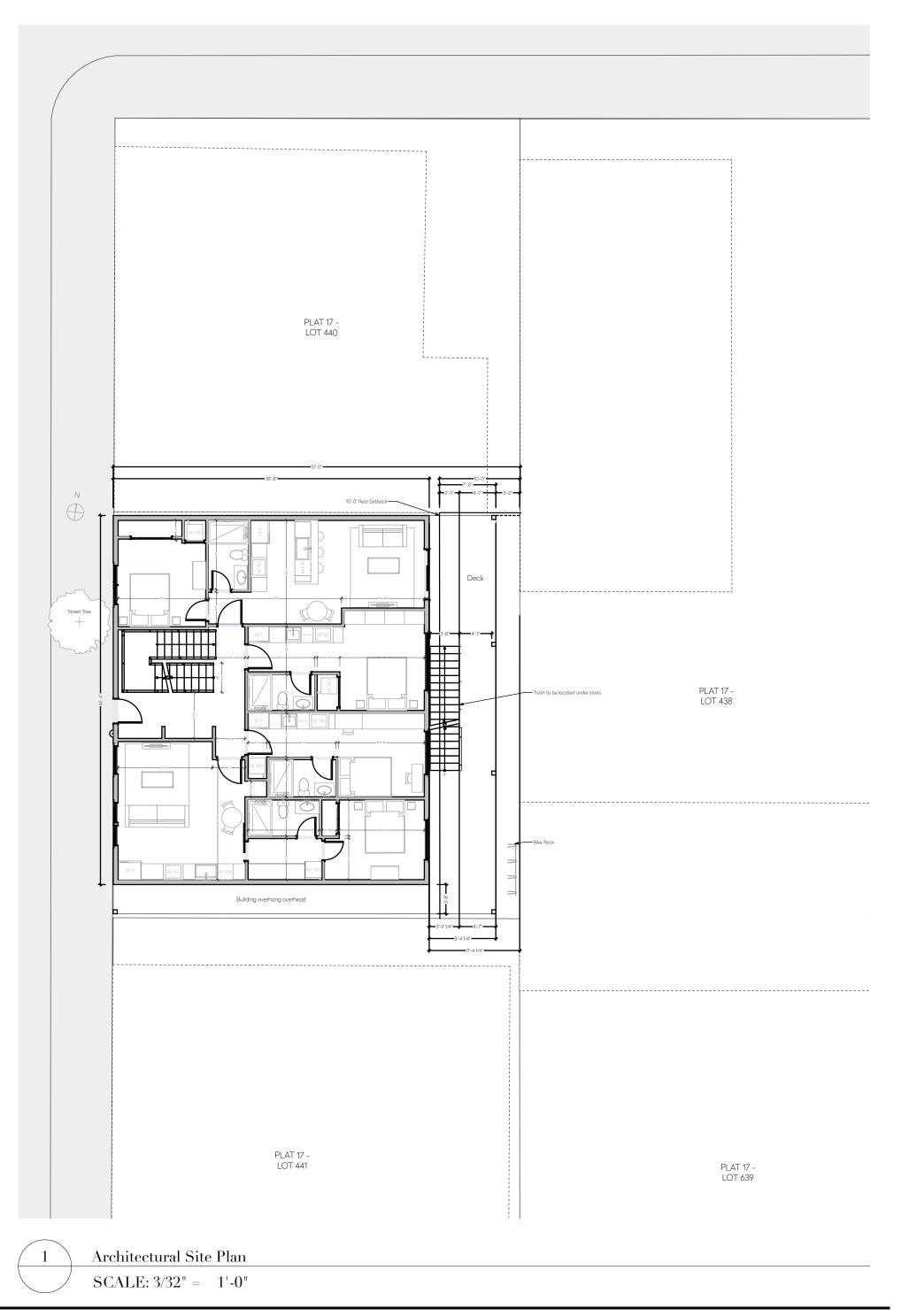
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Providence Architecture 269 Wickenden St, FL 2 Providence, Rhode Island 02903

GENERAL NOTES:

THE LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE LATEST AVAILABLE INFORMATION. THE UTILITY LOCATIONS ARE APPROXIMATE AND MAY NOT BE ALL INCLUSIVE. THE CONTRACTOR SHALL CHECK AND VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND "DIG-SAFE" MUST BE NOTIFIED PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS. RESTORATION AND REPAIR OF DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH NO ADDITIONAL COST THE OWNER. NO EXCAVATION SHALL COMMENCE UNTIL ALL INVOLVED UTILITY COMPANIES AND/OR CITY WHOSE FACILITIES MIGHT BE AFFECTED BY ANY WORK TO BE PERFORMED BY THE CONTRACTOR ARE NOTIFIED AT LEAST 72 HOURS IN ADVANCE.

SITE NOTES:

- . CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) OF ALL MATERIALS INDICATED ON THE PLANS.
- STOCKPILES OF EARTH MATERIALS SHALL NOT BE LOCATED ADJACENT TO DRAINAGE STRUCTURES.
- ALL DISTURBED AREAS OUTSIDE OF THE PAVED AREAS WILL RECEIVE A MINIMUM OF 6" OF LOAM AND SEED.
- 4. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SURVEY LAYOUT SERVICES FOR THE WORK AND SHALL SUBMIT "AS-BUILT" DRAWINGS OF ALL WORK, WHICH SHALL BE STAMPED AND CERTIFIED BY A RHODE ISLAND REGISTERED PROFESSIONAL LAND SURVEYOR.
- ANY ITEM OF WORK NOT SPECIFICALLY INDICATED ON THE PLANS BUT IS REQUIRED FOR THE COMPLETE CONSTRUCTION OF THE PROJECT WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND INCLUDED IN THE CONTRACT BID PRICE. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING SITE CONDITIONS.
- REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR ACTUAL SIZE OF THE PROPOSED BUILDING.
- WHERE NECESSARY TO REMOVE CURBS, CATCH BASINS OR DRAINS TO COMPLETE WORK, THE CONTRACTOR SHALL REPLACE SUCH ITEMS TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
- 8. ANY EXISTING PIPE OR UTILITY DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT NO COST TO THE OWNER OR ENGINEER
- THE CONTRACTOR SHALL RESTORE TO ITS ORIGINAL CONDITION OR REPLACE TREES, SHRUBS, FENCES, SIGNS, GUARDRAILS, DRIVEWAYS, SIDEWALKS AND ANY OTHER OBJECT AFFECTED BY THIS OPERATION.
- 10. THE TOPS OF ALL VALVE BOXES AND CURB BOXES SHALL BE FLUSH WITH GROUND OR PAVEMENT SURFACE LEVEL AND PLUMB, UNLESS OTHERWISE DIRECTED.
- 11. ROADWAYS SHALL BE LEFT PASSABLE AT ALL TIMES. CLOSURE OF ROADWAY IS NOT PERMITTED.
- THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL DRIVEWAYS AT COMPLETION OF EACH DAYS WORK.
- 13. WATER SERVICE SHALL BE MAINTAINED AT ALL TIMES.
- 14. ALL LEDGE TO BE REMOVED BY MECHANICAL MEANS.
- 15. ALL CONSTRUCTION WORK SHALL BE PERFORMED IN THE DRY. THE CONTRACTOR SHALL PROVIDE, OPERATE AND MAINTAIN ALL PUMPS, DRAINS, WET POINTS, SCREENS, OR OTHER FACILITIES NECESSARY TO CONTROL, COLLECT AND DISPOSE OF ALL SURFACE AND SUBSURFACE WATER ENCOUNTERED IN THE PERFORMANCE OF THE WORK.
- 16. REFER TO PLUMBING PLANS FOR CONTINUATION OF ALL UTILITIES WITHIN 5' (FIVE) FEET OF THE BUILDING.
- 17. ALL SITE WORK, INCLUDING BUT NOT LIMITED TO, BITUMINOUS PAVEMENT, PERVIOUS PAVERS, AGGREGATE MATERIALS, DRAINAGE STRUCTURES, CURBING, SIDEWALK, LANDSCAPING, SAW CUTTING, ETC. SHALL CONFORM TO THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, 2004 EDITION (WITH LATEST ADDENDA) AND THE RIDOT STANDARD DETAILS, 1998 EDITION (WITH LATEST ADDENDA).

MISCELLANEOUS UTILITY NOTES:

- PRIOR TO CONSTRUCTION ALL POTENTIAL UTILITY/DRAINAGE CONFLICTS MUST BE IDENTIFIED BY THE CONTRACTOR. ANY MODIFICATIONS TO THE PROPOSED UTILITIES TO AVOID CONFLICTS MUST BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. NO EXTRA PAYMENT TO THE CONTRACTOR DUE TO RELOCATION'S WILL BE AUTHORIZED.
- THE UTILITY PLAN DOES NOT DEPICT THE NECESSARY ELECTRICAL CONDUIT/WIRING TO SERVICE THE PROPOSED LIGHTING AND SIGNS, WHICH WILL BE PERFORMED BY THE CONTRACTOR FOR NO ADDITIONAL COST.
- OVERHEAD ELECTRIC AND TELEPHONE SERVICES ARE TO BE REMOVED BY THE APPROPRIATE UTILITY COMPANY AND COORDINATED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL AT ALL TIMES PROVIDE A SUFFICIENT NUMBER OF WORKMEN AND GUARDS AS MAY BE NECESSARY TO PROPERLY SAFEGUARD THE PUBLIC FROM THERE OPERATIONS.
- THE CONTRACTOR SHALL TAKE PRECAUTIONS AGAINST DAMAGING OF PAVING, SIDEWALKS, UTILITIES, OR PRIVATE PROPERTIES AND SHALL PROMPTLY REPAIR AT HIS OWN EXPENSE ANY DAMAGE TO SUCH PAVING, SIDEWALKS, UTILITIES, OR PRIVATE PROPERTIES TO THE SATISFACTION OF THE OWNER OR CITY.
- EXISTING UTILITY FRAMES AND COVERS FOR SANITARY SEWER, WATER, GAS, STORM DRAINAGE AND OTHER UTILITIES SHALL BE ADJUSTED TO GRADE AS REQUIRED IN NEW PAVING AND PAVEMENT OVERLAY AREAS.

LAYOUT NOTE:

THE LAYOUT SHOWN REPRESENTS A GRAPHICAL DESIGN, AND PRIOR TO THE CONSTRUCTION, THE CONTRACTOR SHALL ENGAGE A PROFESSIONAL LAND SURVEYOR (PLS) REGISTERED IN THE STATE OF RHODE ISLAND TO SET AND VERIFY ALL LINES AND GRADES. ALL EXISTING UTILITY LOCATIONS AND ELEVATIONS ARE TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY ITEMS FOUND WHICH DO NOT MATCH THE PLANS MUST BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO CONSTRUCTION FOR REVIEW. NO WORK SHALL PROCEED UNTIL AUTHORIZED BY THE ENGINEER.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC INCLUDING POLICE PROTECTION. ALL TEMPORARY AND VEHICULAR SIGNS, BARRICADES AND LANE CLOSURES SHALL BE IN CONFORMANCE WITH THE LATEST REVISIONS OF MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.)
- 2. TEMPORARY CONSTRUCTION SIGNS AND ALL APPLICABLE TRAFFIC CONTROL DIVIDES SHALL BE IN PLACE PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC.
- 3. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED IN THE STATE OR CITY RIGHT-OF-WAY.
- 4. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS CHANNELING DEVICES, ETC, SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. 1988 EDITION. INCLUDING REVISION 3, SEPTEMBER 3, 1993 AND SUBSEQUENT ADDENDA.
- 5. SIGN MOUNTINGS SHALL BE IN ACCORDANCE WITH THE R.I.D.O.T. SPECIFICATIONS FOR TEMPORARY CONSTRUCTION SIGNS.

DRAINAGE SYSTEM MAINTENANCE SCHEDULE:

UPON PROJECT COMPLETION, THE PROPERTY OWNER SHALL ADHERE TO THE FOLLOWING MAINTENANCE PLAN AND SCHEDULE:

- 1. CATCH BASINS, MANHOLES AND DRAIN LINES: AN INSPECTION MUST OCCUR ON AN ANNUAL BASIS BY QUALIFIED PERSONAL TO ENSURE PROPER OPERATION. THE INSPECTION SHOULD, AS A MINIMUM, CONCENTRATE ON THE FOLLOWING:
 - * DAMAGE TO GRATE/ COVERS * EVIDENCE OF STANDING WATER

 - * DEBRIS REMOVAL
 - * STRUCTURAL ALIGNMENT/ INTEGRITY

ANY DEFICIENCY NOTED DURING THE INSPECTION WILL BE IMMEDIATELY REPAIRED OR REPLACED.

- 2. SEDIMENT REMOVAL: ALL REMOVED SEDIMENT IS TO BE TESTED TO DETERMINE POLLUTANT CONTENT. THE SEDIMENT IS TO BE PROPERLY DISPOSED IN UPLAND AREAS BASED UPON THE TEST RESULTS AND LOCAL, STATE, AND FEDERAL REGULATIONS
- 3. ALL RIM ELEVATIONS SHOWN ARE APPROXIMATE AND ARE TO BE SET FLUSH WITH FINAL GRADES.
- 4. ROUTINE MAINTENANCE OF THE PERVIOUS BITUMINOUS CONCRETE SURFACE SHALL BE VACUUMED SWEPT TWICE A YEAR MINIMUM.

PROPOSED PAVEMENT STRUCTURE:

- ON-SITE (PAVEMENT FOR ACCESS DRIVEWAY)
- 1.5" BITUMINOUS CONCRETE SURFACE COURSE CLASS I-1 (CLASS 12.5 HMA)
- 2" BITUMINOUS CONCRETE BASE COURSE (CLASS 19 HMA)
- 12" GRAVEL BORROW SUBBASE

ASPHALT EMULSION TACK COAT TO BE PLACED PRIOR TO SURFACE COURSE PAVING IF BINDER COURSE IS OPENED TO VEHICULAR USE, OR IF BINDER COURSE IS GREATER THAN 30 DAYS OLD.

PROPOSED PAVEMENT STRUCTURE:

CITY/STATE

- BITUMINOUS CONCRETE SURFACE COURSE CLASS TYPE I-1
- 2" BITUMINOUS CONCRETE BINDER COURSE
- 12" GRAVEL BORROW SUBBASE COURSE

ASPHALT EMULSION TACK COAT TO BE PLACED ON ALL BITUMINOUS COURSES PRIOR TO PAVING.

WATER NOTES:

- 1. ALL INSTALLATIONS, JOINTS, CONSTRUCTION METHODS AND MATERIALS SHALL BE ACCORDING TO THE PROVIDENCE WATER SUPPLY BOARD REQUIREMENTS, AWWA STANDARDS AND GOVERNMENTAL REQUIREMENTS.
- 2. WATER PIPES SHALL TYPICALLY BE LOCATED AT LEAST TEN (10) FEET HORIZONTALLY FROM SEWER PIPES, AND AT A MINIMUM DEPTH OF COVER EQUAL TO 5'. WHERE A NEW WATER PIPE IS LESS THAN 18 INCHES CLEAR DISTANCE ABOVE A SEWER OR WHERE A WATER PIPE PASSES BENEATH A SEWER OR STORM DRAIN, ENCASE THE SEWER OR DRAIN IN 6" OF CONCRETE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING WATER PIPE.
- ALL SYSTEM COMPONENTS AND CONSTRUCTION METHODS; SUCH AS PIPE, THRUST BLOCKS, FITTINGS, CASTINGS, ETC. SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION. THIS SUBMISSION SHALL INCLUDE MANUFACTURER'S LITERATURE, SHOP DRAWINGS, PROPOSED CONSTRUCTION METHODS, ETC.
- 4. WATER LINE TRENCH TO BE AWWA TYPE 5 A METALIZED DETECTABLE IDENTIFICATION TAPE 2" IN WIDTH, BLUE IN COLOR AND PRINTED WITH "CAUTION WATERLINE BURIED BELOW" SHALL BE UTILIZED OVER ALL MAINS. TAPE SHALL BE SET AT APPROXIMATELY 1' BELOW FINISHED GRADE.
- 5. THE CONTRACTOR SHALL RECEIVE VERIFICATION FROM THE ENGINEER AS TO THE APPROPRIATE SIZE OF THE DOMESTIC WATER AND FIRE PROTECTION LINE SHOWN ON THE PLANS PRIOR TO ORDERING WATER PIPE RELATED ITEMS.
- 6. SPECIFIC BENDS ARE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE ADDITIONAL BENDS AS NECESSARY TO INSTALL THE PIPE AT THE REQUIRED DEPTH AND ALIGNMENT.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

- THE HAYBALE AND SILT FENCE LINE ILLUSTRATED ON THESE PLANS SHALL SERVE AS THE STRICT LIMIT OF DISTURBANCE FOR THE PROJECT WITHIN OR ADJACENT TO REGULATED FRESHWATER WETLAND AREAS.
- 2. THE LIMITS OF CLEARING, GRADING, AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THESE LIMITS, AS DEPICTED ON THE PLAN SHALL BE TOTALLY UNDISTURBED, TO REMAIN IN NATURAL CONDITION.
- 3. ALL CATCH BASINS AND CULVERTS SHALL BE PROTECTED WITH STAKED HAYBALES (R.I. STD. 9.8.0) DURING CONSTRUCTION ACTIVITIES. ALL PROPOSED STORM WATER DISCHARGE AREAS SHALL BE LINED WITH A RIPRAP SPLASH PAD AND PROTECTED WITH STAKED HAYBALE OUTLET PROTECTION (R.I. STD. 9.1.0), OR STAKED HAYBALE WITH SILT FENCE (R.I. STD. 9.3.0) SHALL ALSO BE INSTALLED AT ALL EXISTING STORMWATER DISCHARGE LOCATIONS WHERE DISTRIBUTING PIPES, CATCH BASINS, AND MANHOLES ARE TO BE CLEANED AND FLUSHED.
- 5. ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED, PROTECTED AND MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL REGULARLY CHECK ALL SEEDED AREAS TO ENSURE THAT A GOOD STAND IS MAINTAINED.
- 6. ALL HAYBALES, TEMPORARY TREATMENT (HAY, STRAW, ETC.) AND TEMPORARY EROSION PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
- STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES OF NO GREATER THAN 2:1 AND SHALL BE TEMPORARILY SEEDED AND/OR STABILIZED PER CONTRACT SPECIFICATIONS.
- 8. THE HAYBALES SHALL BE CHECKED BY THE CONTRACTOR ON A WEEKLY BASIS AND AFTER EACH STORM FOR UNDERMINING OR DETERIORATION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY HAYBALES AS NEEDED. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE HAY-BALES BECOMES FILLED WITH SEDIMENTS.
- 9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL SOIL EROSION AND SEDIMENT CONTROLS ON THE PROJECT SITE FOR THE ENTIRE DURATION OF THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL FOLLOW THE DIRECTION OF THE RESIDENT ENGINEER WITH REGARD TO INSTALLATION, MAINTENANCE, AND REPAIR OF ALL SOIL EROSION AND SEDIMENTATION CONTROLS ON THE PROJECT SITE. TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROLS (HAYBALES, SILT FENCE, ETC.) SHALL BE MAINTAINED UNTIL ALL EXPOSED SOILS ARE SATISFACTORILY STABILIZED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND/OR RESEEDING ALL AREAS THAT DO NOT DEVELOP WITHIN ONE YEAR FROM THE COMPLETION OF CONSTRUCTION.
- 10. ALL REFERENCED SOIL EROSION AND SEDIMENTATION CONTROLS INCLUDING MATERIALS USED, APPLICATION RATES AND THE INSTALLATION PROCEDURES SHALL BE PERFORMED PER THE "RHODE ISLAND EROSION AND SEDIMENTATION HANDBOOK", DATED

BMP MAINTENANCE SCHEDULE

- 1. ALL MAINTENANCE (INCLUDING CLEANING) REQUIRED DURING THE CONSTRUCTION PHASE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 2. MEASURES NEEDED TO ENSURE THE PROPER OPERATION OF THE STORMWATER DRAINAGE SYSTEMS AND WATER QUALITY CONTROL SYSTEMS TO INCLUDE INSPECTION, CLEANING AND REPAIRS TO ALL PIPES, INTAKE AND DISCHARGE STRUCTURES (INCLUDING RIP-RAP SPLASH PADS), CATCH BASIN SUMPS, AND MANHOLES.
- 3. INSPECTION OF ALL SLOPES, BERMS, AND OTHER CONTROL STRUCTURES (INCLUDING ROADWAY SIDE SLOPES, FOR STRUCTURAL INTEGRITY, STABILITY AND EVIDENCE OF SOIL EROSION, SHALL INCLUDE MAINTENANCE OF THESE STRUCTURES IF NECESSARY. INSPECTIONS SHALL BE PERFORMED FOLLOWING ALL RAIN EVENTS OF ½ INCH RAINFALL OR MORE IN A 24-HOUR PERIOD, OR BIMONTHLY IF NO RAINFALL EVENT OCCURS.
- 4. UPON COMPLETION OF PROJECT CONSTRUCTION, AND PRIOR TO VACATING THE SITE, THE CONTRACTOR SHALL CONDUCT A FINAL INSPECTION, REPAIR ANY VEGETATIVE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES, (SEEDING, PLANTING, ETC.) WHERE REQUIRED, AND REPAIR (OR REMOVE WHERE APPROPRIATE) ANY TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL DEVICES. AFTER PERMANENT SOIL STABILIZATION ON THE ENTIRE SITE HAS OCCURRED. ALL TEMPORARY CONTROL MEASURES MUST BE REMOVED.
- 5. AFTER THE COMPLETION OF PROJECT CONSTRUCTION AND THE FINAL STABILIZATION OF THE ENTIRE SITE, THE INSPECTION AND MAINTENANCE OF ALL STORMWATER FACILITIES MUST BE PERFORMED.
- 6. REPLANTING, REGRADING, OR OTHER REPAIRS NEEDED AS A RESULT OF SOIL EROSION AND SEDIMENTATION PROCESSES SHALL BE DONE PROMPTLY TO ENSURE PROPER FUNCTIONING OF THE ENTIRE SYSTEM.
- 7. ANY TRASH, DEBRIS, ETC. SHOULD BE REMOVED FROM ANY WETLAND AREAS, SWALE, AND PIPE OUTLETS.

<u>RIDOT</u>

1. ALL WORK, INCLUDING BUT NOT LIMITED TO, BITUMINOUS PAVEMENT, ROADWAY CONSTRUCTION, AGGREGATE MATERIALS, DRAINAGE STRUCTURES, CURBING, SIDEWALK, LANDSCAPING, SAW CUTTING, ETC. SHALL CONFORM TO THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, 2004 EDITION (WITH LATEST ADDENDA) AND THE RIDOT STANDARD DETAILS, 1998 EDITION (WITH LATEST ADDENDA).

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REVISIONS: NO. DATE. DESCRIPTION

DESIGNED BY: DMD DRAWN BY: CHECKED BY: DMD SEPT., 2021

PROGRESS PLAN

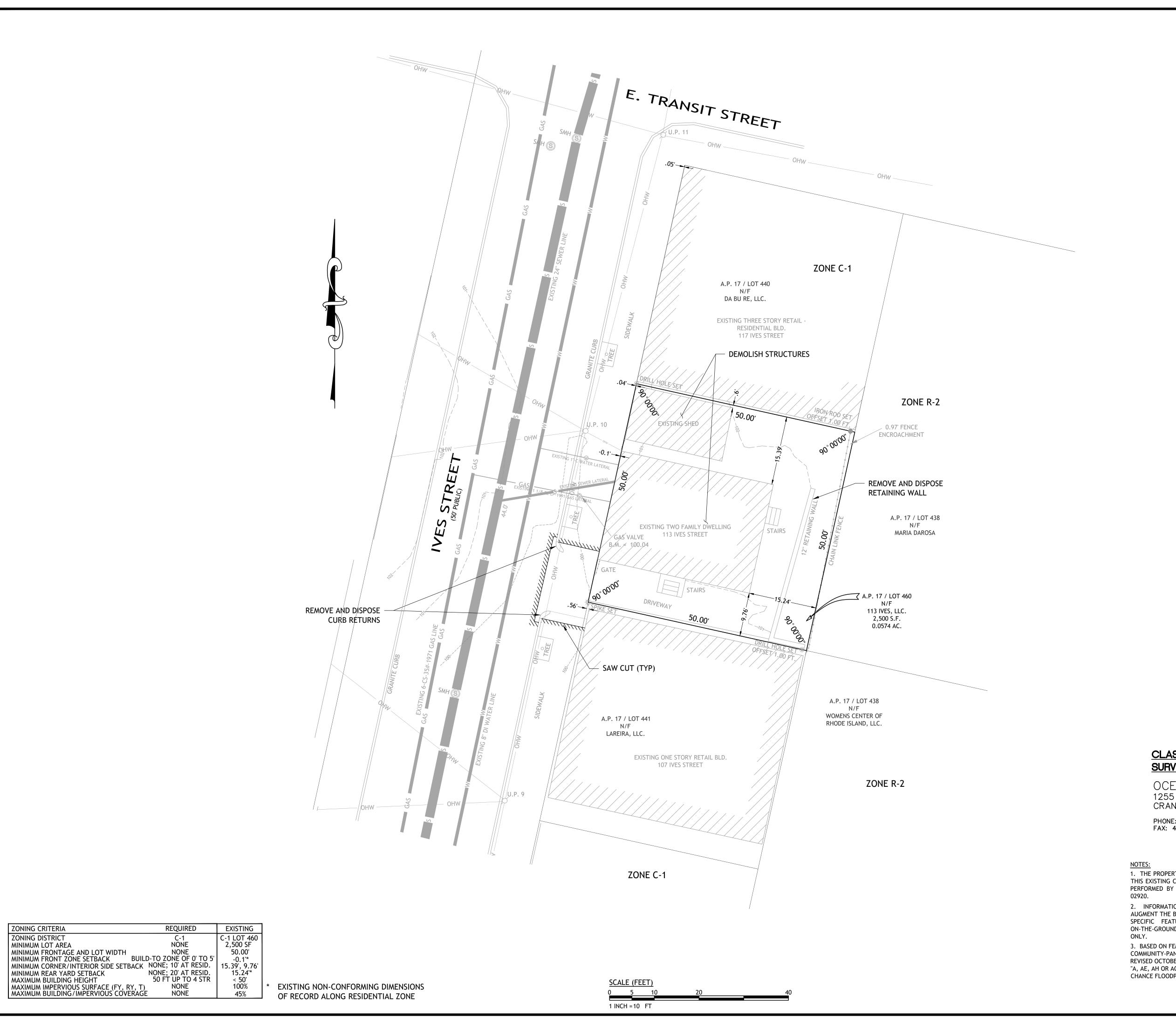
PROJECT NO: 21-0004-01

NOTES

GENERAL

C1.0

CIVIL SHEET 1 OF 6



PROPOSED RESIDENTIAL
DEVELOPMENT
113 IVES STREET
PROVIDENCE, RHODE ISLAND

CLASS I PROPERTY LINE AND TOPOGRAPHIC SURVEY CONDUCTED BY:

OCEAN STATE PLANNERS, INC. 1255 OAKLAWN AVENUE CRANSTON, RI 02920

PHONE: 401-463-9696 FAX: 401-463-9039

1. THE PROPERTY BOUNDARY PERIMETER AND TOPOGRAPHIC INFORMATION SHOWN ON THIS EXISTING CONDITIONS SHEET IS THE RESULT OF A BOUNDARY STAKE-OUT SURVEY PERFORMED BY OCEAN STATE PLANNERS, INC. 1255 OAKLAWN AVE., CRANSTON, RI 02920.

2. INFORMATION BY DETEC PROVIDED ON THIS EXISTING CONDITIONS PLAN IS TO AUGMENT THE BASE SURVEY FOR PERMITTING AND DESIGN WITH THE ADDITION OF SITE SPECIFIC FEATURES AND SITE UTILITIES TAKEN FROM RECORDS AND SITE ON-THE-GROUND MEASUREMENTS. THE PE STAMP IS AFFIXED FOR THIS INFORMATION ONLY

3. BASED ON FEMA FLOOD INSURANCE RATE MAP (FIRM) FOR THE CITY OF PROVIDENCE, COMMUNITY-PANEL NUMBER 0309K, MAP NUMBER 44007C0309K EFFECTIVE DATE MAP REVISED OCTOBER 2, 2015, THE SITE IS LOCATED IN ZONE 'X' AND OUTSIDE FLOOD ZONE "A, AE, AH OR AO" OTHER AREAS (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN).

PROGRESS PLAN

SEPT., 2021

REVISIONS:

NO. DATE. DESCRIPTION

DESIGNED BY: DMD

CHECKED BY: DMD

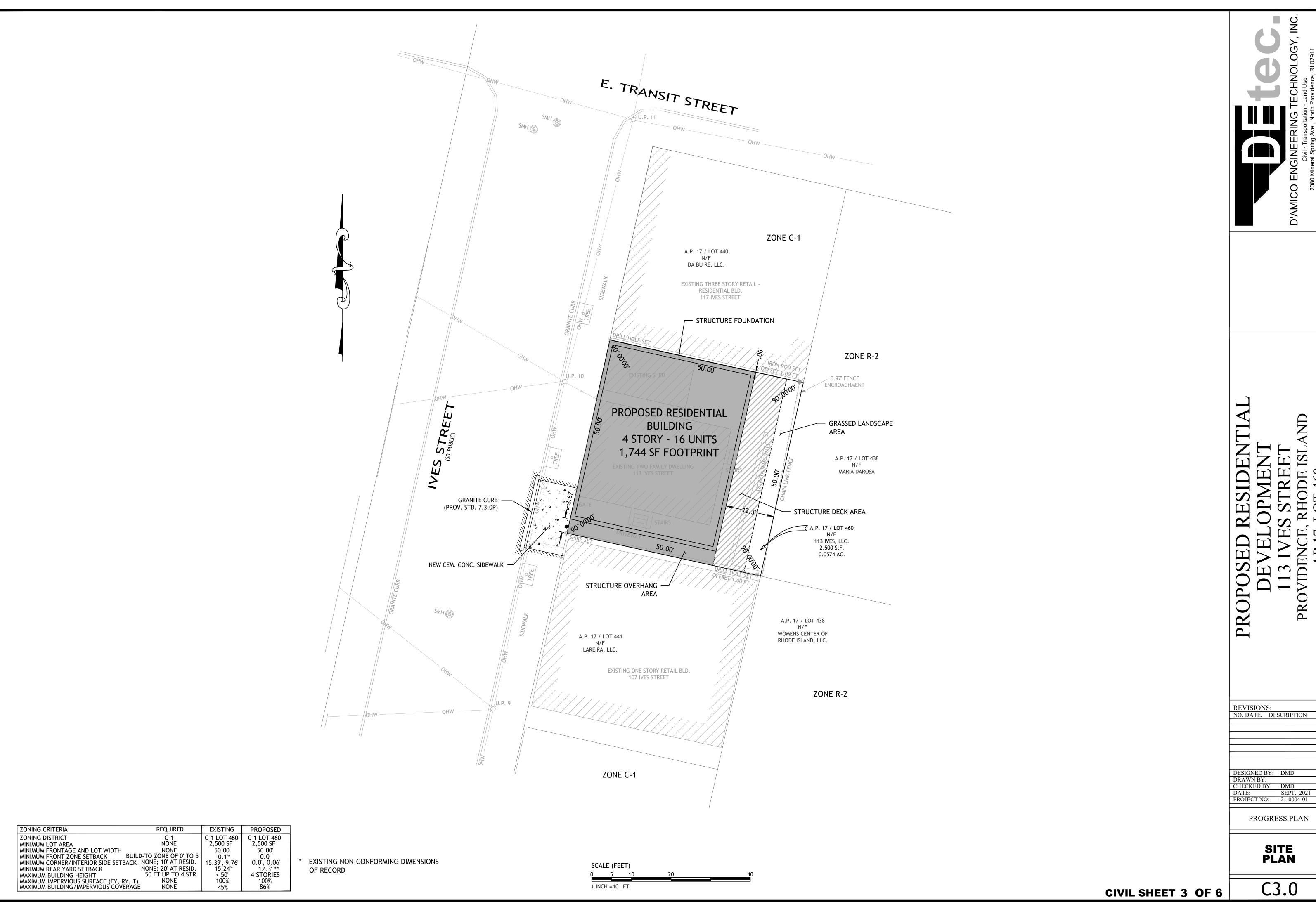
PROJECT NO: 21-0004-01

DRAWN BY:

EXISTING CONDITIONS AND DEMO PLAN

CIVIL SHEET 2 OF 6

C2.0



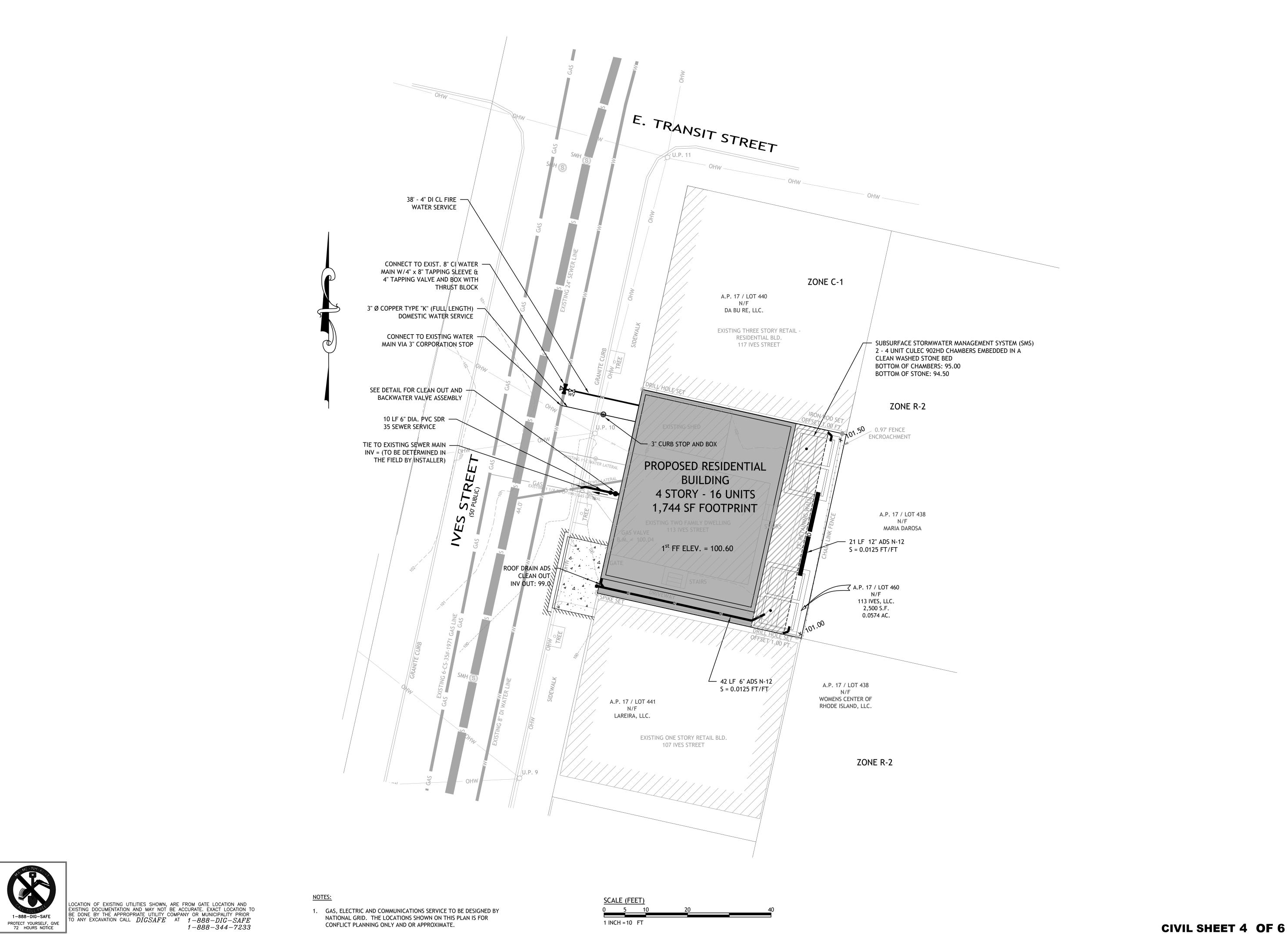
REVISIONS:
NO. DATE. DESCRIPTION

DESIGNED BY: DMD DRAWN BY: CHECKED BY: DMD

PROGRESS PLAN

SITE PLAN

C3.0



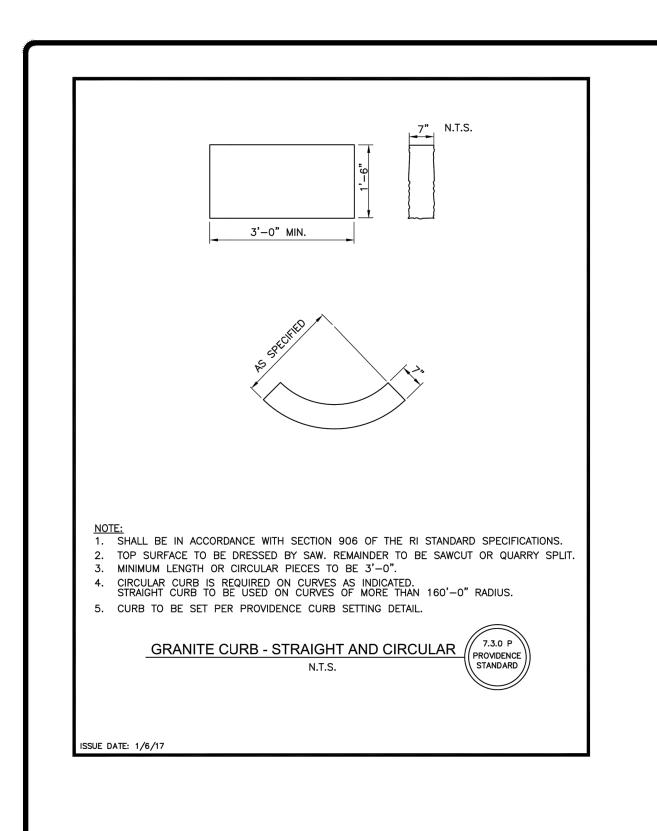
REVISIONS: NO. DATE. DESCRIPTION

DESIGNED BY: DMD DRAWN BY: CHECKED BY: DMD DATE: SEPT., 2021 PROJECT NO: 21-0004-01

PROGRESS PLAN

GRADING DRAINAGE AND UTILITY PLAN

C4.0



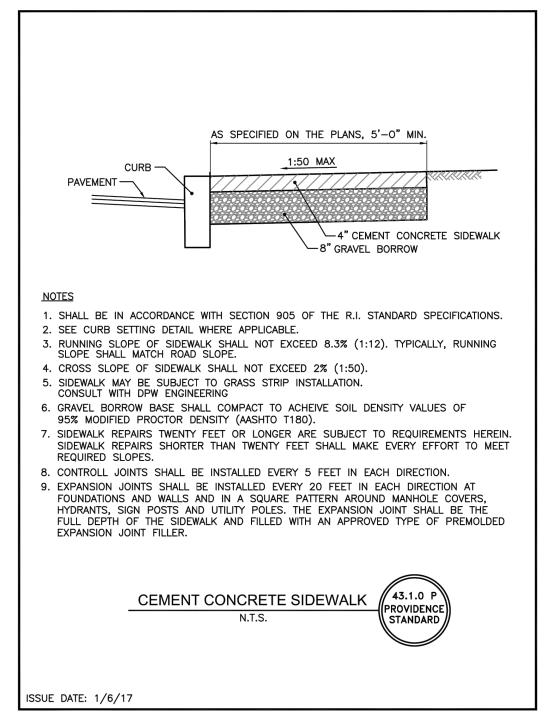
1" CHAMFER EDGE

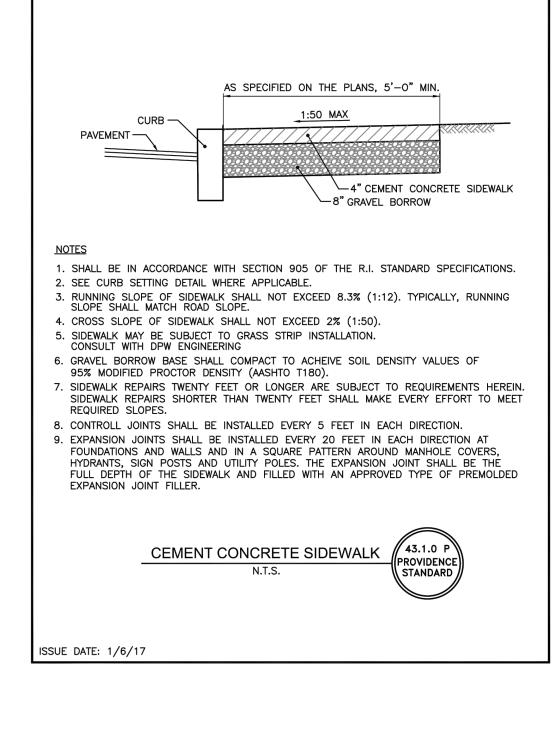
DASHED LINE INDICATES B.O. -

CONC. AT GRASSED AREAS

AS OCCURS, SEE SITE PLAN. — 6"

PAVEMENT -SURFACE





- W.W.F. 6x6 - W4 x W4

2" MIN. COVER

FINISH GRADE

AS SPECIFIED ON THE PLANS

(BROOM FINISH)

CEM. CONC.

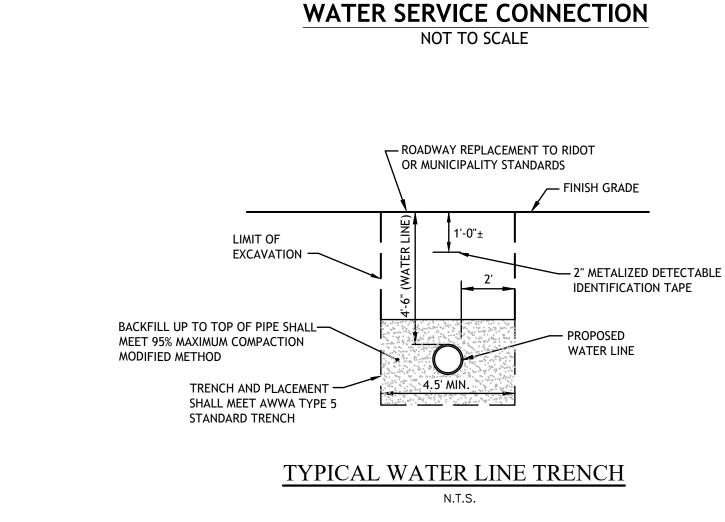
─ 8" GRAVEL BORROW

SUBBASE

CEMENT CONCRETE PAD OR

WALKWAY - MONOLITHIC POUR

NTS



1 MIN.→

1. SERVICE MATERIALS PER QDC SPECIFICATION.

INSPECTED, TESTED AND APPROVED BY THE PROVIDENCE WATER SUPPLY BOARD INSPECTOR.

2. SERVICE LINE FROM CURB BOX TO BUILDING SHALL BE

- NEW SERVICE TO BE TYPE "K"

COPPER OR POLYETHYLENE

PIPING (NO COUPLINGS).

SCREENED GRAVEL

VALVE BOX —

CURB STOP -

EXISTING GRADE OR CURB LINE [

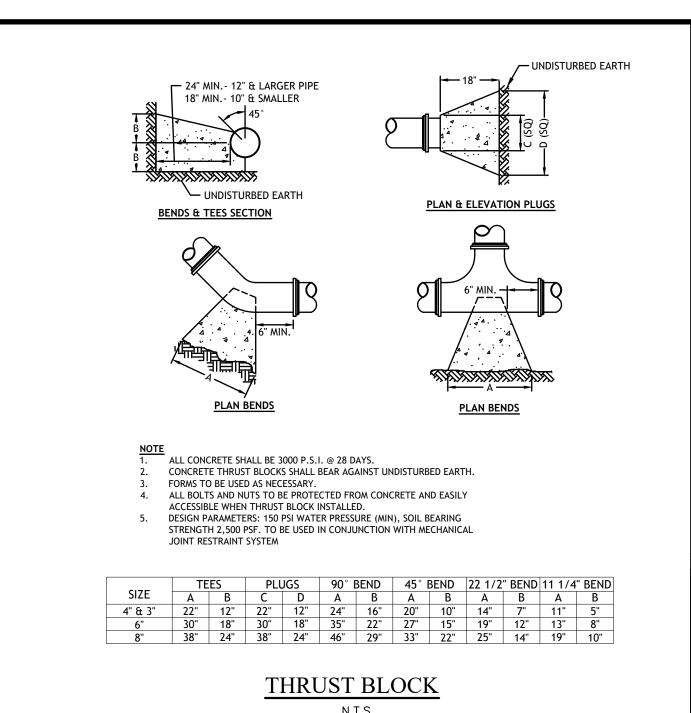
1" DIA. TYPE "K" COPPER

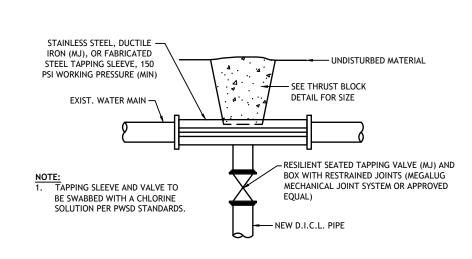
BRASS CORPORATION

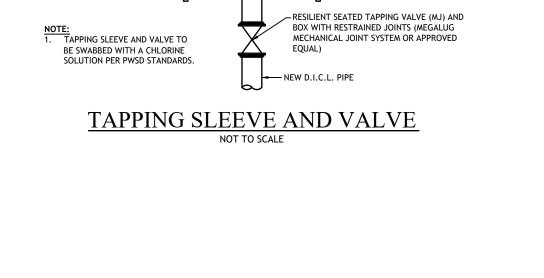
6" WATER MAIN

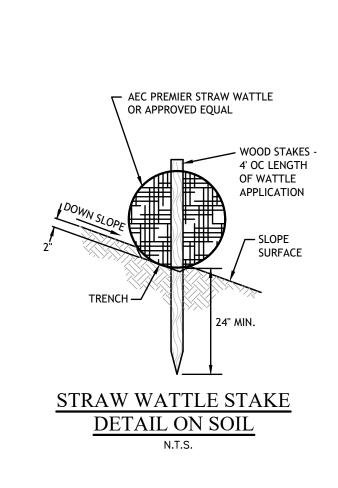
STOP W/SADDLE -

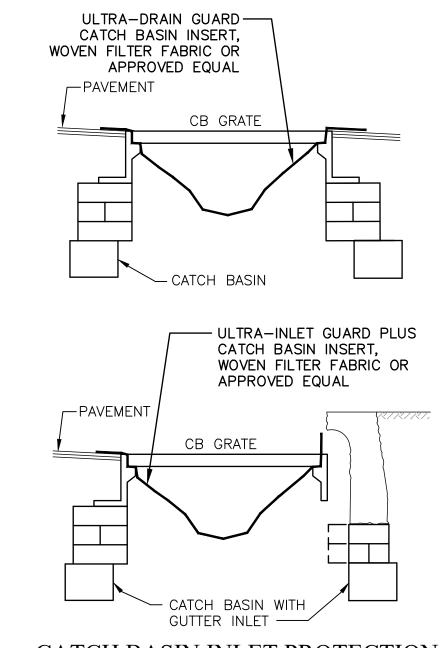
SERVICE CONNECTION —

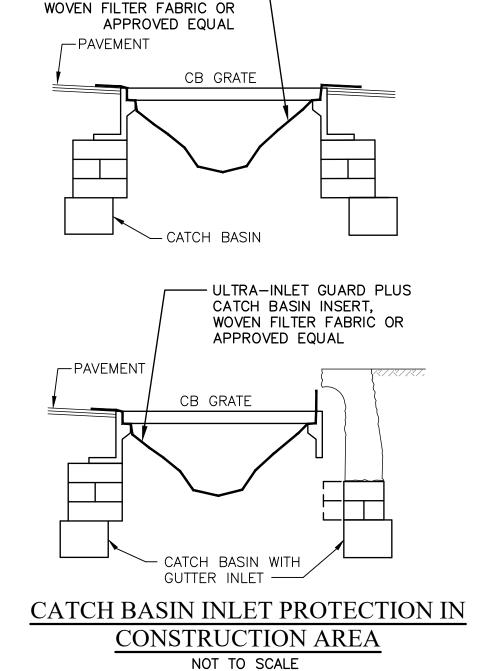


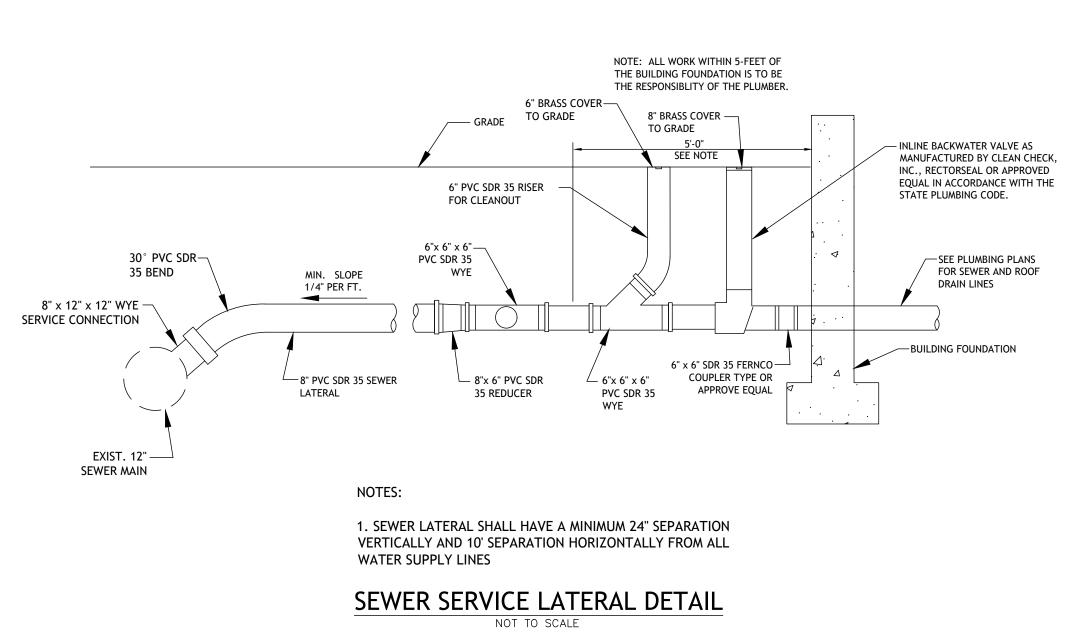


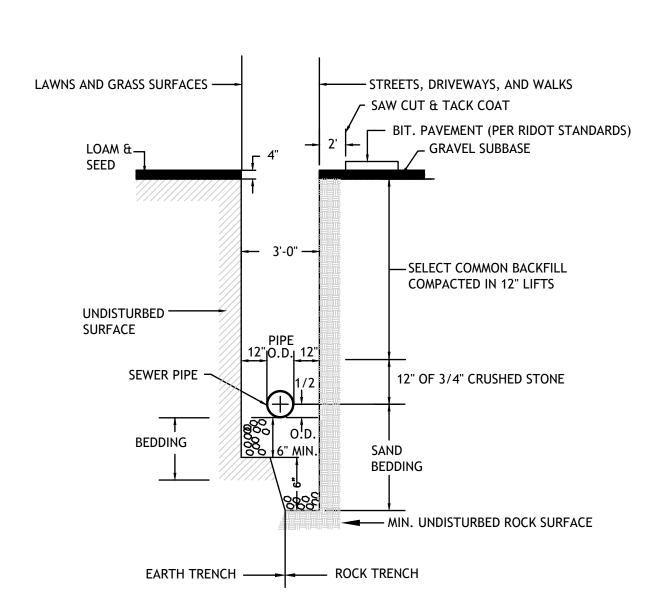












TYPICAL SEWER LINE TRENCH DETAIL NO SCALE

PR **REVISIONS:** NO. DATE. DESCRIPTION DESIGNED BY: DMD DRAWN BY: CHECKED BY: DMD SEPT., 2021

> SITE **DETAILS 1**

PROGRESS PLAN

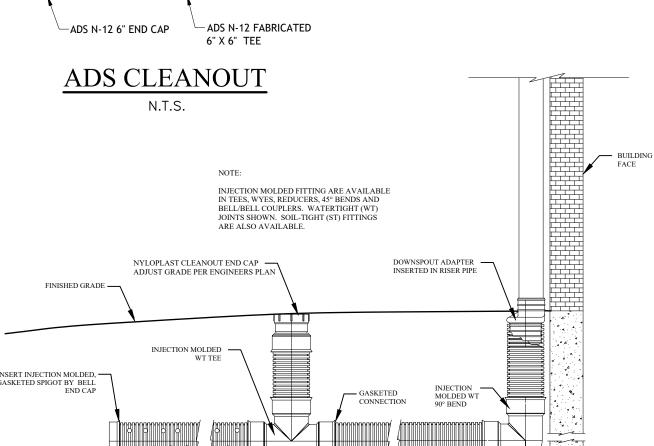
PROJECT NO: 21-0004-01

CIVIL SHEET 5 OF 6

C5.0

TYPICAL TRENCH AND PAVEMENT PATCH DETAIL

6" BRASS COVER EXISTING/ PROPOSED GRADE FIELD TRIM TOP EDGE AS REQUIRED ADS N-12 6" PIPE - ADS N-12 6" PIPE



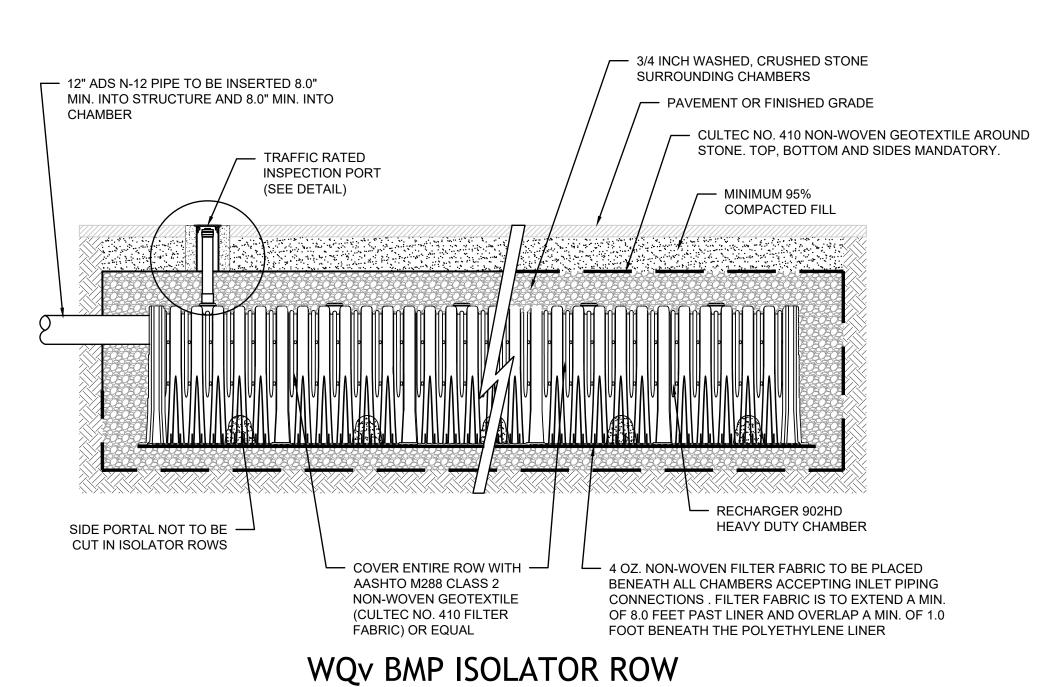
ROOFDRAIN W/CLEAN OUT DETAIL:

MIN. 95% COMPACTED FILL -— 3/4 INCH DIA. WASHED, CRUSHED STONE SURROUNDING CHAMBERS RECHARGER 902HD - CULTEC NO. 410 NON-WOVEN GEOTEXTILE AROUND HEAVY DUTY CHAMBER STONE. TOP, BOTTOM AND SIDES MANDATORY HVLV FC-48 FEED CONNECTOR BETWEEN ALL ROWS WITH **EXCEPTION OF ISOLATOR ROWS** PAVEMENT OR FINISHED GRADE SMS - FINISH GRADE ELEV. = 101.0 ─ 12.0" MIN. FOR PAVED TOP OF STONE SMS ELEV. = 99.50 TOP OF CHAMBER SMS ELEV. = 99.0 6.0" MIN BOTTOM OF SMS ELEV. = 94.50 DESIGN ENGINEER TO BE CONTACTED IF THE 87.0" MIN. CENTER TO CENTER BEARING CAPACITY OF SUB-GRADE SOILS IS NOT CONSISTENT WITH TEST HOLE DATA

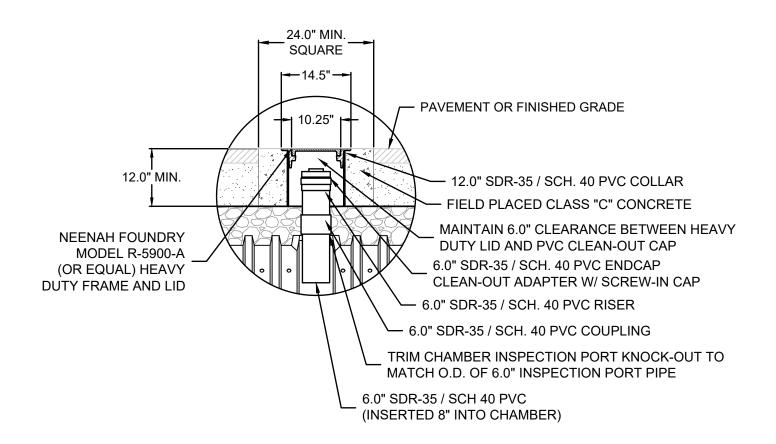
RECHARGER 902HD BY CULTEC, INC. OF BROOKFIELD, CT. THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. ALL RECHARGER 902HD CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES. CALL CULTEC, INC. AT (800) 428-5832 TO ARRANGE A PRE-CONSTRUCTION MEETING. USE RECHARGER 902HD HEAVY DUTY FOR TRAFFIC APPLICATIONS.

CROSS SECTION VIEW FOR SMS



NOT TO SCALE



INSPECTION PORT DETAIL NOT TO SCALE

CULTEC RECHARGER® 902HD PRODUCT SPECIFICATIONS

CULTEC RECHARGER® 902HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

1. THE CHAMBERS SHALL BE MANUFACTURED IN THE U.S.A. BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)

- 2. THE CHAMBER SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH
- MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE
- 3. THE CHAMBER SHALL BE ARCHED IN SHAPE.
- 4. THE CHAMBER SHALL BE OPEN-BOTTOMED.
- 5. THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE
- 6. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER® 902HD SHALL BE 48 INCHES (1219 mm) TALL, 78 INCHES (1981 mm) WIDE AND 4.10 FEET (1.25 mm) LONG. THE INSTALLÈD LENGTH OF A JOINED RÈCHARGÉR® 902HD SHALL BE 3.67 FEET (1.12 m).
- 7. MULTIPLE CHAMBERS MAY BE CONNECTED TO FORM DIFFERENT LENGTH ROWS. EACH ROW SHALL BEGIN AND END WITH A SEPARATELY FORMED CULTEC RECHARGER® 902HD END CAP.
- MAXIMUM INLET OPENING ON THE END CAP IS 24 INCHES (600 mm). 8. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV™ FC-48 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. MAXIMUM ALLOWABLE PIPE SIZE IN THE
- SIDE PORTAL IS 11.5 INCHES (292 mm). 9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV™ FC-48 FEED CONNECTOR SHALL
- BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1245 mm) LONG. 10. THE NOMINAL STORAGE VOLUME OF THE RECHARGER® 902HD CHAMBER SHALL BE 17.66 FT3 / FT (1.641 m3 / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED
- RECHARGER® 902HD SHALL BE 64.75 FT3 / UNIT (1.834 m3 / UNIT) WITHOUT STONE. 11.THE NOMINAL STORAGE VOLUME OF THE HVLV™ FC-48 FEED CONNECTOR SHALL BE 0.913 FT3 / FT (0.085 m3 / m) - WITHOUT STONE.
- 12. THE RECHARGER® 902HD CHAMBER SHALL HAVE TWENTY-FOUR DISCHARGE HOLES BORED INTO THE SIDEWALLS OF THE UNIT'S CORE TO PROMOTE LATERAL CONVEYANCE OF WATER.
- 13. THE RECHARGER® 902HD CHAMBER SHALL HAVE 7 CORRUGATIONS. 14. THE CHAMBER SHALL BE DESIGNED TO WITHSTAND AASHTO HS-25 DEFINED LOADS WHEN
- INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. 15. THE CHAMBER SHALL HAVE A RAISED INTEGRAL CAP AT THE TOP OF THE ARCH NEAR THE
- CENTER OF EACH UNIT TO BE USED AS AN OPTIONAL INSPECTION PORT OR CLEAN-OUT.
- 16. THE UNITS MAY BE TRIMMED TO CUSTOM LENGTHS BY CUTTING BACK TO ANY CORRUGATION. 17. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY
- CONTROL AND ASSURANCE PROCEDURES. 18.MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 8.3 FEET (2.53 m).
- 1. THE CULTEC RECHARGER® 902HD END CAP (REFERRED TO AS 'END CAP') SHALL BE MANUFACTURED IN THE U.S.A. BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- 2. THE END CAP SHALL BE TWIN-SHEET THERMOFORMED OF BLACK VIRGIN HIGH MOLECULAR WEIGHT POLYETHYLENE.
- 3. THE END CAP SHALL BE JOINED AT THE BEGINNING AND END OF EACH ROW OF CHAMBERS USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY
- SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS. 4. THE NOMINAL DIMENSIONS OF THE END CAP SHALL BE 48.5 INCHES (1231 mm) TALL, 78 INCHES
- (1982 mm) WIDE AND 9.7 INCHES (246 mm) LONG. WHEN JOINED WITH A RECHARGER 902HD CHAMBER, THE INSTALLED LENGTH OF THE END CAP SHALL BE 6.2 INCHES (157 mm).
- 5. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCHES (600 mm).
- 6. THE END CAP SHALL BE DESIGNED TO WITHSTAND AASHTO HS-25 DEFINED LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.

CULTEC HVLV FC-48 FEED CONNECTOR PRODUCT SPECIFICATIONS

CULTEC HVLV FC-48 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL

MANIFOLD FOR CULTEC RECHARGER MODEL 902HD STORMWATER CHAMBERS. FEED CONNECTOR PARAMETERS

- 1. THE FEED CONNECTOR SHALL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- 2. THE FEED CONNECTOR SHALL BE VACUUM THERMOFORMED OF BLACK HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE).
- 3. THE FEED CONNECTOR SHALL BE ARCHED IN SHAPE.
- 4. THE FEED CONNECTOR SHALL BE OPEN-BOTTOMED.

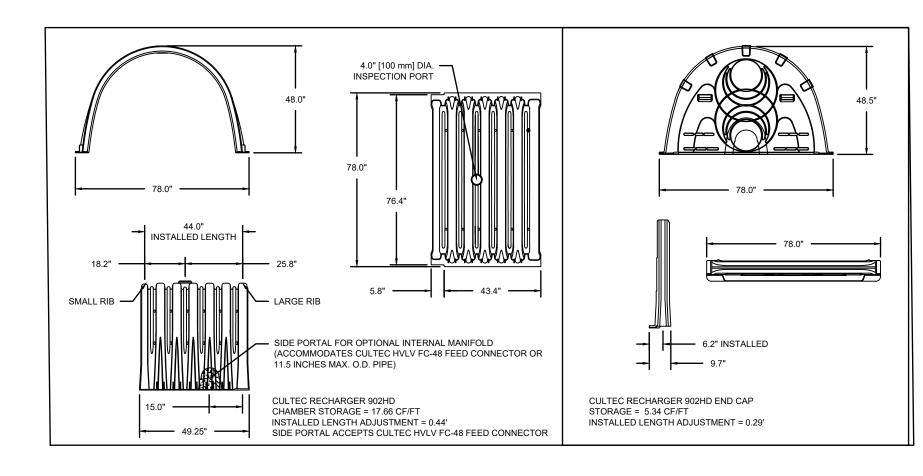
CULTEC NO. 66™ WOVEN GEOTEXTILE

- 5. THE NOMINAL DIMENSIONS OF THE CULTEC HVLV FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1245 mm) LONG.
- 6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-48 FEED CONNECTOR SHALL BE 0.913 FT (0.085 m³ / m) - WITHOUT STONE.
- 7. THE HVLV FC-48 FEED CONNECTOR SHALL HAVE 4 CORRUGATIONS.
- 8. THE HVLV FC-48 FEED CONNECTOR MUST BE FORMED AS A WHOLE UNIT HAVING TWO END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE SHALL FIT INTO THE SIDE PORTALS OF THE CULTEC RECHARGER STORMWATER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.
- 9. THE FEED CONNECTOR SHALL BE DESIGNED TO WITHSTAND AASHTO HS-25 DEFINED WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION
- INSTRUCTIONS. 10. THE FEED CONNECTOR SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY

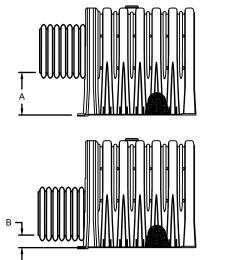
CULTEC NO. 66™ WOVEN GEOTEXTILE IS UTILIZED AS AN UNDERLAYMENT TO PREVENT SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE.

GEOTEXTILE PARAMETERS

- 1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- 2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE. 3. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 315 LBS (1.40KN) PER ASTM D4632 TESTING
- 4. THE GEOTEXTILE SHALL HAVE A TENSILE ELONGATION RESISTANCE OF 15% PER ASTM D4632 TESTING
- 5. THE GEOTEXTILE SHALL HAVE A MULLEN BURST RESISTANCE OF 600PSI (4138 KPA) PER ASTM D3786 TESTING METHOD.
- 6. THE GEOTEXTILE SHALL HAVE A TEAR RESISTANCE OF 115 LBS (0.51 KN) PER ASTM D4533 TESTING
- 7. THE GEOTEXTILE SHALL HAVE A PUNCTURE RESISTANCE OF 150 LBS (0.66 KN) PER ASTM D4833 TESTING METHOD
- 8. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 900 LBS (4.00 KN) PER ASTM D6241
- TESTING METHOD. 9. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 70% @ 500 HRS. PER ASTM D4355 TESTING
- 10. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.05 SEC-1 PER ASTM D4491 TESTING
- METHOD. 11. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 4 GPM/FT2 (160 LPM/M2) PER ASTM D4491 TESTING METHOD.
- 12. THE GEOTEXTILE SHALL HAVE A PERCENT OPEN AREA OF <1% PER CW-02215 TESTING METHOD. 13. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 40 US STD. SIEVE (0.425 MM) PER ASTM D4751 TESTING METHOD.
- 14. THE GEOTEXTILE SHALL CONSIST OF A 100% HIGH-TENACITY, SILT-FILM POLYPROPYLENE YARNS.



PIPE	A	В
6" [150 mm]	N/A	N/A
8" [200 mm]	N/A	N/A
10" [250 mm]	N/A	N/A
12" [300 mm]	29.50" [749 mm]	2.25" [57 mm]
15" [375 mm]	26.50" [673 mm]	2.25" [57 mm]
18" [450 mm]	23.50" [597 mm]	2.50" [64 mm]
24" [600 mm]	16.50" [420 mm]	3.00" [76 mm]



CULTEC RECHARGER 902HD CHAMBER DETAILS

NOT TO SCALE

CIVIL SHEET 6 OF 6

REVISIONS: NO. DATE. DESCRIPTION

DESIGNED BY: DMD

CHECKED BY: DMD

DRAWN BY

PROGRESS PLAN

PROJECT NO: 21-0004-01

SEPT., 202

SITE **DETAILS 2**

C5.1