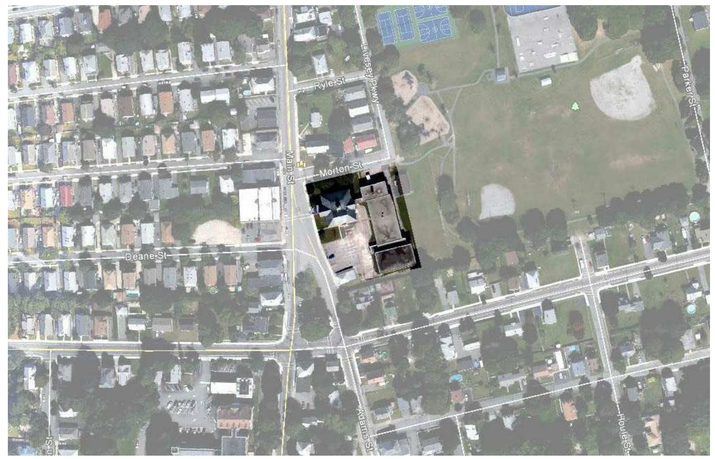
LOCUS MAP:



PROJECT TEAM:

OWNER/DEVELOPER:

Stratford Capital Group
Keith McDonald
100 Corporate Place, Suite 404
Peabody, MA 01960

ARCHITECT:

ICON architecture
Janis Mamayek, PIC
101 Summer Sreet
Boston, MA 02110

DRAWING LIST:
EXISTING DRAWINGS:
EX-001 EXISTING LOWER LEVEL
EX-002 EXISTING FIRST FLOOR
EX-003 EXISTING SECOND FLOOR
EX-004 EXISTING ELEVATIONS OF 1950s ADDITION

CIVIL DRAWINGS:
C-200 DEMOLITION & EROSION CONTROL PLAN
C-201 LAYOUT PLAN
C-202 GRADING, DRAINAGE, & UTILITY PLAN
C-203 LANDSCAPE PLAN
C-300 GENERAL NOTES
C-301 DETAIL SHEET 1
C-302 DETAIL SHEET 2
C-303 DETAIL SHEET 3
C-304 DETAIL SHEET 4
C-305 DETAIL SHEET 5

ARCHITECTURAL DRAWINGS:
A-101 PROPOSED LOWER LEVEL
A-102 PROPOSED ENTRY LEVEL
A-103 PROPOSED SECOND FLOOR
A-104 PROPOSED THIRD FLOOR
A-201 PROPOSED ELEVATIONS
A-301 BUILDING SECTION
A-401 WALL SECTION
A-501 ENLARGED UNIT PLANS - ADDITION
A-502 ENLARGED UNIT PLANS - HISTORIC

Oxford School Residences

347 Main Street
Fairhaven, MA 02719

Stratford Capital Group

March 29, 2017

3/29/2017 9:26:32 AM

EXISTING TO DEMO

EXISTING TO DEMO

EXISTING TO REMAIN

1 Existing Lower Level
3/32" = 1'-0"

3/29/2017 9:18:56 AM

Oxford School Residences

347 Main Street
Fairhaven, MA 02719

Stratford Capital Group

ARCHITECT

E-ICON ARCHITECTURE

101 SUMMER ST BOSTON MA 02110

CONSULTANT

STAMP

KEY PLAN

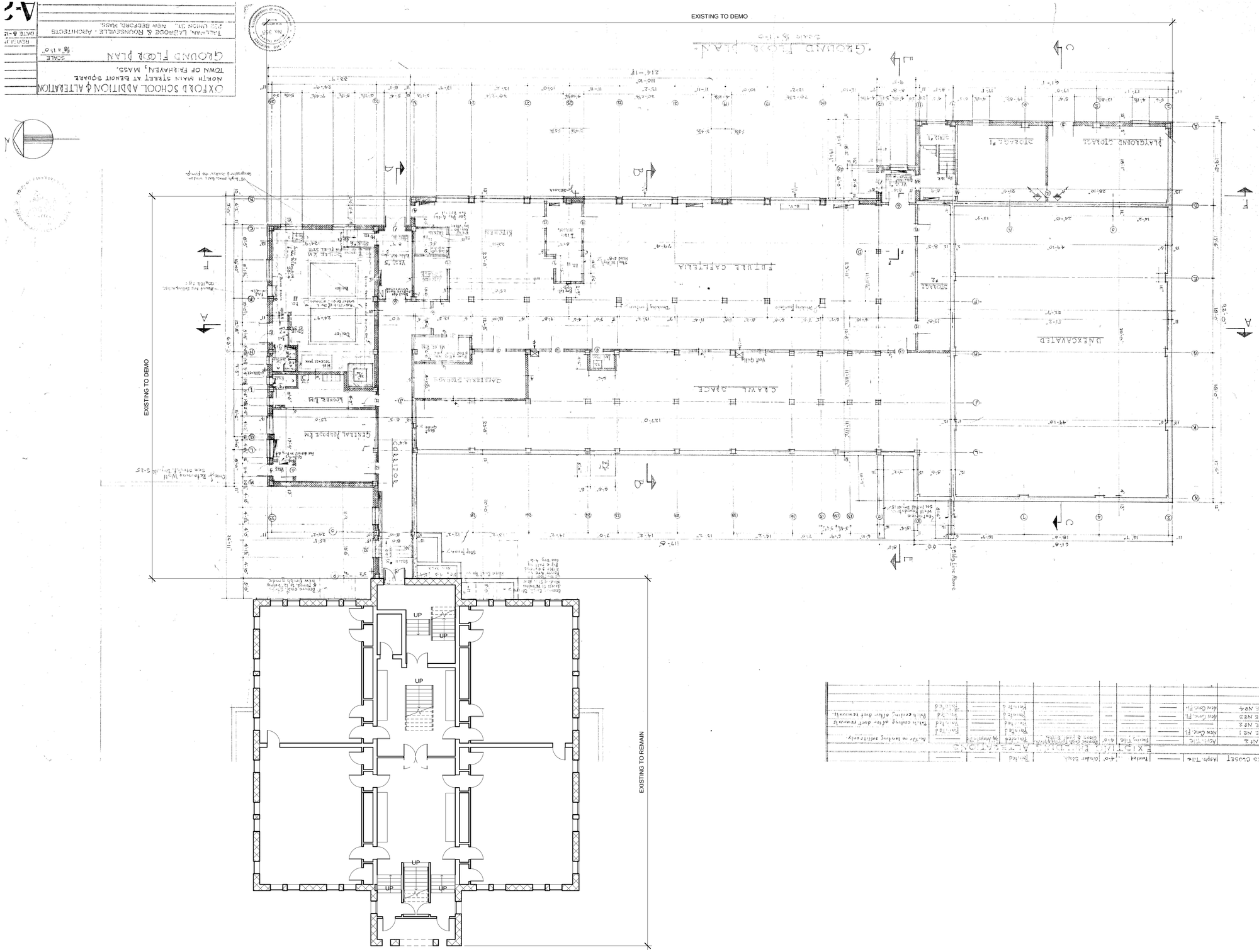
MARK	DATE	DESCRIPTION
	2016-10-18	

PROJECT NUMBER: 216030
DRAWN BY: DC
CHECKED BY: MG

SHEET TITLE

EXISTING LOWER LEVEL

EX-001



1 Existing First Floor
3/32" = 1'-0"

3/29/2017 9:18:58 AM

Oxford School Residences

347 Main Street
Fairhaven, MA 02719

Stratford Capital Group

ARCHITECT

E-ICON ARCHITECTURE

101 SUMMER ST BOSTON MA 02110

CONSULTANT

STAMP

KEY PLAN

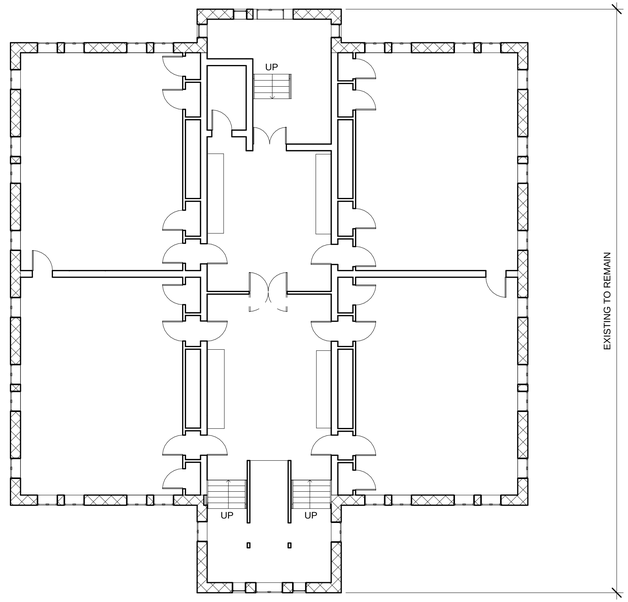
MARK	DATE	DESCRIPTION
	2016-10-18	

PROJECT NUMBER: 216030
DRAWN BY: DC
CHECKED BY: MG

SHEET TITLE

EXISTING FIRST FLOOR

EX-002



1 Existing Second Floor
3/32" = 1'-0"

Oxford School Residences

347 Main Street
Fairhaven, MA 02719

Stratford Capital Group

ARCHITECT

E- ICON ARCHITECTURE

101 SUMMER ST BOSTON MA 02110

CONSULTANT

STAMP

KEY PLAN

MARK	DATE	DESCRIPTION
	2016-10-18	

PROJECT NUMBER: 216030
DRAWN BY: DC
CHECKED BY: MG

SHEET TITLE

EXISTING SECOND FLOOR

EX-003

3/29/2017 9:18:59 AM

Oxford School Residences

347 Main Street
Fairhaven, MA 02719

Stratford Capital Group

ARCHITECT

ICON ARCHITECTURE
101 SUMMER ST BOSTON MA 02110

CONSULTANT

STAMP

KEY PLAN

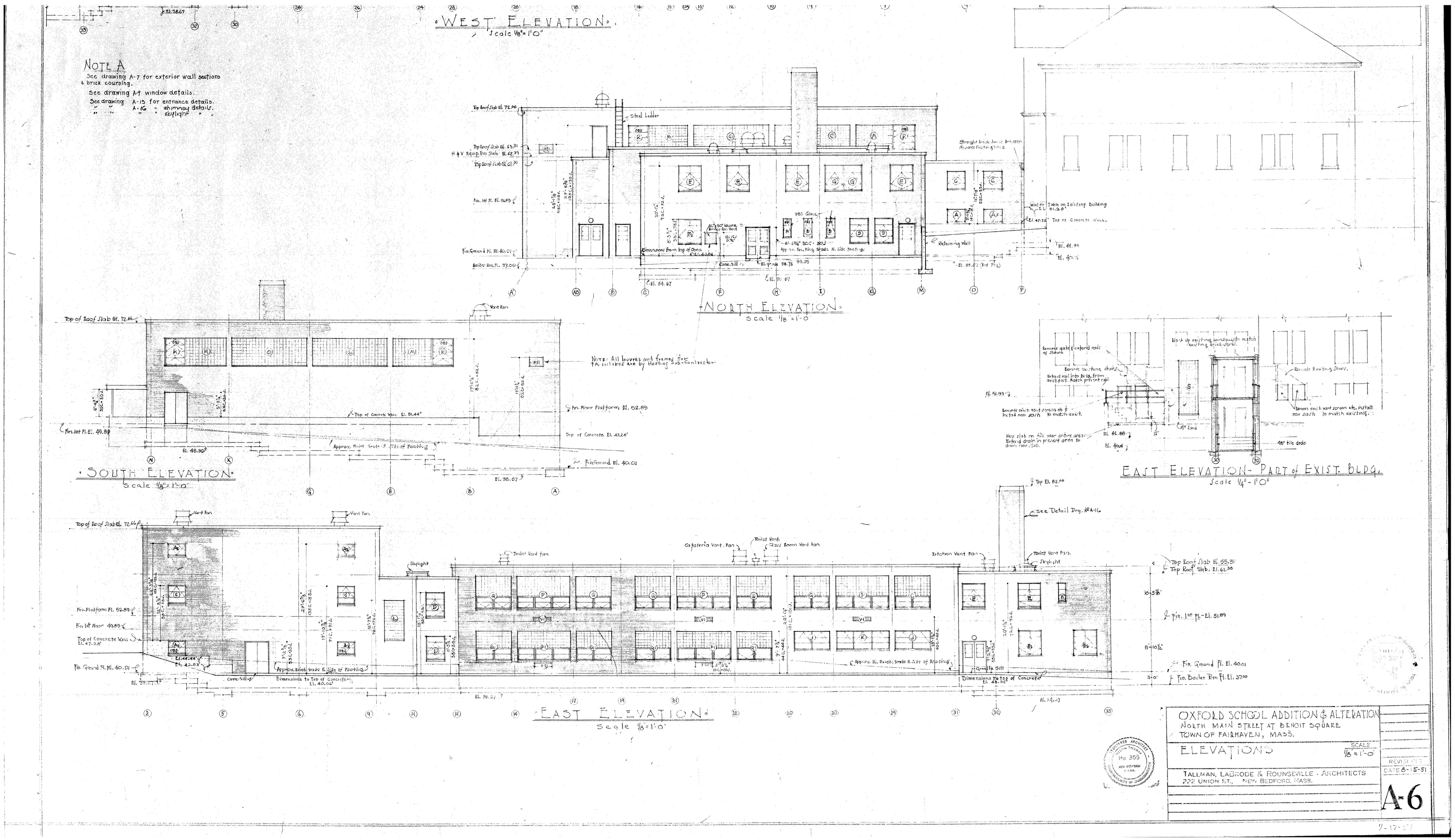
	2016-10-18	
MARK	DATE	DESCRIPTION

PROJECT NUMBER: 216030
DRAWN BY: DC
CHECKED BY: MG

SHEET TITLE

EXISTING ELEVATIONS OF 1950s ADDITION

EX-004



1 EXISTING ELEVATIONS OF 1950s ADDITION
NTS

3/29/2017 9:19:02 AM

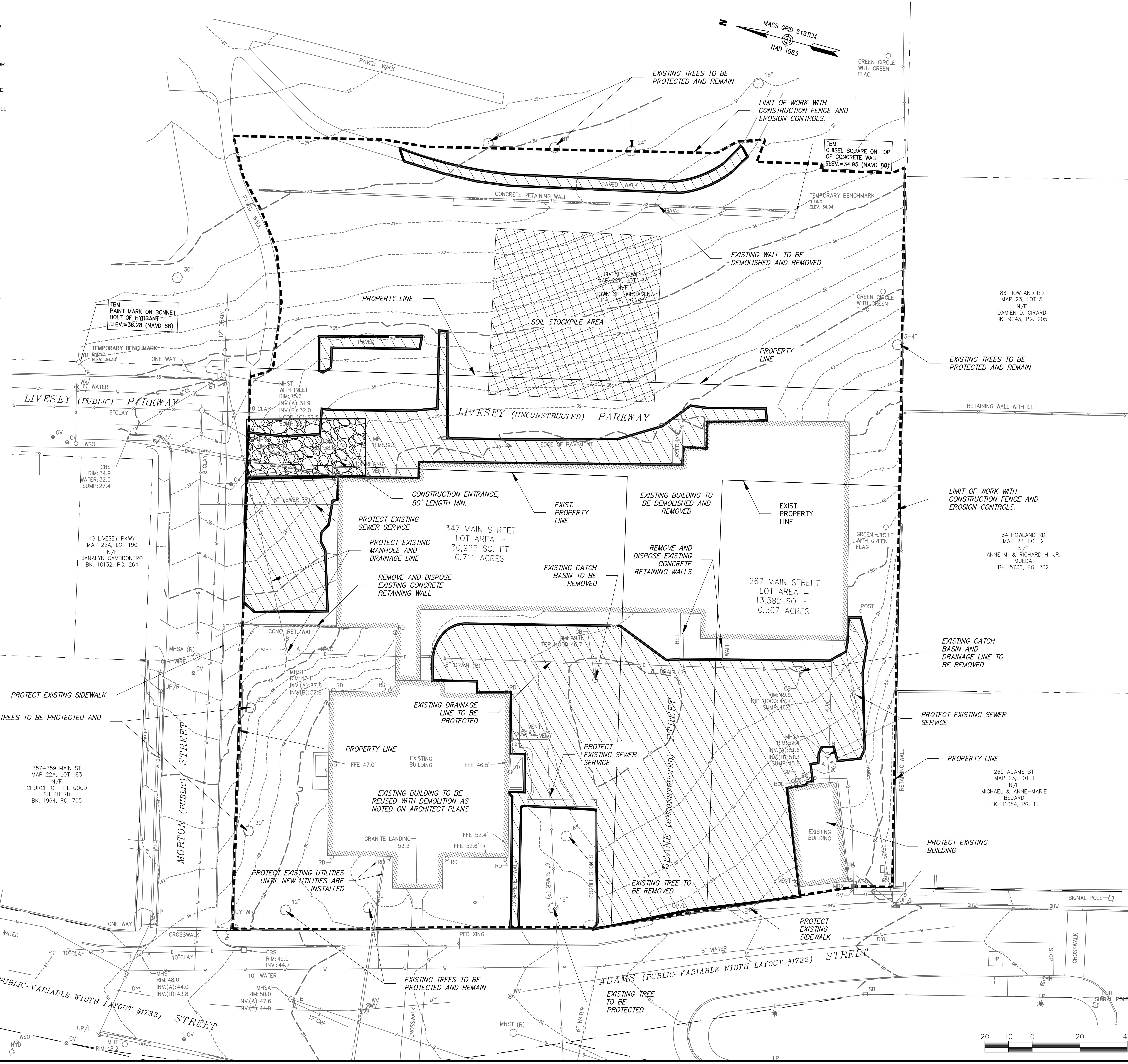
DEMOLITION GENERAL NOTES:

1. THE CONTRACTOR SHALL SUBMIT SITE RELATED WORK PHASING/STAGING PLAN TO THE OWNER AND ENGINEER FOR REVIEW AND APPROVAL PRIOR TO COMMENCING WORK.
2. ANY DEVIATIONS, I.E. "FIELD CHANGES" FROM THE DESIGN PLAN(S) MUST BE APPROVED BY THE DESIGN ENGINEER IN WRITING. CONTRACTOR SHOULD BE AWARE THAT LOCAL AND STATE AUTHORITIES HAVE JURISDICTION AND APPROVALS MUST BE OBTAINED FROM THE APPROPRIATE AUTHORITY PRIOR TO THE IMPLEMENTATION OF THE "FIELD CHANGE." CHA ASSUMES NO LIABILITY OR RESPONSIBILITY FOR WORK ASSOCIATED WITH FIELD CHANGES COMPLETED WITHOUT REGARD TO THE "FIELD CHANGE" PROCEDURE.
3. ALL MATERIALS REMOVED FROM SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL STANDARDS.
4. CONTRACTOR IS RESPONSIBLE TO IDENTIFY, CONFIRM AND MAINTAIN ALL ACTIVE UTILITIES AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCY.
5. CONDUCT OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH OPERATIONS, STREETS, WALKS, AND OTHER ADJACENT FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION. STREETS AND ROADWAYS SHALL BE THOROUGHLY CLEANED AND/OR SWEPT ON A DAILY BASIS OR MORE FREQUENTLY AS REQUIRED BY THE GOVERNING AUTHORITY.
6. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION AND REMOVAL OF ALL EXISTING IMPROVEMENTS UNLESS OTHERWISE NOTED.
7. CONTRACTOR TO COORDINATE ABANDONMENT AND/OR REMOVAL OF EXISTING GAS SERVICE WITH PLUMBING CONTRACTOR AND UTILITY PURVEYOR PRIOR TO DEMOLITION.
8. THIS DEMO PLAN IS FOR ILLUSTRATIVE PURPOSES ONLY. CONTRACTOR TO REMOVE, RELOCATE, PROTECT, MAINTAIN AND/OR REPLACE ALL CONFLICTING UTILITIES, STRUCTURES & VEGETATION WITHIN THE LIMIT OF WORK TO BUILD THE IMPROVEMENTS.
9. BACKFILL OF REMOVED UTILITIES AND FOUNDATIONS TO BE COMPLETED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER AND STRUCTURAL ENGINEER.
10. CONTRACTOR TO COORDINATE UTILITY SERVICE SHUTOFFS AND RELOCATIONS WITH OWNER'S REPRESENTATIVE AND APPLICABLE UTILITY PURVEYORS.
11. COORDINATE ALL WORK OUTSIDE PROPERTY LINE WITH LOCAL DPW AND THE TOWN OF FAIRHAVEN.
12. COORDINATE SECURITY FENCE REQUIREMENTS WITH OWNER / ARCHITECT PRIOR TO START OF CONSTRUCTION.
13. CONTRACTOR SHALL PROTECT ALL TREES NOT SCHEDULED FOR REMOVAL. ALL TREES WITHIN LIMIT OF WORK / LIMIT OF CLEARING SHALL BE REMOVED UNLESS OTHERWISE IDENTIFIED TO REMAIN AND BE PROTECTED.
14. RESTORE DAMAGED IMPROVEMENTS TO ORIGINAL CONDITION AS ACCEPTABLE TO PARTIES HAVING JURISDICTION.
15. ALL EXISTING STRUCTURES, FOUNDATIONS, PAVEMENT, FENCES AND UTILITIES WITHIN LIMIT OF WORK, UNLESS OTHERWISE NOTED, TO BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS.
16. DISPOSAL OF ALL EXCESS EARTH AND DEBRIS FROM SITEWORK OPERATIONS IS CONTRACTOR'S RESPONDIBLITY.
17. CONTRACTOR RESPONSIBLE FOR COMPLIANCE WITH SWPPP AS PREPARED BY CHA.
18. CONTRACTOR IS RESPONSIBLE FOR FILING NDPES IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS.

LEGEND

- - - - - LIMIT OF WORK

////// *EXISTING PAVEMENT & GRAVEL BASE TO BE RECLAIMED & REUSED FOR PROPOSED PAVEMENT BASE. SUPPLEMENT PROPOSED BASE MATERIAL AS NECESSARY*



The Oxford School Residences

347 Main Street
Fairhaven, Massachusetts

SCG DEVELOPMENT

ARCHITECT

ICON ARCHITECTURE
101 SUMMER ST BOSTON MA 02110

CONSULTANT

CHA
101 Accord Park Drive
Norwell, MA 02061
Main: (781) 982-5400 • www.chacompanies.com

STAMP

COMMONWEALTH OF MASSACHUSETTS
KELLY KILLEEN
CIVIL
No. 48391
PROFESSIONAL ENGINEER

KEY PLAN

MARK	DATE	DESCRIPTION
	1/24/2017	ZBA PERMITTING
	10/19/2016	

PROJECT NO.: 21101.00
DRAWN BY: DAR
CHECKED BY: KK

SHEET TITLE

DEMOLITION AND EROSION CONTROL PLAN

C-200

ZONING SUMMARY AND TABLE

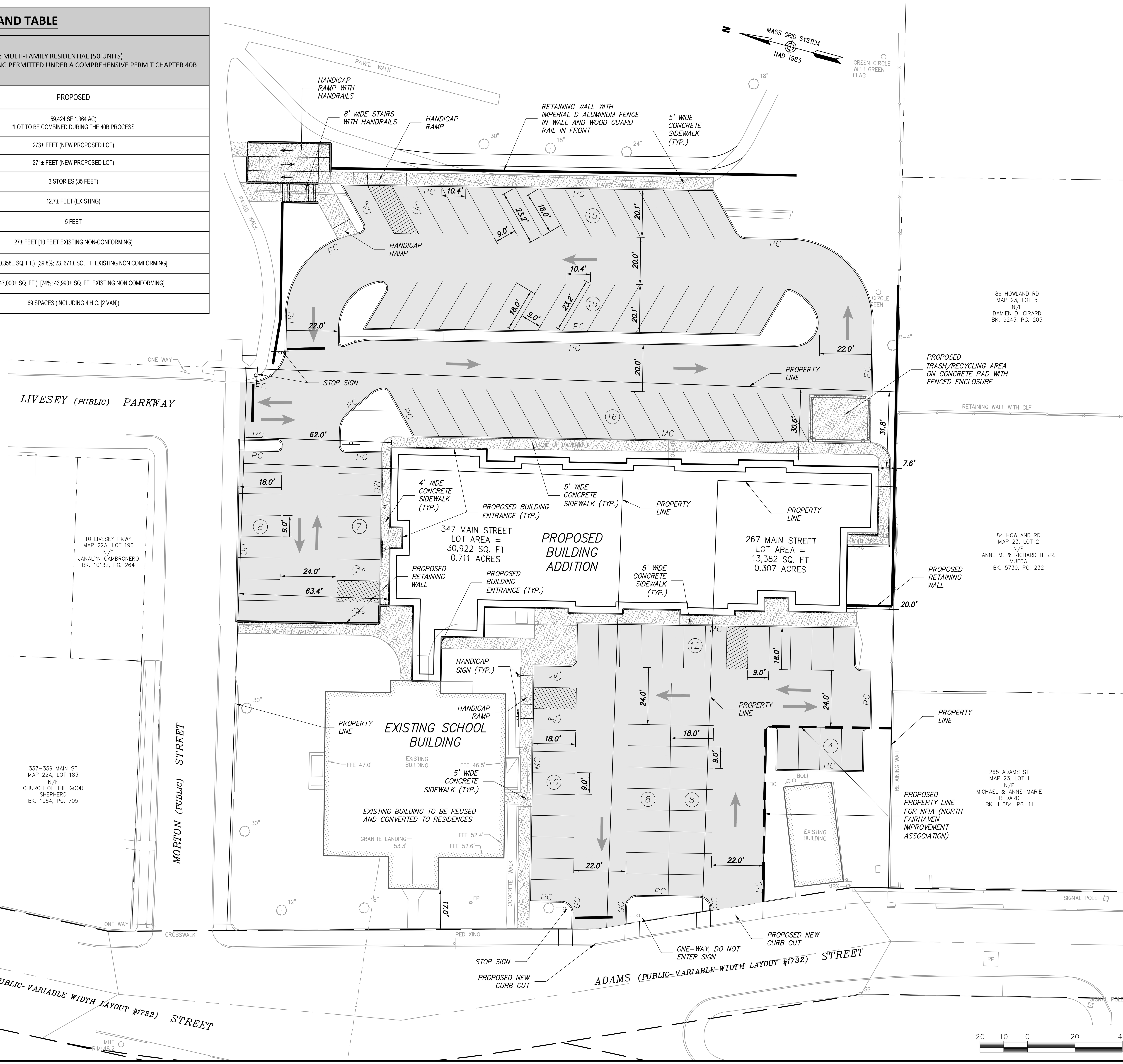
ZONING DISTRICT: SINGLE RESIDENCE DISTRICT - RA		· PROPOSED USE: MULTI-FAMILY RESIDENTIAL (50 UNITS) · PROJECT IS BEING PERMITTED UNDER A COMPREHENSIVE PERMIT CHAPTER 40B
BULK & DIMENSIONAL REQUIREMENTS	REQUIRED - DISTRICT RA	PROPOSED
MINIMUM LOT AREA (SQUARE FEET)	15,000 SQUARE FEET	59,424 SF 1.364 AC) *LOT TO BE COMBINED DURING THE 40B PROCESS
MINIMUM FRONTAGE	100 FEET	273± FEET (NEW PROPOSED LOT)
LOT WIDTH	125	271± FEET (NEW PROPOSED LOT)
MAXIMUM BUILDING HEIGHT (FEET)	35 FEET	3 STORIES (35 FEET)
MINIMUM FRONT YARD SETBACK (FEET)	20 FEET	12.7± FEET (EXISTING)
MINIMUM SIDE YARD (FEET)	10 FEET	5 FEET
MINIMUM REAR YARD (FEET)	30 FEET	27± FEET [10 FEET EXISTING NON-CONFORMING)
MAX. BUILDING COVERAGE	30%	34.3% (20,358± SQ. FT.) [39.8%; 23, 671± SQ. FT. EXISTING NON COMFORMING]
MAX. LOT COVERAGE	50%	79.1% (47,000± SQ. FT.) [74%; 43,990± SQ. FT. EXISTING NON COMFORMING]
PARKING	1 SPACE - ONE BEDROOM, 2 SPACES - MULTI-BEDROOM	69 SPACES (INCLUDING 4 H.C. [2 VAN])

LAYOUT NOTES:

1. SEE OTHER SHEETS FOR APPLICABLE NOTES.
2. THE PURPOSE OF THIS PLAN IS FOR PERMITTING ONLY. CONSTRUCTION DRAWINGS AND SPECIFICATIONS TO BE PROVIDED PRIOR TO BUILDING PERMIT APPLICATION.
3. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL BUILDING INFORMATION.
4. DESIGN OF RAMPS AT HANDICAP PARKING AND WALKWAYS ALONG ACCESSIBLE ROUTE TO CONFORM TO ADA REQUIREMENTS. CONTRACTOR IS RESPONSIBLE TO ENSURE COMPLIANCE WITH ALL ADA REQUIREMENTS, AS SET FORTH BY THE ADAAG AND THE MASS ARCHITECTURAL ACCESS BOARD. CONTRACTOR IS REQUIRE TO KEEP A COPY OF BOTH THE ADAAG AND THE MASS ARCHITECTURAL ACCESS BOARD REGULATIONS ON SITE AT ALL TIMES, FOR REFERENCE.
5. ALL LINES OR POINTS ARE PERPENDICULAR OR PARALLEL TO LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE NOTED; WRITTEN DIMENSIONS SHALL PREVAIL.
6. THE CONTRACTOR SHALL VERIFY ALL LAYOUT, DIMENSIONS, GRADES, AND INVERTS PRIOR TO CONSTRUCTION; REPORT ANY AND ALL DISCREPANCIES TO THE ENGINEER. ALL DISCREPANCIES SHALL BE RESOLVED IN WRITING PRIOR TO BEGINNING WORK.
7. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITY NOT DESIGNATED TO RECEIVE OTHER TREATMENT, SHALL BE RAKED, SMOOTHED, FERTILIZED AND SEEDED IN ACCORDANCE WITH PROJECT SPECIFICATIONS, UNLESS OTHERWISE NOTED.
8. ALL NEW WALKS AND SURFACES TO MEET EXISTING WALKS AND SURFACES WITH SMOOTH, CONTINUOUS LINE AND GRADE.
9. THE CONTRACTOR SHALL NOT INSTALL CONCRETE DURING ADVERSE WEATHER CONDITIONS (RAIN, SLEET, ETC.) UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
10. ALL MATERIALS REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE & FEDERAL STANDARDS.
11. CONTRACTOR IS RESPONSIBLE FOR CONTRACTING WITH A LICENSED LAND SURVEYOR TO OBTAIN AS-BUILT INFORMATION DURING CONSTRUCTION INCLUDING BUT NOT LIMITED TO SUBSURFACE UTILITIES, DETENTION STONE BASE, TOP OF DETENTION STONE, TOP OF CHAMBER, TOP OF SYSTEM, OTHER SUBSURFACE AND SURFACE IMPROVEMENTS NECESSARY TO FURNISH OWNERS ENGINEER WITH A COMPLETE AS-BUILT UPON COMPLETION OF CONSTRUCTION.
12. CONTRACTOR SHALL NOTIFY ENGINEER 72 HOURS PRIOR TO INSPECTIONS OF SUB BASE, PAVEMENT, UNDERGROUND SYSTEM BASE STONE INSTALLATION AND OTHER ITEMS WHICH MAY BE REQUESTED BY ENGINEER.
13. CONTRACTOR IS RESPONSIBLE FOR SUPPLY OF ALL NECESSARY ITEMS REQUIRED TO FULFILL THE INTENT OF THE DESIGN, WHETHER EXPLICITLY INDICATED HEREIN OR IMPLIED BY THE CONTRACT DOCUMENTS.
14. CONTRACTOR SHALL COMPLY WITH APPLICABLE CONDITIONS OF APPROVALS, INCLUDING BUT NOT LIMITED TO 40B COMPREHENSIVE PERMIT AND BOH APPROVALS.

LEGEND

CCB	CAPE COD BERM
PC	PRECAST CONCRETE CURB
GC	GRANITE CONCRETE
MC	MONOLITHIC CURB
♿	HANDICAP PARKING SYMBOL
	SIGN (HANDICAP OR TRAFFIC)
⇄	DIRECTIONAL TRAFFIC ARROWS
	BITUMINOUS PAVEMENT
	CONCRETE SIDEWALK



The Oxford School Residences

347 Main Street
Fairhaven, Massachusetts

SCG DEVELOPMENT

ARCHITECT

ICON ARCHITECTURE
101 SUMMER ST BOSTON MA 02110

CONSULTANT

CHA
101 Accord Park Drive
Norwell, MA 02061
Main: (781) 982-5400 • www.chacompanies.com

STAMP

KEY PLAN

MARK	DATE	DESCRIPTION
	1/24/2017	ZBA PERMITTING
	10/19/2016	

PROJECT NO.: 21101.00
DRAWN BY: DAR
CHECKED BY: KK

SHEET TITLE

LAYOUT PLAN

C-201

STORMWATER MANAGEMENT CONSTRUCTION PHASING:

1. BELOW IS PRESENTED A GENERAL CONSTRUCTION PHASING. A MORE DETAILED SCHEDULE IS PRESENTED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
2. EXTENTS OF CONSTRUCTION TO BE DELINEATED BY CONTRACTOR.
3. EROSION AND SEDIMENTATION CONTROL MEASURES INCLUDING HAY BALES AND SILT FENCE WILL BE INSTALLED. CONTRACTOR SHALL INSPECT CONTROL MEASURES WEEKLY AND AFTER RAIN EVENTS OF 0.5" OR GREATER. CONTRACTOR SHALL EMPLOY A SWPPP MONITOR, PREFERABLY WITH MORE THAN 5 YEARS EXPERIENCE IN REVIEWING AND ADDRESSING CONSTRUCTION BMP'S AND ACTIVITY, TO PERFORM THE REQUIRED INSPECTIONS AND SUBMIT WEEKLY REPORTS TO THE CONTRACTOR, THE HOME, AND THE ENGINEER OF RECORD.
4. THE PROJECT AREA WILL BE CLEARED OF DEBRIS AND BOULDERS. MATERIAL REMOVED FROM THE SITE WILL BE TRANSPORTED TO AN APPROPRIATE FACILITY OR WILL BE DISPOSED OF ELSEWHERE ACCORDING TO FEDERAL, STATE, AND LOCAL GUIDELINES. INACTIVE STOCKPILES OR AREAS OF GRANULAR MATERIAL OR TOPSOIL SHALL BE TEMPORARILY SEEDED OR MULCHED IN ORDER TO CONTROL SEDIMENT LADEN RUNOFF.
5. CONTRACTOR IS RESPONSIBLE TO SET OUT UTILITIES AND ANY NECESSARY GRADES.
6. GRADING OF SITE INCLUDING BUILDING PADS, PARKING AREAS, AND DIGGING OF UTILITY TRENCHES TO DEFINED INVERT LEVELS. MATERIAL TO BE STORED ON AN UNUSED SITE AREA FOR FILL OR PROPERLY REMOVED FROM THE JOB SITE. IF SUITABLE TOPSOIL IS FOUND, IT WILL BE REMOVED AND STOCKPILED TO BE REUSED AS TOPSOIL ON THE PROJECT.
7. PLACING OF FILL OR SUITABLE MATERIAL FOR EASY ACCESS. SETTING OUT OF FOUNDATIONS AND SURROUNDING ROADS.
8. LAYING OF ALL UTILITIES INCLUDING DRAINAGE PIPES AND STRUCTURES FOLLOWED BY BACK-FILL, TAKING CARE TO LEAVE ONLY TRENCHES BEING WORKED ON OPEN.
9. FINE GRADING FOR THE PARKING AREAS AND LANDSCAPE AREAS TO BE COMPLETED.
10. ONCE THE DRAINAGE STRUCTURES ARE INSTALLED, PROVIDE PROTECTION AT ALL CATCH BASINS AND INLETS TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM.
11. INSTALL BINDER COURSE AND SPREAD TOPSOIL AS NEEDED.
12. LIGHT POLES, SIGNAGE, ETC. WILL BE INSTALLED.
13. INSTALL TOP COURSE OF PAVING AND SIDEWALK.
14. THE FINAL PHASE OF CONSTRUCTION IS RESTORATION AND STABILIZATION OF ALL EXPOSED SURFACES. DISTURBED AREAS SHALL BE LANDSCAPED OR SEEDED (SEE ADDITIONAL DISCUSSION IN SWPPP). IN THE EVENT THAT WEATHER CONDITIONS PREVENT FINAL STABILIZATION, TEMPORARY EROSION AND SEDIMENTATION MEASURES WILL BE EMPLOYED UNTIL THE TEMPERATURE AND WEATHER IS SUITABLE FOR GRASS GROWING. A FINAL INSPECTION WILL ENSURE THAT THE SITE IS CLEARED OF ALL PROJECT DEBRIS AND THAT EROSION AND SEDIMENTATION CONTROLS ARE FUNCTIONING PROPERLY. HAYBALES AND SILT FENCE WILL REMAIN IN PLACE UNTIL THE SITE IS FULLY STABILIZED AND THE SITE HAS PASSED FINAL INSPECTION. VEGETATION MUST BE PERENNIAL AND HAVE A UNIFORM DENSITY OF AT LEAST 70% FOR ACCEPTANCE. REFER TO LANDSCAPE PLANS FOR MORE DETAILED INFORMATION REGARDING ESTABLISHMENT AND WATERING/MOWING OF VEGETATION.
15. CONTRACTOR MAY BE REQUIRED TO SECURE OFF-SITE STAGING AREA FOR MATERIALS AND SHALL SECURE AND TRANSPORT MATERIALS TO/FROM THE SITE AS NEEDED, AT NO ADDITIONAL COST TO THE OWNER.

STORMWATER MANAGEMENT NOTES:

1. CONTRACTOR TO ABIDE BY PROVISIONS OF EPA NOI NPDES STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND BY STORMWATER MANAGEMENT OPERATION AND MAINTENANCE PLAN.
2. CONTRACTOR TO PROVIDE ENGINEER, FOR APPROVAL PRIOR TO CONSTRUCTION, A CONSTRUCTION FENCE LOCATION PLAN, OUTLINING LIMITS OF ALL SITE CONSTRUCTION FENCING AND LOCATION OF ALL ENTRY/EXIT GATES.
3. ALL TEMPORARY STOCKPILE AREAS SHALL HAVE EROSION CONTROLS (HAYBALES AND SILT FENCE) AROUND THE PERIMETER. POTENTIAL STOCK PILE AREAS TO BE PROTECTED WITH EROSION CONTROL MEASURES.
4. UNDERGROUND UTILITIES MAY EXIST THAT ARE NOT SHOWN ON THIS PLAN. DIG SAFE MUST BE NOTIFIED (1-800-344-7233) AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION.
5. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN PLACE AND OBSERVED PRIOR TO ANY WORK STARTING ON THE PROJECT.
6. SITE ENTRY AND EXIT LOCATIONS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ON A PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY. WHEN WASHING IS REQUIRED TO REMOVE SEDIMENT PRIOR TO ENTRANCE TO A PUBLIC ROADWAY, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN. ALL FINES IMPOSED FOR TRACKING ONTO PUBLIC ROADS SHALL BE PAID BY THE CONTRACTOR.
7. TEMPORARY SEEDING OR OTHER METHOD OF STABILIZATION SHALL BE INITIATED WITHIN 14 DAYS OF THE LAST DISTURBANCE ON ANY AREA OF THE SITE, UNLESS ADDITIONAL CONSTRUCTION OF THE AREAS IS EXPECTED WITHIN 21 DAYS OF THE LAST DISTURBANCE.
8. UPON COMPLETION OF FINE GRADING, ALL AREAS NOT OTHERWISE PERMANENTLY STABILIZED SHALL BE SEEDED AND MAINTAINED UNTIL A UNIFORM COVERAGE OF 75%± MINIMUM DENSITY, AS DETERMINED BY THE OWNER'S REPRESENTATIVE, IS ACHIEVED.
9. MAINTENANCE - EROSION CONTROLS SHALL BE REPAIRED OR REPLACED AS INSPECTION DEEMS NECESSARY OR AS DIRECTED BY THE ENGINEER OR ARCHITECT. ACCUMULATED SILT AT ANY EROSION CONTROL DEVICE SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6", AND SHALL BE DISTRIBUTED ON-SITE IN A MANNER NOT CONTRIBUTING TO ADDITIONAL SILTATION.
10. CONTRACTOR IS RESPONSIBLE FOR REESTABLISHING ANY EROSION CONTROL DEVICE WHICH DISTURBED. CONTRACTOR SHALL NOTIFY THE ENGINEER/ARCHITECT OF ANY DEFICIENCIES IN THE ESTABLISHED EROSION CONTROL MEASURES WHICH MAY LEAD TO UNAUTHORIZED DISCHARGE OR STORM WATER POLLUTION, SEDIMENTATION OR OTHER POLLUTANTS. UNAUTHORIZED POLLUTANTS INCLUDE, BUT ARE NOT LIMITED TO, EXCESS CONCRETE DUMPING OR CONCRETE RESIDUE, PAINTS, SOLVENTS, GREASE, FUEL, AND LUBE OIL, PESTICIDES, ANY SOLID WASTE MATERIALS.
11. ALL SIDE SLOPES SHALL BE SEEDED WITH GRASS OR INSTALL JUTE NETTING TO PREVENT EROSION.
12. MAINTENANCE: EROSION CONTROLS SHALL BE REPAIRED OR REPLACED AS INSPECTION DEEMS NECESSARY OR AS DIRECTED BY THE ENGINEER OR ARCHITECT. ACCUMULATED SILT AT ANY EROSION CONTROL DEVICE SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6", AND SHALL BE DISTRIBUTED ON-SITE IN A MANNER NOT CONTRIBUTING TO ADDITIONAL SILTATION.
13. INSPECTIONS: INSPECTIONS ARE TO BE PERFORMED BY QUALIFIED PERSONNEL. QUALIFIED PERSONNEL ARE DEFINED TO BE PERSON OR PERSONS WHO HAVE COMPLETED THE CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) COURSE AND/OR WHO HOLD THEIR CPESC LICENSE. DISTURBED AREAS THAT HAVE NOT BEEN FINALLY STABILIZED, AREAS USED FOR STORAGE, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE, MUST BE INSPECTED ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A STORM EVEN OF 0.5 INCHES OR GREATER. STABILIZED AREAS ARE TO BE INSPECTED ONCE PER MONTH DISTURBED AREAS AND STORAGE AREAS EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR POTENTIAL FOR POLLUTANTS ENTERING THE DRAINAGE SYSTEM. CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THEY ARE WORKING PROPERLY. DISCHARGE LOCATIONS AND POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER CONTROLS ARE PREVENTING SIGNIFICANT IMPACT. BASED ON THE RESULTS OF THE ABOVE INSPECTIONS, ANY NECESSARY CHANGES TO THE PLAN WILL BE MADE WITHIN 7 DAYS OF THE INSPECTION OR BEFORE THE NEXT RAIN EVENT, WHICH EVER COMES FIRST. THE CHANGES MUST BE IMPLEMENTED IN THE FIELD BEFORE THE NEXT STORM EVEN IF PRACTICABLE, OTHERWISE AS SOON AS POSSIBLE.
14. INSTALL AND MAINTAIN CATCH BASIN INSERTS IN ALL PROPOSED AND EXISTING CATCH BASINS.
15. PROVIDE TEMPORARY SEDIMENTATION BASINS, HAY BALES, ETC. AS NECESSARY.
16. STOCKPILES NOT TO BE REUSED WITHIN 30 DAYS ARE TO BE STABILIZED WITH SEED OR MULCH.
17. CONTRACTOR SHALL HAVE A WATER TRUCK AVAILABLE, IF NECESSARY, AND SHALL PROVIDE TEMPORARY PLANTINGS OR OTHER COVERINGS SUCH AS WOOD CHIPS TO MINIMIZE THE AMOUNT OF DUST LEAVING THE PREMISES, AS NECESSARY.
18. CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL DEVICES IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL STANDARDS WHEN THE FINAL SITE VEGETATION IS ESTABLISHED AND MAINTAINED FOR TWO GROWING SEASONS.

UG1

58.6' X 77.4' (STONE)
8 ROWS OF 10 STORMTECH MC3500 CHAMBERS

STONE ELEVATION = 43.0
STONE DEPTH = 5.5'
CHAMBER INVERT = 43.75

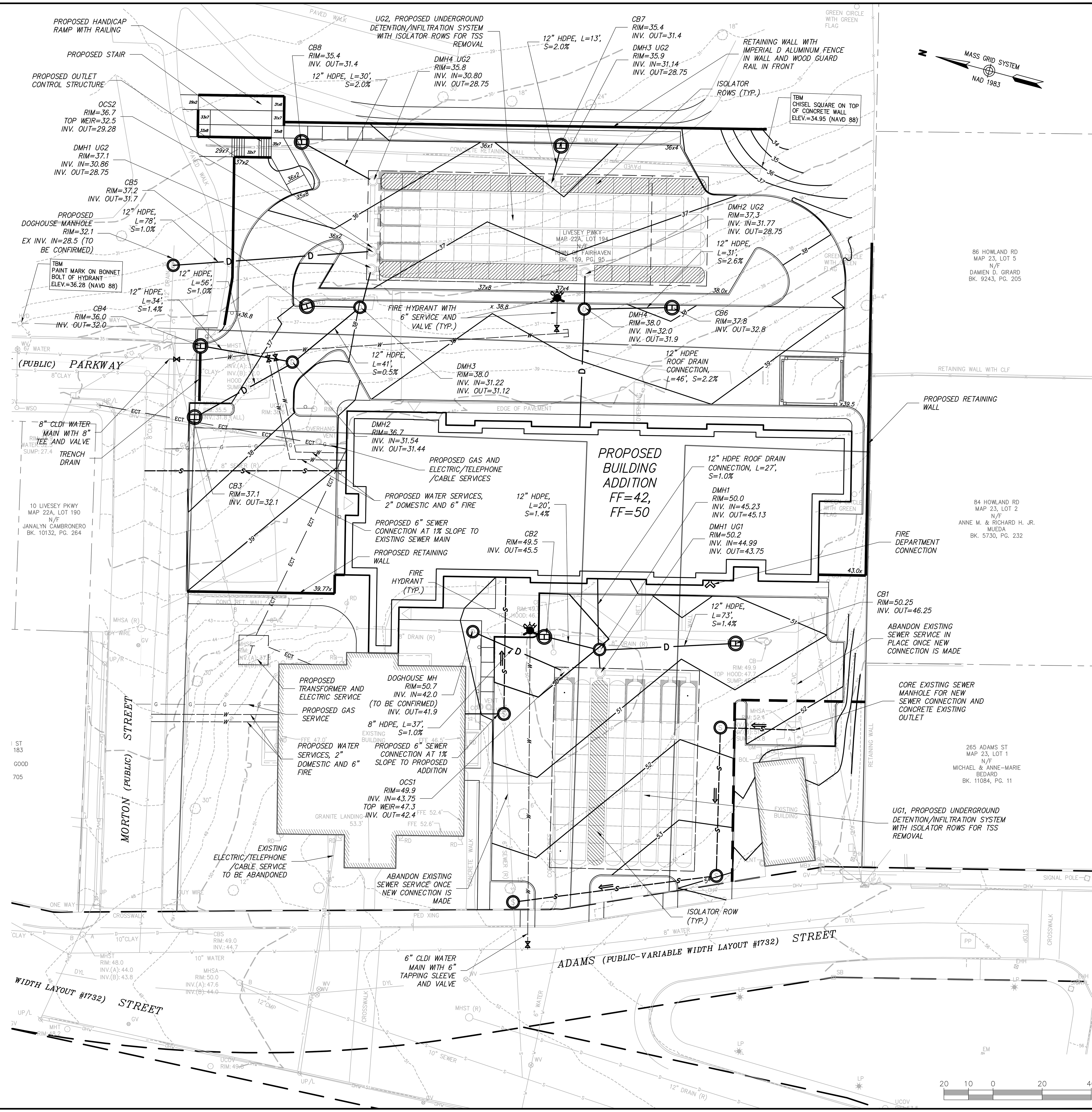
*H20 RATED CHAMBERS

UG2

44.3' X 134.8' (STONE)
6 ROWS OF 18 STORMTECH MC3500 CHAMBERS (SOME REMOVED FOR MANHOLES)

STONE ELEVATION = 28.0
STONE DEPTH = 5.5'
CHAMBER INVERT = 28.75

*H20 RATED CHAMBERS



The Oxford School Residences

347 Main Street
Fairhaven, Massachusetts

ARCHITECT

ICON ARCHITECTURE
101 SUMMER ST BOSTON MA 02110

CONSULTANT

CHA
101 Accord Park Drive
Norwell, MA 02061
Main: (781) 982-5400 • www.chacompanies.com

STAMP

COMMONWEALTH OF MASSACHUSETTS
KELLY KILLEEN
CIVIL
No. 38991
REGISTERED PROFESSIONAL ENGINEER
1.24.17

KEY PLAN

MARK	DATE	DESCRIPTION
	1/24/2017	ZBA PERMITTING
	10/19/2016	

PROJECT NO.: 21101.00
DRAWN BY: DAR
CHECKED BY: KK

SHEET TITLE

GRADING, DRAINAGE, AND UTILITY PLAN

C-202

PLANTING AND FINAL STABILIZATION NOTES:

1. ALL PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED BY THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC..
2. ALL PLANTING BEDS TO BE FILLED WITH SOIL AND CROWNED ABOVE ADJACENT LAWN OR IMPROVED AREAS.
3. ALL PLANTING BEDS TO BE MULCHED WITH AGED HARDWOOD BARK MULCH TO A DEPTH OF THREE (3) INCHES. PROVIDE FIVE (5) FOOT DIAMETER MULCH CIRCLE AROUND ALL INDIVIDUAL TREE PLANTINGS AND CONTINOUS MULCH BED AROUND SHRUB PLANTINGS.
4. PLANT MATERIAL SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE AS THEY BORE TO GRADE IN NURSERY.
5. ALL DECIDUOUS TREE SHALL BE FITTED WITH TREE-WATER BAGS (TREEGATOR© OR EQUAL) FOLLOWING COMPLETION OF PLANTING.
6. ANY PROPOSED SUBSTITUTION OF PLANT MATERIAL SHALL ONLY BE MADE AFTER PRIOR APPROVAL OF LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
7. ALL MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL WRITTEN ACCEPTANCE FROM THE OWNER OR HIS REPRESENTATIVE.
8. CONTRACTOR SHALL PROTECT ALL EXISTING VEGETATION AT THE EXISTING BUILDING AND ELSEWHERE ON THE SITE THAT IS NOT REQUIRED TO BE REMOVED TO MAKE WAY FOR NEW CONSTRUCTION.
9. SOIL NOTES:
   - 9.1. ALL AREAS DISTURBED BY CONSTRUCTION NOT DESIGNATED TO RECEIVE OTHER TREATMENT SHALL BE LOAMED A MINIMUM OF 6" AND SEEDED AS SPECIFIED BELOW. TOPSOIL FOR THIS PURPOSE SHALL BE TESTED BY AN APPROVED SOIL LABORATORY AND SHALL MEET THE FOLLOWING MINIMUM STANDARDS:
     - 9.1.1. TEXTURE: FINE SANDY LOAM OR SANDY LOAM, AS DETERMINED BY MECHANICAL ANALYSIS AND BASED ON THE USDA STANDARD SOIL CLASSIFICATION SYSTEM.
     - 9.1.2. ACIDITY: SOIL REACTION SHALL BE IN THE RANGE OF 5.5 TO 7.6, OR SHALL BE AMENDED TO MEET THIS RANGE.
     - 9.1.3. ORGANIC MATTER: TOPSOIL SHALL HAVE A RANGE BETWEEN 5% AND 10% ORGANIC MATTER CONTENT BASED ON THE LOSS ON IGNITION OF OVEN-DRIED SAMPLES.
10. SHRUB/TREE PLANTING MIX: MIX THE SPECIFIED MATERIALS ON-SITE IN THE FOLLOWING PROPORTIONS:
    - 10.1. 3 PARTS TOPSOIL AS SPECIFIED ABOVE, 1 PART PEAT MOSS, 1 PART SAND. IF PLANTS ARE INSTALLED IN SPRING, ADD 5 POUNDS OF SUPERPHOSPHATE/CUBIC YARD OF MIXTURE TO ASSURE UNIFORM DISTRIBUTION. PLANTING MIX SHALL BE USED TO BACKFILL ALL TREE AND SHRUB PLANTING HOLES, AS INDICATED IN THE PLANTING DETAILS, AND SHALL BE SPREAD TO A MINIMUM DEPTH OF FOUR (4) INCHES ON THE BALANCE OF ALL PLANTING BEDS.
11. SEED MIX NOTES:
    - 11.1. SEED ALL TURFGRASS LAWN AREAS WITH A DROUGHT TOLERANT, HIGH-FESCUE TURFGRASS SEED MIX SUCH AS PEARL'S PREMIUM GRASS SEED BY PEARL'S PREMIUM, WAYLAND, MA; ENVIROTURF BY BLUESTEM NURSERY, LAURIER, WA; ECO-LAWN BY WILDFLOWER FARM, COLDWATER, ONT, CAN; OR APPROVED EQUAL, APPLIED AT SEED PRODUCER'S RECOMMENDED RATE. SEEDING SHALL BE DONE EITHER BETWEEN APRIL 1 AND JUNE 15, OR BETWEEN AUGUST 15 AND SEPTEMBER 30.
    - 11.2. MULCH ALL SEEDED AREAS WITH 500-700 LBS. OF SALTMARCH HAY OR WEED-FREE STRAW PER ACRE, SPREAD EVENLY. ALL SLOPES OF 3:1 OR GREATER, AFTER BEING LOAMED, SEEDED, AND ANCHORED TO THE SLOPE. OVERLAP NETTING JOINTS A MINIMUM OF 4" AND SECURE WITH A DOUBLE ROW OF STAPLES.*
    - 11.3. MAINTENANCE OF SEED AREAS SHALL CONSIST OF WATERING, WEEDING, CURING, REPAIR OF ALL EROSION, AND RESEEDING AS NECESSARY TO ESTABLISH A UNIFORM STAND OF GRASS. LAWNS SHALL BE WATERED IN A SATISFACTORY MANNER DURING AND IMMEDIATELY AFTER PLANTING, AND NOT LESS THAN TWICE PER WEEK UNTIL FINAL ACCEPTANCE. ALL AREAS WHICH FAIL TO SHOW A UNIFORM STAND OF GRASS FOR ANY REASON SHALL BE RESEEDED REPEATEDLY UNTIL A UNIFORM STAND IS ATTAINED.
    - 11.4. HYDROSEEDING IS AN ACCEPTABLE ALTERNATE METHOD OF SEEDING, IF UNDERTAKEN IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
      - 11.4.1. MATERIALS FOR HYDROSEEDING SHALL INCLUDE TACKIFIER, WOOD CELLULOSE FIBER MULCH, FERTILIZER, GROUND LIMESTONE, AND WATER.
      - 11.4.2. PROVIDE JUST MATTING OR BIODEGRADABLE TOBACCO NETTING ON ALL SLOPES EQUAL TO OR GREATER THAN 3:1. JUTE MATTING SHALL BE C-JUTE BY CONTECH CONSTRUCTION PRODUCTS, INC, GEOJUTE BY BELTON INDUSTRIES OR APPROVED EQUAL.*
    - 11.5. IF PROJECT SCHEDULE REQUIRES SEEDING TO BE PERFORMED AFTER OCTOBER 15 UNTIL MARCH 31, THE FOLLOWING IS REQUIRED: AFTER HYDROSEEDING/SEEDING, THOSE VEGETATED AREAS WHICH HAVE A SLOPE EQUAL TO OR STEEPER THAN 4:1 SHALL BE COVERED WITH JUTE MATTING AND STAPLED IN PLACE PER MANUFACTURERS REQUIREMENTS. PRECAUTIONS SHALL BE TAKEN TO MINIMIZE DISTURBANCE OF THE HYDROSEED/SEE WHEN INSTALL THE JUTE.*
    - 11.6. HYDROSEEDING/SEEDING MIXTURE:
      - 11.6.1. TACKIFIER: APPLY AT A RATE OF 60 GALLONS PER ACRE.
      - 11.6.2. WOOD CELLULOSE FIBER MULCH: APPLY AT A RATE OF 2,000 POUNDS PER ACRE.
      - 11.6.3. APPLY FERTILIZER AND LIMESTONE AT RATES DETERMINED BY SOIL ANALYSIS.

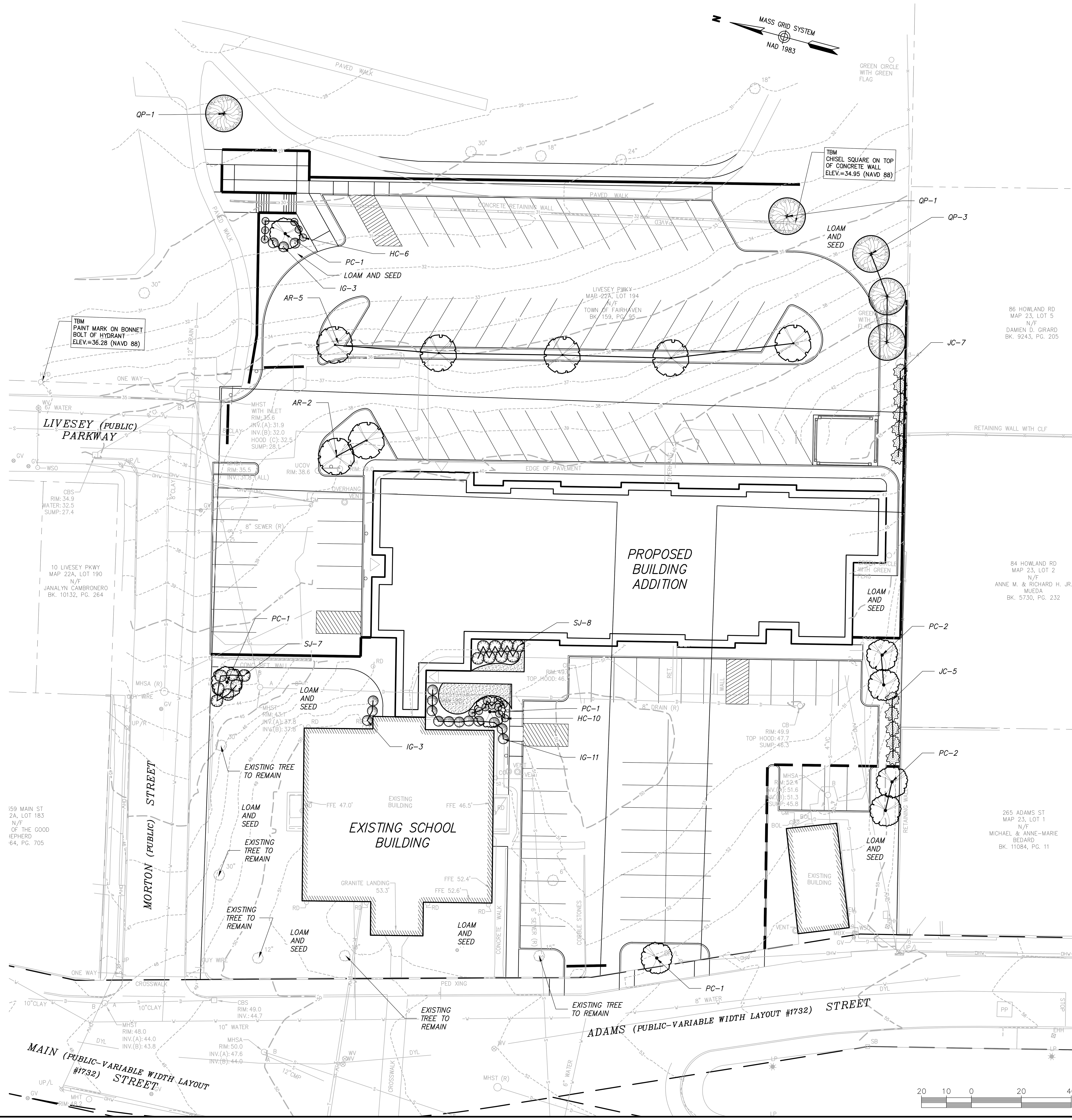
*STRAW MULCH AND NETTING ON SLOPES 3:1 OR GREATER IS NOT REQUIRED ON HYDROSEEDING OPERATIONS IF SLOPES ARE SPRAYED WITH A BONDED FIBER MATRIX MULCH, SUCH AS FLEXTERRA BY PROFILE PRODUCTS, LLC, OR HYDROSTRAW BFM BY HYDROSTATION, INC., INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

LEGEND

- PROPOSED DECIDUOUS SHADE TREE
- PROPOSED DECIDUOUS ORNAMENTAL TREE
- PROPOSED DECIDUOUS SHRUB
- PROPOSED EVERGREEN SHRUB
- PROPOSED PERENNIAL
- XX–1 KEY & QUANTITY OF PLANTING

PLANT SCHEDULE

KEY	Count	BOTANICAL-NAME	COMMON-NAME	SIZE	CONDITION	COMMENTS
AR	7	Acer Rubrum	Red Maple	2.5"-3" cal.	B&B	
HC	16	Hemerocallis x Star Gazer	Star Gazer Lilly	2 gal	#2 Container	
IG	17	Ilex glabra 'compacta'	Compact Inkberry Holly	24"-30"	#3 Container	
JCR	12	Juniperus Chinensis 'Robusta Green'	Robusta Green Juniper	4'-5' ht	B&B	
PC	8	Prunus cerasifera 'Thunder Cloud"	Thundercloud Purple Leaf Plum	2"-2.5" cal	B&B	
QP	5	Quercus Paultris	Pin Oak	2.5"-3" cal.	B&B	
SJ	15	Spiraea japonica "Little Princess"	Little Princess Spirea	24"-30"	#3 Container	



The Oxford School Residences

347 Main Street
Fairhaven, Massachusetts

SCG DEVELOPMENT

ARCHITECT

ICON ARCHITECTURE
101 SUMMER ST BOSTON MA 02110

CONSULTANT

CHA
101 Accord Park Drive
Norwell, MA 02061
Main: (781) 982-5400 • www.chacompanies.com

STAMP

COMMONWEALTH OF MASSACHUSETTS
KELLY KILLEEN CIVIL No. 48391
REGISTERED PROFESSIONAL ENGINEER

KEY PLAN

MARK	DATE	DESCRIPTION
	1/24/2017	ZBA PERMITTING
	10/19/2016	

PROJECT NO.: 21101.00
DRAWN BY: DAR
CHECKED BY: KK

SHEET TITLE

LANDSCAPE PLAN

C-203

File: V:\PROJECTS\ANY\K4\32372\CADD_ACAD\CIVIL\PLOT SHEETS\OXFORD FAIRHAVEN_C-203_LANDSCAPE.DWG
Saved: 1/24/2017 5:06:44 PM Plotted: 1/24/2017 5:23:51 PM Current User: Rose, Donald LastSavedBy: 4323

GENERAL

1. PROTECTIONS

A. PROVIDE PROTECTION NECESSARY TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS, TREES OR VEGETATION.

B. PROTECT IMPROVEMENTS ON ADJOINING PROPERTIES AND ON OWNER'S PROPERTY.

C. RESTORE DAMAGED IMPROVEMENTS TO ORIGINAL CONDITION AS ACCEPTABLE TO PARTIES HAVING JURISDICTION.

D. CONDUCT OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH OPERATIONS, STREETS, WALKS, AND OTHER ADJACENT FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION. STREETS AND ROADWAYS SHALL BE THOROUGHLY CLEANED AND/OR SWEPT ON A DAILY BASIS OR MORE FREQUENTLY AS REQUIRED BY THE GOVERNING AUTHORITY.

2. UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE WELLESLEY DEPARTMENT OF PUBLIC WORKS (DPW), THE WELLESLEY SUBDIVISION RULES / REGULATIONS AND MASSACHUSETTS DOT SPECIFICATIONS FOR HIGHWAYS AND BRIDGES AND/OR THE APPROPRIATE LOCAL AUTHORITIES.

3. ALL SLOPES, UNLESS OTHERWISE SPECIFIED, SHALL BE LOAMED AND SEEDED FOR STABILIZATION AS SOON AS POSSIBLE TO PREVENT EROSION INTO WETLAND RESOURCE AREAS, ABUTTING PROPERTIES, OR PUBLIC WAYS. EROSION CONTROL BLANKETS ARE REQUIRED FOR ALL 2H:1V SLOPES. SLOPES MAY NOT EXCEED 2H:1V.

4. ANY DEVIATIONS, I.E. "FIELD CHANGES" FROM THE DESIGN PLAN(S) MUST BE APPROVED BY THE DESIGN ENGINEER IN WRITING. CONTRACTOR SHOULD BE AWARE THAT LOCAL AND STATE AUTHORITIES HAVE JURISDICTION AND APPROVALS MUST BE OBTAINED FROM THE APPROPRIATE AUTHORITY PRIOR TO THE IMPLEMENTATION OF THE "FIELD CHANGE." CHA, INC. ASSUMES NO LIABILITY OR RESPONSIBILITY FOR WORK ASSOCIATED WITH FIELD CHANGES COMPLETED WITHOUT REGARD TO THE "FIELD CHANGE" PROCEDURE.

5. RELOCATION OF ANY UTILITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF THE APPROPRIATE UTILITY COMPANY AND/OR REGULATORY AGENCY.

6. * * * DIG SAFE NOTE * * * IN ACCORDANCE WITH MGL. CH. 82, SEC. 40 INCLUDING AMENDMENTS, ALL CONTRACTORS SHALL NOTIFY UTILITY COMPANIES AND GOVERNMENT AGENCIES, IN WRITING, OF THE INTENT TO EXCAVATE, BLAST, DEMOLISH, BORE, OR PERFORM OTHER EARTH MOVING OPERATIONS NO LESS THAN 72 HOURS AND NO MORE THAN 30 DAYS PRIOR TO THE COMMENCEMENT OF SUCH WORK (EXCLUSIVE OF SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS) OR CALL "DIG SAFE" AT 1-888-DIG-SAFE.

7. EXISTING UTILITY LOCATIONS AND ELEVATIONS SHOWN SHALL BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INFORM THE DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF ANY CONSTRUCTION.

8. ADDITIONAL BENCHMARKS TO BE SET BY CONTRACTOR PRIOR TO CONSTRUCTION TO ENSURE QUALITY WORKMANSHIP.

9. ANY STILLING AND/OR DETENTION BASINS SHOULD RECEIVE PERIODIC MAINTENANCE DURING CONSTRUCTION TO REMOVE DEPOSITED SILTS AND DEBRIS TO ENSURE PROPERTY DRAINAGE AND SETTLING OF PARTICULATE MATTER.

10. UNLESS OTHERWISE LABELED, ALL REINFORCED CONCRETE PIPE, RCP, SHALL BE CLASS III; ALL DUCTILE IRON PIPE SHALL BE CEMENT LINED CLASS 52; ALL PVC GRAVITY SEWER SHALL BE SDR 35. ALL PRESSURE SEWER SHALL BE SDR 24.

SITE WORK

1. CAUTION - NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON LIMITED INFORMATION. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS (EXCLUSIVE OF SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS) PRIOR TO ANY EXCAVATION BLASTING, DEMOLITION, BORING, OR OTHER EARTH MOVING OPERATIONS TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS AT NO ADDITIONAL EXPENSE TO OWNER.

2. FILL MATERIAL

A. ENSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROST, FROZEN MATERIAL, TRASH, AND DEBRIS PRIOR TO FILL PLACEMENT.

B. PLACE APPROPRIATE FILL MATERIAL IN HORIZONTAL LAYERS NOT EXCEEDING EIGHT INCHES (8") IN LOOSE DEPTH AND COMPACT EACH LAYER AT OPTIMUM MOISTURE CONTENT TO THE GREATER OF OR DESIGNATED BY A GEOTECHNICAL ENGINEER:

B.1. ADJACENT UNDISTURBED SOIL, OR

B.2. 95% OF THE MAXIMUM DRY DENSITY OF THE EMBANKMENT MATERIAL AS DETERMINED BY AASHTO STANDARD METHOD T99, METHOD C.

3. FINISH GRADING

A. GRADE ALL AREAS WHERE FINISH GRADE ELEVATIONS ARE INDICATED ON DRAWINGS, OTHER THAN PAVED AREAS AND BUILDINGS, INCLUDING EXCAVATED AREAS, FILLED AND TRANSITION AREAS, AND LANDSCAPED AREAS. GRADED AREAS SHALL BE UNIFORM AND SMOOTH, FREE FROM DEBRIS, OR IRREGULAR SURFACE CHANGES. FINISHED SUBGRADE SURFACE SHALL NOT BE MORE THAN 0.10 FEET ABOVE OR BELOW ESTABLISHED SUBGRADE ELEVATIONS, AND ALL GROUND SURFACES SHALL VARY UNIFORMLY BETWEEN INDICATED ELEVATIONS. FINISH DITCHES SHALL BE GRADED TO ALLOW FOR PROPER DRAINAGE WITHOUT PONDING AND IN A MANNER THAT WILL MINIMIZE EROSION POTENTIAL

B. GRADE SURFACE TO MATCH ADJACENT GRADES AND TO PROVIDE FLOW TO SURFACE DRAINAGE STRUCTURES, OR GRADE AS DESIGNATED ON THE PLANS AFTER FILL PLACEMENT AND COMPACTION.

4. THE CONTRACTOR IS RESPONSIBLE FOR GENERAL CLEANUP OF THE PROJECT ON A DAILY BASIS AND AT THE COMPLETION OF THE PROJECT. OPEN TRENCHES, DITCHES, EXCAVATIONS, ETC. SHALL NOT BE PERMITTED TO BE LEFT OPEN OVERNIGHT. CONTRACTOR WILL BACKFILL OR UTILIZE SUITABLE STEEL PLATES FOR THE SECURING OF THE PROJECT SITE PRIOR TO CEASING WORK EACH DAY.

5. APPROPRIATE TRAFFIC CONTROL, I.E. SIGNAGE, BARRICADES, AND OTHER MEANS, WILL BE SUPPLIED BY THE CONTRACTOR IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL AGENCIES.

6. UNDER NO CIRCUMSTANCES MAY ANY UTILITY, STRUCTURE, AND/OR REPAIR BE BACKFILLED UNLESS INSPECTED AND APPROVED BY THE TOWN OFFICIALS AND/OR REPRESENTATIVE. RECEIPT OF APPROVAL TO BACKFILL WILL NOT RELEASE THE CONTRACTOR FROM ANY RESPONSIBILITY OR LIABILITY FOR PERFORMANCE TESTS REQUIRED AS PART OF THIS PROJECT.

7. PROPER SHORING AND TRENCH BOXES SHALL BE UTILIZED AS REQUIRED BY LOCAL, STATE, AND FEDERAL REGULATORY AGENCIES TO PROVIDE A SAFE WORKING ENVIRONMENT. SHORING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MASSACHUSETTS WITH EXPERIENCE IN SHORING DESIGN.

8. ALL UTILITIES DISTURBED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

SEQUENCE OF CONSTRUCTION

1. CONTRACTOR MUST PROCEED WITH CONSTRUCTION ACCORDING TO THE CONDITIONS ESTABLISHED BY THE LOCAL ZONING BOARD, LOCAL CONSERVATION COMMISSION, AND ANY APPLICABLE ENVIRONMENTAL PERMITS INCLUDING BUT NOT LIMITED TO NPDES, ACOE 404, 401 WATER QUALITY CERTIFICATE. ORDERS OF CONDITIONS, CONDITIONS OF SPECIAL PERMIT, AND GROUND WATER DISCHARGE PERMIT. COMPLIANCE WITH THESE PERMITS SHALL BE A REQUIREMENT OF THE CONSTRUCTION AND SHALL BE REFERENCED IN ANY AGREEMENTS BETWEEN THE OWNER AND CONTRACTOR. THE CONTRACTOR MUST OBTAIN A COPY OF THE PERMITS PRIOR TO BIDDING.

2. A PRE-CONSTRUCTION MEETING WITH THE CONTRACTOR, OWNER'S REPRESENTATIVE, AND THE ENGINEER IS REQUIRED.

3. ALL EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE IN PLACE PRIOR TO CONSTRUCTION. MAINTAIN AND CLEAN TEMPORARY EROSION CONTROL DEVICES DURING CONSTRUCTION AS NECESSARY. INSPECT CHECK DAMS AND SILT FENCING DAILY. DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED. PROVIDE MEASURES AS NECESSARY TO PREVENT SOIL FROM ENTERING OUTSIDE LIMIT OF WORK.

4. REMOVE EXISTING BUILDINGS AND RELATED APPURTENANCES AS INDICATED ON THE PLANS. REMOVE DEBRIS FROM THE SITE TO PREVENT MATERIAL FROM ENTERING RESOURCE AREAS OR ABUTTING PROPERTIES.

5. CONTRACTOR TO ABANDON EXISTING WELLS AND SEPTICS ON THE SITE IN ACCORDANCE WITH LOCAL BOARD OF HEALTH PROCEDURES.

6. ESTABLISH AREAS DESIGNATED FOR REVEGETATION. AERATE AND DECOMPACT SOIL IN PREPARATION FOR PLANTING. PROTECT PLANTED AREAS DURING CONSTRUCTION.

7. CLEAR, GRUB AND GRADE THE SITE AS SHOWN ON THE PLANS. PROVIDE PERMANENT VEGETATIVE COVER AND STABILIZATION IN AREAS WHERE NO FURTHER CONSTRUCTION IS PROPOSED. PROVIDE TEMPORARY EROSION PROTECTION IN AREAS SCHEDULED FOR FUTURE EXCAVATION. STOCKPILE SOIL AWAY FROM ENVIRONMENTALLY SENSITIVE AREAS AND DRAINAGE WAYS. STABILIZE DORMANT STOCKPILES UNTIL ACTIVE USE IS REQUIRED.

8. BEGIN CONSTRUCTION OF THE PROPOSED UTILITIES AND RELOCATION OF EXISTING UTILITIES. REMOVE CONSTRUCTION MATERIALS UPON COMPLETION OF WORK EACH DAY. DO NOT STORE CHEMICALS OR FUELS IN RESOURCE AREA BUFFERS OR NEAR PRIVATE WELLS. HAZARDOUS MATERIALS MUST BE SECURED ACCORDING TO ALL FEDERAL, STATE, AND LOCAL REGULATIONS. CONTRACTOR ENCOURAGED TO OBTAIN PHASE 1 ENVIRONMENTAL ASSESSMENT FROM OWNER.

9. STABILIZE ALL SLOPES AND RESTORE VEGETATION DISTURBED DURING CONSTRUCTION. PROTECT GRADED AREAS WITH STRAW MUCH OR EROSION CONTROL BLANKETS AS REQUIRED. REMOVE SEDIMENTATION CONTROL WHEN A GOOD VEGETATIVE COVER IS ESTABLISHED.

SEWER NOTES

1. THESE NOTES ARE INTENDED TO SUPPLEMENT THE LOCAL REQUIREMENTS FOR MATERIALS AND WORKMANSHIP.

2. WATER AND SEWER MAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST LOCAL AND STATE CODES INCLUDING THE RECOMMENDATIONS OF THE AMERICAN WATER WORKS ASSOCIATION AND THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION TECHNICAL REPORT 16. CONSTRUCTION SHALL PROCEED IN A WORKMANLIKE MANNER WITH STATE-OF-THE-ART CONSTRUCTION TECHNIQUES.

3. THE CONTRACTOR SHALL INSULATE WATER AND SEWER MAINS AS INDICATED ON THE PLANS OR WHEN DESIGN OR CONSTRUCTION ENCUMBRANCES DICTATE ALIGNMENT TO OCCUR ABOVE THE FROST LINE. PROCUREMENT AND INSTALLATION OF PIPE INSULATION SHALL CONFORM TO THE REQUIREMENTS LISTED IN THE LATEST MASS. DOT STANDARD SPECIFICATIONS FOR SECTION 301.60P AND MATERIAL SPECIFICATION M9.11.1. THE PIPE INSULATION SHALL BE PRE-MOLDED TYPE CELLULAR GLASS INSULATION WITH ALUMINUM JACKET CONFORMING TO THE LATEST REQUIREMENTS OF ASTM-522 OR APPROVED EQUAL.

4. THE CONTRACTOR SHALL FOLLOW ALTERNATE CONSTRUCTION PROCEDURES WHEN DESIGN OR CONSTRUCTION ENCUMBRANCES PREVENT HORIZONTAL SEPARATION OF 10 FEET OR THE ALTERNATE OF 18 INCHES OF VERTICAL SEPARATION BETWEEN WATER AND SEWER MAINS. IN AREAS WHERE THE ABOVE OFFSETS CANNOT BE MAINTAINED, THE WATER MAIN SHALL BE CONSTRUCTED WITH MEGA-LUG MECHANICAL TYPE FITTINGS OR APPROVED EQUAL FOR A DISTANCE OF 10-FEET ON EITHER SIDE OF THE CROSSING OR LATERAL ENCROACHMENT AND SHALL STRADDLE A FULL LENGTH OF CLASS 52 CEMENTED LINED DUCTILE IRON WATER PIPE.

5. THE DEFLECTION IN ALL GRAVITY SEWER PIPE SHALL BE TESTED USING A GO, NO-GO MANDREL TEST TO ENSURE THAT PROPER INSTALLATION HAS OCCURED. TEST SHALL CONFORM WITH PIPE MANUFACTURER'S RECOMMENDATIONS AND SHALL NOT INDICATE MORE THAN 7.5% DEFLECTION, U.O.N.

6. ALL TESTING SHALL CONFORM TO TOWN OF FAIRHAVEN REQUIREMENTS.

7. EACH SEGMENT OF THE SEWER MAIN INCLUDING MANHOLES SHALL BE LEAK TESTED AND OBSERVED BY A REPRESENTATIVE OF THE TOWN AND/OR ENGINEER IN ACCORDANCE WITH THE FOLLOWING PROCEDURES:

EXFILTRATION TEST: (NEW SEWER MANHOLES ONLY. CANNOT BE PERFORMED ON THE DOG-HOUSE MANHOLE.)

1. PREPARATION OF TEST. AFTER THE MANHOLE HAD BEEN ASSEMBLED IN PLACE, ALL LIFTING HOLES AND THOSE EXTERIOR JOINTS WITHIN SIX FEET OF THE GROUND SURFACE SHALL BE FILLED AND POINTED WITH AN APPROVED NON-SHRINKING MORTAR. THE TEST SHALL BE MADE PRIOR TO PLACING THE SHELF AND INVERT AND BEFORE FILLING AND POINTING THE HORIZONTAL JOINTS BELOW THE 6- FOOT DEPTH LINE. IF THE GROUNDWATER TABLE HAS BEEN ALLOWED TO RISE ABOVE THE BOTTOM OF THE MANHOLE, IT SHALL BE LOWERED FOR THE DURATION OF THE TEST. ALL PIPES AND OTHER OPENINGS INTO THE MANHOLE SHALL BE SUITABLE PLUGGED AND PLUGS BRACED TO PREVENT BLOW OUT.

2. TEST PROCEDURE. THE MANHOLE SHALL THEN BE FILLED WITH WATER TO THE TOP OF THE CONE SECTION. IF THE EXCAVATION HAS NOT BEEN BACKFILLED AND OBSERVATION INDICATED NO VISIBLE LEAKAGE, THAT IS, NO WATER VISIBLY MOVING DOWN THE SURFACE OF THE MANHOLE, THE MANHOLE MAY BE CONSIDERED TO BE SATISFACTORILY WATERTIGHT. IF THE TEST AS DESCRIBED ABOVE IS UNSATISFACTORY AS DETERMINED BY THE ENGINEER OR IF THE MANHOLE EXCAVATION HAS BEEN BACKFILLED THE TEST SHALL BE CONTINUED. A PERIOD OF TIME MAY BE PERMITTED, IF THE CONTRACTOR WISHES, TO ALLOW FOR ABSORPTION.

3. AT THE END OF THIS PERIOD, THE MANHOLE SHALL BE REFILLED TO THE TOP OF THE CONE, IF NECESSARY, AND THE MEASURING TIME OF AT LEAST EIGHT HOURS BEGUN. AT THE END OF THE TEST PERIOD, THE MANHOLE SHALL BE REFILLED TO THE TOP OF THE CONE, MEASURING THE VOLUME OF WATER ADDED. THIS AMOUNT SHALL BE EXTRAPOLATED TO A 24-HOUR RATE AND THE LEAKAGE DETERMINED ON THE BASIS OF DEPTH. THE LEAKAGE FOR EACH MANHOLE SHALL NOT EXCEED ONE GALLON PER VERTICAL FOOT FOR A 24-HOUR PERIOD. IF THE TEST FAILS THIS REQUIREMENTS, BY THE LEAKAGE DOES NOT EXCEED THREE GALLONS PER VERTICAL FOOT PER DAY, REPAIRS BY APPROVED METHODS MAY BE MADE AS DIRECTED BY THE ENGINEER TO BRING THE LEAKAGE WITHIN THE ALLOWABLE RATE ON ONE GALLON PER VERTICAL FOOT PER DAY. LEAKAGE DUE TO A DEFECTIVE SECTION OR JOINT OF EXCEEDING THE THREE-GALLON PER VERTICAL FOOT PER DAY RATE, SHALL BE CAUSE FOR THE REJECTION OF THE MANHOLE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UNCOVER, DISASSEMBLE, RECONSTRUCT OR REPLACE THE MANHOLE AS DIRECTED BY THE ENGINEER. THE MANHOLE SHALL THEN BE RE-TESTED AND, IF SATISFACTORY, INTERIOR JOINTS SHALL BE FILLED AND POINTED.

4. BACKFILLING. THE TEST MAY BE CONDUCTED EITHER BEFORE OR AFTER BACKFILLING AROUND THE MANHOLE. HOWEVER, IF THE CONTRACTOR ELECTS TO BACKFILL PRIOR TO TESTING, IT SHALL BE AT HIS OWN RISK AND IT SHALL BE INCUMBENT UPON THE CONTRACTOR TO DETERMINE THE REASON FOR ANY FAILURE OF THE TEST. NO ADJUSTMENT IN THE LEAKAGE ALLOWANCE WILL BE MADE FOR UNKNOWN CAUSES SUCH AS LEAKING PLUGS, ABSORPTION, ETC., I.E., IT WILL BE ASSUMED THAT ALL LOSS OF WATER DURING THE TEST IS A RESULT OF LEAKS THROUGH THE JOINTS OF THROUGH THE CONCRETE. FURTHERMORE, THE CONTRACTOR SHALL TAKE ANY STEPS NECESSARY TO ASSURE THE ENGINEER THAT THE WATER TABLE IS BELOW THE BOTTOM OF THE MANHOLE THROUGHOUT THE TEST.

VACUUM TEST: (GRAVITY MANHOLES ONLY. CANNOT BE PERFORMED ON THE DOG-HOUSE MANHOLE.)

1. THE VACUUM TESTING SYSTEM SHALL BE SUPPLIED BY NPC SYSTEMS, INC. OR EQUIVALENT AS APPROVED BY THE ENGINEER. THE TESTING SHALL BE DONE IMMEDIATELY AFTER ASSEMBLY OF THE MANHOLE AND BEFORE BACKFILLING. A 60 LB-FT. TORQUE WRENCH SHALL BE USED TO TIGHTEN EXTERNAL CLAMPS THAT SECURE THE TEST COVER TO THE TOP OF THE MANHOLE. ALL LIFT HOLES SHALL BE PLUGGED WITH A NON-SHRINKING MORTAR. THE CONTRACTOR SHALL PLUG THE PIPE OPENINGS, TAKING CARE TO SECURELY BRACE THE PLUGS AND THE PIPE TO PREVENT THE PLUGS FROM BEING DRAWN INTO THE MANHOLE.

2. A VACUUM OF 10 INCHES OF MERCURY, HG (4.9 PSI), SHALL BE DRAWN AND THE VACUUM PUMP SHUT OFF. THE MANHOLE PASSES THE TEST IF THE VACUUM REMAINS GREATER THAN OR EQUAL TO 9 INCHES HG (4.4 PSI) FOR A PERIOD GREATER THAN ONE MINUTE FOR MANHOLES UP TO 10 FEET DEEP; ONE MINUTE FIFTEEN SECONDS FOR MANHOLES 10-15 FEET DEEP; AND ONE MINUTE THIRTY SECONDS FOR MANHOLES 15-25 FEET DEEP.

IF THE MANHOLE FAILS THE INITIAL TEST, THE CONTRACTOR SHALL LOCATE THE LEAKS AND MAKE PROPER REPAIRS. LEAKS MAY BE FILLED WITH A WET SLURRY OF ACCEPTED QUICK SETTING MATERIAL. IF THE MANHOLE FAILS THE VACUUM TEST AGAIN, ADDITIONAL REPAIRS MUST BE MADE, AND THE MANHOLE MUST BE TESTED BY EXFILTRATION AS OUTLINED ABOVE.

LEAKAGE TEST :

1. THE PIPELINES SHALL BE MADE AS NEARLY WATERTIGHT AS PRACTICABLE, AND LEAKAGE TESTS AND MEASUREMENTS SHALL BE MADE AFTER THE PIPELINE HAS BEEN BACKFILLED

2. WHERE THE GROUNDWATER LEVEL IS MORE THAN 1 FT ABOVE THE TOP OF THE PIPE AT ITS UPPER END, THE CONTRACTOR SHALL CONDUCT EITHER INFILTRATION TESTS OR LOW PRESSURE AIR TESTS.

3. WHERE THE GROUNDWATER LEVEL IS LESS THAN 1 FT. ABOVE THE TOP OF THE PIPE AT ITS UPPER END, THE CONTRACTOR SHALL CONDUCT EITHER EXFILTRATION TESTS OR LOW PRESSURE AIR TESTS.

4. AT THE TIME OF THE TEST, THE CONTRACTOR SHALL DETERMINE THE GROUNDWATER ELEVATION FROM OBSERVATION WELLS, EXCAVATIONS OR OTHER MEANS, ALL SUBJECT TO REVIEW BY THE ENGINEER.

5. FOR MAKING THE LOW PRESSURE AIR TESTS, THE CONTRACTOR SHALL USE EQUIPMENT SPECIFICALLY DESIGNED AND MANUFACTURED FOR THE PURPOSE OF TESTING SEWER PIPELINES USING LOW PRESSURE AIR. THE EQUIPMENT SHALL BE PROVIDED WITH AN AIR REGULATORY VALVE OR AIR SAFETY SO SET THAT THE INTERNAL AIR PRESSURE IN THE PIPELINE CANNOT EXCEED 8 PSIG.

6. THE LEAKAGE TEST USING LOW PRESSURE AIR SHALL BE MADE ON EACH MANHOLE-TO-MANHOLE SECTION OF PIPELINE AFTER PLACEMENT OF THE BACKFILL.

7. PNEUMATIC PLUGS SHALL HAVE A SEALING LENGTH EQUAL TO OR GREATER THAN THE DIAMETER OF THE PIPE TO BE TESTED. PNEUMATIC PLUGS SHALL RESIST INTERNAL TEST PRESSURES WITHOUT REQUIRING EXTERNAL BRACING OR BLOCKING.

8. ALL AIR USED SHALL PASS THROUGH A SINGLE CONTROL PANEL.

9. LOW PRESSURE AIR SHALL BE INTRODUCED INTO THE SEALED LINE UNTIL THE INTERNAL AIR PRESSURE REACHES 4 PSIG. GREATER THAN THE MAXIMUM PRESSURE EXERTED BY THE GROUNDWATER THAT MAY BE ABOVE THE INVERT OF THE PIPE AT THE TIME OF THE TEST. HOWEVER, THE INTERNAL AIR PRESSURE IN THE SEALED LINE SHALL NOT BE ALLOWED TO EXCEED 8 PSIG. WHEN THE MAXIMUM PRESSURE EXERTED BY THE GROUNDWATER IS GREATER THAN 4 PSIG., THE CONTRACTOR SHALL CONDUCT ONLY AN INFILTRATION TEST.

10. AT LEAST TWO MINUTES SHALL BE ALLOWED FOR THE AIR PRESSURE TO STABILIZE IN THE SECTION UNDER TEST. AFTER THE STABILIZATION PERIOD, THE LOW PRESSURE AIR SUPPLY HOSE SHALL BE QUICKLY DISCONNECTED FROM THE CONTROL PANEL. THE TIME REQUIRED IN MINUTES FOR THE PRESSURE IN THE SECTION UNDER TEST TO DECREASE FROM 3.5 TO 2.5 PSIG (GREATER THAN THE MAXIMUM PRESSURE EXERTED BY GROUNDWATER THAT MAY BE ABOVE THE INVERT OF THE PIPE) SHALL NOT BE LESS THAN THAT SHOWN IN THE FOLLOWING TABLE:

PIPE DIAMETER IN INCHES VS. MINUTES

6"	5.0 MIN. 40 SEC.
8"	7.0 MIN. 34 SEC.
10"	9.0 MIN. 26 SEC.
12"	11.0 MIN. 20 SEC.
15"	14.0 MIN. 10 SEC.
18"	17.0 MIN. 0 SEC.
21"	19.0 MIN. 50 SEC.
24"	22.0 MIN. 40 SEC.
27"	25.0 MIN. 30 SEC.

11. FOR MAKING THE INFILTRATION AND EXFILTRATION TESTS, THE CONTRACTOR SHALL FURNISH SUITABLE TEST PLUGS, WATER PUMPS, AND APPURTENANCES, AND ALL LABOR REQUIRED TO PROPERLY CONDUCT THE TESTS ON SECTIONS OF ACCEPTABLE LENGTH.

12. FOR MAKING THE INFILTRATION TESTS, UNDERDRAINS, IF USED, SHALL BE PLUGGED AND OTHER GROUNDWATER DRAINAGE SHALL BE STOPPED TO PERMIT THE GROUNDWATER TO RETURN TO ITS NORMAL LEVEL INSOFAR AS PRACTICABLE.

13. UPON COMPLETION OF A SECTION OF THE SEWER, THE CONTRACTOR SHALL DEWATER IT AND CONDUCT AN EXFILTRATION TEST TO MEASURE THE INFILTRATION FOR AT LEAST 24 HOURS. THE AMOUNT OF INFILTRATION, INCLUDING MANHOLES, TEES, AND CONNECTIONS, SHALL NOT EXCEED 200 GAL. PER INCH DIAMETER PER MILE OF SEWER PER 24 HOURS.

14. FOR MAKING THE EXFILTRATION TESTS, THE SEWERS SHALL BE SUBJECTED TO AN INTERNAL PRESSURE BY PLUGGING THE PIPE AT THE LOWER END AND THEN FILLING THE PIPELINES AND MANHOLES WITH CLEAN WATER TO A HEIGHT OF 2 FT. ABOVE THE TOP OF THE SEWER AT ITS UPPER END. WHERE CONDITIONS BETWEEN MANHOLES, MAY RESULT IN TEST PRESSURES WHICH WOULD CAUSE LEAKAGE AT THE STOPPERS IN BRANCHES, PROVISIONS SHALL BE MADE BY SUITABLE TIES, BRACES, AND WEDGES TO SECURE THE STOPPERS AGAINST LEAKAGE RESULTING FROM THE TEST PRESSURE.

15. THE RATE OF LEAKAGE FROM THE SEWERS SHALL BE DETERMINED BY MEASURING THE AMOUNT OF WATER REQUIRED TO MAINTAIN THE LEVEL 2 FT. ABOVE THE TOP OF THE PIPE.

16. LEAKAGE FROM THE SEWERS UNDER TEST SHALL NOT EXCEED THE REQUIREMENTS FOR LEAKAGE INTO SEWERS AS HEREIN BEFORE SPECIFIED.

17. THE SEWERS SHALL BE TESTED BEFORE ANY CONNECTIONS ARE MADE TO BUILDINGS.

18. THE CONTRACTOR SHALL CONSTRUCT WEIRS OR OTHER MEANS OF MEASUREMENTS AS MAY BE REQUIRED.

19. SUITABLE BULKHEADS SHALL BE INSTALLED, AS REQUIRED, TO PERMIT THE TEST OF THE SEWER.

20. SHOULD THE SECTIONS UNDER TEST FAIL TO MEET THE REQUIREMENTS, THE CONTRACTOR SHALL DO ALL WORK OF LOCATING AND REPAIRING LEAKS AND RETESTING AS THE ENGINEER MAY REQUIRE WITHOUT ADDITIONAL COMPENSATION.

21. IF, IN THE JUDGMENT OF THE ENGINEER, IT IS IMPRACTICABLE TO FOLLOW THE FOREGOING PROCEDURES FOR ANY REASON, ACCEPTABLE MODIFICATIONS IN THE PROCEDURES SHALL BE MADE AS REQUIRED, BUT IN ANY EVENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ULTIMATE TIGHTNESS OF THE LINE WITHIN THE ABOVE TEST REQUIREMENTS.

CONCRETE AND REINFORCING STEEL NOTES:

1. GENERAL
- ALL STRUCTURAL DRAWINGS ARE TO BE USED WITH THE ENTIRE SET OF DRAWINGS.
- ALL SAFETY REGULATIONS ARE TO BE STRICTLY FOLLOWED. METHODS OF CONSTRUCTION AND ERECTION OF STRUCTURAL MATERIALS IS THE CONTRACTOR'S RESPONSIBILITY.
- THE CONTRACTOR IS RESPONSIBLE FOR DISSEMINATION OF ALL REVISIONS AND REQUIREMENTS TO THE SUBCONTRACTORS.
- REASONABLE CARE HAS BEEN TAKEN IN THE PREPARATION OF ALL DRAWINGS AND SPECIFICATIONS. HOWEVER THE ENGINEER DOES NOT GUARANTEE AGAINST HUMAN ERROR AND FOR THAT REASON IT IS IMPERATIVE THAT THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND DETAILS AND MUST VERIFY ALL CONDITIONS AND DIMENSIONS AT THE SITE. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING.
- PRESUMED ALLOWABLE SOIL BEARING CAPACITY IS 4000 PSF. VERIFY IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.

2. CODE CONFORMANCE

TO COMPLY WITH THE LATEST RECOMMENDATIONS OF THESE STANDARDS.
- ACI 301- "STRUCTURAL CONCRETE FOR BUILDINGS"
- ACI 315- "DETAILING CONCRETE WORK"
- ACI 318- "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"
- ACI 322- "BUILDING CODE REQUIREMENTS FOR STRUCTURAL PLAIN CONCRETE"
- ACI 347- "FORM WORK"

3. MATERIALS

CONCRETE:
- APPROVED, READY MIXED CONCRETE HAVING AN MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3,500 PSI AT 28 DAYS WITH 3/4"AGGREGATE MAX., SLUMP 3-5 INCHES UNLESS OTHERWISE NOTED
- PROVIDE AIR-ENTRAINMENT ADMIXTURE TO AID THE FREEZE/THAW RESISTANCE OF ALL EXPOSED CONCRETE

REINFORCING STEEL:
- ASTM A615 GRADE 60 DEFORMED BARS. ASTM A185 WELDED WIRE FABRIC

FORM WORK:
- SMOOTH PLYWOOD FORMS FOR EXPOSED SLABS OR VERTICAL SURFACES. BOARD FORMS FOR FOOTINGS OR UNEXPOSED CONCRETE SURFACES. NO EARTH FORMS PERMITTED.

GROUT:
- NONMETALLIC, NON-SHRINK GROUT UNDER BASE PLATES OR BEARING PLATES

4. EXECUTION

CONCRETE:
- PLACE CONCRETE ACCORDING TO THE APPROVED METHODS OF ACI 301.89. STRENGTH (f'c) OF 3500 PSI AT 28 DAYS, SLUMP 3-5 INCHES UNLESS OTHERWISE NOTED WITH MAXIMUM 3/4 INCH AGGREGATE AND MAXIMUM 6% AIR ENTERTAINMENT FOR EXTERIOR CONCRETE EXPOSED TO MOISTURE.

REINFORCING STEEL:
- PLACE REINFORCING USING STANDARD BAR SUPPORTS TO PROVIDE PROPER CLEARANCE AND PREVENT DISPLACEMENT DURING CONCRETE OPERATIONS. LAP CONTINUOUS BARS 40 DIAMETERS. PROVIDE THE FOLLOWING MINIMUM CONCRETE COVERAGE:
  - 3" CONCRETE PLACED AGAINST EARTH
  - 2" FORMED CONCRETE EXPOSED TO EARTH, WEATHER, OR WATER
  - 2" SLABS ON GRADE (MINIMUM FROM TOP)
  - 2" FRAMED SLABS (NOT EXPOSED TO WEATHER)
  - 2" FRAMED SLABS (EXPOSED TO WEATHER)
- PLACE DEFORMED BARS IN ACCORDANCE WITH THE LATEST EDITION OF CRSI "RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS." ALL WELDED WIRE MESH SHALL CONFORM TO ASTM A185. LAP TWO SQUARES AT ALL JOINTS AND AND TIE AT 3'-0" ON CENTER. PROVIDE (2) #5 BARS EACH SIDE OF ALL OPENINGS IN WALLS AND SLABS. BARS TO EXTEND 24" BEYOND EDGE OF OPENINGS. (FOR SIZE AND LOCATION OF OPENINGS REFER TO ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS).
- NO HORIZONTAL CONSTRUCTION JOINTS ARE ALLOWED UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS OR ALLOWED IN WRITING BY THE ENGINEER.
- ALL GROUT FOR BASE PLATES SHALL BE NON-SHRINK AND NON-METALLIC WITH A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI.
- REINFORCING BAR / EMBEDMENT LENGTH / STANDARD HOOK

REINFORCING BAR	EMBEDMENT LENGTH	STANDARD HOOK
#4	12"	12"
#5	12"	12"
#6	12"	12"
#7	16"	16"
#8	20"	20"

FORM WORK:
- PROPERLY BRACE AND SHORE FORM WORK TO MAINTAIN ALIGNMENT AND TOLERANCES IN ACCORDANCE TO ACI 347.
- DETAILS NOT SHOWN IN DRAWINGS SHALL BE IN ACCORDANCE WITH ACI DETAILING MANUAL (ACI 315).

5. QUALITY CONTROL
- CONTRACTOR SHALL MAKE PROVISIONS TO HAVE FOUR CYLINDERS CAST FOR EACH (50) CUBIC FEET OF CONCRETE POURED OR FOR ANY ONE DAY OPERATION.
- TESTING LABORATORY SHALL BE RESPONSIBLE FOR MAKING AND CURING SPECIMENS IN CONFORMANCE TO ASTM C31 AND TESTING SPECIMENS IN ACCORDANCE TO ASTM C39.

6. EXCAVATION & COMPACTED FILL
- COMPACTED FILL SHALL BE PLACED IN LEVEL, UNIFORM LIFTS NOT EXCEEDING 8 INCHES IN UNCOMPACTED THICKNESS AND BE COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.
- FILL TO CONFORM TO THE PROJECT SPECIFICATIONS FOR STRUCTURAL FILL OR AS DIRECTED BY THE ENGINEER. BACKFILL AND EXCAVATION TO BE COMPLETED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER AND STRUCTURAL ENGINEER.

7. EXPANSION, CONTRACTION, AND CONSTRUCTION JOINTS
- CONTRACTOR SHALL PROVIDE CONTRACTION JOINTS IN WALLS AND SLABS NOT TO EXCEED 20' (OR EQUALLY SPACED) AND EXPANSION JOINTS NOT TO EXCEED 90' (IF APPLICABLE)
- ALL CONSTRUCTION JOINTS SHALL HAVE ROUGHENED, KEYED, AND/OR BONDING AGENT APPLIED TO THE CONCRETE LAYING SURFACES AS DIRECTED BY THE ENGINEER OR TO THE MOST STRINGENT AC1 318 STANDARDS

8. CONCRETE FINISHING
- ALL EXPOSED CONCRETE SHALL BE FINISHED TO PROJECT ARCHITECTURAL STANDARDS OR AS DIRECTED BY THE ENGINEER. ALL EXPOSED CORNERS SHALL BE CHAMFERED.
- ALL VOIDS, POCKETS, AND DEFORMATIONS IN THE EXPOSED FACE OF WALL SHALL BE CORRECTED TO A SMOOTH, UNIFORM FINISH OR AS DIRECTED BY THE ENGINEER.

RETAINING WALL NOTES:

1. THE RETAINING WALLS ARE SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. IT DOES NOT REPRESENT OR INTEND TO DETAIL THE REQUIREMENTS FOR DESIGN AND/OR CONSTRUCTION OF THE WALL. OTHER FACTORS WHICH CANNOT BE REASONABLY FORESEEN AT THIS TIME MAY REQUIRE ALTERATION TO THE WALL CONCEPT INCLUDING BUT NOT LIMITED TO GEOGRID REINFORCEMENT, ALTERNATE CROSS SECTIONS, MEANS & METHODS OF CONSTRUCTION, AND TEMPORARY SHORING AND STABILIZATION OF SOILS.

2. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO OBTAIN DETAILED DESIGN AND CONSTRUCTION DRAWINGS FROM THE MANUFACTURER, INCLUDING APPLICABLE CALCULATIONS, PRIOR TO THE START OF WALL CONSTRUCTION. ALL CALCULATIONS AND DRAWINGS SHALL BE PREPARED BY A QUALIFIED ENGINEER EXPERIENCED IN SEGMENTAL RETAINING WALL DESIGN. DESIGN TO INCLUDE INTERFACE AND FOUNDATION REQUIREMENTS FOR WALL.

3. THE DESIGN SHALL BE BASED UPON THE GEOTECHNICAL INVESTIGATION REPORT TO ENSURE PROPER DATA IS AVAILABLE TO DESIGN THE WALL.

4. THE CONTRACTOR SHALL SUBMIT CERTIFICATIONS AND WARRANTY INFORMATION TO THE OWNER TO SUBSTANTIATE THAT THE PROPOSED WALL CONSTRUCTION MATERIALS MEET THE DESIGN STANDARD SPECIFICATIONS OF THE SPECIFIED WALL SYSTEM.

5. THE SITE DESIGN ENGINEER ASSUMES NO LIABILITY FOR INTERPRETATION OF SUBSURFACE CONDITIONS, SUITABILITY OF SOIL DESIGN PARAMETERS AND INTERPRETATIONS OF SUBSURFACE GROUNDWATER CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE WALL DESIGN ENGINEER IS CONTACTED IF CONDITIONS VARY.

6. RETAINING WALL SHALL BE DESIGNED FOR SATURATED BACKFILL CONDITIONS.

7. CONTRACTOR TO PROVIDE SHOP DRAWING PRIOR TO CONSTRUCTION.

The Oxford School Residences

347 Main Street
Fairhaven, Massachusetts

SCG DEVELOPMENT

ARCHITECTURE

ICON ARCHITECTURE
101 SUMMER ST BOSTON MA 02110

CONSULTANT

CHA
101 Accord Park Drive
Norwell, MA 02061
Main: (781) 982-5400 • www.chacompanies.com

STAMP

COMMONWEALTH OF MASSACHUSETTS
KELLY KILLEEN
CIVIL
No. 38991
REGISTERED PROFESSIONAL ENGINEER
1.24.17

KEY PLAN

MARK	DATE	DESCRIPTION
	1/24/2017	ZBA PERMITTING
	10/19/2016	

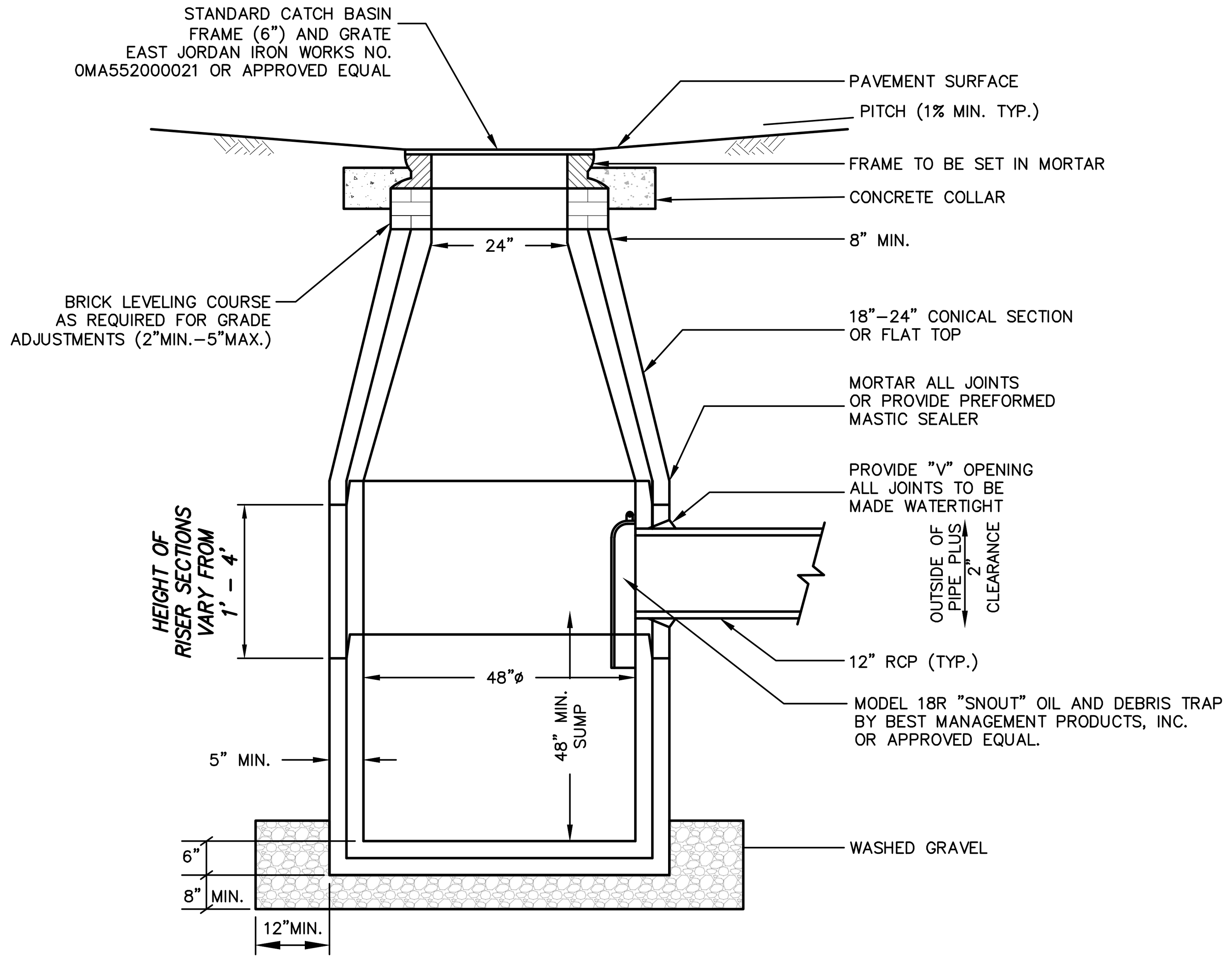
PROJECT NO.: 21101.00
DRAWN BY: DAR
CHECKED BY: KK

SHEET TITLE

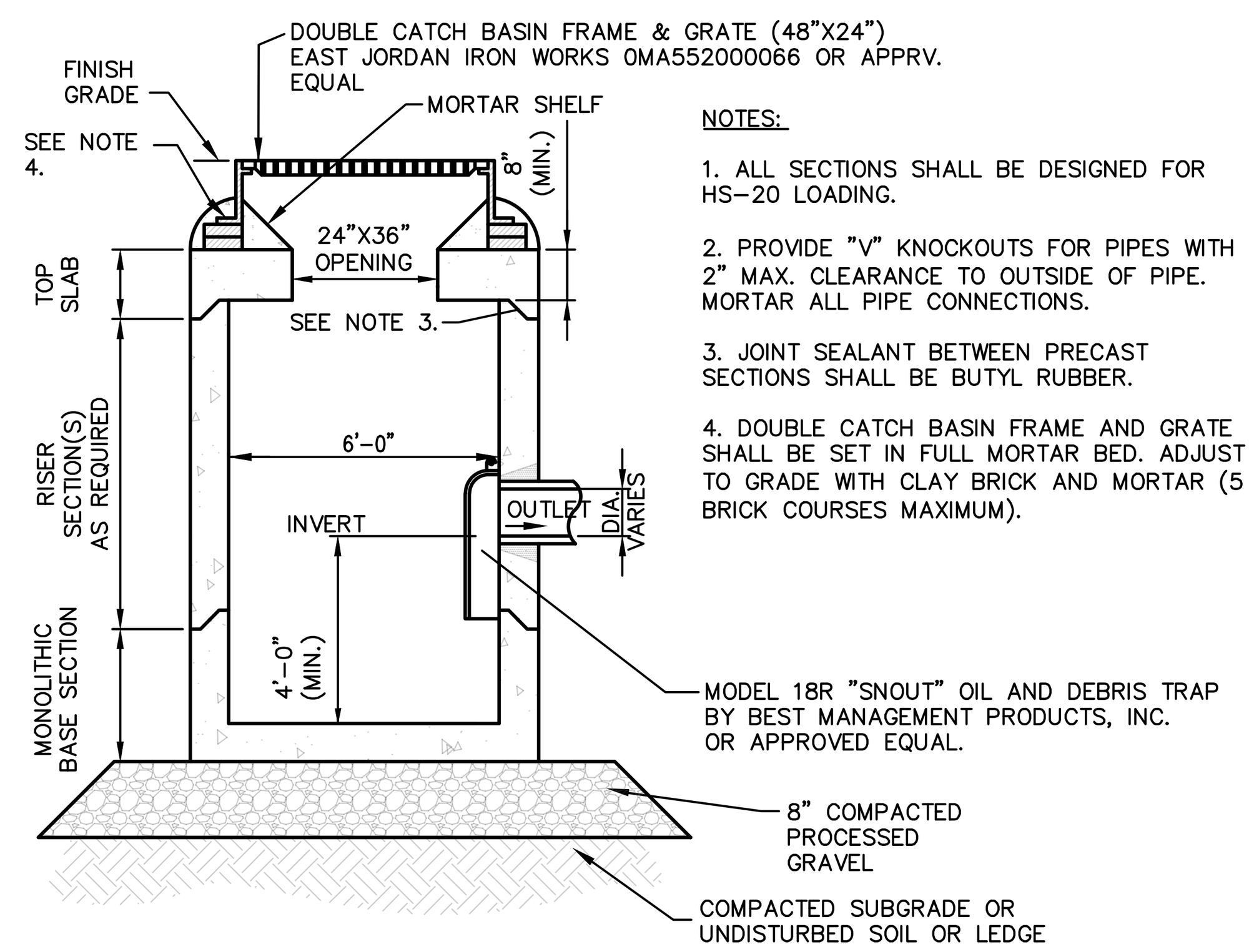
GENERAL NOTES

C-300

File: V:\PROJECTS\ANY\K4\32372\CADD_ACAD\CIVIL\PLOT SHEETS\OXFORD FAIRHAVEN_C-300 - 305_GN-DETAILS.DWG
Saved: 1/24/2017 5:21:21 PM Plotted: 1/24/2017 5:24:03 PM Current User: Rose, Donald LastSavedBy: 4323

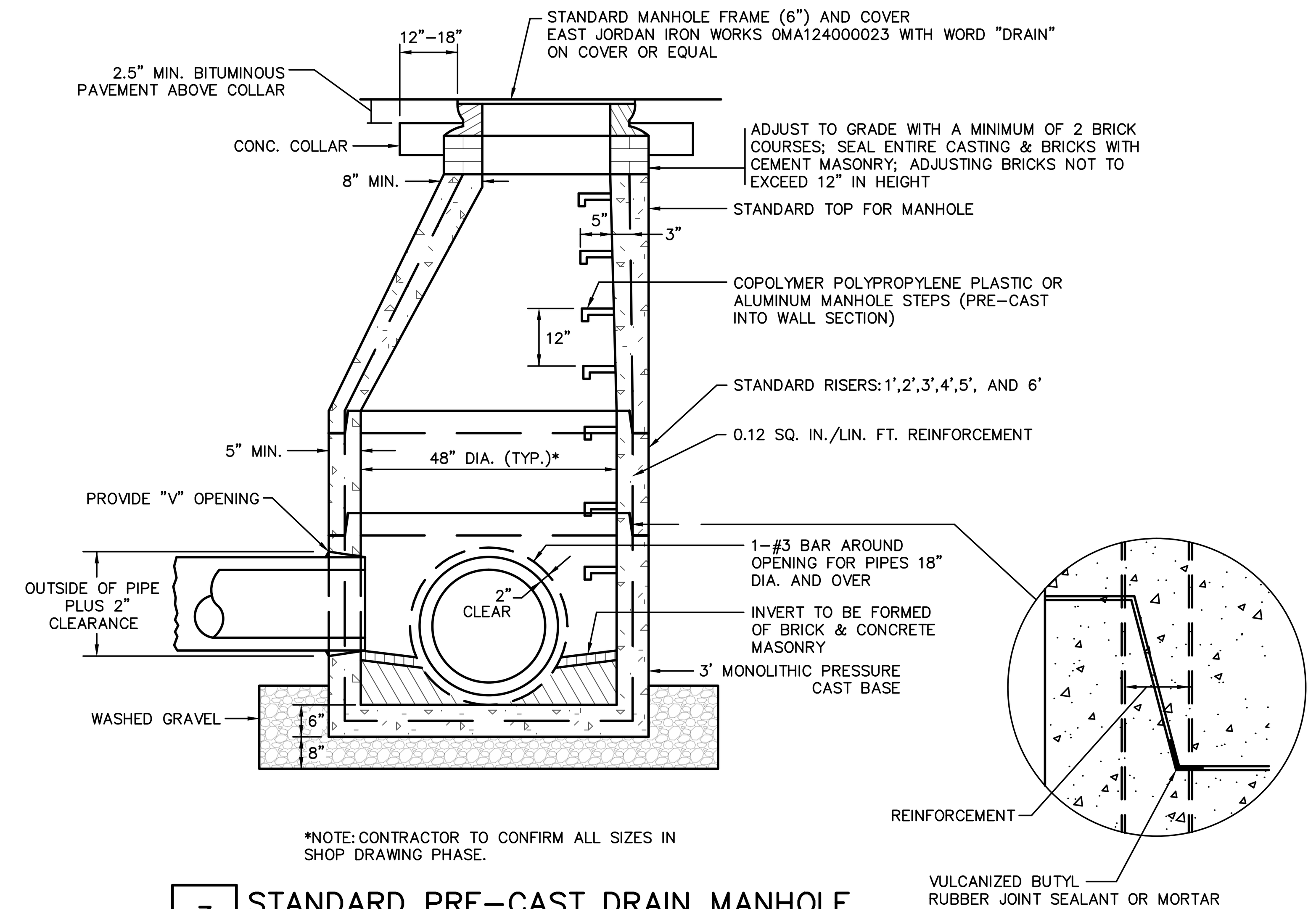


1 PRECAST CONCRETE SINGLE GRATE CATCH BASIN
SCALE: NO SCALE



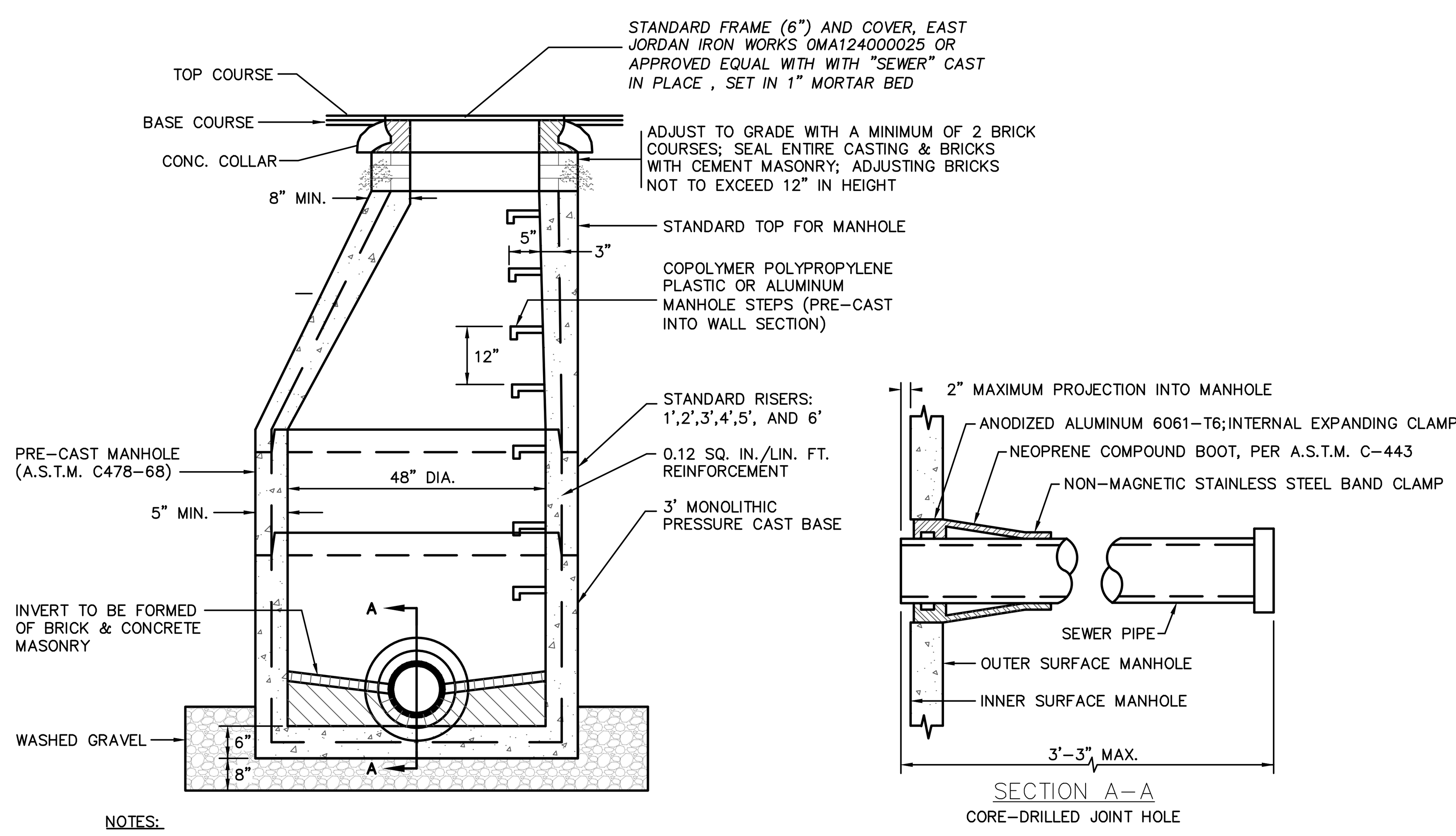
NOTES:
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
4. DOUBLE CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (5 BRICK COURSES MAXIMUM).

2 DOUBLE GRATE CATCH BASIN
SCALE: NO SCALE



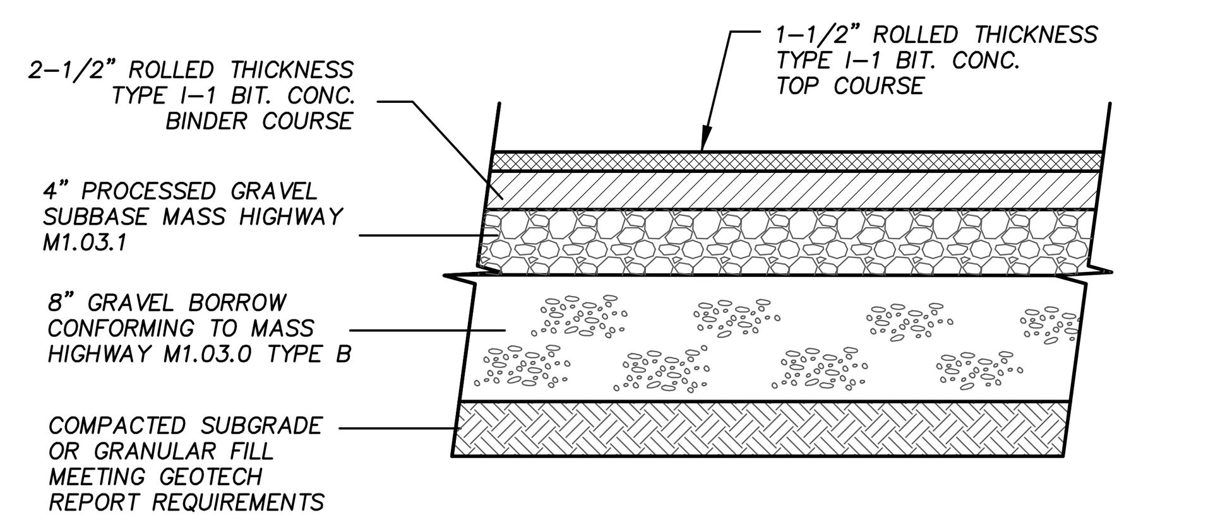
*NOTE: CONTRACTOR TO CONFIRM ALL SIZES IN SHOP DRAWING PHASE.

3 STANDARD PRE-CAST DRAIN MANHOLE
SCALE: NO SCALE



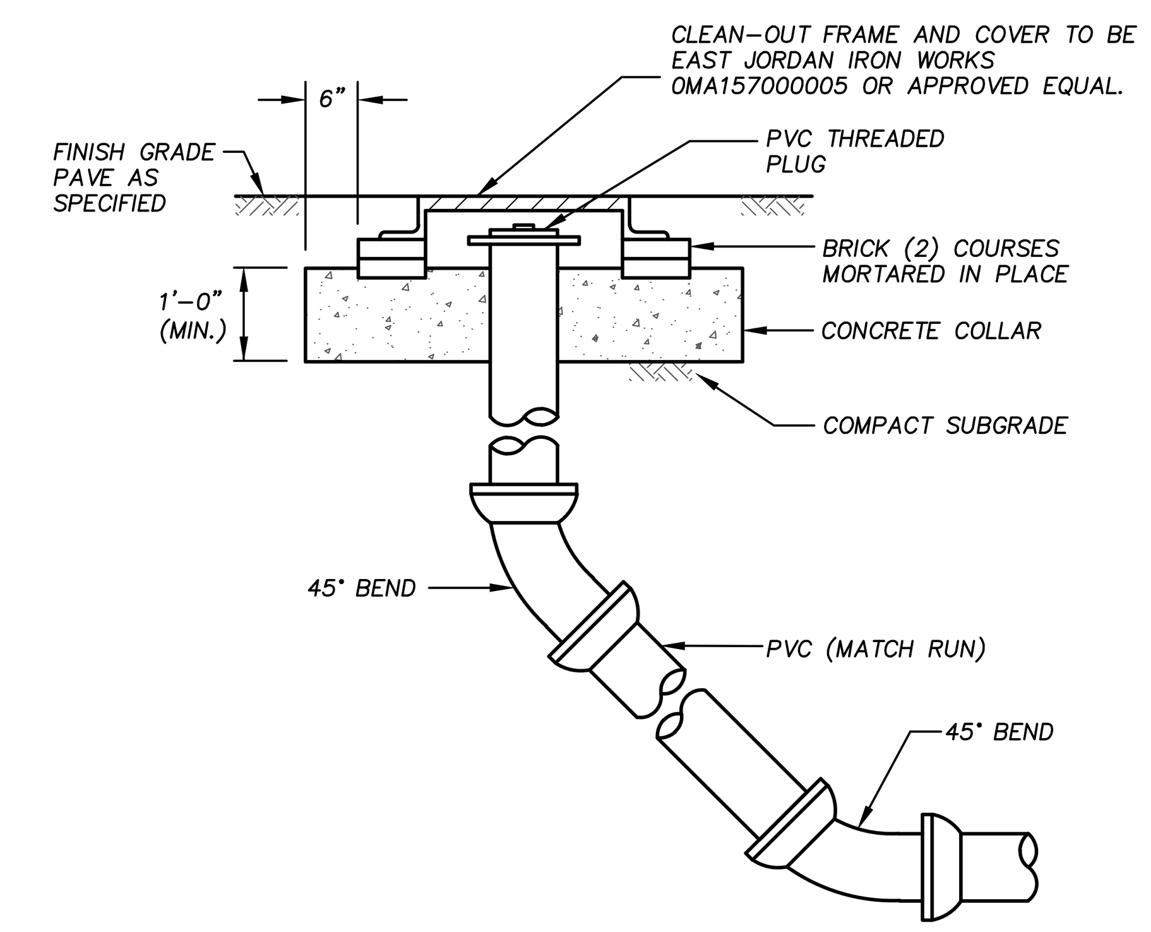
NOTES:
1. ALL OUTER SECTIONS MUST BE BITUMINOUS ASPHALT COATED.
2. ALL COVERS SHALL HAVE THE WORD "S E W E R" IN 3" LETTERS CAST THEREON.

4 STANDARD PRE-CAST SEWER MANHOLE
SCALE: NO SCALE

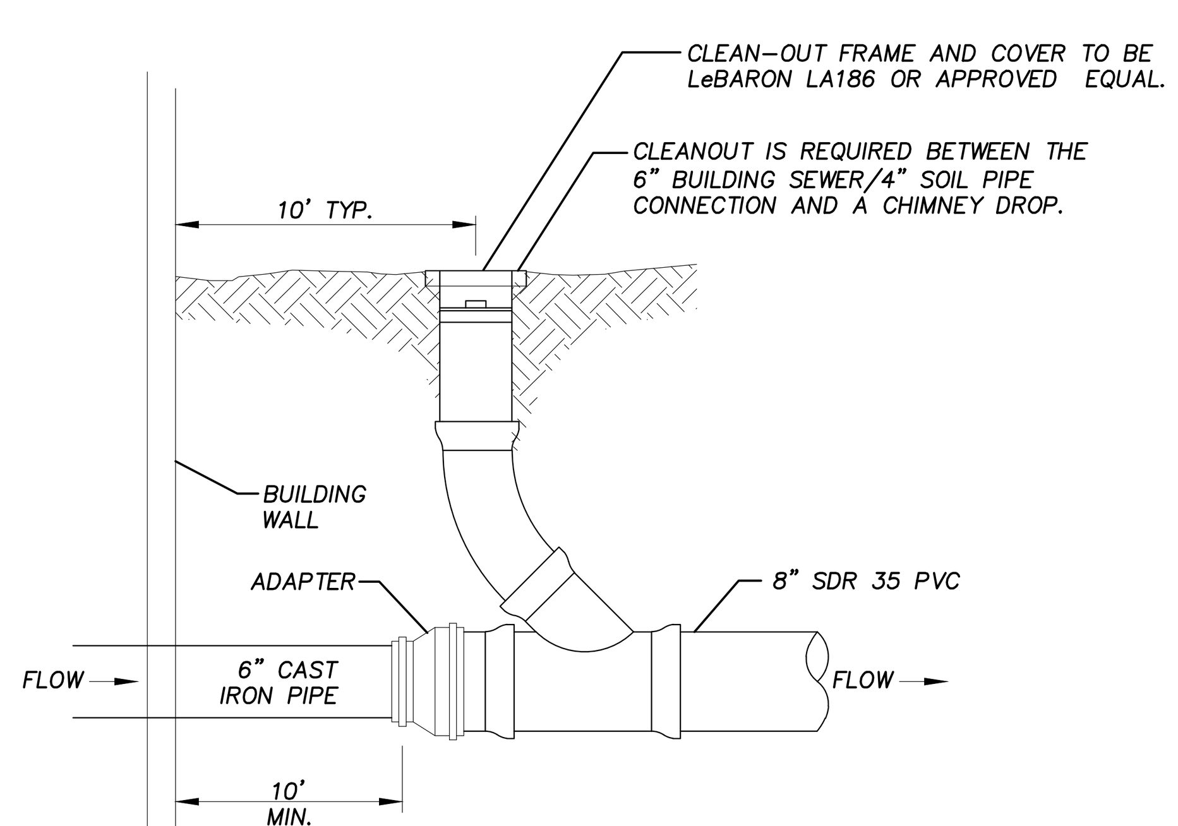


NOTE:
1. CONTRACTOR TO PROOF ROLL SUBGRADE PRIOR TO GRAVEL PLACEMENT.
2. CONTRACTOR TO CONFIRM PAVEMENT SECTION WITH GEOTECH REPORT PRIOR TO CONSTRUCTION.

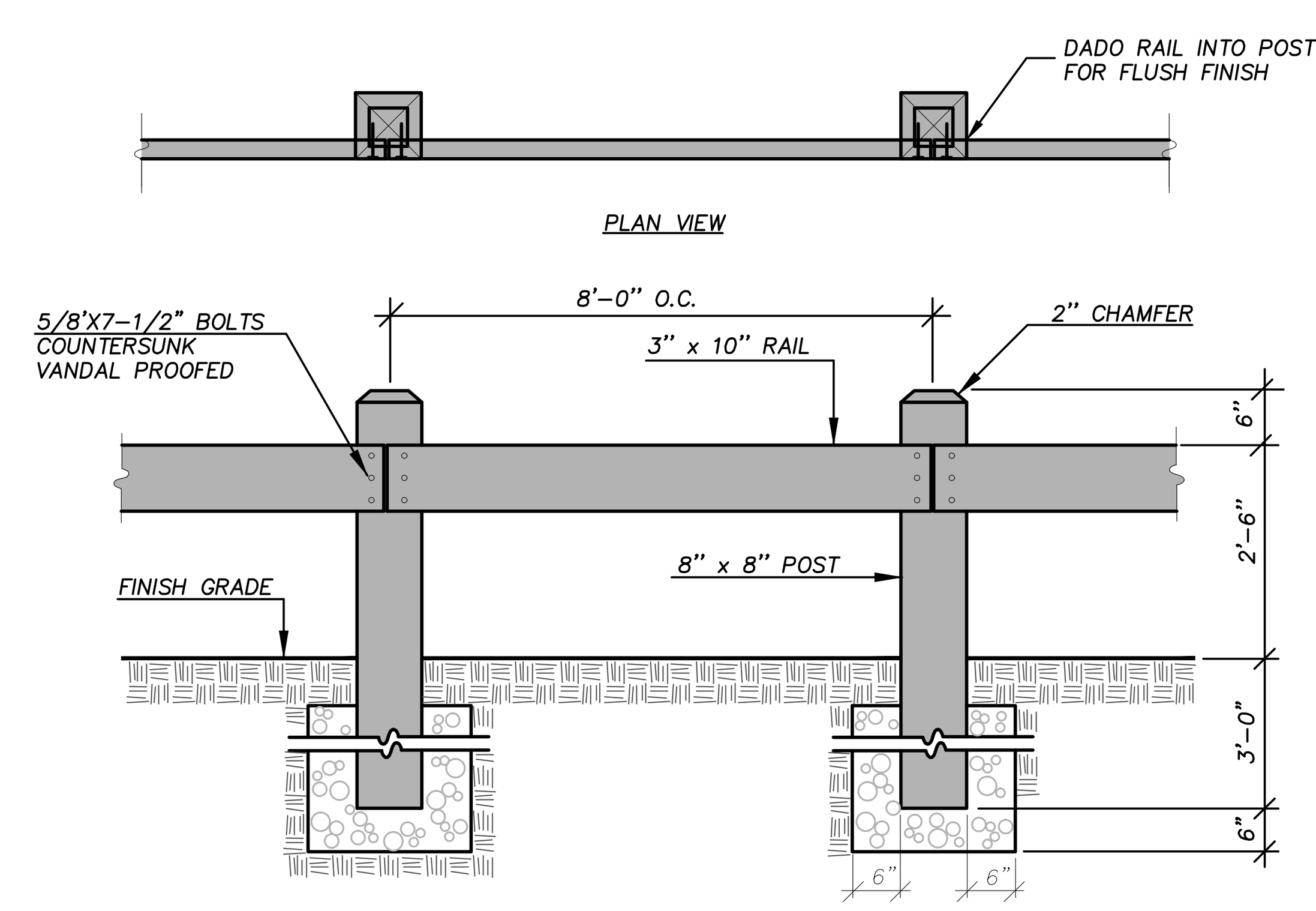
5 STANDARD DUTY BITUMINOUS PAVEMENT
SCALE: NO SCALE



6 TYPICAL SEWER SERVICE CLEANOUT
SCALE: NO SCALE

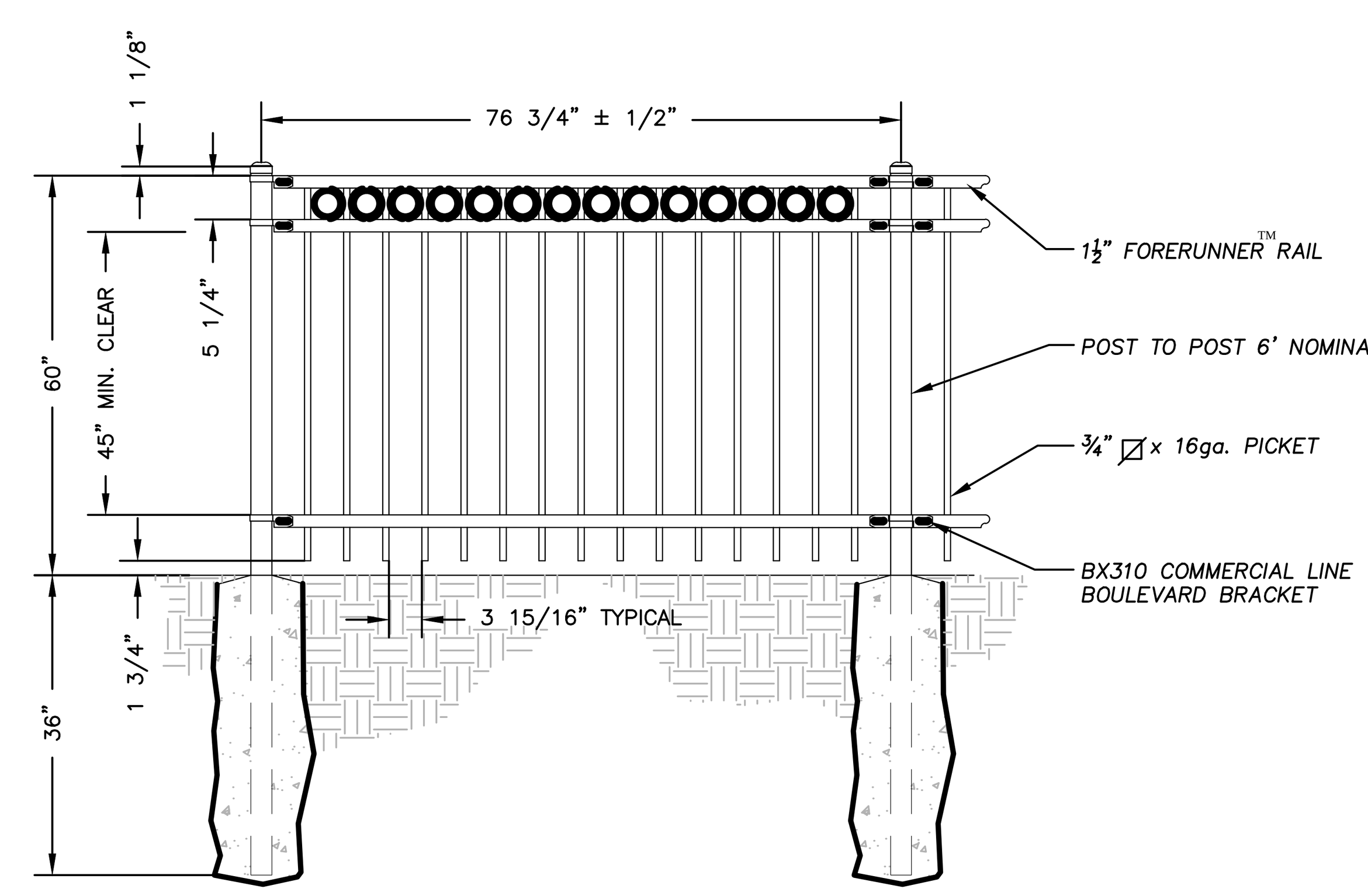


7 TYPICAL BUILDING SEWER CONNECTION
SCALE: NO SCALE NOT TO SCALE



8 WOODEN GUARDRAIL
SCALE: NO SCALE

NOTES:
1. ALL WOOD TO BE PRESSURE TREATED, SELECT PINE GRADE 'B' OR BETTER
2. ALL HARDWARE TO BE GALVANIZED
3. SET POSTS 3' - 6" DEEP IN WELL-TAMPED GRAVEL BACKFILL
4. IN RETAINING WALL LOCATIONS, PLACE POSTS THROUGH CELLS



9 IMPERIAL D DECORATIVE ALUMINUM FENCE
SCALE: NO SCALE

The Oxford School Residences

347 Main Street
Fairhaven, Massachusetts

SCG DEVELOPMENT

ARCHITECT

ICON ARCHITECTURE
101 SUMMER ST BOSTON MA 02110

CONSULTANT

CHA
101 Accord Park Drive
Norwell, MA 02061
Main: (781) 982-5400 • www.chacompanies.com

STAMP

COMMONWEALTH OF MASSACHUSETTS KELLY KILLEEN CIVIL No. 38391 REGISTERED PROFESSIONAL ENGINEER

KEY PLAN

MARK	DATE	DESCRIPTION
	1/24/2017	ZBA PERMITTING
	10/19/2016	

PROJECT NO.: 21101.00
DRAWN BY: DAR
CHECKED BY: KK

SHEET TITLE

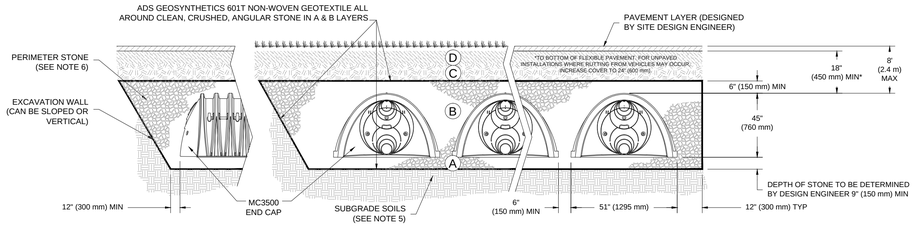
DETAIL SHEET 1

C-301

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. [2 3]

PLEASE NOTE:
1. 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, ANGULAR NO. 4 (AASHTO M43) STONE".
2. 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.
3. 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.



NOTES:

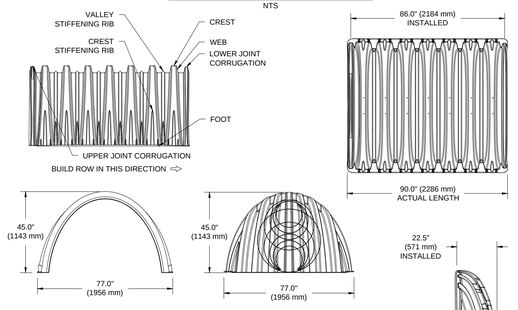
1. MC3500 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. MC3500 CHAMBERS SHALL BE DESIGNED 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, EMBEDMENT, AND FILL MATERIALS.
4. THE "SITE DESIGN ENGINEER" REFERS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN AND LAYOUT OF THE STORMTECH CHAMBERS FOR THIS PROJECT.
5. 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.
6. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
7. 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.
8. STORMTECH MC-3500 UNITS TO BE H20 RATED FOR VEHICLE LOADS.

1 STORMTECH MC3500 CHAMBER UNIT SYSTEM

SCALE: NO SCALE

MC-3500 TECHNICAL SPECIFICATION

NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 86.0"	(1956 mm X 1143 mm X 2184 mm)
CHAMBER STORAGE	109.0 CUBIC FEET	(3.11 m³)
MINIMUM INSTALLED STORAGE*	178.9 CUBIC FEET	(5.06 m³)
WEIGHT	135.0 lbs.	(61.2 kg)

NOMINAL END CAP SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 22.5"	(1956 mm X 1143 mm X 571 mm)
END CAP STORAGE	14.9 CUBIC FEET	(0.42 m³)
MINIMUM INSTALLED STORAGE*	46.0 CUBIC FEET	(1.30 m³)
WEIGHT	50.0 lbs.	(22.7 kg)

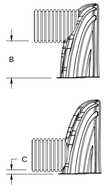
*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION AND BETWEEN CHAMBERS, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY

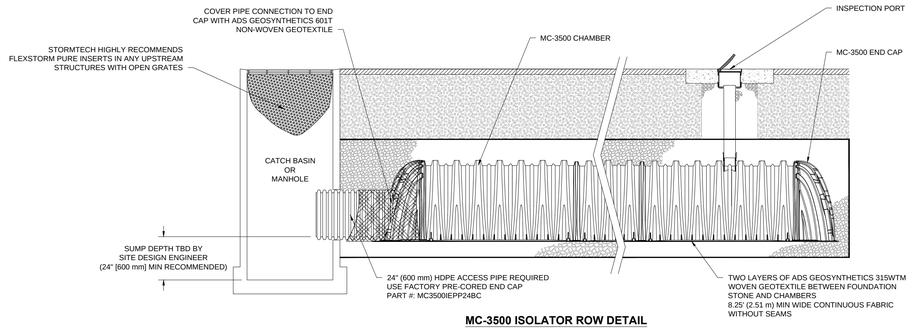
STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

PART #	STUB	B	C
MC3500IEPP06T	6" (150 mm)	33.21" (844 mm)	---
MC3500IEPP06B		---	0.66" (17 mm)
MC3500IEPP08T	8" (200 mm)	31.16" (791 mm)	---
MC3500IEPP08B		---	0.81" (21 mm)
MC3500IEPP10T	10" (250 mm)	29.04" (738 mm)	---
MC3500IEPP10B		---	0.93" (24 mm)
MC3500IEPP12T	12" (300 mm)	26.36" (670 mm)	---
MC3500IEPP12B		---	1.35" (34 mm)
MC3500IEPP15T	15" (375 mm)	23.39" (594 mm)	---
MC3500IEPP15B		---	1.50" (38 mm)
MC3500IEPP18TC	18" (450 mm)	20.03" (509 mm)	---
MC3500IEPP18BC		---	1.77" (45 mm)
MC3500IEPP24TC	24" (600 mm)	14.48" (368 mm)	---
MC3500IEPP24BC		---	2.06" (52 mm)
MC3500IEPP30BC	30" (750 mm)	---	---

NOTE: ALL DIMENSIONS ARE NOMINAL

CUSTOM PRECORED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS.
CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm)
THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHTEST POSSIBLE FOR THE PIPE SIZE.





MC-3500 ISOLATOR ROW DETAIL

NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

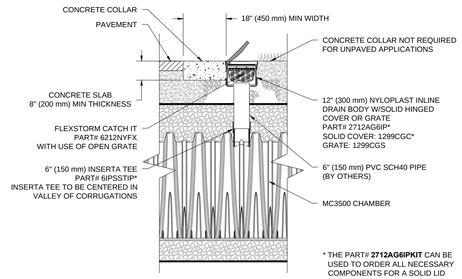
STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

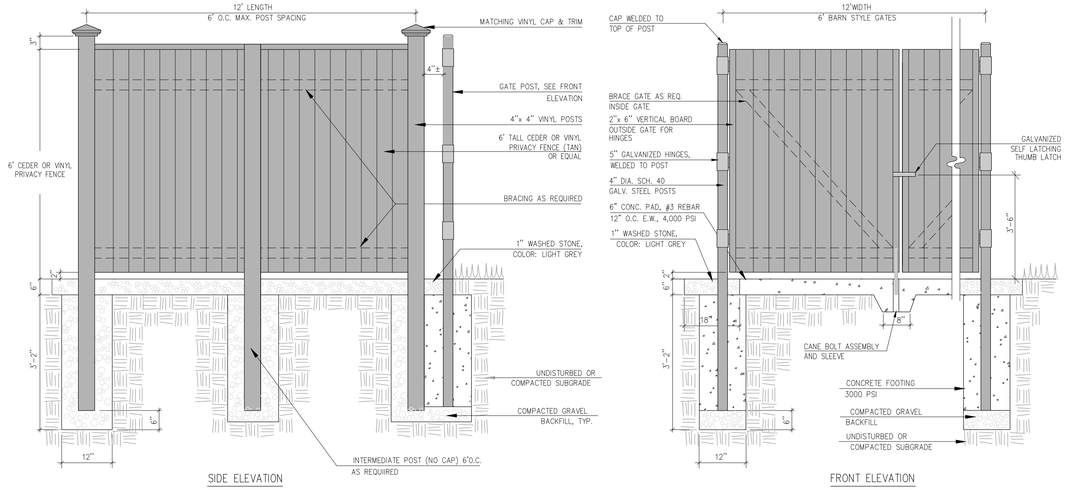
1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



* THE PART# **2712AG6IPKIT** CAN BE USED TO ORDER ALL NECESSARY COMPONENTS FOR A SOLID LID INSPECTION PORT INSTALLATION

MC-3500 6" INSPECTION PORT DETAIL

NTS



NOTE:
CONTRACTOR TO COORDINATE FENCE CONSTRUCTION WITH MANUFACTURER'S RECOMMENDATION.

2 TRASH AND RECYCLING AREA W/CONC. PAD DETAIL

SCALE: NO SCALE

The Oxford School Residences

347 Main Street
Fairhaven, Massachusetts

SCG DEVELOPMENT

ARCHITECT

E-ICON ARCHITECTURE
101 SUMMER ST BOSTON MA 02110

CONSULTANT

CHA
101 Accord Park Drive
Norwell, MA 02061
Main: (781) 982-5400 • www.chacompanies.com

STAMP

COMMONWEALTH OF MASSACHUSETTS
KELLY KILLEEN CIVIL NO. 50834
REGISTERED PROFESSIONAL ENGINEER

KEY PLAN

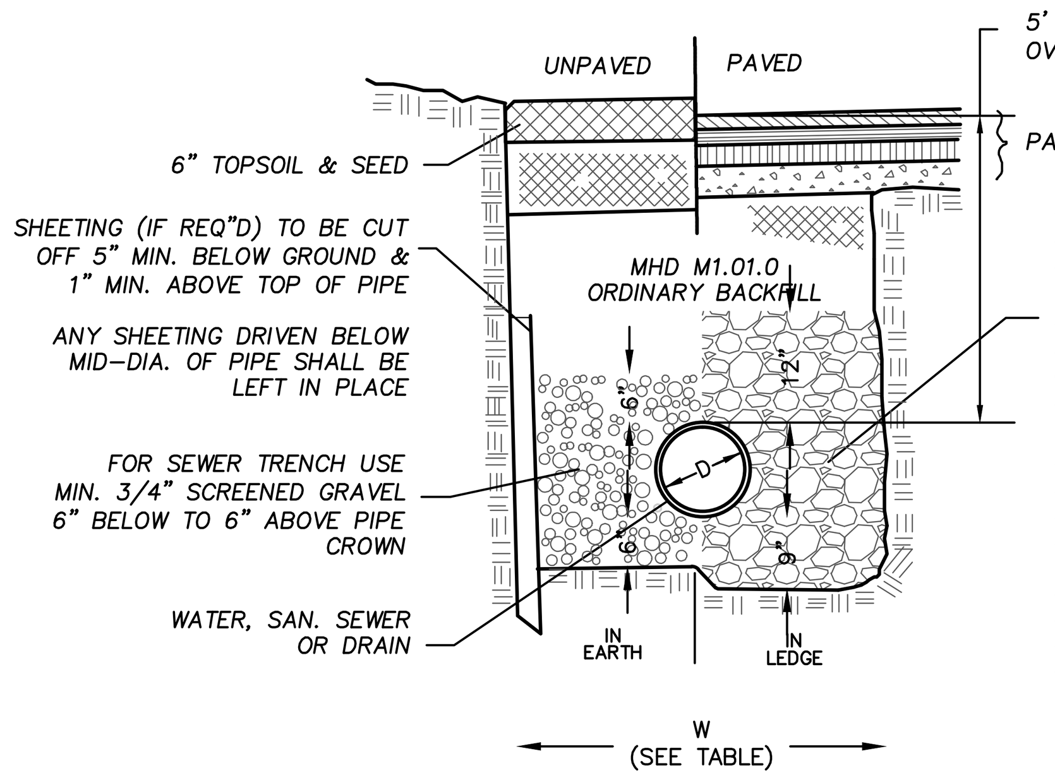
MARK	DATE	DESCRIPTION
	1/24/2017	ZBA PERMITTING
	10/19/2016	

PROJECT NO.: 21101.00
DRAWN BY: DAR
CHECKED BY: KK

SHEET TITLE

DETAIL SHEET 2

C-302



COMMON FILL TO CONSIST OF GRANULAR MATERIAL CONTAINING NO STONES LARGER THAN 6" IN GREATEST DIMENSION.

BACKFILL WATER OR DRAIN TRENCH WITH SELECT MATERIAL (M.H.D. M1.03.0 TYPE B OR EQUAL) CONTAINING NO STONES LARGER THAN 3" IN GREATEST DIMENSION TO 12" OVER PIPE.

PROVIDE SCREENED GRAVEL (CONFORMING TO M.H.D. M2.01.4) BEDDING TO MID-PIPE DIAMETER IN SEWER APPLICATIONS OR WHERE GROUNDWATER IS ENCOUNTERED AS DIRECTED BY THE ENGINEER.

REMOVE UNSUITABLE MATERIAL BELOW GRADE, IF ENCOUNTERED, TO SUITABLE DEPTHS AS DIRECTED BY ENGINEER AND REPLACE WITH CLEAN GRANULAR FILL AND FILTER FABRIC.

TRENCH WIDTH, W

D DIAMETER OF PIPE	W UNSHEETED	W SHEETED
TO 12"	3'	4'
14" TO 24"	4'	5'
30" TO 36"	5'	6'

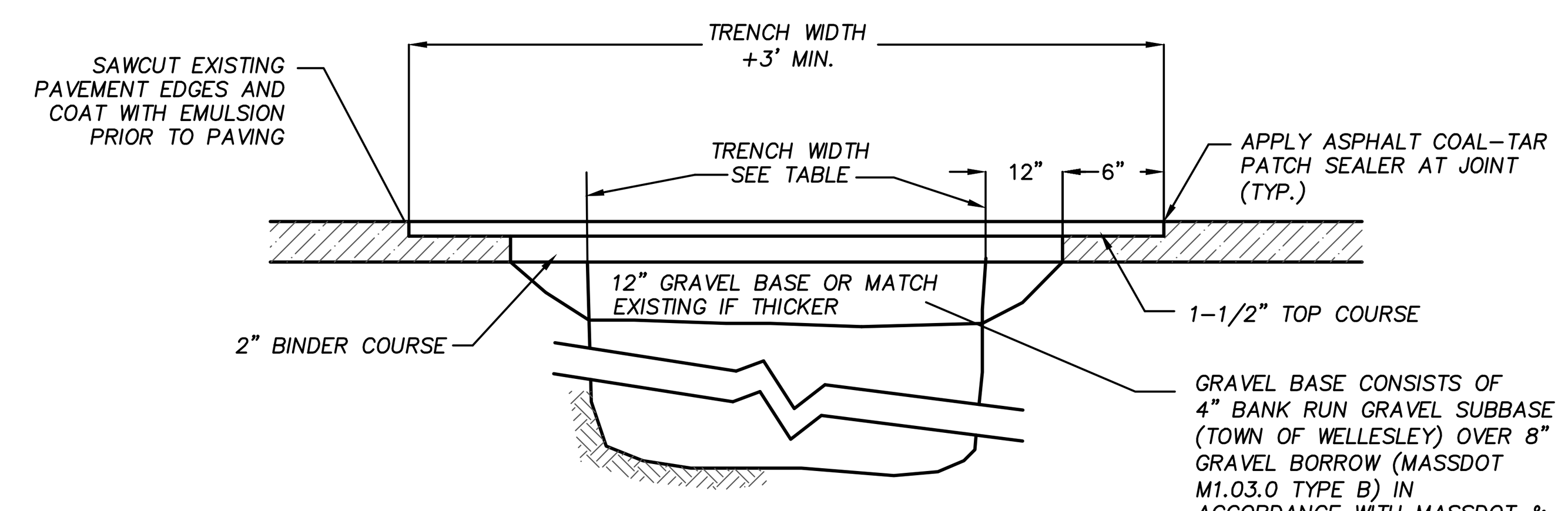
NOTES:

1. ALL TRENCH CONSTRUCTION TO CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
2. COMPACT FILL AND TAMP PIPE TO 95% MAX. DRY DENSITY IN 8" LIFTS UNLESS OTHERWISE SPECIFIED.
3. INSTALL DUCTILE IRON WATER PIPE IN ACCORDANCE WITH ANSI A21.51 (AWWA C151) LAYING CONDITION TYPE 2. BACKFILL TO CONFORM TO MHD M1.03.0 GRAVEL BURROW TYPE c TO 12" ABOVE PIPE CROWN OR AS DIRECTED BY MANUFACTURER OR ENGINEER.
4. MATERIALS FOR SEWER BEDDING, HAUNCHING, AND BACKFILL TO CONFORM TO CLASSES I, II, OR III AS DESCRIBED IN ASTM D 2321 AND TR-16 GUIDES FOR THE DESIGN OF WASTEWATER TREATMENT WORKS.

BC TO 12" ABOVE PIPE CROWN OR AS DIRECTED BY MANUFACTURER OR ENGINEER.

6. PROVIDE MINIMUM 5 FT. COVER OVER WATER MAIN AS MEASURED FROM BOTTOM OF CURB LINE. INSULATE WATERMAIN IN ACCORDANCE WITH M.H.D. SECTION 301 WATER SYSTEMS IN AREAS PRONE TO FROST ACTION AND/OR LESS THAN 5' MIN. COVER.

1 TYPICAL TRENCH SECTION
SCALE: NO SCALE

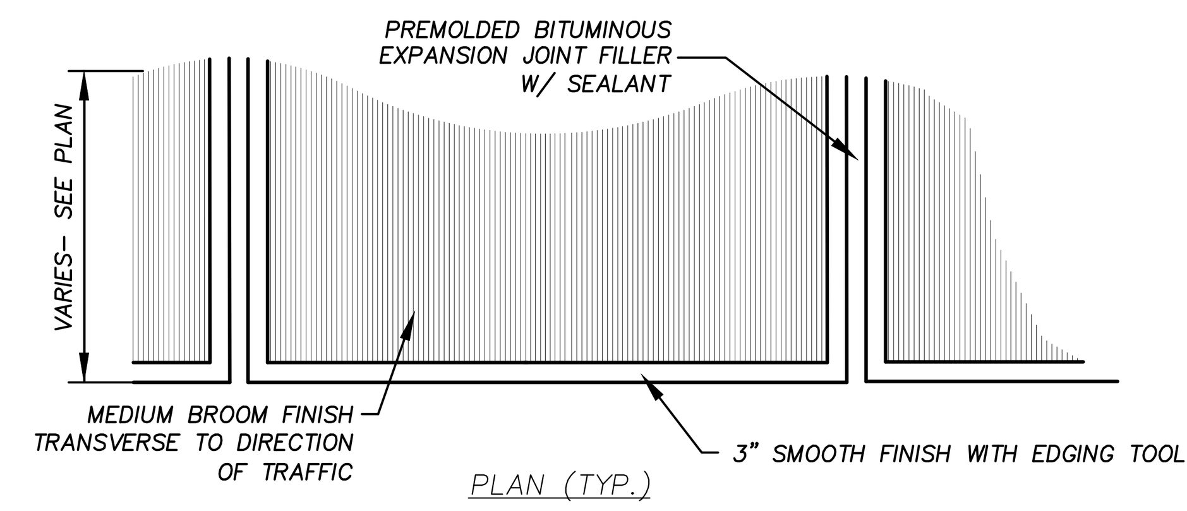


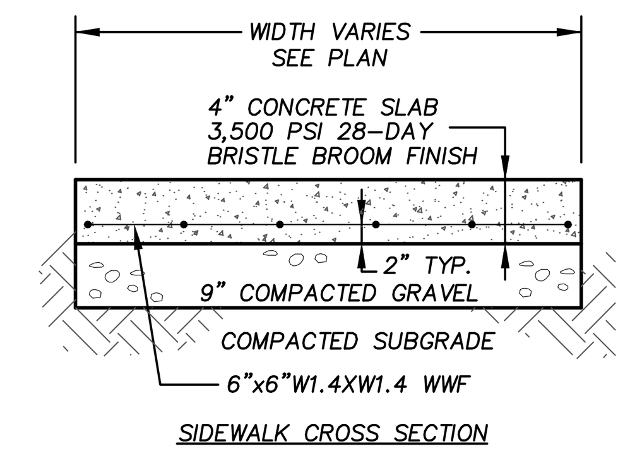
TRENCH WIDTH, W

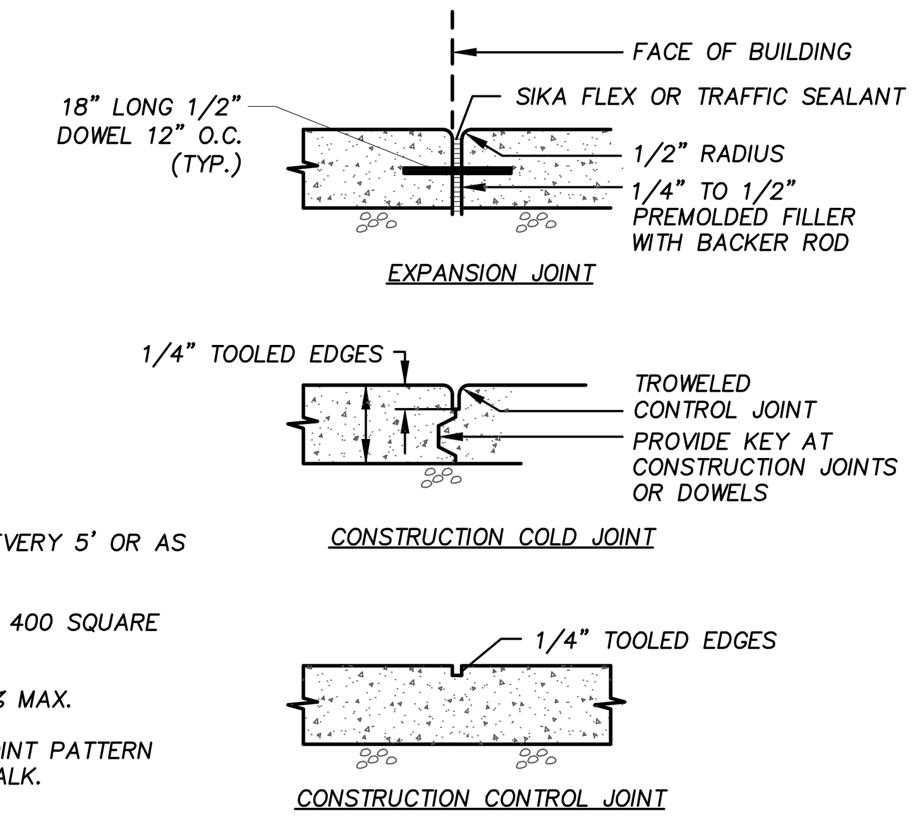
D DIAMETER OF PIPE	W UNSHEETED	W SHEETED
TO 12"	3'	4'
14" TO 24"	4'	5'
30" TO 36"	5'	6'

NOTES:
1. CONTRACTOR TO PROVIDE PAVEMENT PATCH TO MEET TOWN OF WELLESLEY SPECIFICATIONS.
2. PAVEMENT TO BE MINIMUM 3 1/2" HOT MIX OR GREATER TO MATCH EXISTING.

2 PAVEMENT PATCH DETAIL FOR TRENCH SECTIONS
SCALE: NO SCALE

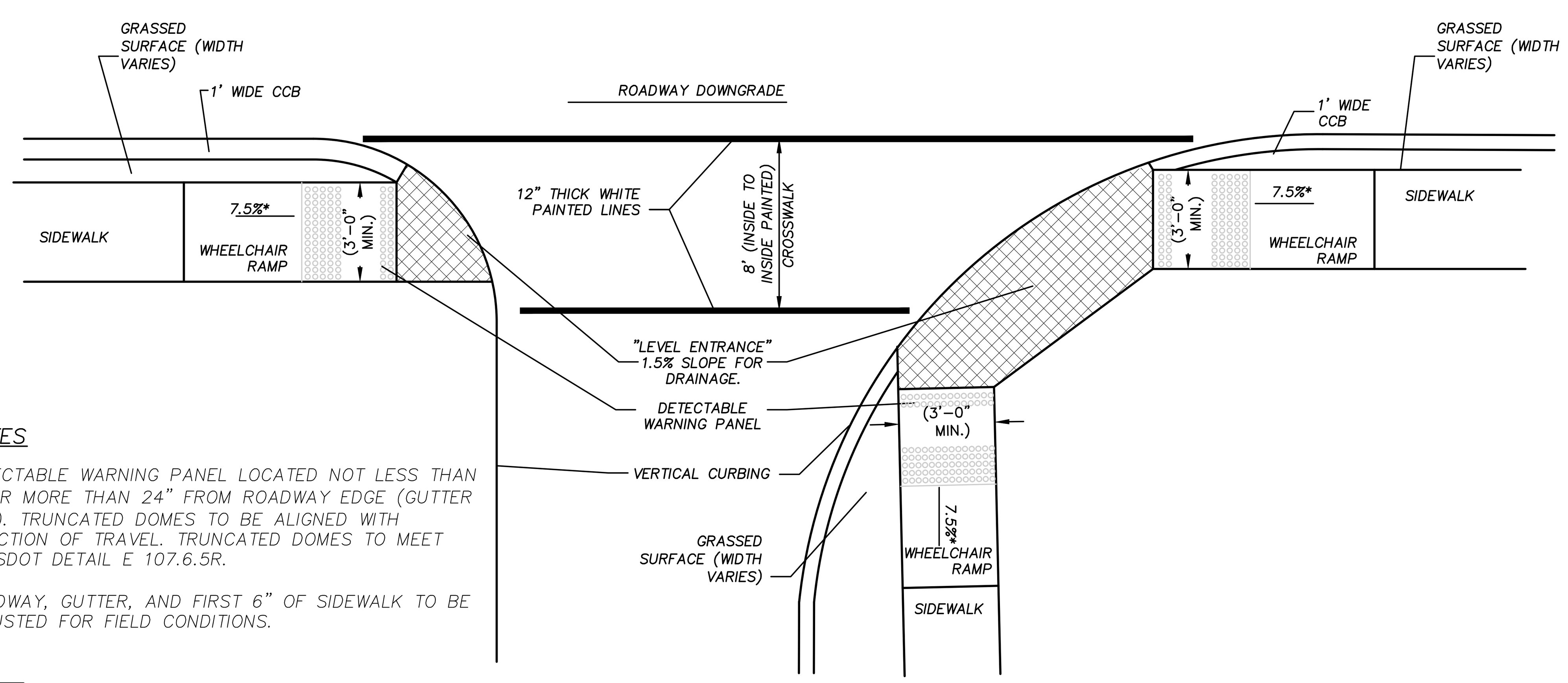






NOTES:
1. PROVIDE CONSTRUCTION CONTROL JOINT EVERY 5' OR AS NOTED ON SCORING PLAN.
2. PROVIDE EXPANSION JOINT EVERY 20' OF 400 SQUARE FEET OR AS NOTED ON SCORING PLAN.
3. PITCH WALK TO DOWN GRADE SIDE AT 2% MAX.
4. REFER TO ARCHITECTURAL PLANS FOR JOINT PATTERN AND FINISH SURFACE IN ENTRANCE AREA WALK.

3 CONCRETE SIDEWALK
SCALE: NO SCALE

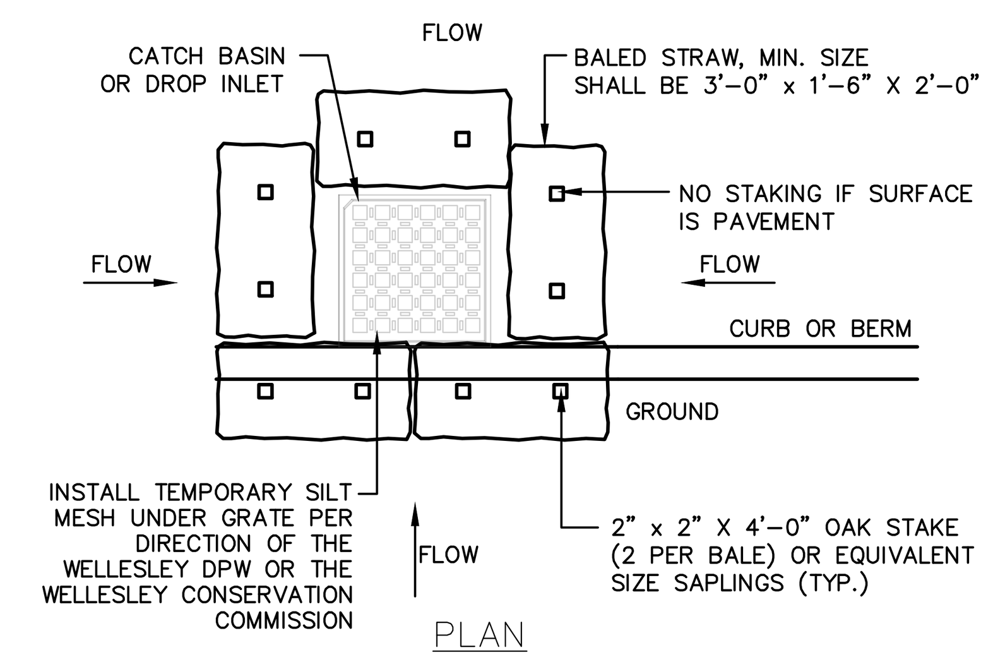


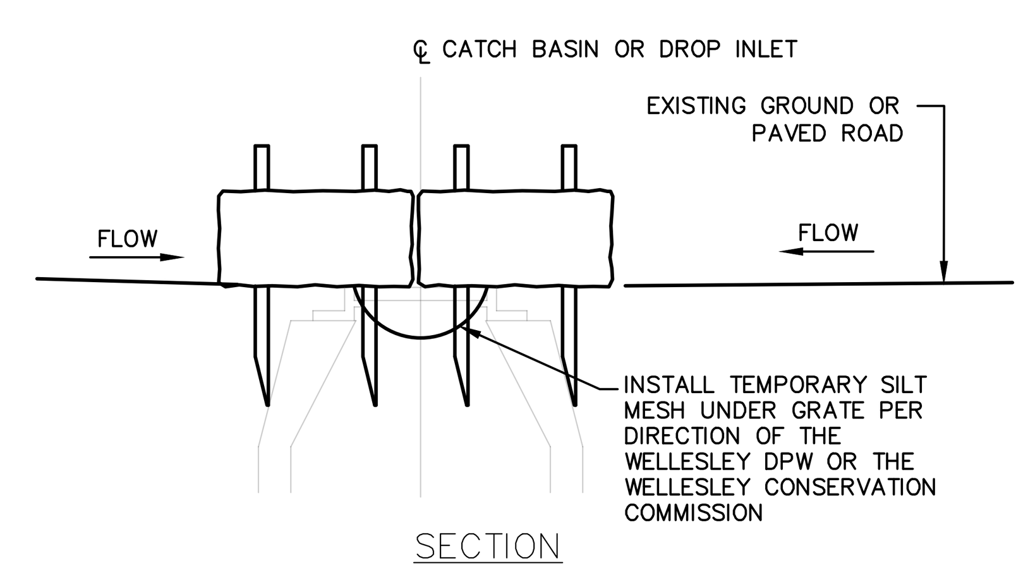
NOTES

DETECTABLE WARNING PANEL LOCATED NOT LESS THAN 6" OR MORE THAN 24" FROM ROADWAY EDGE (GUTTER LINE). TRUNCATED DOMES TO BE ALIGNED WITH DIRECTION OF TRAVEL. TRUNCATED DOMES TO MEET MASSDOT DETAIL E 107.6.5R.

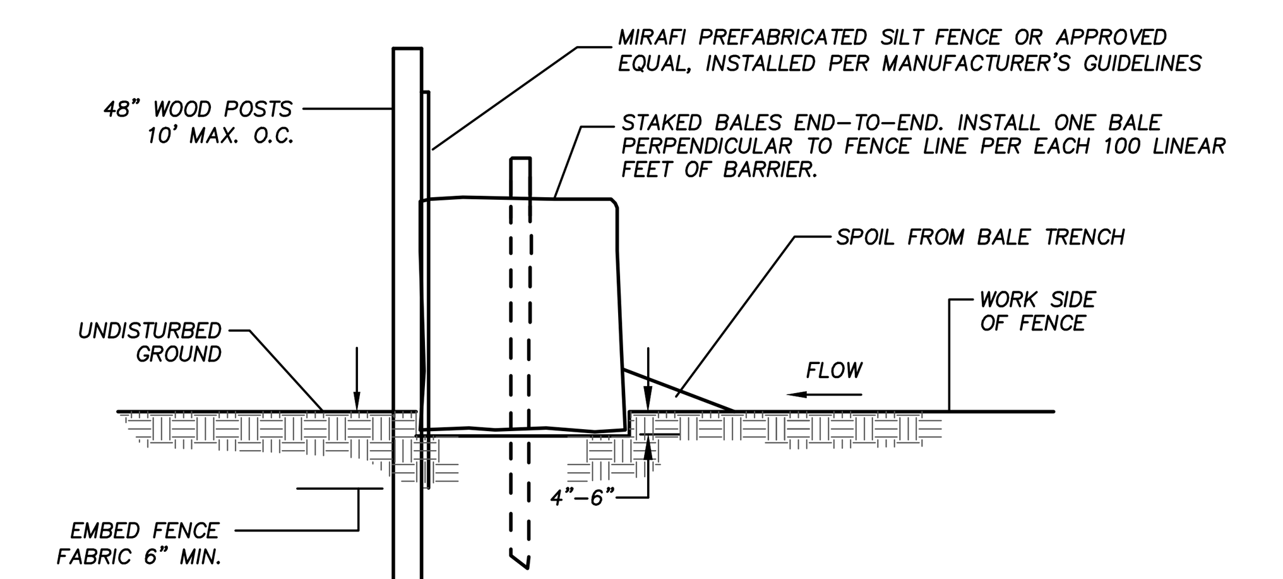
ROADWAY, GUTTER, AND FIRST 6" OF SIDEWALK TO BE ADJUSTED FOR FIELD CONDITIONS.

4 CONCRETE CURB RAMP AND CROSSWALK DETAIL
SCALE: NO SCALE



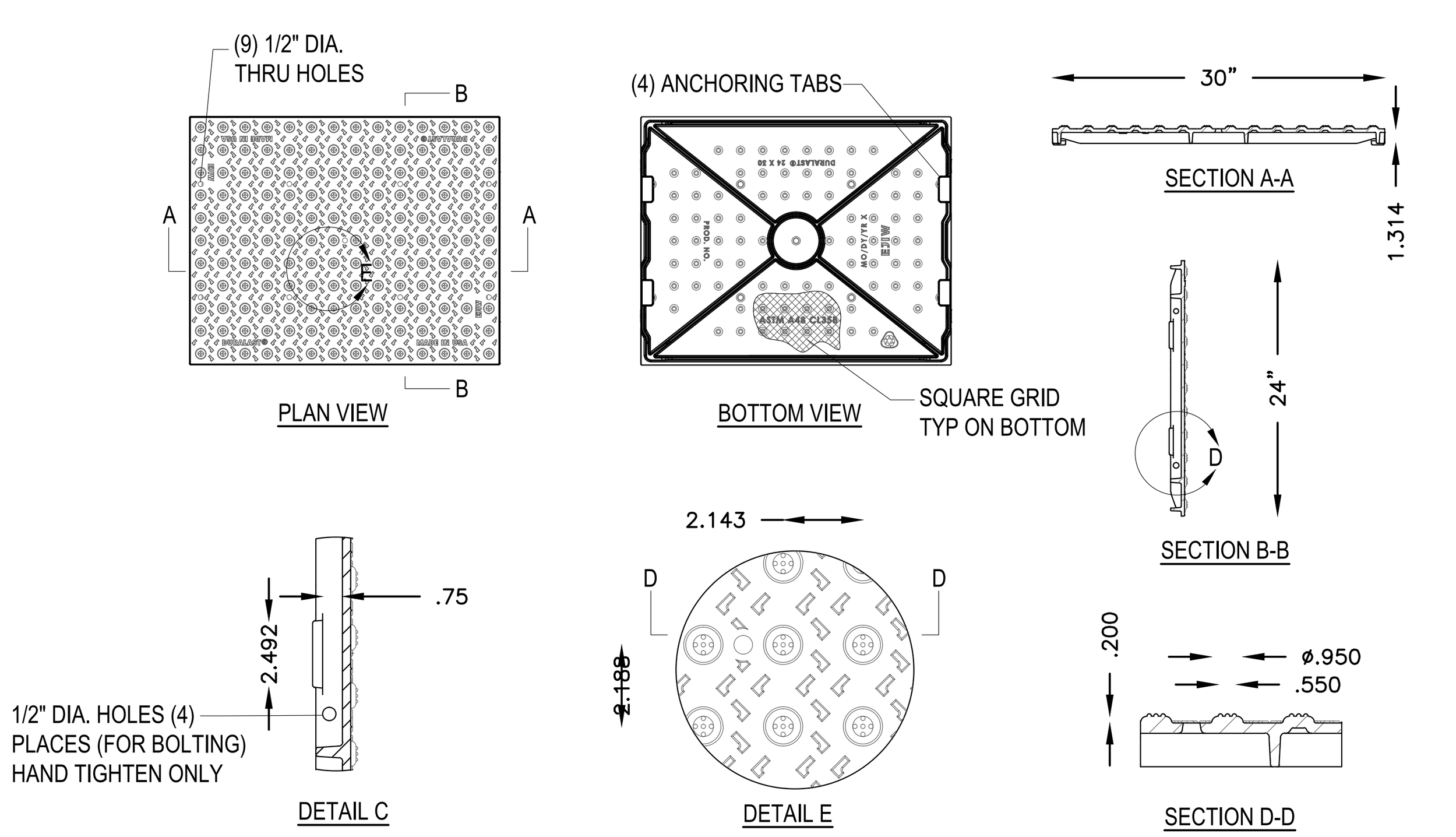


5 DRAIN INLET PROTECTION
SCALE: NO SCALE



NOTES:
1. BALES TO BE TIED W/BIODEGRADABLE TWINE.
2. HAY BALES TO BE SECURED W/ MIN. TWO (2) 1"x1"x3' WOOD STAKES PER BALE, DRIVEN 12" MIN. INTO GRADE.

6 STRAWBALE SILT FENCE
SCALE: NO SCALE



DESIGN FEATURES:
MATERIALS: PLATE-GRAY IRON ASTM A48 CL35B
DESIGN LOAD: HEAVY DUTY
COATING: UNDIPPED

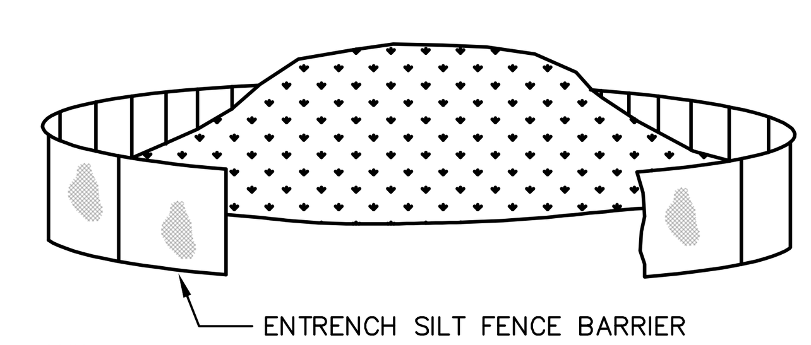
DESIGN INTENT:
- COMPLIANT WITH ADA ACCESSIBILITY GUIDELINES
- DETECTABLE WARNING SURFACE
- MAINTENANCE FREE
- SIMPLIFIED INSTALLATION

INCLUDED FEATURES:
- SLIP RESISTANT SURFACE
- ANCHORING TABS
- BOLTING

NOTES:
1. COLOR REQUIRED: FEDERAL YELLOW.
2. PANEL SIZE SHOWN = DWP 24"x30".
3. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

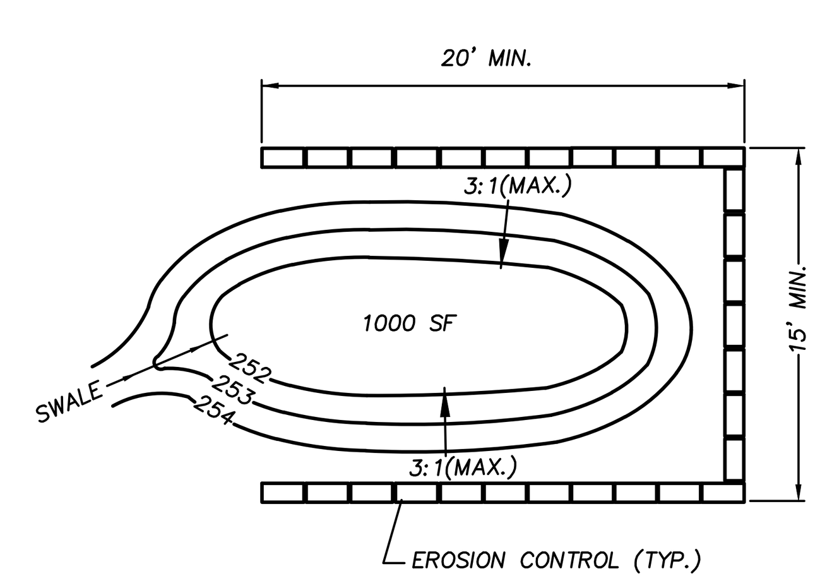
7 DURALAST® DETECTABLE WARNING PLATE
SCALE: NO SCALE

FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info
REFERENCE NUMBER 978-004.



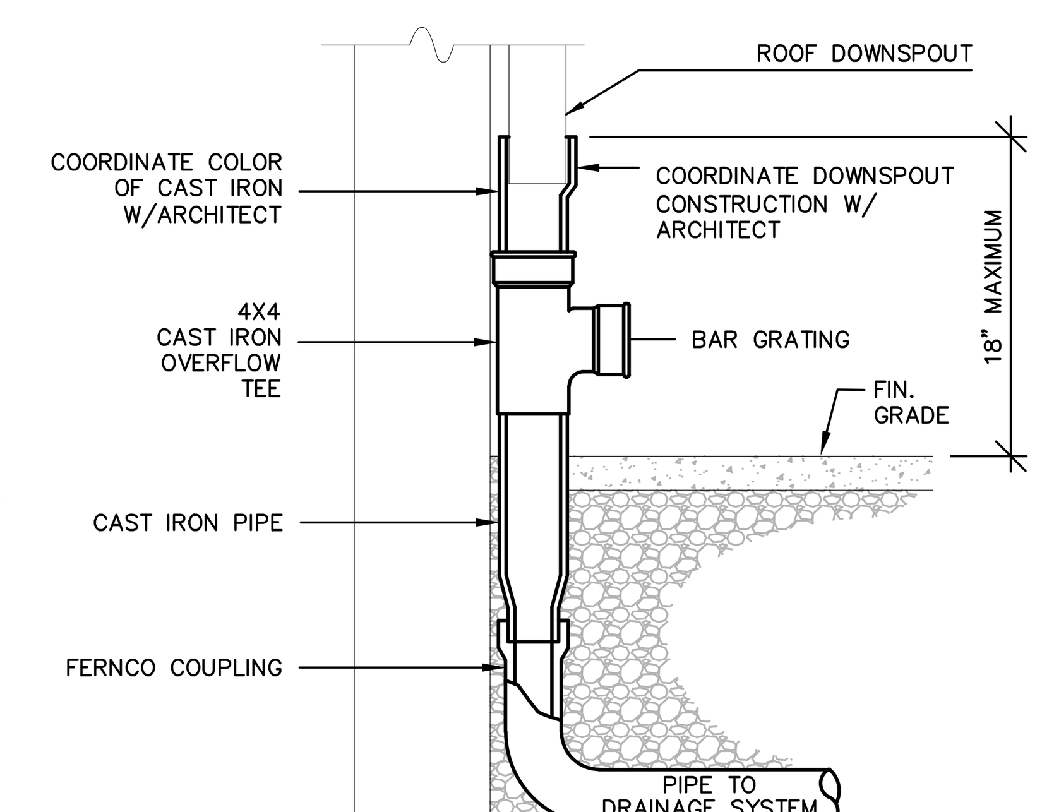
NOTE:
STABILIZE STOCKPILE WITH ANNUAL RYEGRASS, MULCH OR EROSION CONTROL BLANKETS.

8 SOIL STOCKPILE
SCALE: NO SCALE



1. SEDIMENT BASINS AND TRAPS SHALL BE SIZED IN ACCORDANCE WITH EPA GUIDELINES.
2. SEDIMENT TRAPS ARE UTILIZED FOR DRAINAGE AREAS SMALLER THAN 5 ACRES. THE SEDIMENT TRAP SHOULD HAVE A MINIMUM VOLUME BASED ON 1/2 INCH OF STORAGE FOR EACH ACRE OF DRAINAGE AREA. THIS VOLUME EQUATES TO 1800 CUBIC FEET OF STORAGE OR 67 CUBIC YARDS FOR EACH ACRE OF DRAINAGE AREA.
3. SEDIMENT BASIN ARE UTILIZED FOR DRAINAGE AREAS FROM 5 TO 100 ACRES. THE TEMPORARY SEDIMENT BASIN SHOULD HAVE A MINIMUM VOLUME OF 3,600 CUBIC FEET FROM EACH ACRE OF DRAINAGE AREA.
4. LOCATION DICTATED BY SEQUENCE OF CONSTRUCTION. CONTRACTOR TO PROVIDE WHERE NECESSARY TO FILTER RUNOFF FROM CONSTRUCTION AREAS PRIOR TO DISCHARGE.

9 TEMPORARY SEDIMENTATION BASIN
SCALE: NO SCALE



10 TYP. DOWNSPOUT CONNECTION
SCALE: NO SCALE

The Oxford School Residences

347 Main Street
Fairhaven, Massachusetts

SCG DEVELOPMENT

ARCHITECT

ICON ARCHITECTURE
101 SUMMER ST BOSTON MA 02110

CONSULTANT

CHA
101 Accord Park Drive
Norwell, MA 02061
Main: (781) 982-5400 • www.chacompanies.com

STAMP

COMMONWEALTH OF MASSACHUSETTS
KELLY KILLEEN
CIVIL
No. 38391
REGISTERED PROFESSIONAL ENGINEER

KEY PLAN

MARK	DATE	DESCRIPTION
	1/24/2017	ZBA PERMITTING
	10/19/2016	

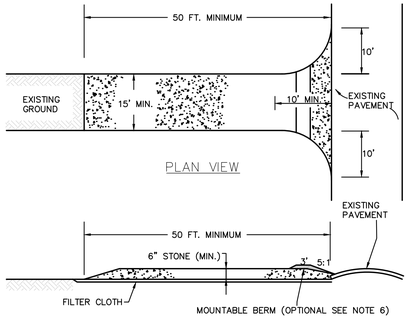
PROJECT NO.: 21101.00
DRAWN BY: DAR
CHECKED BY: KK

SHEET TITLE

DETAIL SHEET 3

C-303

File: V:\PROJECTS\ANY\K4\32372\CADD_ACAD\CIVIL\PLOT SHEETS\OXFORD FAIRHAVEN_C-300 - 305_CH-DETAILS.DWG
Saved: 1/24/2017 5:21:21 PM Plotted: 1/24/2017 5:24:17 PM Current User: Rose, Donald LastSavedBy: 4323

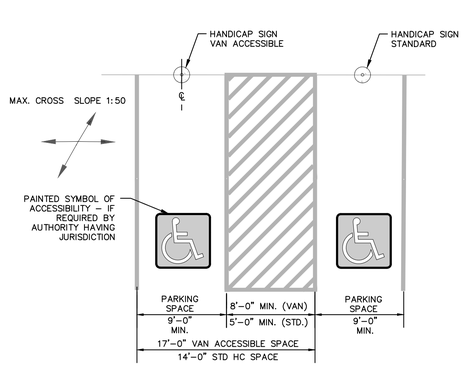


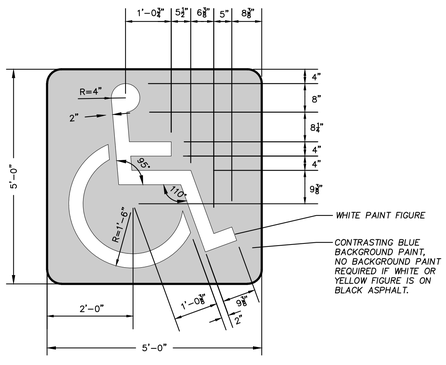
CROSS SECTION

CONSTRUCTION SPECIFICATIONS:

1. STONE SIZE–USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH–RECOMMEND GREATER THAN OR EQUAL TO 50 FEET WHERE SOILS ARE SANDS AND GRAVELS AND 100 FEET IN SILTS AND CLAYS.
3. THICKNESS–NOT LESS THAN SIX (6) INCHES.
4. WIDTH–FIFTEEN (15) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OF EGRESS OCCURS.
5. FILTER CLOTH–SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER–ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM SHALL BE INSTALLED.
7. MAINTENANCE– THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OF FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
8. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED.

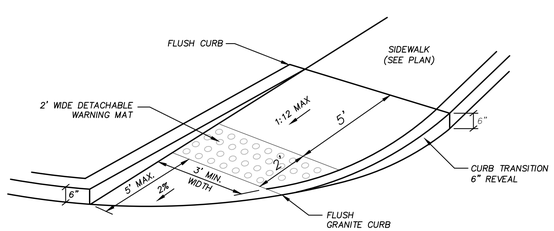
1 STABILIZED CONSTRUCTION ENTRANCE
SCALE: NO SCALE



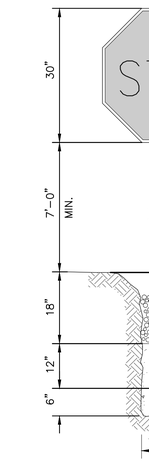


A. SYMBOL TO BE CENTERED ON WIDTH OF PARKING STALL.
B. BOTTOM OF SYMBOL TO BE LOCATED 2'–6" FROM ACCESS DRIVE, INTO PARKING SPACE.
C. SYMBOL IS REQUIRED TO CONTRAST WITH BACKGROUND.

6 HANDICAP PARKING SPACE AND SYMBOL
SCALE: NO SCALE

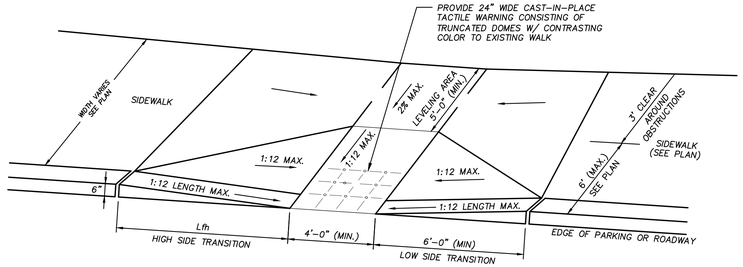


7 ADA CURB RAMP TYPE B
SCALE: NO SCALE



NOTE:
1. PROVIDE SIGN IN ACCORDANCE WITH MUTCD SPECIFICATIONS AND LOCAL AUTHORITIES HAVING JURISDICTION.

2 STOP SIGN (R1–1) DETAIL
SCALE: NO SCALE



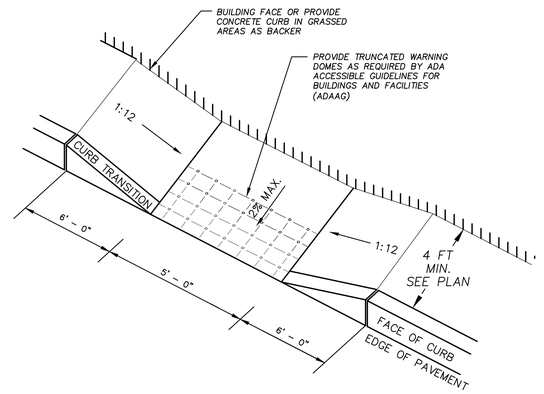
LEGEND:
Lfh = HIGH SIDE FRONT TRANSITION LENGTH (SEE EQUATION)

EQUATION:
$Lfh = (FT) = \frac{R}{TS-12G}$ MIN. Lfh = 6' MAX. Lfh = 15'

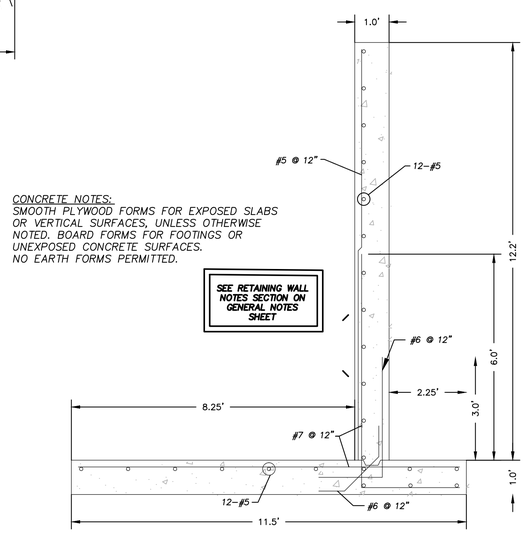
WHERE:
R = CURB REVEAL (INCHES)
TS = TRANSITION SLOPE (INCHES/FEET)
G = ROAD PROFILE (FEET/FEET)

NOTE:
ALL SIDEWALK AND RAMP CONSTRUCTION TO CONFORM TO 521 CMR ARCHITECTURAL ACCESS BOARD AND APPLICABLE A.D.A. REGULATIONS.

3 ADA CURB RAMP TYPE A
SCALE: NO SCALE



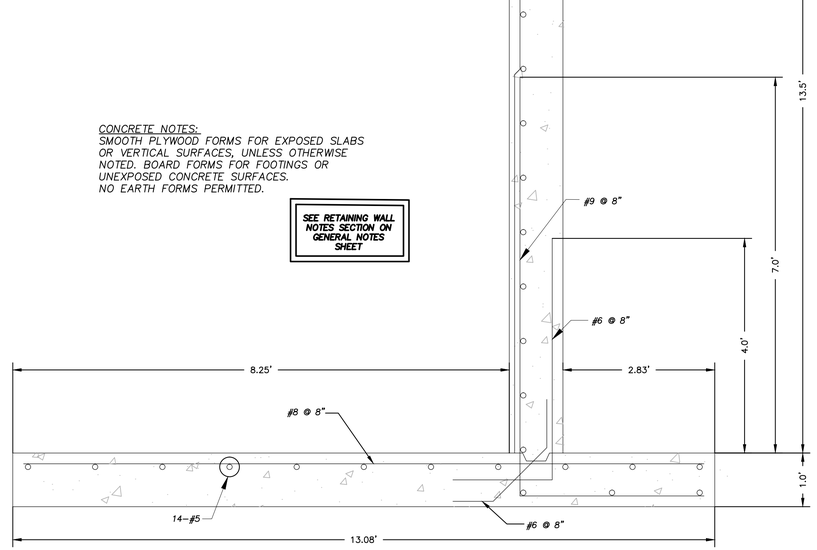
5 ADA CURB RAMP
SCALE: NO SCALE



CONCRETE NOTES:
SMOOTH PLYWOOD FORMS FOR EXPOSED SLABS OR VERTICAL SURFACES, UNLESS OTHERWISE NOTED. BOARD FORMS FOR FOOTINGS OR UNEXPOSED CONCRETE SURFACES.
NO EARTH FORMS PERMITTED.

SEE RETAINING WALL NOTES SECTION ON GENERAL NOTES SHEET

8 RETAINING WALL DETAIL (9' MAX)
SCALE: NO SCALE

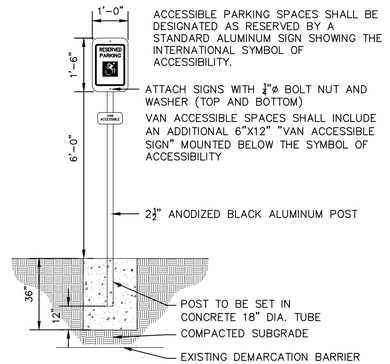


CONCRETE NOTES:
SMOOTH PLYWOOD FORMS FOR EXPOSED SLABS OR VERTICAL SURFACES, UNLESS OTHERWISE NOTED. BOARD FORMS FOR FOOTINGS OR UNEXPOSED CONCRETE SURFACES.
NO EARTH FORMS PERMITTED.

SEE RETAINING WALL NOTES SECTION ON GENERAL NOTES SHEET

9 RETAINING WALL DETAIL (10.5' MAX)
SCALE: NO SCALE

NOTE:
THE EXISTING SITE IS COVERED WITH A 3 FOOT THICK "CLEAN CAP", WHICH CONSISTS OF 6" OF TOPSOIL ON TOP OF 30" OF SAND ON TOP OF A GEOTEXTILE FABRIC "DEMARCATION BARRIER" ON TOP OF POTENTIALLY IMPACTED SOILS. ANY/ALL WORK TO OCCUR AT OR BELOW THE DEMARCATION BARRIER SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE PHASE IV REMEDY IMPLEMENTATION PLAN PREPARED BY CHA.



4 ACCESSIBLE PARKING SIGN
SCALE: NO SCALE

The Oxford School Residences

347 Main Street
Fairhaven, Massachusetts

SCG DEVELOPMENT

ARCHITECT

E-ICON ARCHITECTURE
101 SUMMER ST BOSTON MA 02110

CONSULTANT

CHA
101 Accord Park Drive
Norwell, MA 02061
Main: (781) 982-5400 • www.chacompanies.com

STAMP

KEY PLAN

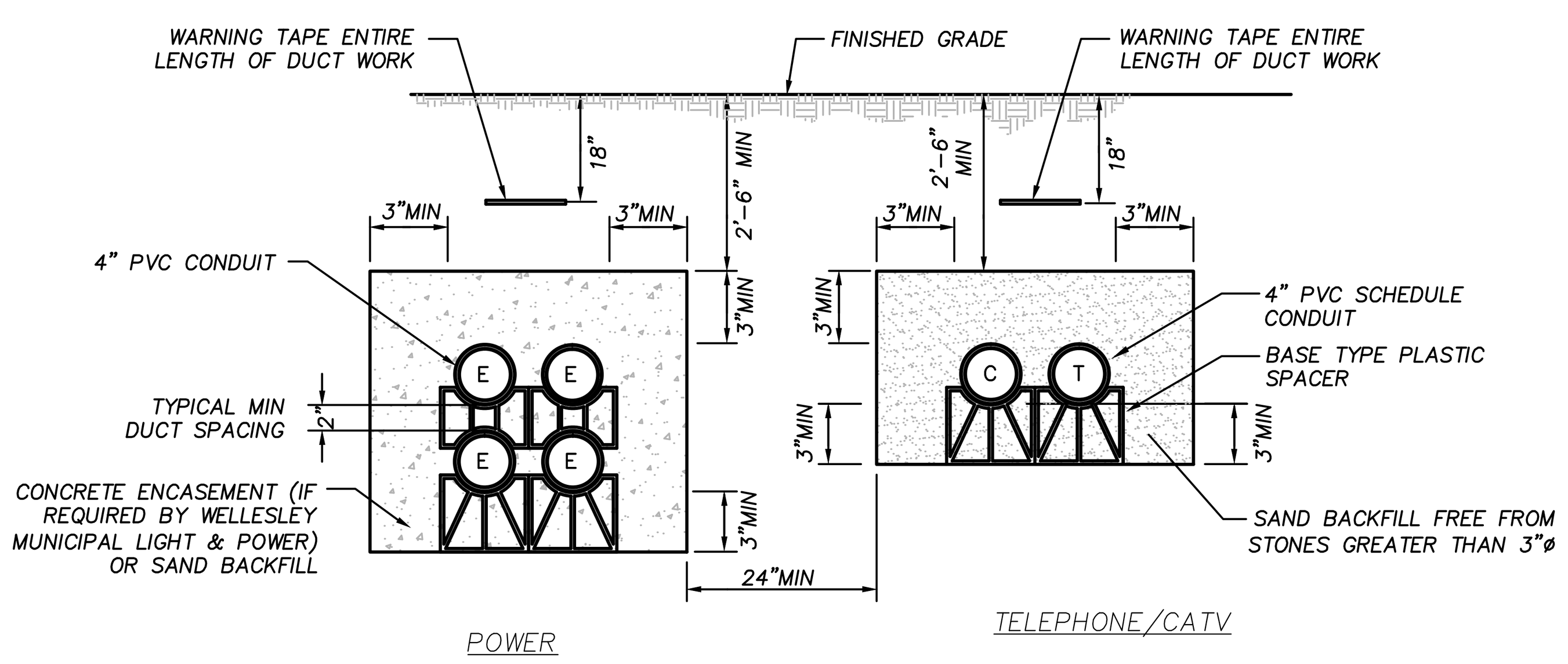
MARK	DATE	DESCRIPTION
	1/24/2017	ZBA PERMITTING
	10/19/2016	

PROJECT NO.: 21101.00
DRAWN BY: DAR
CHECKED BY: KK

SHEET TITLE

DETAIL SHEET 4

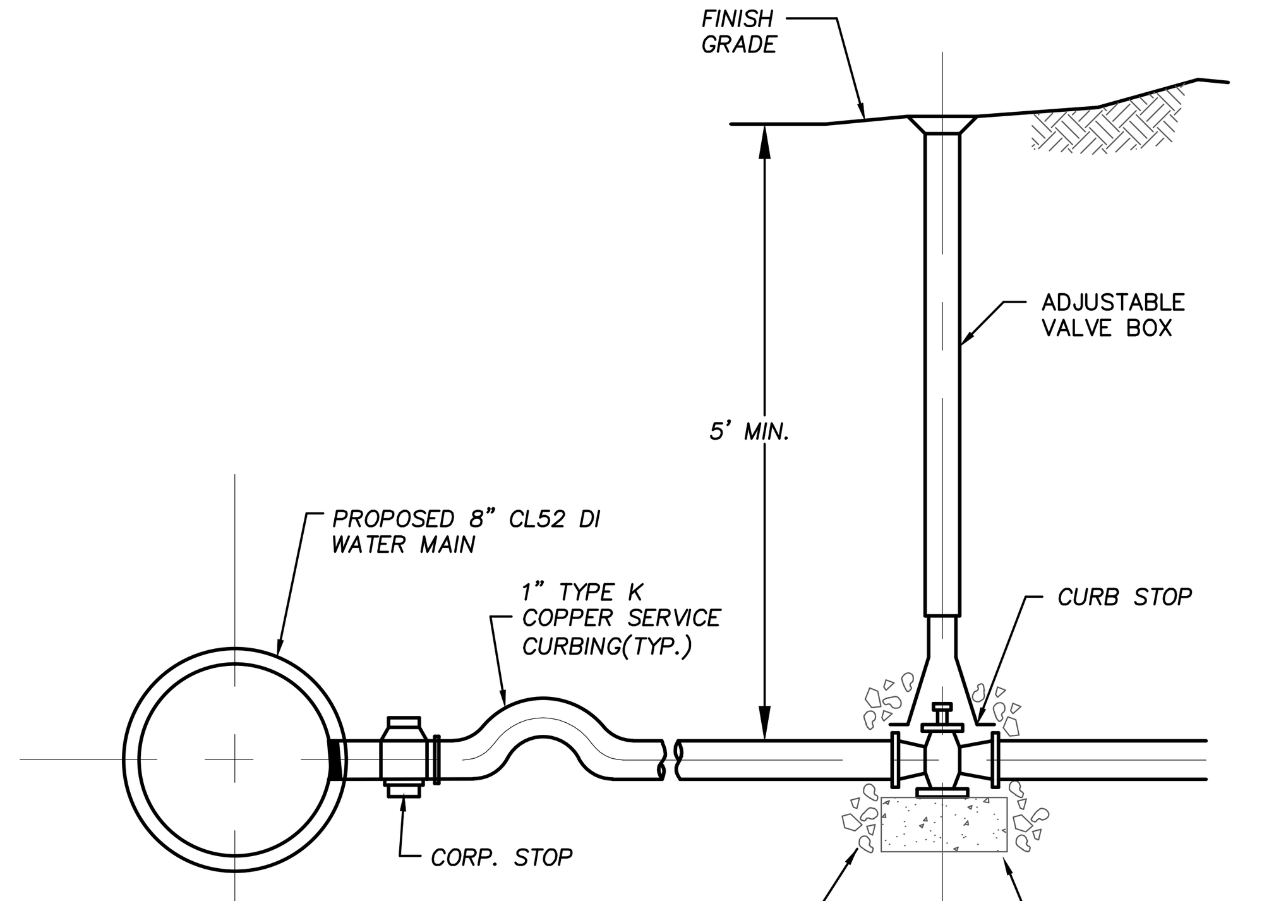
C-304



NOTES:

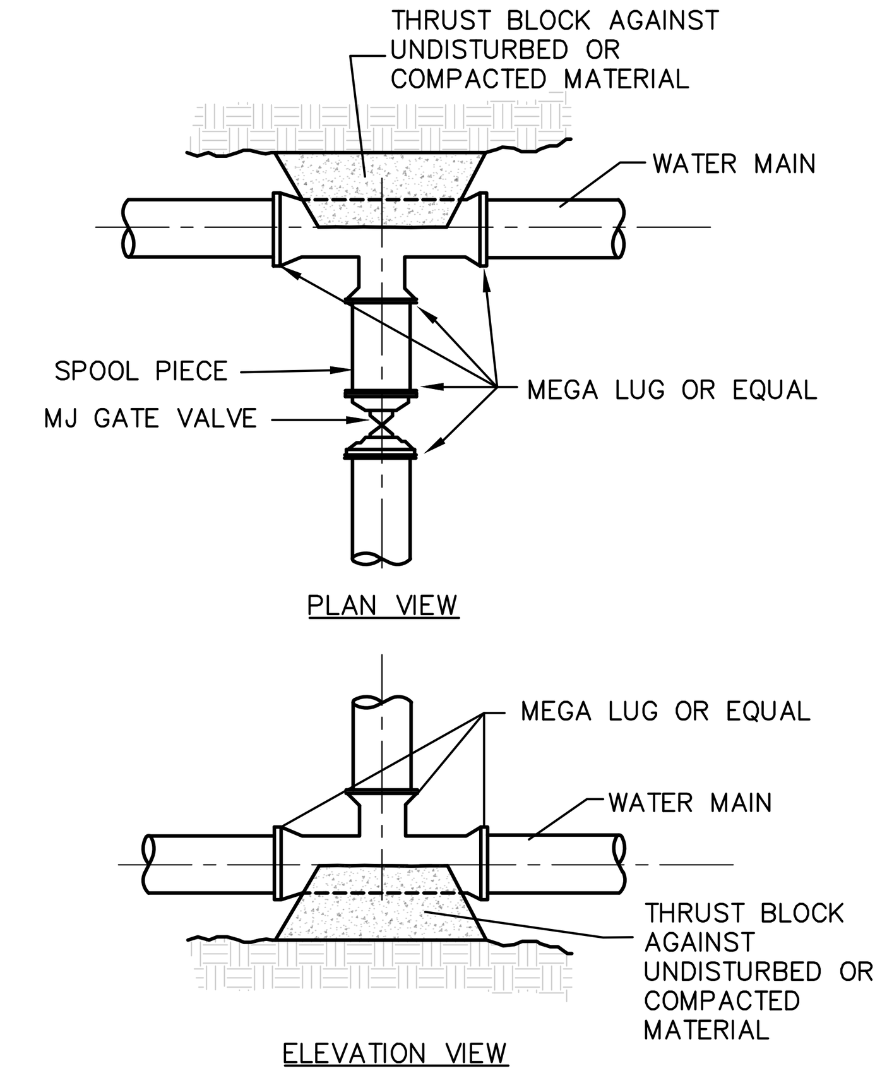
1. CONTRACTOR TO COORDINATE INSTALLATION OF UTILITIES WITH RESPECTIVE PURVEYORS.
2. UTILITIES TO BE INSTALLED PER UTILITY PURVEYOR'S DETAILS AND SPECIFICATIONS.
3. MAINTAIN A MINIMUM OF 2" SPACING BETWEEN ELECTRICAL AND TELEPHONE/CABLE.

1 UTILITY / ELECTRICAL DUCTBANK
SCALE: NO SCALE

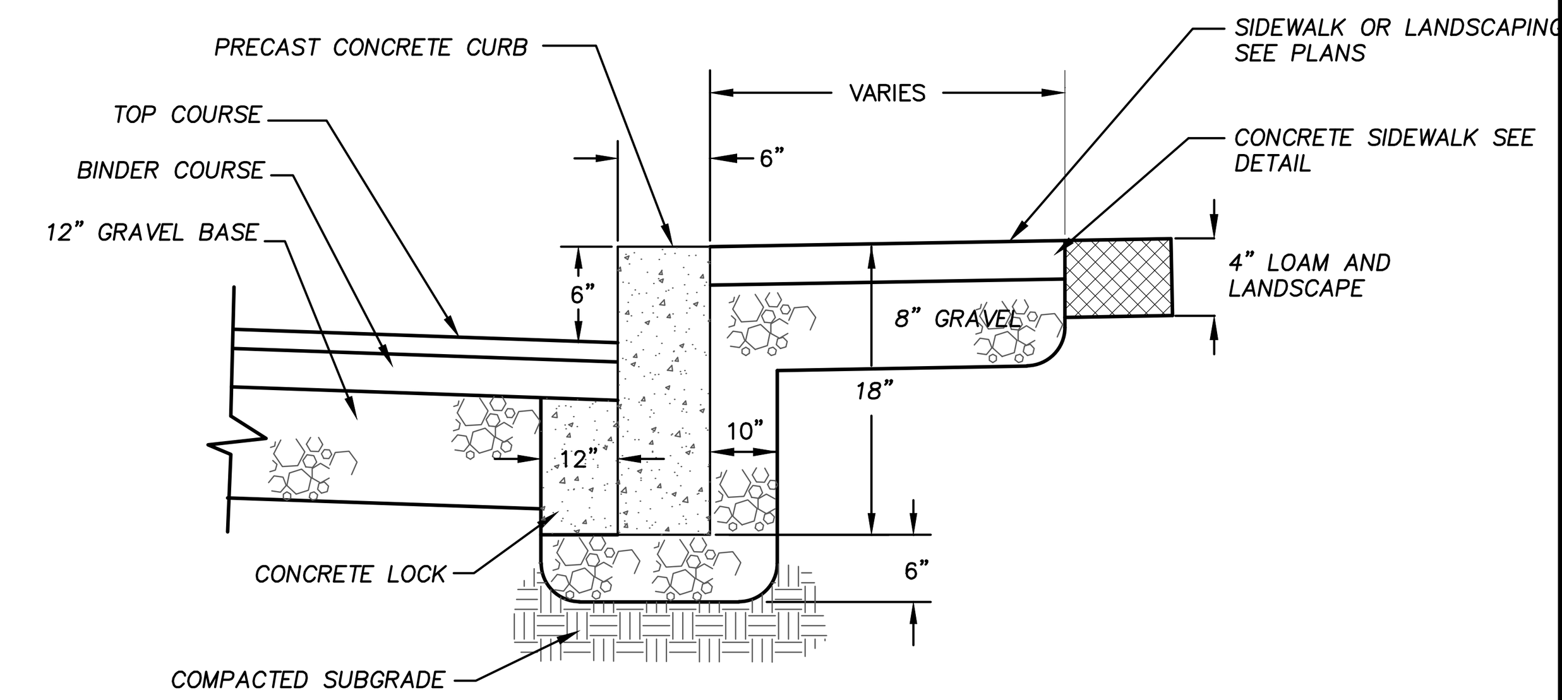


NOTE:
1. CONTRACTOR TO PROVIDE CATALOG CUTS OF ALL BRASS AND WATER VALVE COMPONENTS IN ACCORDANCE WITH LOCAL PREFERENCES.

2 WATER SERVICE CONNECTION
SCALE: NO SCALE



3 RESTRAINED JOINT TEE AND VALVE DETAIL
SCALE: NO SCALE



NOTE:
EXISTING SOIL OR ORDINARY FILL COMPACT GRAVEL AND FILL BEHIND CURB TO 95% DRY DENSITY

4 PRECAST CONCRETE CURB
SCALE: NO SCALE

TYPE A BLOCKING FOR 11 1/4° & 22 1/2° VERT BENDS					
PIPE SIZE NOM DIA(INCHES)	VERTICAL BEND DEGREES	NO. OF CUFT OF CONC BLOCKING	SIDE OF CUBE (FEET)	DIA OF SHACKLE RODS(2) * (INCHES)	DEPTH OF RODS IN CONC (FEET)
4"	11 1/4°	8	2.0	3/4"	1.6
	22 1/2°	16	2.5		
6"	11 1/4°	16	2.5	3/4"	1.6
	22 1/2°	32	3.2		
8"	11 1/4°	28	3.0	3/4"	1.6
	22 1/2°	55	3.8		
10"	11 1/4°	42	3.5	3/4"	1.6
	22 1/2°	83	4.4		
12"	11 1/4°	60	3.9	3/4"	1.6
	22 1/2°	118	4.9	7/8"	2.2
16"	11 1/4°	104	4.7	7/8"	2.2
	22 1/2°	205	5.9	1 1/8"	3.7

THRUST BLOCK NOTES

1. FOR REQUIRED BEARING AREA DIMENSIONS D & L SEE TABLE. DIMENSIONS OF D & L OTHER THAN THOSE SHOWN IN THE TABLE MAY BE USED PROVIDED THEY YIELD A BEARING AREA EQUAL TO OR LARGER THAN THAT REQUIRED.
2. CONCRETE NOT TO OVERLAP ANY JOINT.
3. CONCRETE TO BE PLACED SO AS NOT TO INTERFERE WITH REMOVING OR INSTALLING ANY OF THE JOINTING HARDWARE.
4. APPROXIMATE VOLUME OF CONCRETE THRUST BLOCK:

$$V = \frac{LD\ (W+ID) - ID}{81}$$

WHERE:

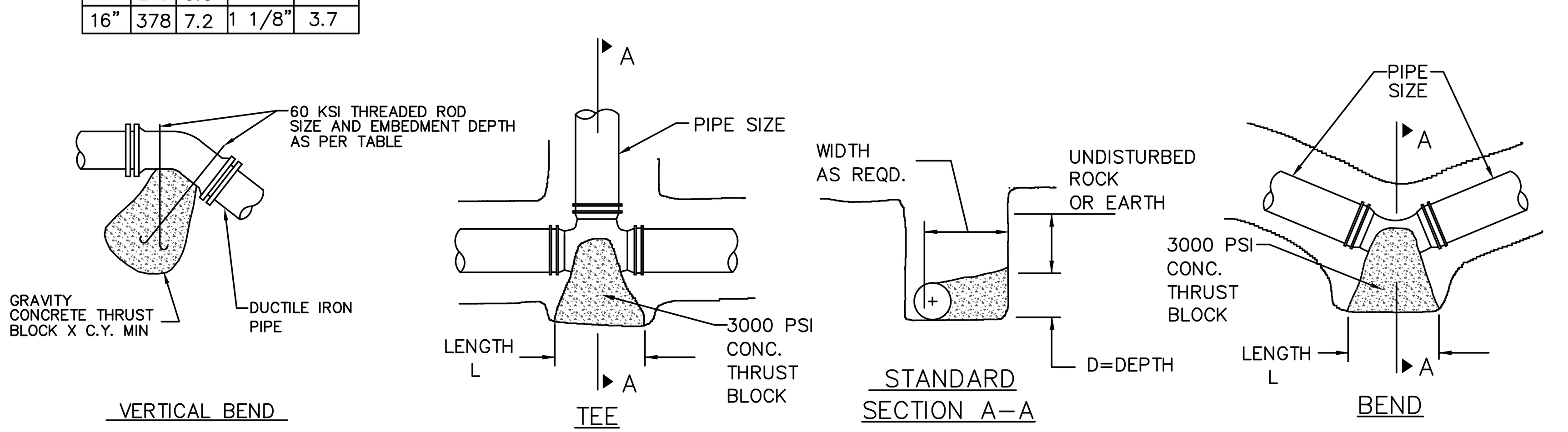
V = VOLUME IN CUBIC YARDS
L = LENGTH OF BLOCK IN FEET
D = DEPTH OF BLOCK IN FEET
W = WIDTH OF BLOCK IN FEET
ID = INSIDE DIAMETER OF PIPE IN FEET

5. VALUES FOR TEE ALSO APPLY TO END PLUGS, CAPS, AND TAPPING SLEEVES.
6. REQUIRED BEARING AREAS ARE DUE TO THRUSTS CAUSED BY 150 PSI WORKING PRESSURE PLUS 50%(75 PSI) SURGE ALLOWANCE RESULTING IN 225 PSI TOTAL INTERNAL PRESSURE. NORMAL PIPE DIAMETER USED.
7. REQUIRED BEARING AREAS ARE BASED ON ALLOWABLE SOIL BEARING CAPACITY OF 2000 LBS. PER SQUARE FOOT FOR SAND. DUE TO OTHER SOIL CONDITIONS ENCOUNTERED, BEARING AREAS MAY BE MODIFIED BY THE ENGINEER.
8. IN MUCK, PEAT, OR RECENTLY PLACED FILL ALL THRUST SHALL BE RESISTED BY PILES OR TIE RODS TO SOLID FOUNDATIONS, OR BY REMOVAL OF SUCH UNSTABLE MATERIAL AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THE THRUSTS, ALL AS REQUIRED BY THE ENGINEER.

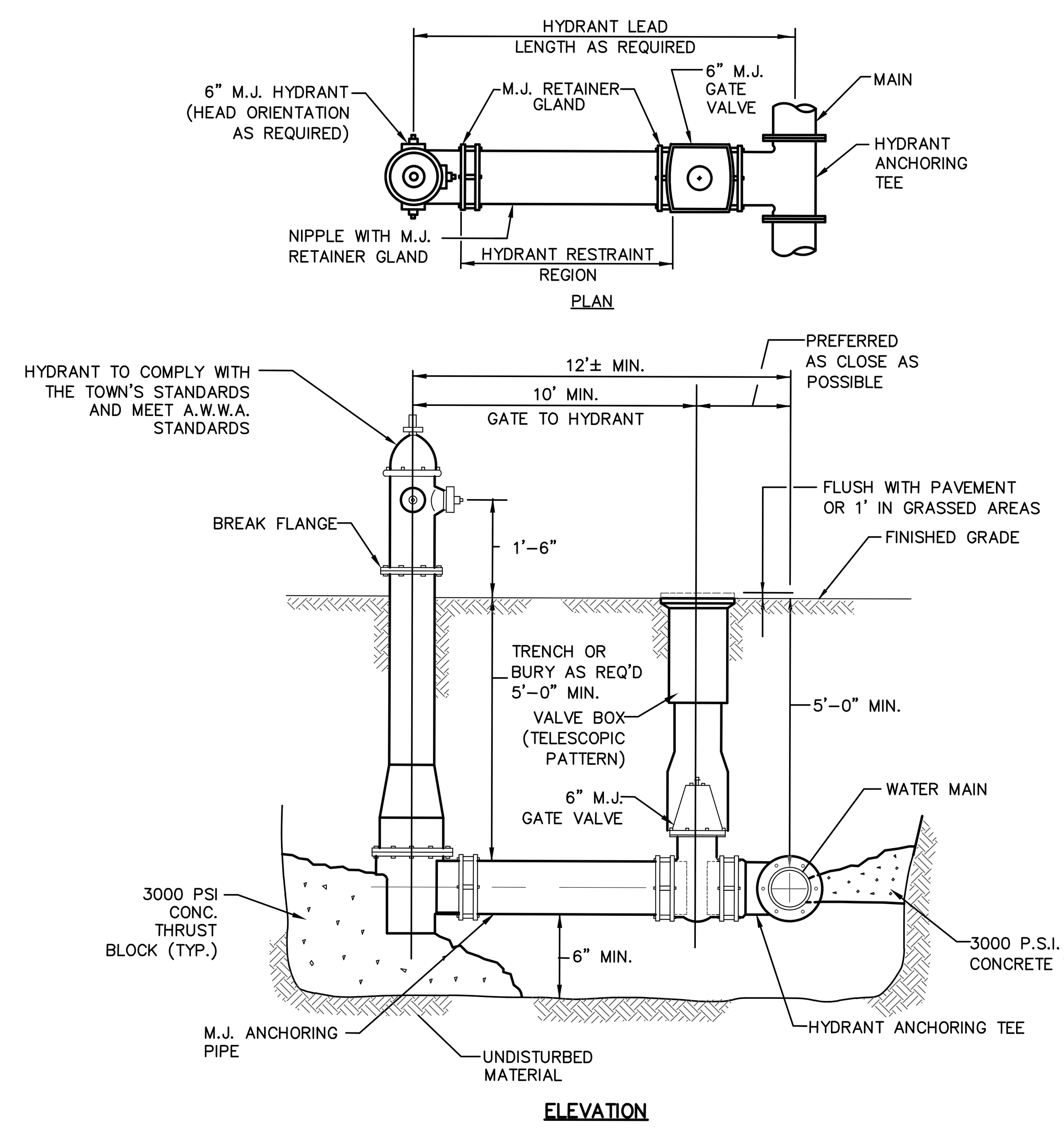
TYPE B BLOCKING FOR 45° VERTICAL BENDS				
PIPE SIZE NOM DIA(INCHES)	NO. OF CUFT OF CONC BLOCKING	SIDE OF CUBE (FEET)	DIA OF SHACKLE RODS(2) * (INCHES)	DEPTH OF RODS IN CONC (FEET)
4"	29	3.1	3/4"	1.6
6"	59	3.9		
8"	102	4.7		
10"	154	5.4		
12"	218	6.0		
16"	378	7.2	1 1/8"	3.7

REQUIRED BEARING AREAS & DIMENSIONS
FOR CONCRETE THRUST BLOCKS

PIPE SIZE (IN.)	TEE(See Note 5) AREA Sq.Ft.	TEE Dimen. D x L	90°(1/4)BEND AREA Sq.Ft.	90°(1/4)BEND Dimen. D x L	45°(1/8)BEND AREA Sq.Ft.	45°(1/8)BEND Dimen. D x L	22-1/2°(1/16)BEND AREA Sq.Ft.	22-1/2°(1/16)BEND Dimen. D x L	11-1/4°(1/32)BEND AREA Sq.Ft.	11-1/4°(1/32)BEND Dimen. D x L
3 & 4	1.4	1.0 x 1.5	2.0	1.0 x 2.0	1.1	1.0 x 1.5	0.6	0.5 x 1.5	0.3	0.5 x 1.0
6	3.2	1.5 x 2.5	4.5	2.0 x 2.5	2.4	1.5 x 2.0	1.2	1.0 x 1.5	0.6	1.5 x 1.5
8	5.7	2.0 x 3.0	8.0	2.0 x 4.0	4.3	2.0 x 2.5	2.2	1.5 x 1.5	1.1	1.0 x 1.5
12	12.7	3.5 x 3.5	18.0	4.0 x 4.5	9.7	2.5 x 4.0	5.0	2.0 x 2.5	2.5	1.5 x 2.0
16	50.0	6.0 x 8.5	50.0	6.0 x 8.5	27.0	5.0 x 5.5	13.8	3.5 x 4.0	6.9	2.5 x 3.0



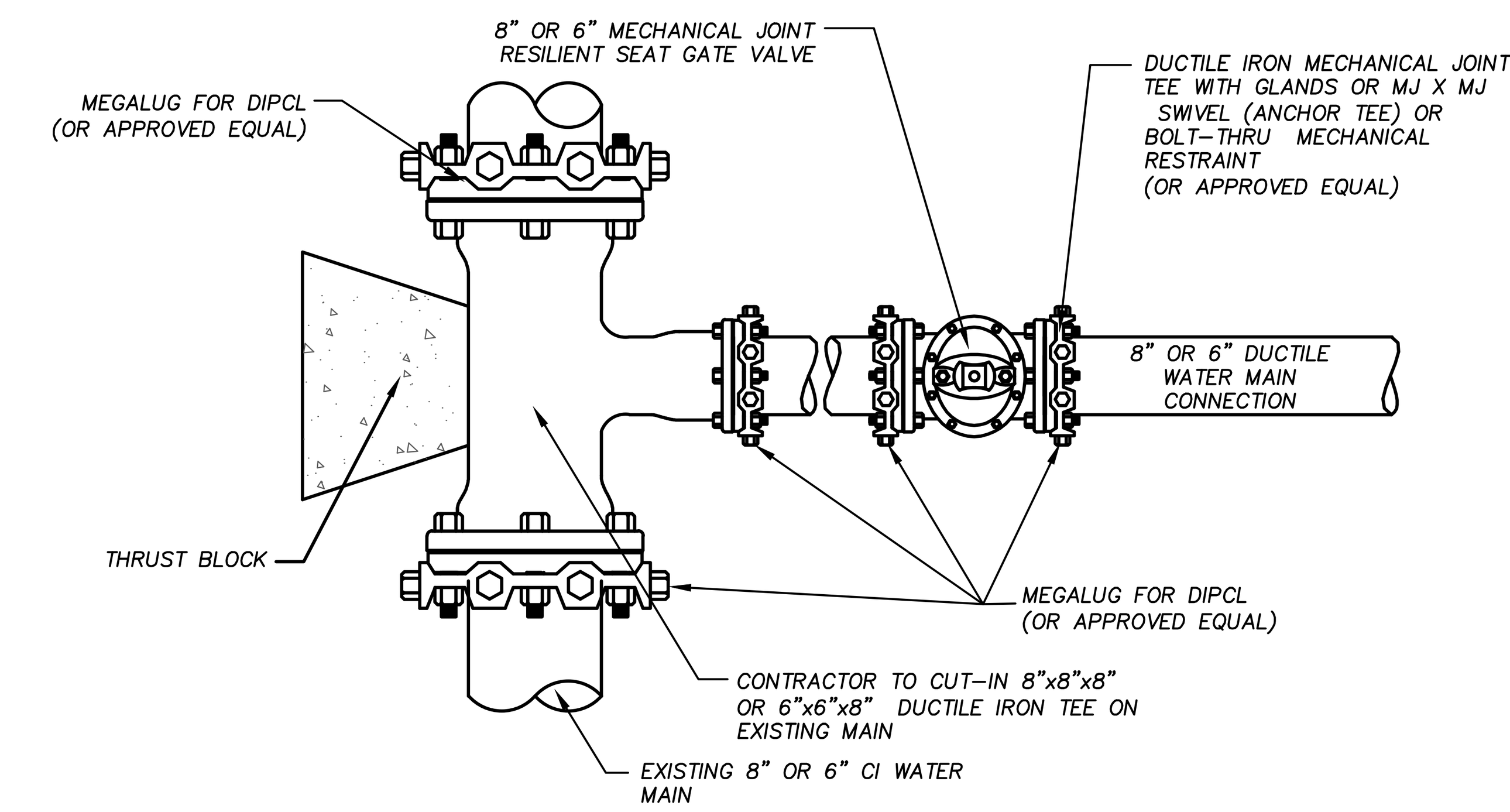
5 THRUST BLOCK DETAILS
SCALE: NO SCALE



NOTES:

1. HYDRANT TO BE INSTALLED WITHIN RIGHT-OF-WAY OR AS SHOWN ON THE PLANS.
2. ALL MATERIALS AND INSTALLATION TO CONFORM WITH TOWN SPECIFICATIONS.

6 HYDRANT AND VALVE ASSEMBLY INSTALLATION DETAIL
SCALE: NO SCALE



NOTES

1. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL CONFORM TO THE BOURNE WATER DISTRICT GUIDELINES, POLICIES AND SPECIFICATIONS
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
3. THE MECHANICAL JOINTS OF THE PIPES BETWEEN THE VALVES AND THE FITTINGS SHALL BE RESTRAINED VIA MEG-A-LUG JOINT CLAMPS (OR APPROVED EQUAL).

7 WATER CUT-IN TEE INSTALLATION
SCALE: NO SCALE

The Oxford School Residences

347 Main Street
Fairhaven, Massachusetts

SCG DEVELOPMENT

ARCHITECT

ICON ARCHITECTURE
101 SUMMER ST BOSTON MA 02110

CONSULTANT

CHA
101 Accord Park Drive
Norwell, MA 02061
Main: (781) 982-5400 • www.chacompanies.com

STAMP

COMMONWEALTH OF MASSACHUSETTS
KELLY KILLEEN
CIVIL
No. 38991
REGISTERED PROFESSIONAL ENGINEER
1.24.17

KEY PLAN

MARK	DATE	DESCRIPTION
	1/24/2017	ZBA PERMITTING
	10/19/2016	

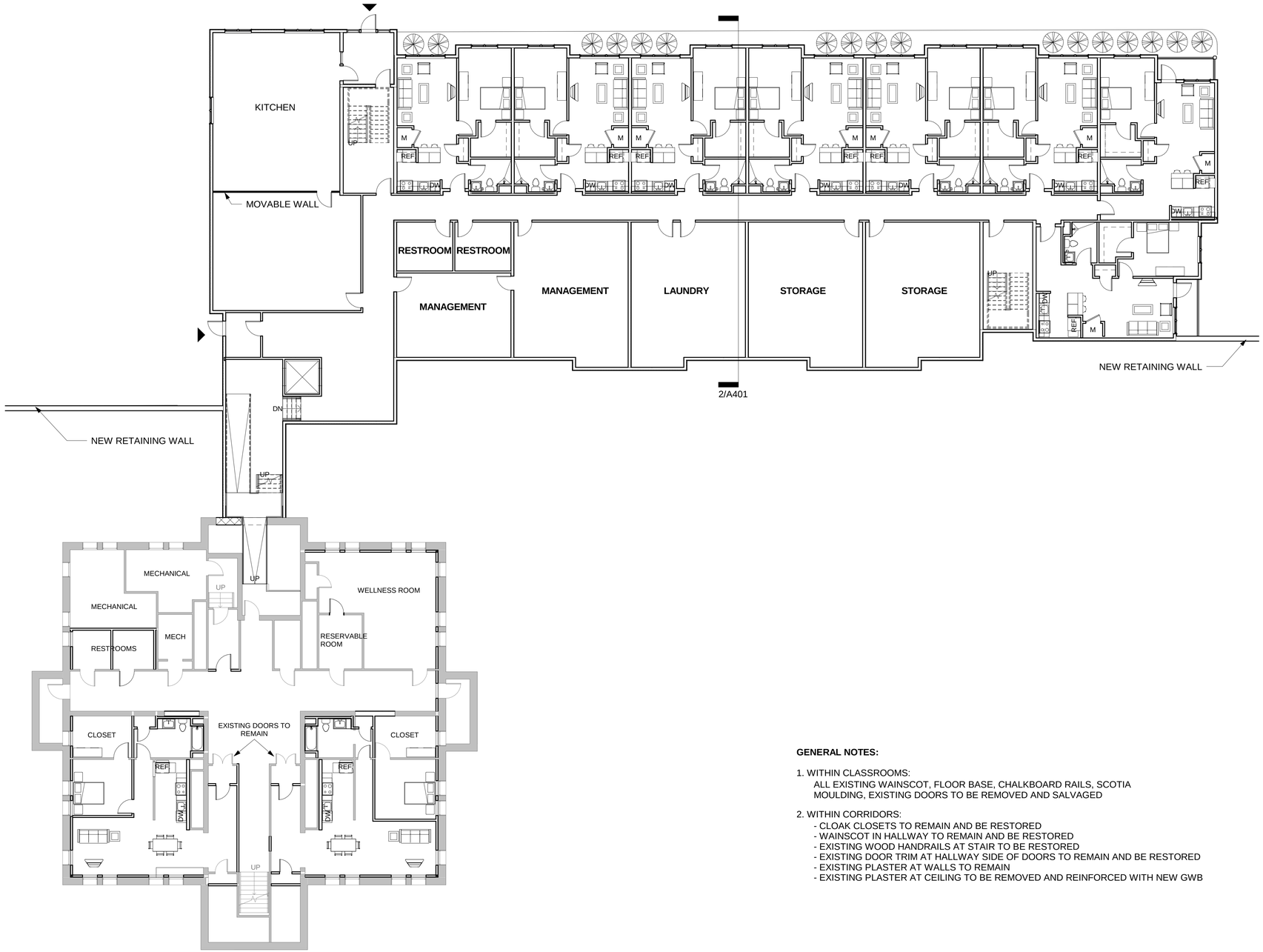
PROJECT NO.: 21101.00
DRAWN BY: DAR
CHECKED BY: KK

SHEET TITLE

DETAIL SHEET 5

C-305

File: V:\PROJECTS\ANY\K4\32372\CADD_ACAD\CIVIL\PLOT SHEETS\OXFORD FAIRHAVEN_C-300 - 305_CN-DETAILS.DWG
Saved: 1/24/2017 5:21:21 PM Plotted: 1/24/2017 5:24:33 PM Current User: Rose, Donald LastSavedBy: 4323



1 LOWER LEVEL
3/32" = 1'-0"

GENERAL NOTES:

1. WITHIN CLASSROOMS:
   ALL EXISTING WAINSCOT, FLOOR BASE, CHALKBOARD RAILS, SCOTIA MOULDING, EXISTING DOORS TO BE REMOVED AND SALVAGED

2. WITHIN CORRIDORS:
   - CLOAK CLOSETS TO REMAIN AND BE RESTORED
   - WAINSCOT IN HALLWAY TO REMAIN AND BE RESTORED
   - EXISTING WOOD HANDRAILS AT STAIR TO BE RESTORED
   - EXISTING DOOR TRIM AT HALLWAY SIDE OF DOORS TO REMAIN AND BE RESTORED
   - EXISTING PLASTER AT WALLS TO REMAIN
   - EXISTING PLASTER AT CEILING TO BE REMOVED AND REINFORCED WITH NEW GWB

3/29/2017 9:18:36 AM

Oxford School Residences

347 Main Street
Fairhaven, MA 02719

Stratford Capital Group

ARCHITECT
E-ICON ARCHITECTURE
101 SUMMER ST BOSTON MA 02110

CONSULTANT

STAMP

KEY PLAN

MARK	DATE	DESCRIPTION
	2016-10-18	

PROJECT NUMBER: 216030
DRAWN BY: DC
CHECKED BY: MG

SHEET TITLE

PROPOSED LOWER LEVEL

A-101

GENERAL NOTES:

1. WITHIN CLASSROOMS:
   ALL EXISTING WAINSCOT, FLOOR BASE, CHALKBOARD RAILS, SCOTIA MOULDING, EXISTING DOORS TO BE REMOVED AND SALVAGED

2. WITHIN CORRIDORS:
   - CLOAK CLOSETS TO REMAIN AND BE RESTORED
   - WAINSCOT IN HALLWAY TO REMAIN AND BE RESTORED
   - EXISTING WOOD HANDRAILS AT STAIR TO BE RESTORED
   - EXISTING DOOR TRIM AT HALLWAY SIDE OF DOORS TO REMAIN AND BE RESTORED
   - EXISTING PLASTER AT WALLS TO REMAIN
   - EXISTING PLASTER AT CEILING TO BE REMOVED AND REINFORCED WITH NEW GWB

1 N - FIRST FLOOR
3/32" = 1'-0"

3/29/2017 9:18:38 AM

Oxford School Residences

347 Main Street
Fairhaven, MA 02719

Stratford Capital Group

ARCHITECT

E- ICON ARCHITECTURE

101 SUMMER ST BOSTON MA 02110

CONSULTANT

STAMP

KEY PLAN

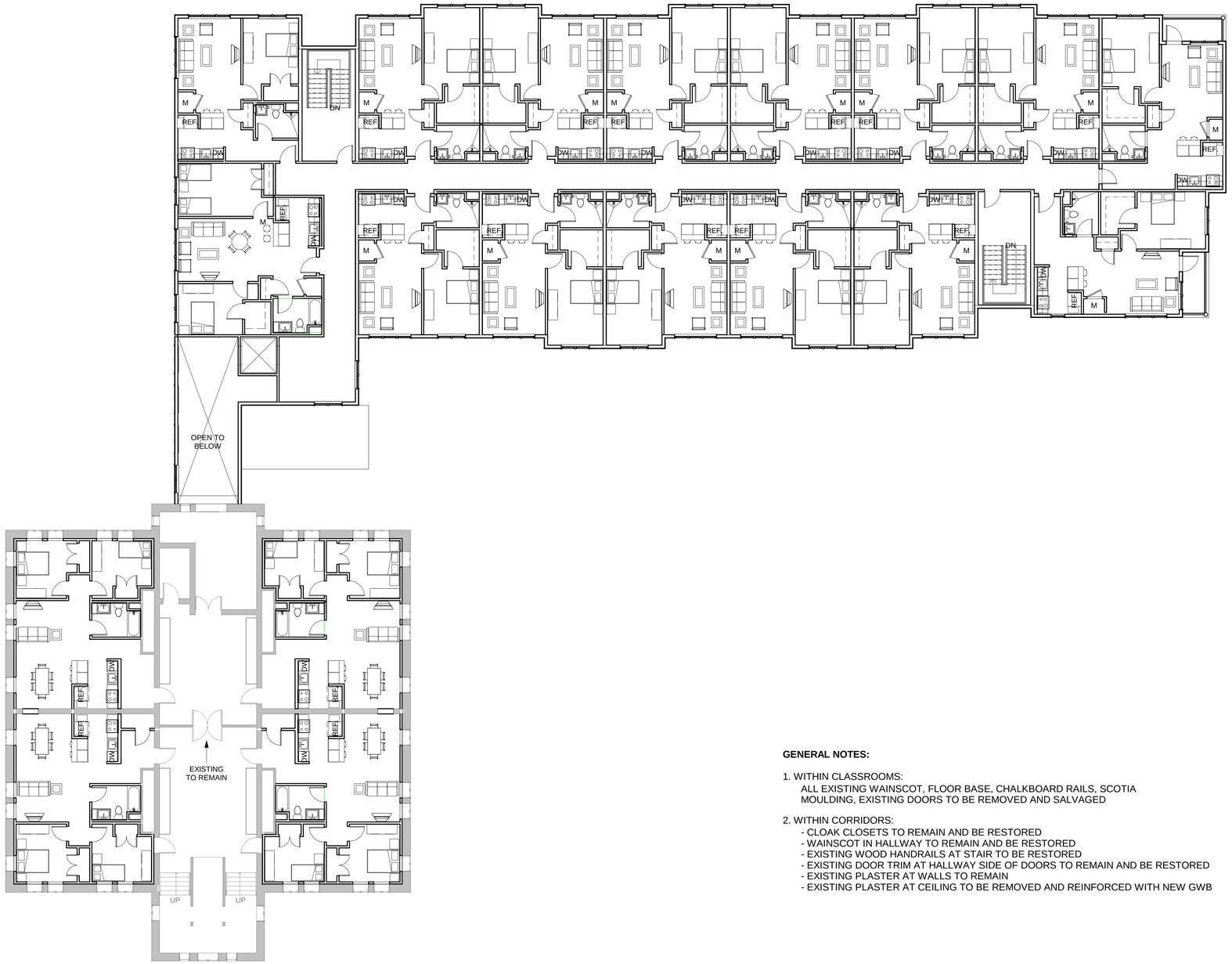
MARK	DATE	DESCRIPTION
	2016-10-18	

PROJECT NUMBER: 216030
DRAWN BY: DC
CHECKED BY: MG

SHEET TITLE

PROPOSED ENTRY LEVEL

A-102



1 SECOND FLOOR
3/32" = 1'-0"

GENERAL NOTES:

1. WITHIN CLASSROOMS:
   ALL EXISTING WAINSCOT, FLOOR BASE, CHALKBOARD RAILS, SCOTIA MOULDING, EXISTING DOORS TO BE REMOVED AND SALVAGED

2. WITHIN CORRIDORS:
   - CLOAK CLOSETS TO REMAIN AND BE RESTORED
   - WAINSCOT IN HALLWAY TO REMAIN AND BE RESTORED
   - EXISTING WOOD HANDRAILS AT STAIR TO BE RESTORED
   - EXISTING DOOR TRIM AT HALLWAY SIDE OF DOORS TO REMAIN AND BE RESTORED
   - EXISTING PLASTER AT WALLS TO REMAIN
   - EXISTING PLASTER AT CEILING TO BE REMOVED AND REINFORCED WITH NEW GWB

Oxford School Residences

347 Main Street
Fairhaven, MA 02719

Stratford Capital Group

ARCHITECT
E-ICON ARCHITECTURE
101 SUMMER ST BOSTON MA 02110

CONSULTANT

STAMP

KEY PLAN

MARK	DATE	DESCRIPTION
	2016-10-18	

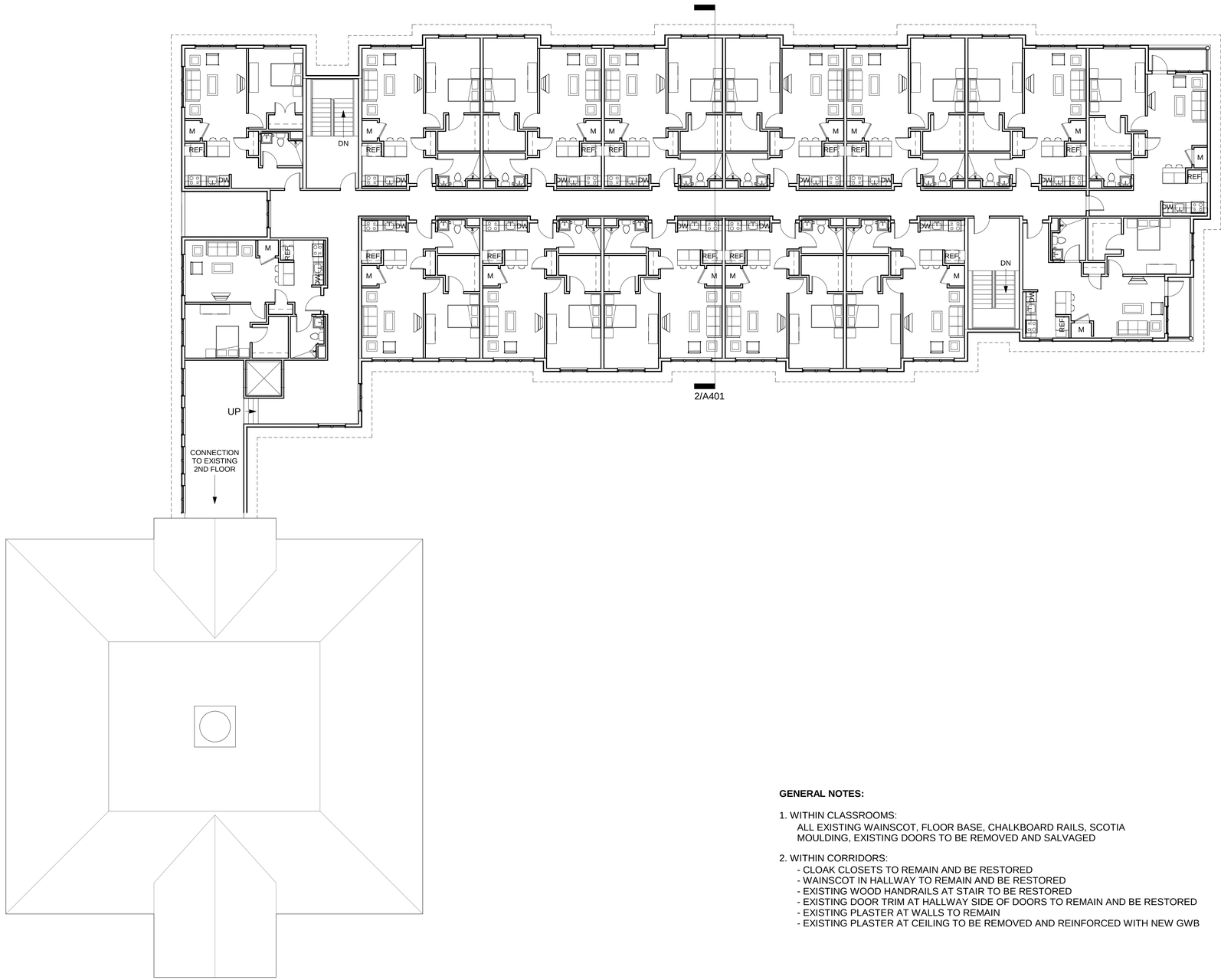
PROJECT NUMBER: 216030
DRAWN BY: DC
CHECKED BY: MG

SHEET TITLE

PROPOSED SECOND FLOOR

A-103

3/29/2017 9:18:42 AM



1 THIRD FLOOR
3/32" = 1'-0"

GENERAL NOTES:

1. WITHIN CLASSROOMS:
   ALL EXISTING WAINSCOT, FLOOR BASE, CHALKBOARD RAILS, SCOTIA MOULDING, EXISTING DOORS TO BE REMOVED AND SALVAGED

2. WITHIN CORRIDORS:
   - CLOAK CLOSETS TO REMAIN AND BE RESTORED
   - WAINSCOT IN HALLWAY TO REMAIN AND BE RESTORED
   - EXISTING WOOD HANDRAILS AT STAIR TO BE RESTORED
   - EXISTING DOOR TRIM AT HALLWAY SIDE OF DOORS TO REMAIN AND BE RESTORED
   - EXISTING PLASTER AT WALLS TO REMAIN
   - EXISTING PLASTER AT CEILING TO BE REMOVED AND REINFORCED WITH NEW GWB

3/29/2017 9:18:44 AM

Oxford School Residences

347 Main Street
Fairhaven, MA 02719

Stratford Capital Group

ARCHITECT
E-ICON ARCHITECTURE
101 SUMMER ST BOSTON MA 02110

CONSULTANT

STAMP

KEY PLAN

MARK	DATE	DESCRIPTION
	2016-10-18	

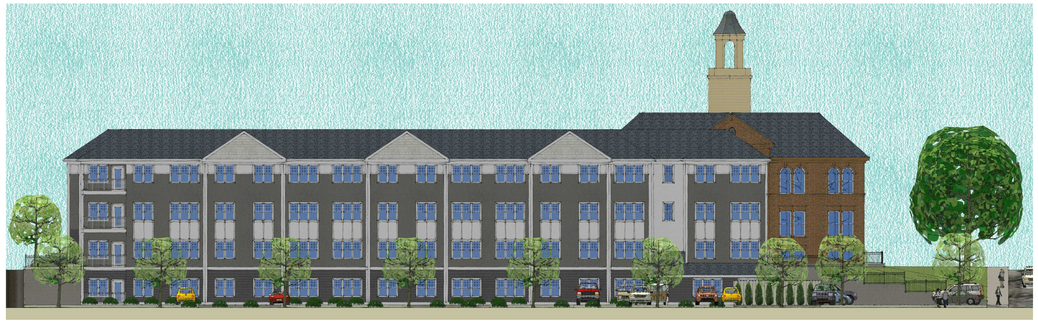
PROJECT NUMBER: 216030
DRAWN BY: DC
CHECKED BY: MG

SHEET TITLE

PROPOSED THIRD FLOOR

A-104

4 MORTON STREET ELEVATION
NTS



3 LIVESEY PARK ELEVATION
NTS

2 NORTH ELEVATION
NTS

1 MAIN STREET ELEVATION
NTS

3/29/2017 9:18:47 AM

Oxford School Residences

347 Main Street
Fairhaven, MA 02719

Stratford Capital Group

ARCHITECT

E- ICON ARCHITECTURE

101 SUMMER ST BOSTON MA 02110

CONSULTANT

STAMP

KEY PLAN

MARK	DATE	DESCRIPTION
	2016-10-18	

PROJECT NUMBER: 216030
DRAWN BY: MG
CHECKED BY: MG

SHEET TITLE

BUILDING ELEVATION

A-201

1 LATITUDINAL SECTION
3/32" = 1'-0"

Oxford School Residences

347 Main Street
Fairhaven, MA 02719

Stratford Capital Group

ARCHITECT

E- ICON
ARCHITECTURE

101 SUMMER ST BOSTON MA 02110

CONSULTANT

STAMP

KEY PLAN

MARK	DATE	DESCRIPTION
	2016-10-18	

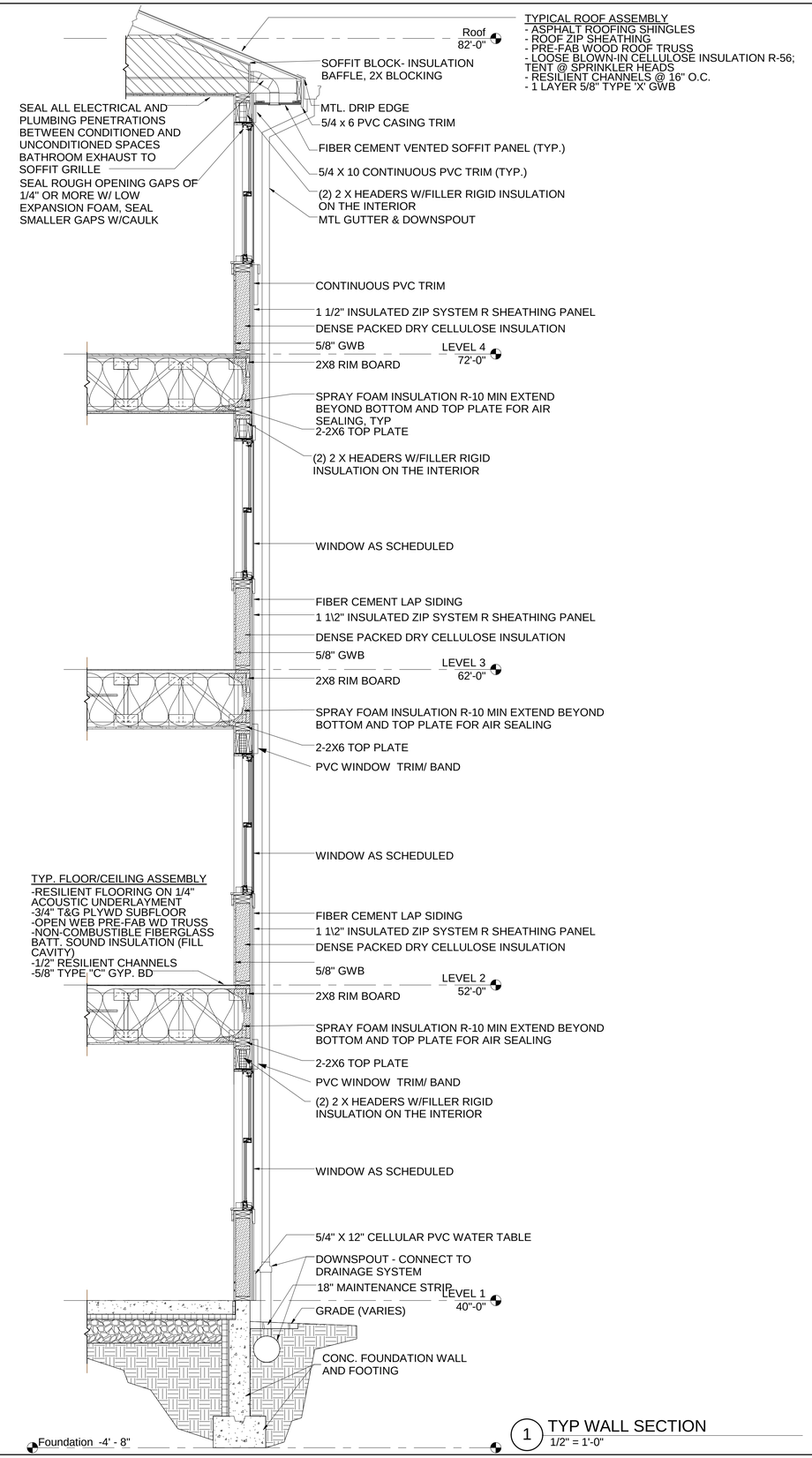
PROJECT NUMBER: 216030
DRAWN BY: DC
CHECKED BY: MG

SHEET TITLE

BUILDING SECTION

A-301

3/29/2017 9:18:49 AM



1 TYP WALL SECTION
1/2" = 1'-0"

Oxford School Residences

347 Main Street
Fairhaven, MA 02719

Stratford Capital Group

ARCHITECT

E-ICON ARCHITECTURE

101 SUMMER ST BOSTON MA 02110

CONSULTANT

STAMP

KEY PLAN

MARK	DATE	DESCRIPTION
	2016-10-18	

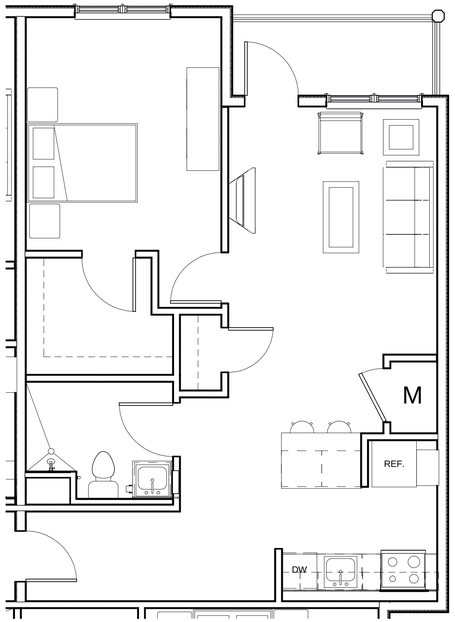
PROJECT NUMBER: 216030
DRAWN BY: DC
CHECKED BY: MG

SHEET TITLE

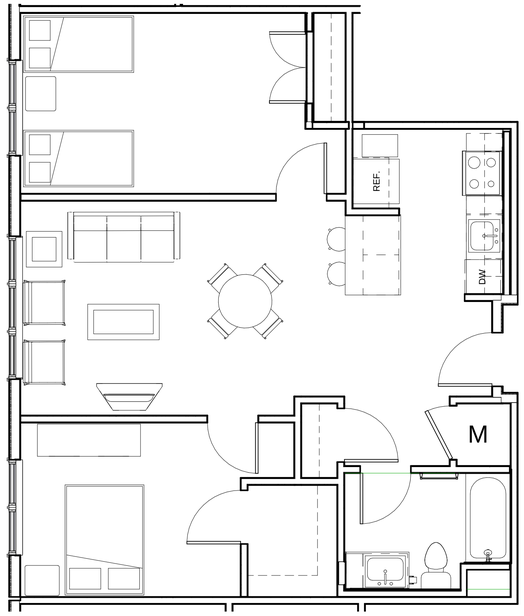
WALL SECTIONS

A-401

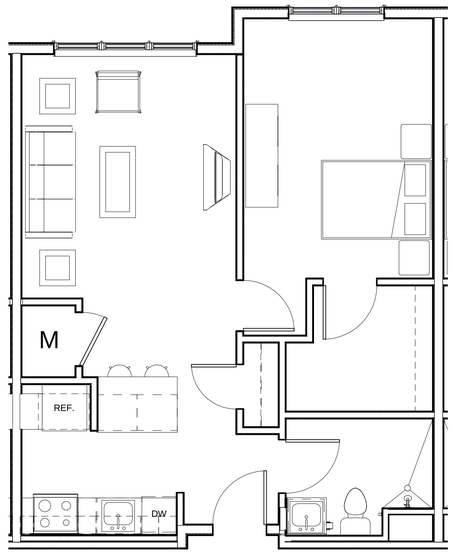
3/29/2017 9:18:51 AM



3 1BR WITH BALCONY
1/4" = 1'-0"



2 TYPICAL 2BR
1/4" = 1'-0"



1 TYPICAL 1BR
1/4" = 1'-0"

3/29/2017 9:18:52 AM

Oxford School Residences

347 Main Street
Fairhaven, MA 02719

Stratford Capital Group

ARCHITECT

E- ICON
ARCHITECTURE

101 SUMMER ST BOSTON MA 02110

CONSULTANT

STAMP

KEY PLAN

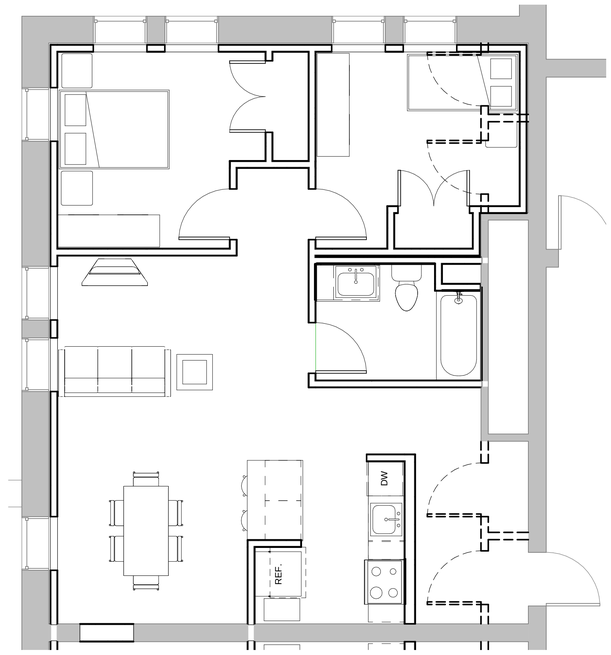
MARK	DATE	DESCRIPTION
	2016-10-18	

PROJECT NUMBER: 216030
DRAWN BY: DC
CHECKED BY: MG

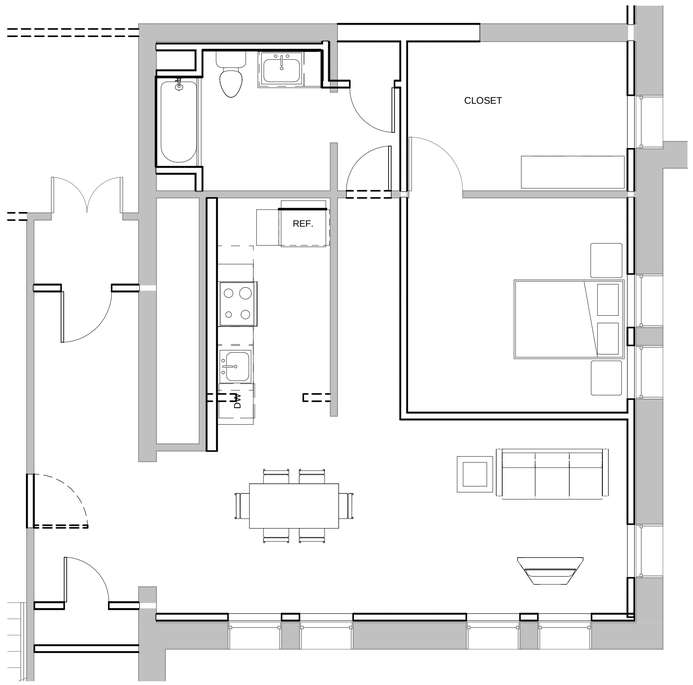
SHEET TITLE

ENLARGED UNIT PLANS - ADDITION

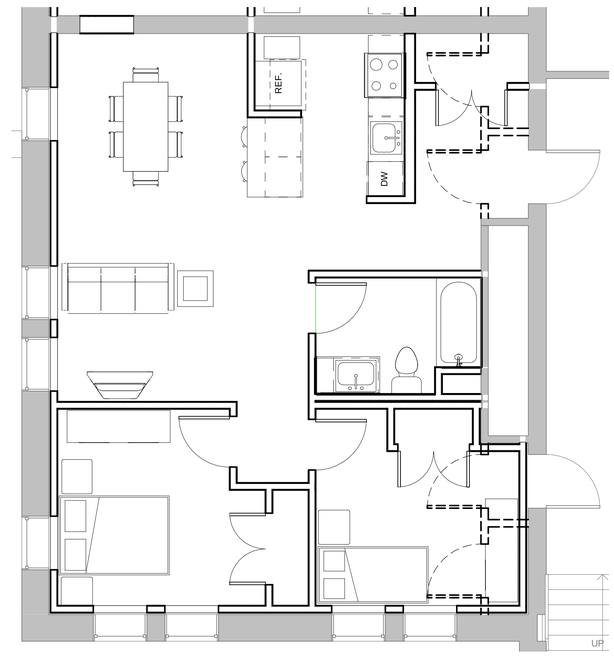
A-501



2 2BR EAST
1/4" = 1'-0"



3 1BR
1/4" = 1'-0"



1 2BR WEST
1/4" = 1'-0"

Oxford School Residences

347 Main Street
Fairhaven, MA 02719

Stratford Capital Group

ARCHITECT
E-ICON ARCHITECTURE
101 SUMMER ST BOSTON MA 02110

CONSULTANT

STAMP

KEY PLAN

MARK	DATE	DESCRIPTION
	2016-10-18	

PROJECT NUMBER: 216030
DRAWN BY: DC
CHECKED BY: MG

SHEET TITLE

ENLARGED UNIT PLANS - HISTORIC

A-502

3/29/2017 9:18:53 AM