

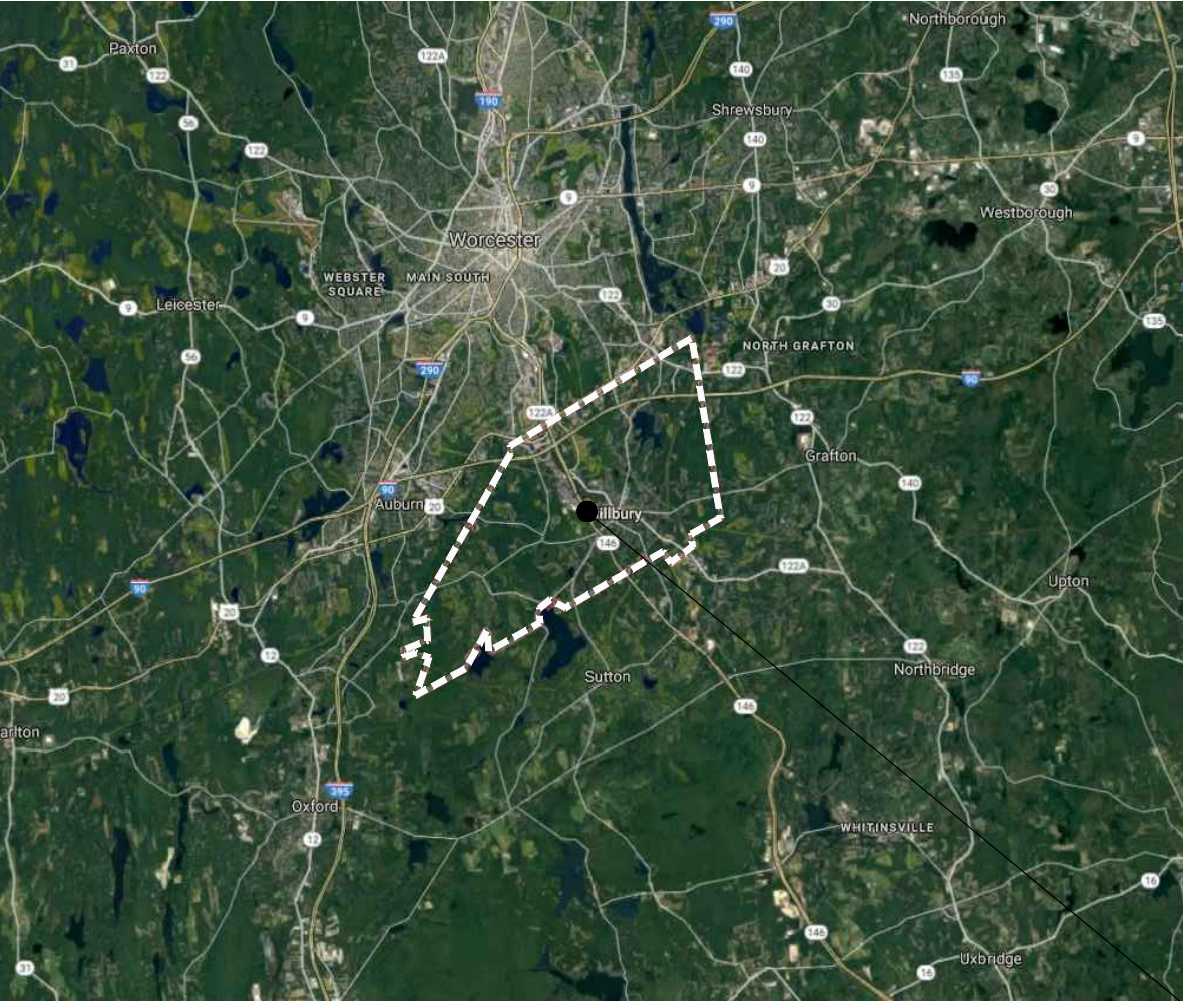
TOWN OF MILLBURY

IMPROVEMENTS TO MILLBURY DOWNTOWN

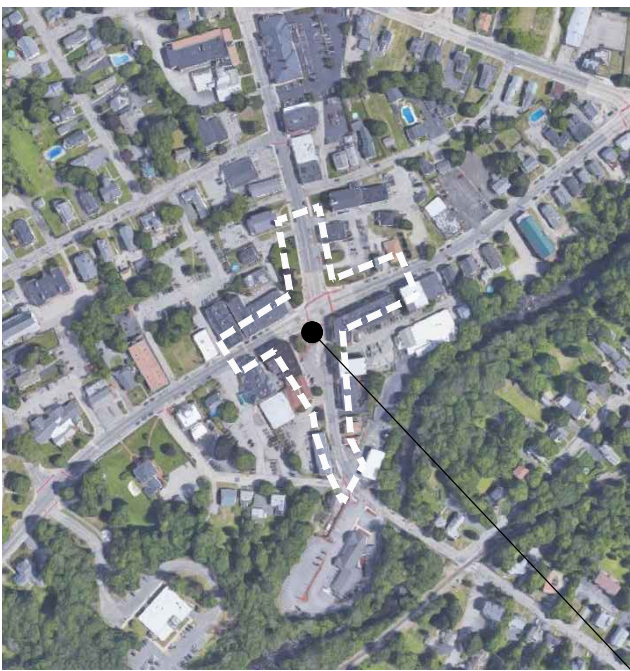


**DESIGN DEVELOPMENT ONLY
NOT FOR CONSTRUCTION**

Locus Map



PROJECT AREA



PROJECT SITE

MILLBURY DOWNTOWN
INTERSECTION OF ELM STREET
AND N. MAIN / S. MAIN STREETS

JANUARY 2019

Prepared By
Weston & SampsonSM

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GENERAL NOTES

1.

PROPERTY LINES, SITE SURVEY AND TOPOGRAPHICAL INFORMATION BASED FROM A COMPIATION OF THE TOWN OF WAKLPOLE GIS, RECORD DRAWINGS AND ON THE GROUND SURVEYS PERFORMED BY XXXX.
2.

CONTOURS AND ELEVATIONS SHOWN ON NAVD88 VERTICAL DATUM BASED ON GPS OBSERVATIONS.
3.

NORTH ORIENTATION IS TRUE NORTH BASED ON GPS OBSERVATIONS TAKEN AT THE TIME OF THE FIELD SURVEY. MAPPING PREPARED ON NADV83 STATE PLANE COORDINATE SYSTEM-MASSACHUSETTS MAINLAND ZONE.
4.

FOR DETAILED NOTES REGARDING TEST PITS AND BORINGS, REFER TO MEMO TITLED "GEOTECH LETTER REPORT WALPOLE RTE 1A REC.FACILITY" IN THE SPECIFICATIONS.
5.

REFER TO GENERAL SYMBOLS FOR SURVEY LEGEND. ALL BIDDERS ARE REQUIRED TO INSPECT THE PROJECT SITE IN ITS ENTIRETY PRIOR TO SUBMITTING THEIR BID, AND BECOME FAMILIAR WITH ALL CONDITIONS AS THEY MAY AFFECT THEIR BID. CONTRACTOR AND SUB-CONTRACTOR SHALL BE FAMILIAR WITH ALL DRAWINGS AND SPECIFICATIONS PRIOR TO COMMENCING THE CONSTRUCTION.
6.

LOCATIONS OF ANY UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF SUCH UTILITIES, PROTECTING ALL EXISTING UTILITIES AND REPAIRING ANY DAMAGE DONE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE COORDINATION WITH UTILITY COMPANIES AND PUBLIC AGENCIES AND FOR OBTAINING ALL REQUIRED PERMITS AND PAYING ALL REQUIRED FEES. IN ACCORDANCE WITH M.G.L. CHAPTER 82, SECTION 40, INCLUDING AMENDMENTS, CONTRACTORS SHALL NOTIFY ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES IN WRITING PRIOR TO EXCAVATION. CONTRACTOR SHALL ALSO CALL "DIG SAFE" AT (888) 344-7233 NO LESS THAN 72 HOURS, (EXCLUSIVE OF WEEKENDS AND HOLIDAYS), PRIOR TO SUCH EXCAVATION. DOCUMENTATION OF REQUESTS SHALL BE PROVIDED TO OWNER'S REPRESENTATIVE PRIOR TO EXCAVATION WORK.

7.

WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE OWNER'S REPRESENTATIVE FOR RESOLUTION OF THE CONFLICT.
8.

THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY OWNER AT NO ADDITIONAL COST TO THE TOWN OF WAYLAND.
9.

CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL DRAWINGS AND SPECIFICATIONS TO DETERMINE THE EXTENT OF EXCAVATION AND DEMOLITION REQUIRED TO RECEIVE SITE IMPROVEMENTS.
10.

ANY DISCREPANCIES OR CONFLICTS BETWEEN THE DRAWINGS AND EXISTING CONDITIONS, EXISTING CONDITIONS TO REMAIN, TEMPORARY CONSTRUCTION, PERMANENT CONSTRUCTION AND WORK OF ADJACENT CONTRACTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING. ITEMS ENCOUNTERED IN AREAS OF EXCAVATION THAT ARE NOT INDICATED ON THE DRAWINGS, BUT ARE VISIBLE ON SURFACE, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE REMOVED AT NO ADDITIONAL COST TO THE OWNER.
11.

ANY ALTERATIONS TO THESE DRAWINGS MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE GENERAL CONTRACTOR ON "AS BUILT" DRAWINGS.
12.

ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS OUTSIDE THE PROJECT LIMITS, SHALL BE RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR AT NO ADDITIONAL COST AND TO THE SATISFACTION OF THE OWNER.
13.

ALL WORK SHOWN ON THE PLANS AS BOLD SHALL REPRESENT PROPOSED WORK. THE TERM "PROPOSED (PROP)" INDICATES WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET (R&R)" OR "REMOVE AND SALVAGE (R&S).
14.

ALL KNOWN EXISTING STATE, COUNTY AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE
- INFORMATION AND ARE INDICATED ON THE PLANS.
15.

THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT HIS EMPLOYEES, AS WELL AS PUBLIC USERS FROM INJURY DURING THE ENTIRE CONSTRUCTION PERIOD USING ALL NECESSARY SAFEGUARDS, INCLUDING BUT NOT LIMITED TO, THE ERECTION OF TEMPORARY WALKS, STRUCTURES, PROTECTIVE BARRIERS, COVERING, OR FENCES AS NEEDED.

16.

THE CONTRACTOR SHALL SUPPLY THE OWNER WITH THE NAME OF THE OSHA "COMPETENT PERSON" PRIOR TO CONSTRUCTION.

17.

FILLING OF EXCAVATED AREAS SHALL NOT TAKE PLACE WITHOUT THE PRESENCE OR PERMISSION OF THE OWNER.

18.

EXISTING TREES TO REMAIN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES. NO STOCKPILING OF MATERIAL, EQUIPMENT OR VEHICULAR TRAFFIC SHALL BE ALLOWED WITHIN THE DRIP LINE OF TREES TO REMAIN. NO GUYS SHALL BE ATTACHED TO ANY TREE TO REMAIN. WHEN NECESSARY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL ERECT TEMPORARY BARRIERS FOR THE PROTECTION OF EXISTING TREES DURING CONSTRUCTION.

19.

TREES AND SHRUBS WITHIN THE LIMITS OF WORK SHALL BE REMOVED ONLY UPON THE APPROVAL OF THE OWNER'S REPRESENTATIVE OR AS NOTED ON THE PLANS.

20.

NO FILLING SHALL OCCUR AROUND EXISTING TREES TO REMAIN WITHOUT THE APPROVAL OF THE OWNER OR OWNER REPRESENTATIVE.

21.

THE CONTRACTOR SHALL REMOVE ALL SURFACE VEGETATION PRIOR TO GRADING THE SITE. TREES AND STUMPS SHALL BE REMOVED AND DISPOSED COMPLETE BY CONTRACTOR. TEMPORARY EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS (INCLUDING SILT FENCE, STRAW WATTLES, OR SILT SOCKS) SHALL BE INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THESE TEMPORARY EROSION CONTROL MEASURES THROUGHOUT THE PROJECT WHICH COST SHALL BE INCIDENTAL TO THE PROJECT.

22.

ALL UNSUITABLE UNCONTAMINATED EXCESS SOIL FROM CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO

ADDITIONAL COST TO THE TOWN. REMOVAL ACTIVITIES SHALL BE ACCORDANCE WITH STATE AND LOCAL REGULATIONS AT NO ADDITIONAL COST TO THE TOWN. REFER TO WAYLAND TOWN BY-LAW §198-504 EARTH MOVEMENT. SUITABLE SOIL EXCAVATION AS PART OF THE PROJECT MUST MEET ONE OR MORE OF THE MATERIAL REQUIREMENTS SPECIFIED IN 31 00 00-EARTHWORK. IF THE CONTRACTOR PROPOSES TO USE THE EXISTING FILL ON SITE BELOW PAVEMENT AREAS, HE MUST DEMONSTRATE THAT THE FILL MEETS THE REQUIREMENTS PER THE SPECIFICATIONS. ALL EXCAVATED FILL MATERIAL WHICH DOES NOT MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS SHALL BE REMOVED AND DISPOSED OF OFF-SITE AT NO ADDITIONAL COST.

23.

CONTRACTOR IS RESPONSIBLE FOR STAKING CONSTRUCTION BASELINES IN FIELD WITH A MA. REGISTERED PROFESSIONAL LAND SURVEYOR. NO CONSTRUCTION WILL BE PERFORMED WITHOUT THE PROPOSED BASELINES AND LAYOUTS APPROVED BY THE ENGINEER.

24.

NO FILL SHALL CONTAIN HAZARDOUS MATERIALS.

25.

CONTRACTOR SHALL PROVIDE TEMPORARY CONSTRUCTION FENCING AROUND PERIMETER OF WORK AREA (LIMIT OF WORK). FENCE SHALL NOT IMPEDE TRAVEL WAYS.

26.

ANY QUANTITIES SHOWN ON PLANS ARE FOR COMPARATIVE BIDDING PURPOSES ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE PROJECT SITE TO VERIFY ALL QUANTITIES AND CONDITIONS PRIOR TO SUBMITTING BID.

27.

ALL EXISTING DRAINAGE FACILITIES TO REMAIN SHALL BE MAINTAINED FREE OF DEBRIS, SOIL, SEDIMENT, AND FOREIGN MATERIAL AND OPERATIONAL THROUGHOUT THE LIFE OF THE CONTRACT. REMOVE ALL SOIL, SEDIMENT, DEBRIS AND FOREIGN MATERIAL FROM ALL DRAINAGE STRUCTURES, INCLUDING BUT NOT LIMITED TO, DRAINAGE INLETS, MANHOLES AND CATCH BASINS WITHIN THE LIMIT OF WORK AND DRAINAGE STRUCTURES OUTSIDE THE LIMIT OF WORK THAT ARE IMPACTED BY THE WORK FOR THE ENTIRE DURATION OF CONSTRUCTION.

28.

CONTRACTOR'S STAGING AREA MUST BE WITHIN THE CONTRACT LIMIT LINE AND IN AREAS APPROVED BY OWNER. ANY OTHER AREAS THAT THE CONTRACTOR MAY WISH TO USE FOR STAGING MUST BE COORDINATED WITH THE OWNER.

29.

THE CONTRACTOR SHALL KEEP ALL STREETS, PARKING LOTS AND WALKS THAT ARE NOT RESTRICTED FROM PUBLIC USE DURING CONSTRUCTION BROOM CLEAN AT ALL TIMES. THE CONTRACTOR SHALL USE ACCEPTABLE METHODS AND MATERIALS TO MAINTAIN ADEQUATE DUST CONTROL THROUGHOUT CONSTRUCTION.

30.

CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OWNER.

31.

THE LIMIT OF WORK SHALL BE DELINEATED IN THE FIELD PRIOR TO THE START OF SITE CLEARING OR CONSTRUCTION AND AGREED UPON WITH THE OWNER'S REPRESENTATIVE.

32.

DEEP SUMP CATCH BASINS AND STORMWATER BASINS SHALL BE CLEANED FOLLOWING CONSTRUCTION AND SHALL FOLLOW THE OPERATION AND MAINTENANCE PLAN THEREAFTER.

33.

HAULING OF EARTH MATERIALS TO AND FROM THE SITE SHALL BE RESTRICTED TO THE HOURS OF 7 AM TO 5 PM.

34.

ANY BOULDERS 3 CY OR SMALLER SHALL BE CONSIDERED UNDOCUMENTED FILL AND SHALL BE DISPOSED OF AT NO ADDITIONAL COST TO THE TOWN.

35.

WORK ON WEEKENDS SHALL ONLY BE CONDUCTED IF PRIOR WRITTEN PERMISSION IS PROVIDED BY THE TOWN.

36.

NO TRUCKS LEFT IDLING ON TOWN STREETS DURING CONSTRUCTION. CONSTRUCTION TRAFFIC AT NO TIME SHALL IMPEDE FLOW OF RESIDENT TRAFFIC.

DEMOLITION & SITE PREPARATION NOTES

1.

THE CONTRACTOR SHALL INCLUDE IN THE BID THE COST OF REMOVING ANY EXISTING SITE FEATURES AND APPURTENANCES NECESSARY TO ACCOMPLISH THE CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS. THE CONTRACTOR SHALL ALSO INCLUDE IN THE BID THE COST NECESSARY TO RESTORE SUCH ITEMS IF THEY ARE SCHEDULED TO REMAIN AS PART OF THE FINAL SITE IMPROVEMENTS. REFER TO PLANS TO DETERMINE EXCAVATION AND DEMOLITION REQUIREMENTS AND TO DETERMINE THE LOCATION OF THE PROPOSED SITE IMPROVEMENTS.

2.

THE OWNER RESERVES THE RIGHT TO REVIEW ALL MATERIALS DESIGNATED FOR REMOVAL AND TO RETAIN OWNERSHIP OF SUCH MATERIALS. IF THE OWNER RETAINS ANY MATERIAL THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OWNER TO HAVE THOSE MATERIALS REMOVED OFF SITE TO A DESIGNATED MUNICIPAL PROPERTY AT NO ADDITIONAL COST. ALL GEOTECHNICALLY OR UNSUITABLE UNCONTAMINATED EXCESS SOIL FROM CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE TOWN. REMOVAL ACTIVITIES SHALL BE ACCORDANCE WITH STATE AND LOCAL REGULATIONS AT NO ADDITIONAL COST TO THE TOWN. REFER TO WAYLAND TOWN BY-LAW §198-504 EARTH MOVEMENT.

3.

UNLESS SPECIFICALLY NOTED TO BE REMOVED AND STOCKPILED (R&S) OR REUSED AND RELOCATED (R&R), ALL SITE FEATURES CALLED TO BE REMOVED AND DEMOLISHED (R&D) SHALL BE REMOVED WITH THEIR FOOTINGS, ATTACHMENTS, BASE MATERIAL, ETC. TRANSPORTED FROM THE SITE TO BE DISPOSED OF IN A LAWFUL MANNER AT AN ACCEPTABLE DISPOSAL SITE AND AT NO ADDITIONAL COST TO THE OWNER.

4.

ALL EXISTING SITE FEATURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PERIOD. ANY FEATURES DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AND/OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST.

5.

DURING EARTHWORK OPERATIONS, CONTRACTOR SHALL TAKE CARE TO NOT DISTURB EXISTING MATERIALS TO REMAIN, OUTSIDE THE LIMITS OF EXCAVATION AND BACKFILL AND SHALL TAKE WHATEVER MEASURES NECESSARY, AT THE CONTRACTOR'S EXPENSE, TO PREVENT ANY EXCAVATED MATERIAL FROM COLLAPSING. ALL BACKFILL MATERIALS SHALL BE PLACED AND COMPACTED AS SPECIFIED TO THE SUBGRADE REQUIRED FOR THE INSTALLATION OF THE REMAINDER OF THE CONTRACT WORK.

6.

IT SHALL BE THE CONTRACTOR'S OPTION, WITH CONCURRENCE OF THE OWNER'S REPRESENTATIVE, TO REUSE EXISTING BITUMINOUS CONCRETE PAVEMENT BASE COURSE AND/ OR SUBBASE GRAVEL MATERIALS IF IT MEETS THE REQUIREMENTS OF THE SPECIFICATIONS FOR DENSE GRADED CRUSHED STONE.

7.

STRIP & STOCKPILE EXISTING TOPSOIL FOR LATER REUSE AS REQUIRED. STOCKPILE SHALL HAVE APPROPRIATE EROSION AND SEDIMENT CONTROLS. THE CONTRACTOR SHALL CONFIRM THAT THE TOPSOIL IS SUITABLE FOR REUSE AND IT MEETS THE REQUIREMENTS OF THE SPECIFICATIONS FOR TOPSOIL LOAM BORROW.

8.

CLEAR AND GRUB VEGETATION SHALL INCLUDE REMOVAL OF ALL GRASS/LAWN, SHRUBS, AND UNDERBRUSH, REMOVAL OF ROOTS, AND ROUGH GRADING. INSTALLATION OF LOAM (IF APPLICABLE), FINE GRADING, SEEDING AND TURF OR VEGETATION ESTABLISHMENT BY THE CONTRACTOR.

9.

THE CONTRACTOR SHALL PROTECT EXISTING TREES TO REMAIN. CONTRACTOR SHALL INSTALL TREE PROTECTION BARRIERS AFTER CLEARING TURF AND UNDERBRUSH BY HAND AND TAKE DUE CARE TO PREVENT INJURY TO TREES DURING CLEARING OPERATIONS.

10.

THE STORAGE OF MATERIALS AND EQUIPMENT WILL BE PERMITTED AT LOCATIONS DESIGNATED BY OWNER OR OWNER'S REPRESENTATIVE. PROTECTION OF STORED MATERIALS AND EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

EROSION AND SEDIMENT CONTROL NOTES

1.

ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE PUT INTO PLACE PRIOR TO BEGINNING ANY CONSTRUCTION OR DEMOLITION. REFER TO PLANS FOR APPROXIMATE LOCATION OF EROSION AND SEDIMENT CONTROL. REFER TO SPECS AND DETAILS FOR TYPE OF EROSION AND SEDIMENT CONTROL.

2.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUAL MAINTENANCE OF ALL CONTROL DEVICES THROUGHOUT THE DURATION OF THE PROJECT.

3.

CONTRACTOR SHALL MEET ALL OF THE STATE OF MASSACHUSETTS AND THE TOWN OF WAYLAND WETLAND ORDINANCE REGULATIONS FOR SEDIMENT AND EROSION CONTROL.

4.

EXCAVATED MATERIAL STOCKPILED ON THE SITE SHALL BE SURROUNDED BY A RING OF UNBROKEN SEDIMENT AND EROSION CONTROL FENCE. THE LIMITS OF ALL GRADING AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE APPROVED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THE LIMIT OF CONTRACT SHALL REMAIN TOTALLY UNDISTURBED UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.

5.

ALL CATCH BASINS AND DRAIN GRATES WITHIN THE LIMIT OF WORK SHALL BE PROTECTED WITH SILT SACKS DURING THE ENTIRE DURATION OF CONSTRUCTION.

6.

EROSION CONTROL BARRIERS TO BE INSTALLED AT THE TOE OF SLOPES. SEE GRADING & DRAINAGE PLANS, NOTES, DETAILS AND SPECIFICATIONS.

7.

THE CONTRACTOR SHALL PROVIDE DUST CONTROL FOR CONSTRUCTION OPERATIONS AS APPROVED BY THE OWNER'S REPRESENTATIVE AND MASSACHUSETTS D.E.P. REQUIREMENTS.

8.

ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ON TO PUBLIC/PRIVATE ROADS.

9.

ALL MATERIAL HAULING VEHICLES SHALL BE COMPLETELY COVERED PRIOR TO LEAVING THE SITE.

10.

CONTRACTOR SHALL BE RESPONSIBLE FOR WHEEL CLEANING OF ALL CONSTRUCTION VEHICLES PRIOR TO EXITING THE SITE. CONTRACTOR SHALL ENSURE THAT MATERIAL HAULING VEHICLES REMAIN ON PAVED SURFACES AS MUCH AS POSSIBLE

LAYOUT NOTES

1.

COORDINATE ALL LAYOUT ACTIVITIES WITH THE SCOPE OF WORK CALLED FOR BY DEMOLITION, GRADING AND UTILITIES OPERATIONS ENCOMPASSED BY THIS CONTRACT. SET, PROTECT AND REPLACE REFERENCE STAKES AS NECESSARY OR AS REQUIRED BY THE OWNER'S REPRESENTATIVE.

2.

ALL WORK SHALL BE PERFORMED BY CONTRACTOR UNLESS SPECIFICALLY INDICATED THAT THE WORK WILL BE PERFORMED "BY OWNER".

3.

THE LAYOUT OF SITE AMENITIES AND FENCES MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

4.

ALL PROPOSED SITE FEATURES SHALL BE LAID OUT AND STAKED FOR REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF INSTALLATION. ANY REQUIRED ADJUSTMENTS TO THE LAYOUT SHALL BE UNDERTAKEN AS DIRECTED, AT NO ADDITIONAL COST TO THE OWNER.

5.

ALL PROPOSED PAVEMENTS SHALL MEET THE LINE AND GRADE OF EXISTING ADJACENT PAVEMENT SURFACES AND SHALL BE TREATED WITH AN RS-1 TACK COAT AT POINT OF CONNECTION. ALL PATHWAY WIDTHS SHALL BE AS NOTED ON THE LAYOUT AND MATERIALS PLAN.

6.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON THE GROUND AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER.

7.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD MEASUREMENTS OF ALL PROPOSED FENCES, GATES.

GRADING & DRAINAGE NOTES

1.

ALL WORK RELATING TO INSTALLATION, RENOVATION OR MODIFICATION OF DRAINAGE SERVICES SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS OF THE TOWN OF WAYLAND AND ITS DEPARTMENT OF PUBLIC WORKS.

2.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, GRADES AND INVERT ELEVATIONS IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER AND OWNER'S REPRESENTATIVE.

3.

ALL NEW WALKWAYS MUST CONFORM TO CURRENT AMERICANS WITH DISABILITIES ACT (ADA) REGULATIONS: WALKWAYS SHALL MAINTAIN A CROSS PITCH OF NOT MORE THAN ONE AND A HALF (1.5%) PERCENT MAXIMUM AND THE RUNNING SLOPE (PARALLEL TO THE DIRECTION OF TRAVEL) OF 4.5% MAXIMUM.

4.

MINIMUM SLOPE ON ALL WALKWAYS WILL BE 1:100 OR 1% TO PROVIDE POSITIVE DRAINAGE. ANY DISCREPANCIES NOT ALLOWING THIS TO OCCUR SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE PRIOR TO CONTINUING WORK.

5.

ALL UTILITY GRATES, COVERS OR OTHER SURFACE ELEMENTS INTENDED TO BE EXPOSED AT GRADE SHALL BE FLUSH WITH THE ADJACENT FINISHED GRADE AND ADJUSTED TO PROVIDE A SMOOTH TRANSITION AT ALL EDGES.

6.

THE CONTRACTOR SHALL SET SUBGRADE ELEVATIONS TO ALLOW FOR POSITIVE DRAINAGE AND PROVIDE EROSION CONTROL DEVICES, STRUCTURES, MATERIALS AND CONSTRUCTION METHODS TO DIRECT SILT MIGRATION AWAY FROM DRAINAGE AND OTHER UTILITY SYSTEMS, PUBLIC/ PRIVATE STREETS AND WORK AREAS. CLEAN BASINS REGULARLY AND AT THE END OF THE PROJECT.

7.

CONTRACTOR SHALL ENSURE ALL AREAS ARE PROPERLY PITCHED TO DRAIN, WITH NO SURFACE WATER PONDING OR PUDDLING.

8.

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

9.

WHERE NEW EARTHWORK MEETS EXISTING EARTHWORK, CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY INTO EXISTING, PROVIDING VERTICAL CURVES OR POUNDS AT ALL TOP AND BOTTOM OF SLOPES.

10.

WHERE A SPECIFIC LIMIT OF WORK LINE IS NOT OBVIOUS OR IMPLIED, BLEND GRADES TO EXISTING CONDITIONS WITHIN 5 FEET OF PROPOSED CONTOURS.

11.

RESTORE ALL DISTURBED AREAS AND LIMITS OF ALL REMOVALS TO LOAM AND CONSERVATION SEED MIX UNLESS OTHERWISE NOTED.

12.

WHERE NEW IMPROVEMENTS MEET EXISTING CONDITIONS, MEET LINE AND GRADE OF EXISTING ADJACENT PAVEMENTS, TYPICAL.

Project:
TOWN OF MILLBURY, MA

DOWNTOWN
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Consultants:

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Date: XX-XX-XXXX

Drawn By: DMP

Reviewed By: MSM

Approved By: XXX

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W&S File No: XXX

Drawing Title:

GENERAL NOTES

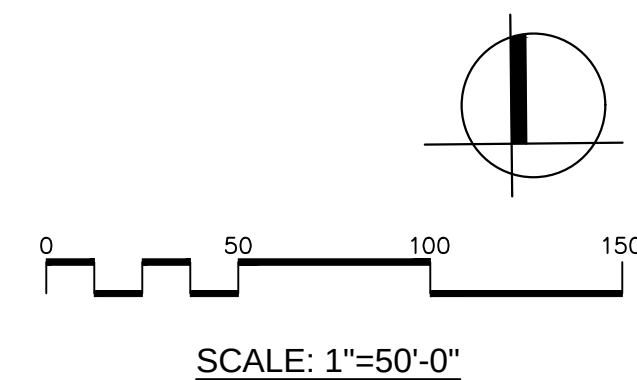
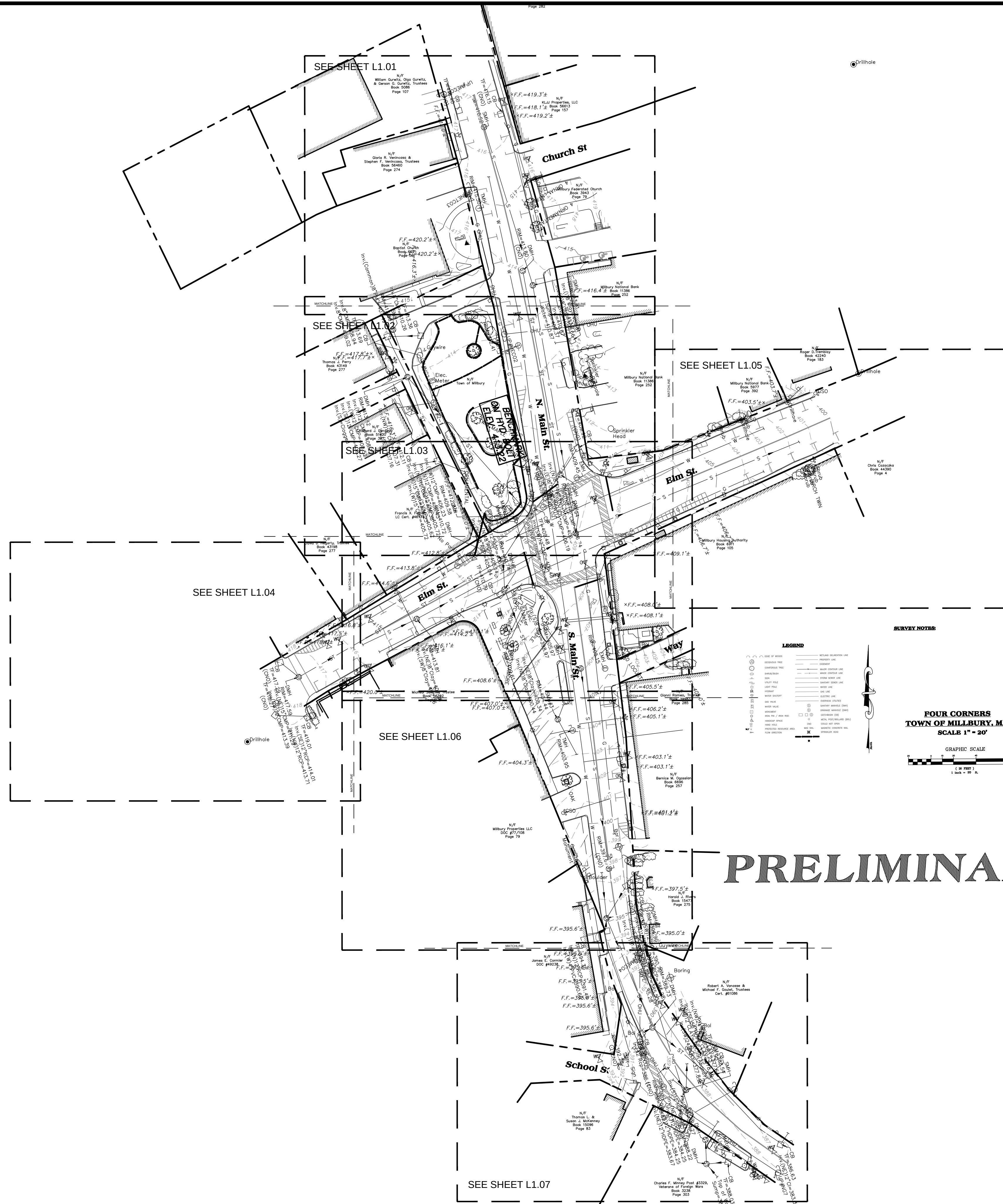
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P:\MA\Millbury MA\Downtown Redevelopment\Current\0-Current Working\Site\L1.00 - Existing Conditions Plan.dwg



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TOWN OF MILLBURY, MA



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Drawn By: XXX

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Approved By: XXX

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W&S File No: XXX

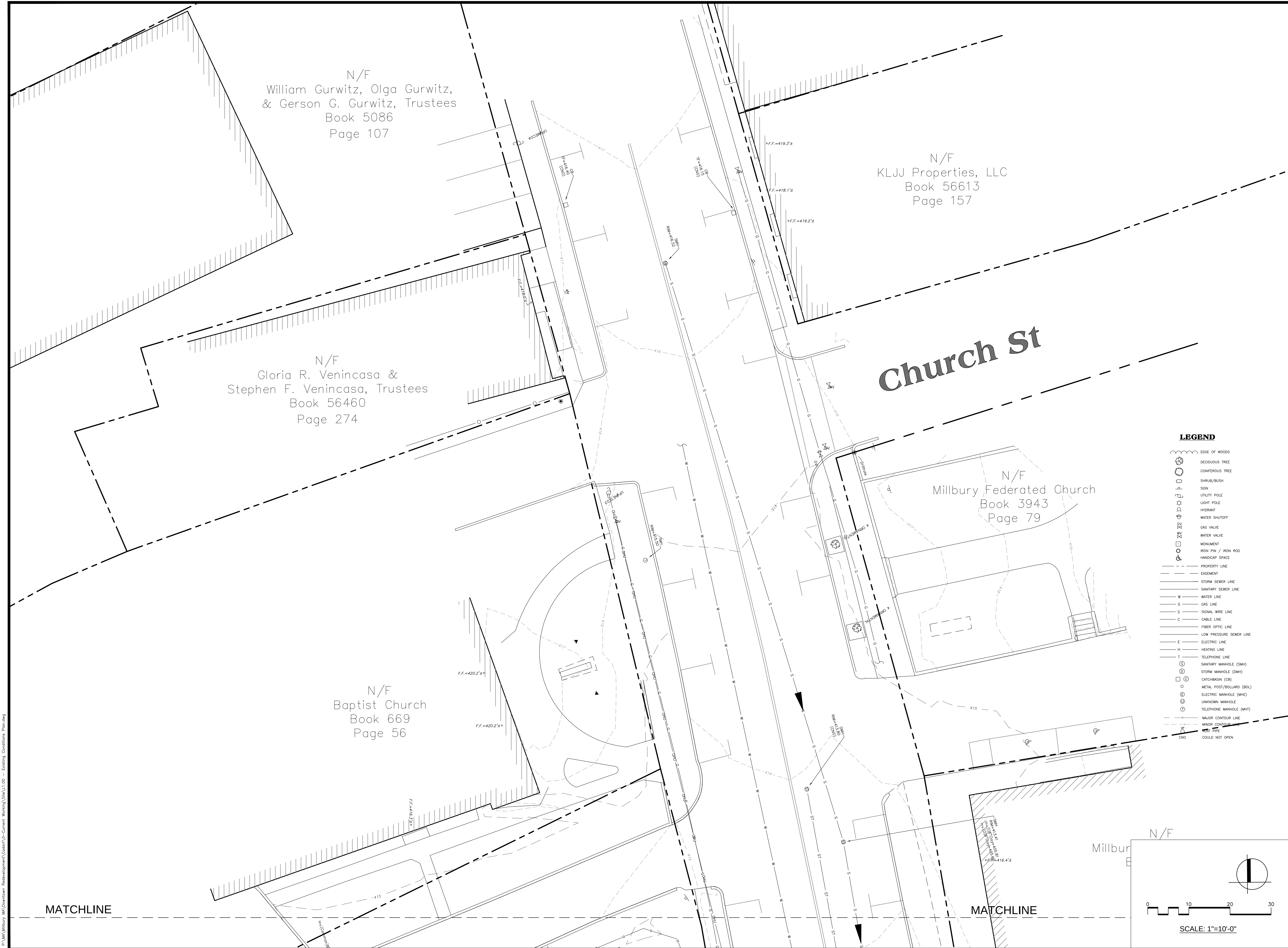
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OVERALL EXISTING
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Sheet Number:

L1.00

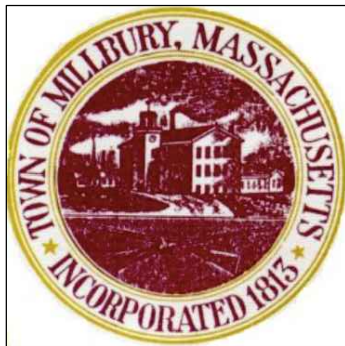
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LEGEND

- EDGE OF WOODS
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB/BUSH
- SIGN
- UTILITY POLE
- LIGHT POLE
- HYDRANT
- WATER SHUTOFF
- GAS VALVE
- WATER VALVE
- MONUMENT
- IRON PIN / IRON ROD
- HANDICAP SPACE
- PROPERTY LINE
- EASEMENT
- STORM SEWER LINE
- SANITARY SEWER LINE
- WATER LINE
- GAS LINE
- SIGNAL WIRE LINE
- CABLE LINE
- FIBER OPTIC LINE
- LOW PRESSURE SEWER LINE
- ELECTRIC LINE
- HEATING LINE
- TELEPHONE LINE
- SANITARY MANHOLE (SMH)
- STORM MANHOLE (DMH)
- CATCHBASIN (CB)
- METAL POST/BOLLARD (BOL)
- ELECTRIC MANHOLE (MHE)
- UNKNOWN MANHOLE
- TELEPHONE MANHOLE (MHT)
- MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- POSSIBLE
- COULD NOT OPEN

Project:
TOWN OF MILLBURY, MA



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Approved By: XXX

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EXISTING CONDITIONS
PLAN ENLARGEMENT

Sheet Number:

L1.01



MATCHLINE

MATCHLINE

N/F
Thomas J. Perry
Book 43149
Page 277

N/F
Richard J. Langway
Book 51630
Page 387

N/F
Town of Millbury

N/F
Millbury National
Book 11386
Page 252

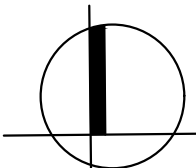
N/F
Francis X. Foster
LC Cert. #46778

N/F
David J. Hegarty, Trustee
Book 43198
Page 277

LEGEND

- EDGE OF WOODS
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB/BUSH
- SIGN
- UTILITY POLE
- LIGHT POLE
- HYDRANT
- WATER SHUTOFF
- GAS VALVE
- WATER VALVE
- MONUMENT
- IRON PIN / IRON ROD
- HANDICAP SPACE
- PROPERTY LINE
- EASEMENT
- STORM SEWER LINE
- SANITARY SEWER LINE
- WATER LINE
- GAS LINE
- SIGNAL WIRE LINE
- CABLE LINE
- FIBER OPTIC LINE
- LOW PRESSURE WATER LINE
- ELECTRIC LINE
- HEATING LINE
- TELEPHONE LINE
- SANITARY MANHOLE (SMH)
- STORM MANHOLE (DMH)
- CATCHBASIN (CB)
- METAL POST/BOLLARD (BOL)
- ELECTRIC MANHOLE (MHE)
- UNKNOWN MANHOLE
- TELEPHONE MANHOLE (MHT)
- MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- VENT PIPE
- COULD NOT OPEN

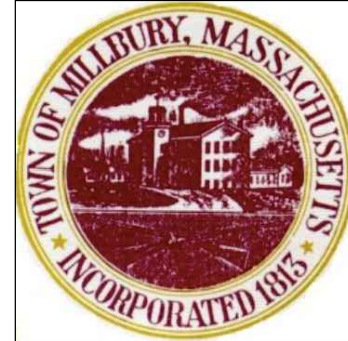
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SCALE: 1"=10'-0"

Project:
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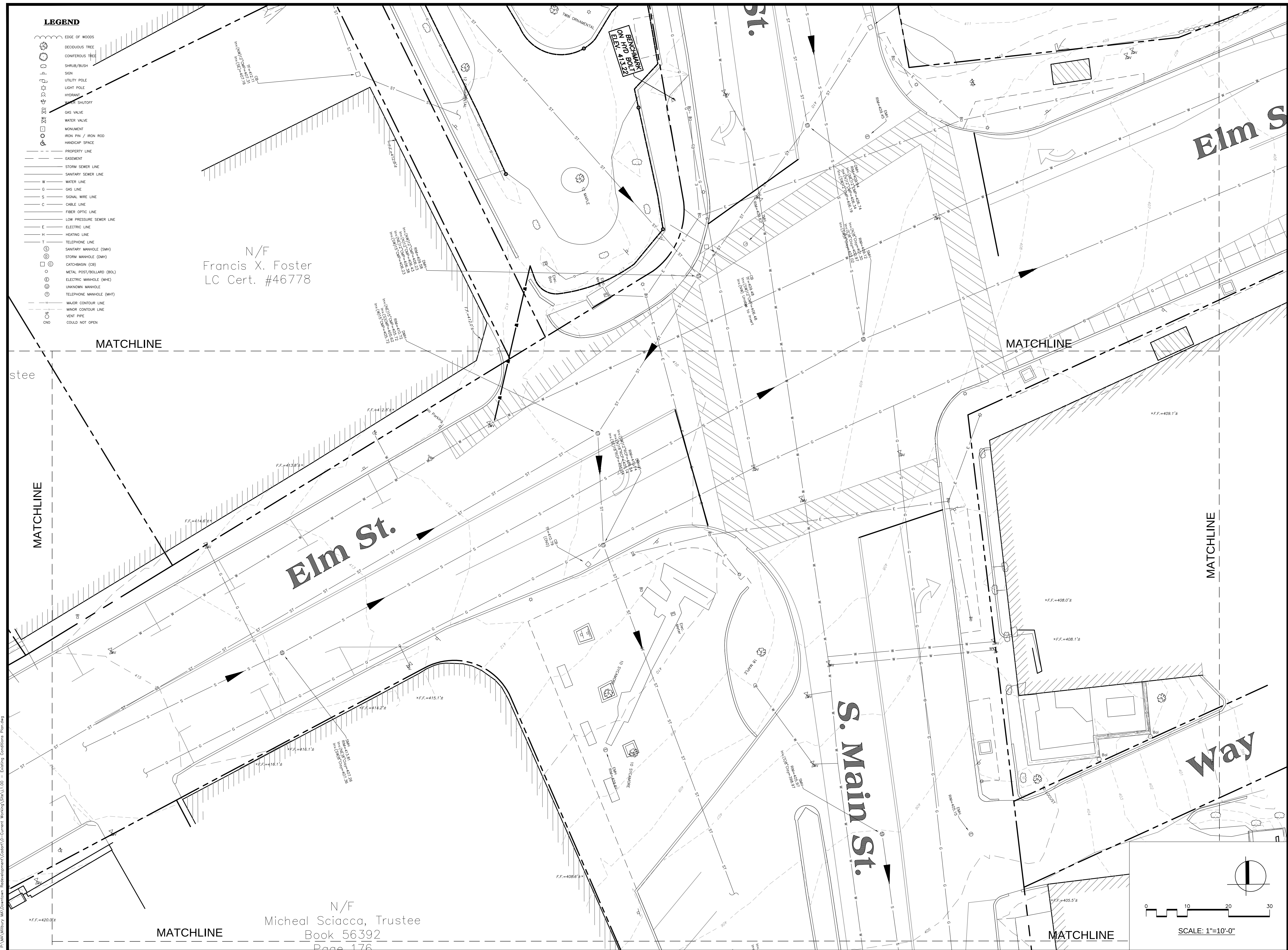
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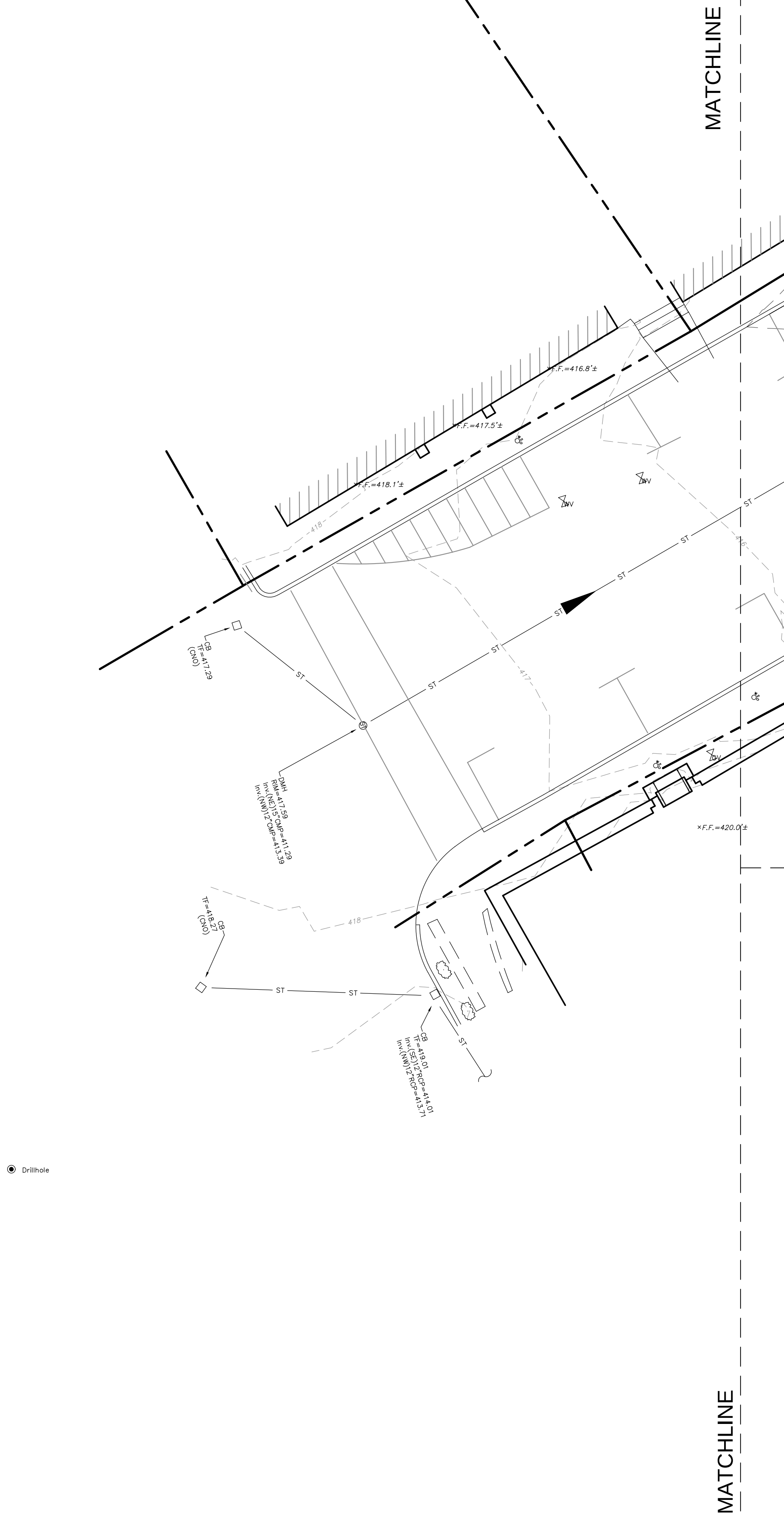
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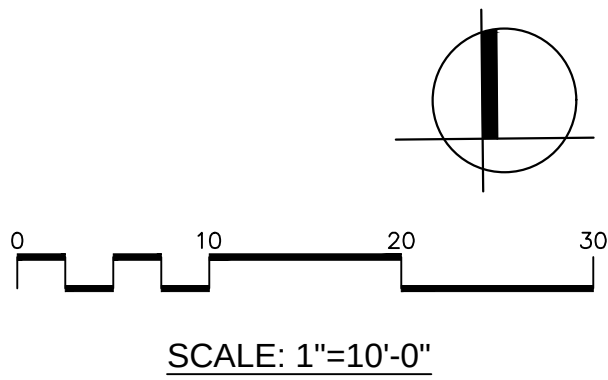
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David J. Hegarty, Trustee
Book 43198
Page 277



LEGEND

- EDGE OF WOODS
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB/BUSH
- SIGN
- UTILITY POLE
- LIGHT POLE
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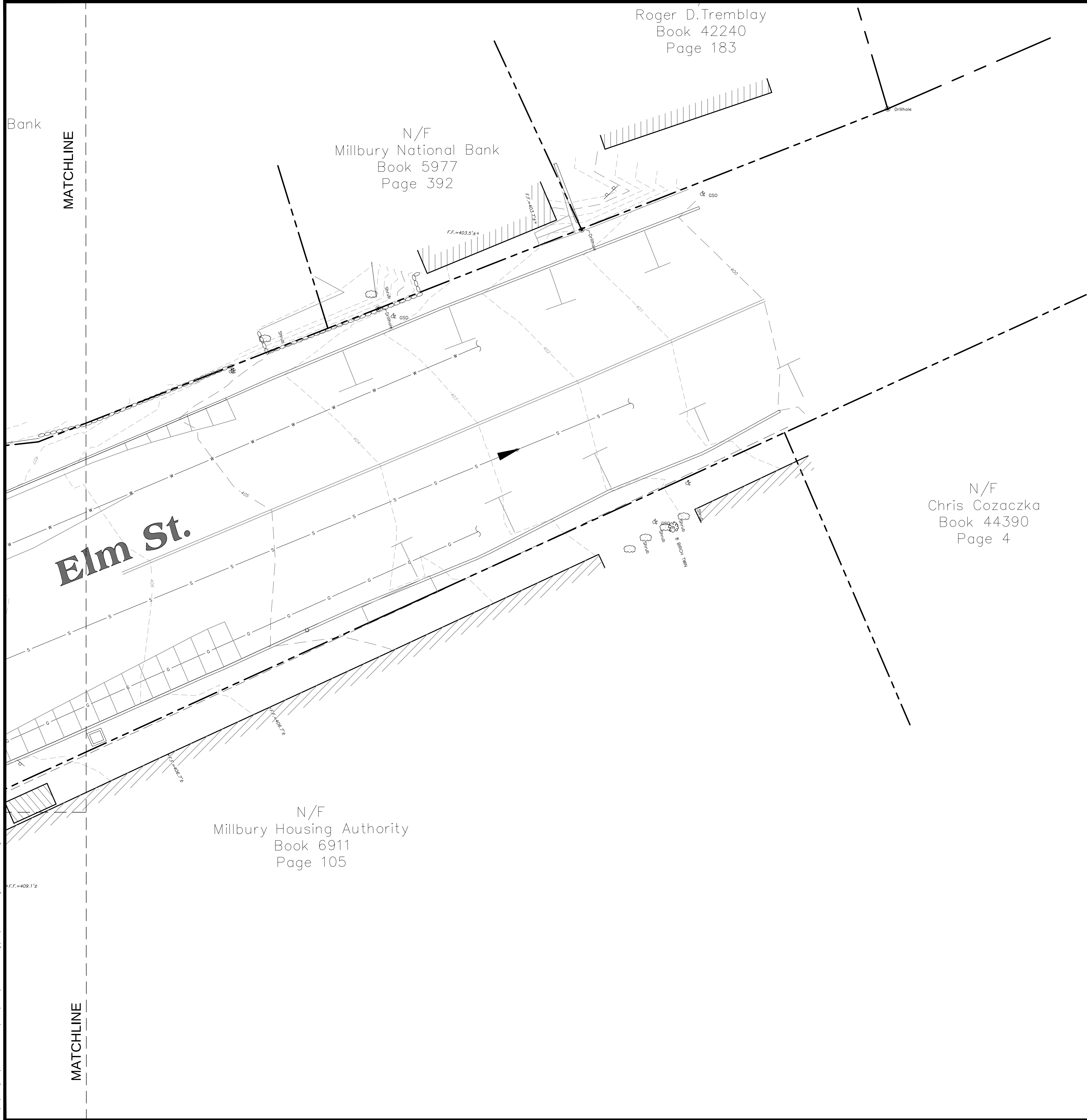
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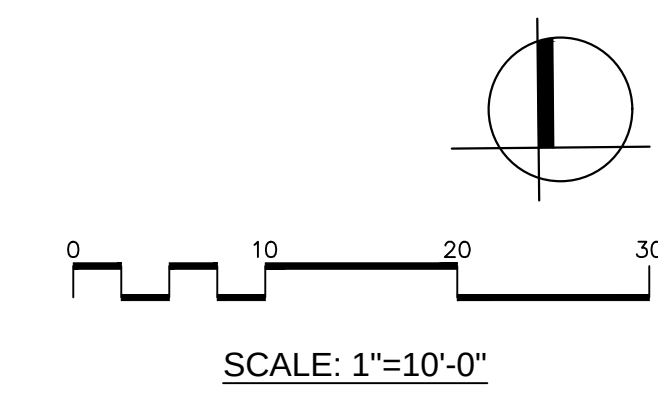


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LEGEND

- EDGE OF WOODS
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB/BUSH
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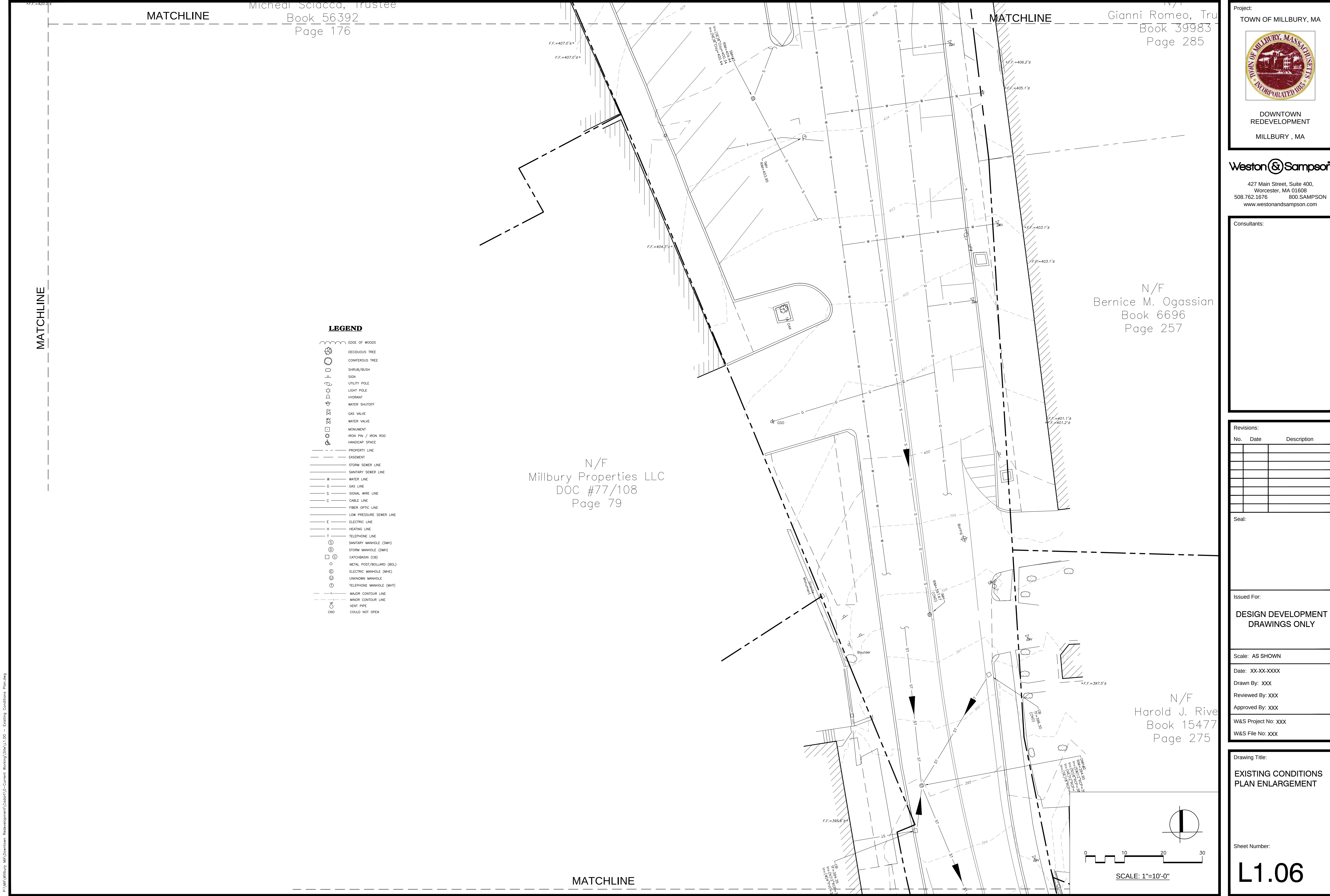
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DOC #49238

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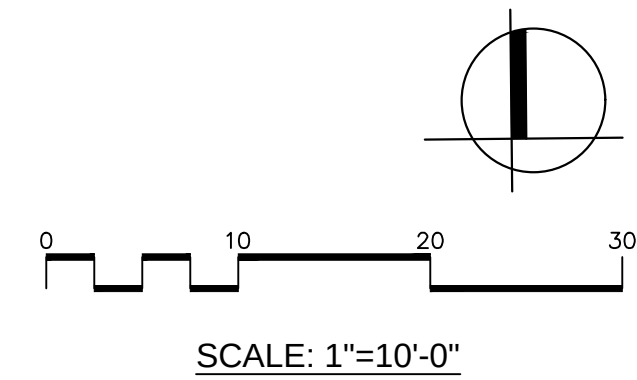
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N/F
Thomas L. &
Susan J. McKenney
Book 15096
Page 83

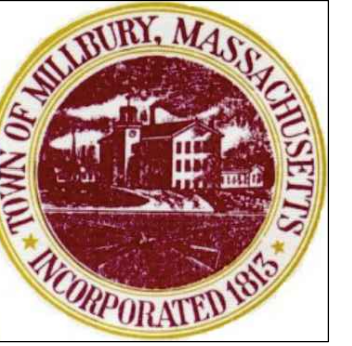
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Charles F. Minney Post #3329,
Veterans of Foreign Wars
Book 3238
Page 303

LEGEND

- EDGE OF WOODS
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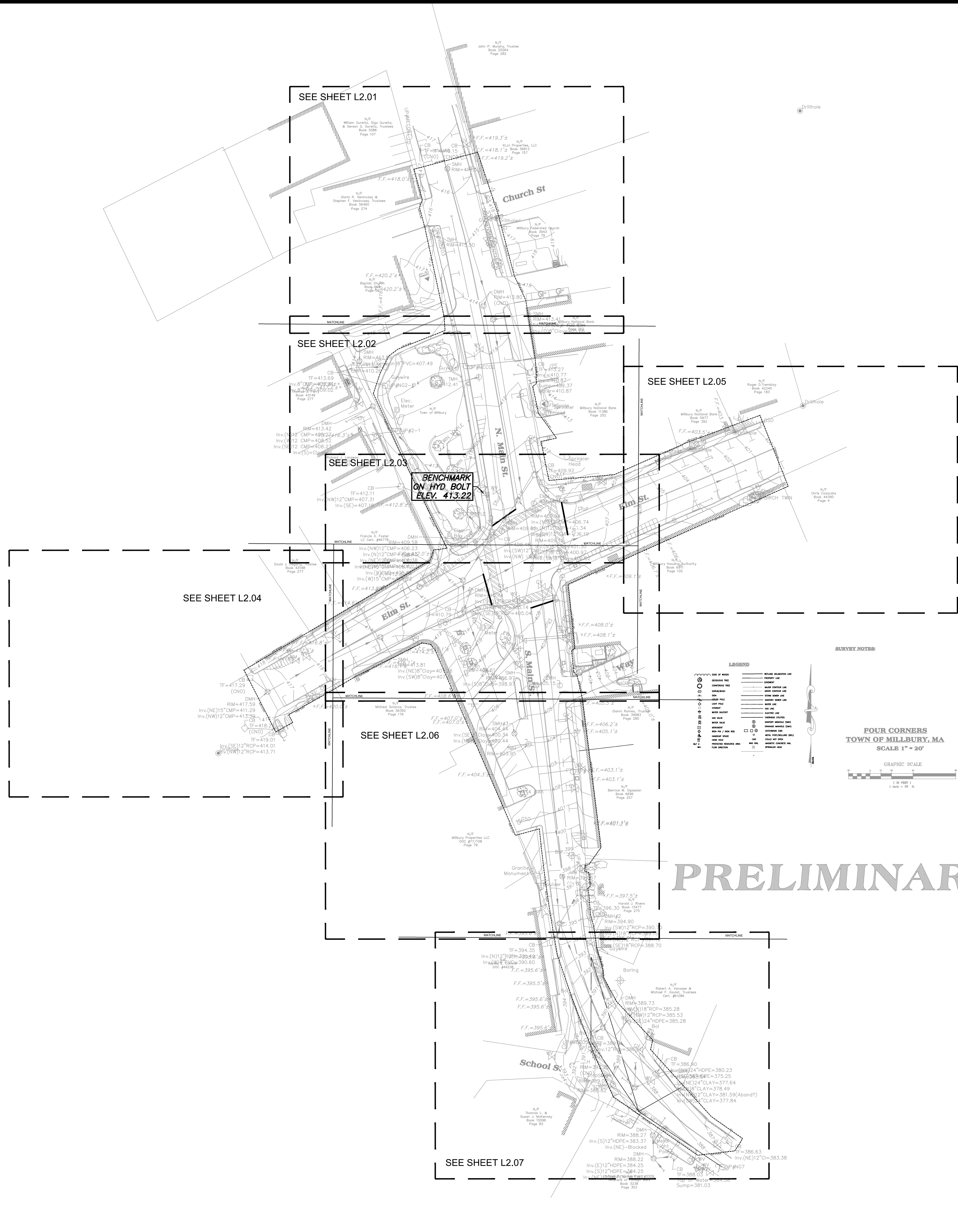
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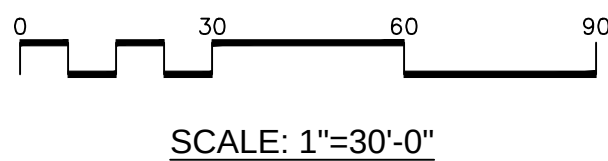
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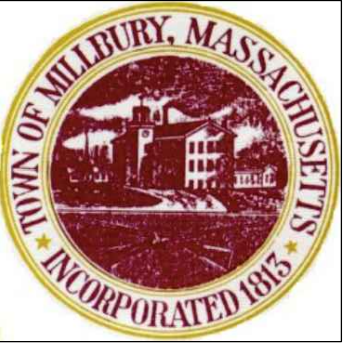


DEMOLITION & SITE PREPARATION NOTES

1. THE CONTRACTOR SHALL INCLUDE IN THE BID THE COST OF REMOVING ANY EXISTING SITE FEATURES AND APPURTENANCES NECESSARY TO ACCOMPLISH THE CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS. THE CONTRACTOR SHALL ALSO INCLUDE IN THE BID THE COST NECESSARY TO RESTORE SUCH ITEMS IF THEY ARE SCHEDULED TO REMAIN AS PART OF THE FINAL SITE IMPROVEMENTS. REFER TO PLANS TO DETERMINE EXCAVATION AND DEMOLITION REQUIREMENTS AND TO DETERMINE THE LOCATION OF THE PROPOSED SITE IMPROVEMENTS.
2. THE OWNER RESERVES THE RIGHT TO REVIEW ALL MATERIALS DESIGNATED FOR REMOVAL AND TO RETAIN OWNERSHIP OF SUCH MATERIALS. IF THE OWNER RETAINS ANY MATERIAL THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OWNER TO HAVE THOSE MATERIALS REMOVED OFF SITE TO A DESIGNATED MUNICIPAL PROPERTY AT NO ADDITIONAL COST. ALL GEOTECHNICALLY OR UNSUITABLE UNCONTAMINATED EXCESS SOIL FROM CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE TOWN. REMOVAL ACTIVITIES SHALL BE ACCORDANCE WITH STATE AND LOCAL REGULATIONS AT NO ADDITIONAL COST TO THE TOWN. REFER TO WAYLAND TOWN BY-LAW §198-504 EARTH MOVEMENT.
3. UNLESS SPECIFICALLY NOTED TO BE REMOVED AND STOCKPILED (R&S) OR REUSED AND RELOCATED (R&R), ALL SITE FEATURES CALLED TO BE REMOVED AND DEMOLISHED (R&D) SHALL BE REMOVED WITH THEIR FOOTINGS, ATTACHMENTS, BASE MATERIAL, ETC. TRANSPORTED FROM THE SITE TO BE DISPOSED OF IN A LAWFUL MANNER AT AN ACCEPTABLE DISPOSAL SITE AND AT NO ADDITIONAL COST TO THE OWNER.
4. ALL EXISTING SITE FEATURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PERIOD. ANY FEATURES DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AND/OR OWNERS REPRESENTATIVE AT NO ADDITIONAL COST.
5. DURING EARTHWORK OPERATIONS, CONTRACTOR SHALL TAKE CARE TO NOT DISTURB EXISTING MATERIALS TO REMAIN, OUTSIDE THE LIMITS OF EXCAVATION AND BACKFILL AND SHALL TAKE WHATEVER MEASURES NECESSARY, AT THE CONTRACTOR'S EXPENSE, TO PREVENT ANY EXCAVATED MATERIAL FROM COLLAPSING. ALL BACKFILL MATERIALS SHALL BE PLACED AND COMPACTED AS SPECIFIED TO THE SUBGRADE REQUIRED FOR THE INSTALLATION OF THE REMAINDER OF THE CONTRACT WORK.
6. IT SHALL BE THE CONTRACTOR'S OPTION, WITH CONCURRENCE OF THE OWNER'S REPRESENTATIVE, TO REUSE EXISTING BITUMINOUS CONCRETE PAVEMENT BASE COURSE AND/OR SUBBASE GRAVEL MATERIALS IF IT MEETS THE REQUIREMENTS OF THE SPECIFICATIONS FOR DENSE GRADED CRUSHED STONE.
7. STRIP & STOCKPILE EXISTING TOPSOIL FOR LATER REUSE AS REQUIRED. STOCKPILE SHALL HAVE APPROPRIATE EROSION AND SEDIMENT CONTROLS. THE CONTRACTOR SHALL CONFIRM THAT THE TOPSOIL IS SUITABLE FOR REUSE AND IT MEETS THE REQUIREMENTS OF THE SPECIFICATIONS FOR TOPSOIL LOAM BORROW.
8. CLEAR AND GRUB VEGETATION SHALL INCLUDE REMOVAL OF ALL GRASS/LAWN, SHRUBS, AND UNDERBRUSH, REMOVAL OF ROOTS, ROUGH GRADING.
9. INSTALLATION OF LOAM (IF APPLICABLE), FINE GRADING, SEEDING AND TURF OR VEGETATION ESTABLISHMENT BY THE CONTRACTOR.
10. THE CONTRACTOR SHALL PROTECT EXISTING TREES TO REMAIN. CONTRACTOR SHALL INSTALL TREE PROTECTION BARRIERS AFTER CLEARING TURF AND UNDERBRUSH BY HAND AND TAKE DUE CARE TO PREVENT INJURY TO TREES DURING CLEARING OPERATIONS.
11. THE STORAGE OF MATERIALS AND EQUIPMENT WILL BE PERMITTED AT LOCATIONS DESIGNATED BY OWNER OR OWNERS REPRESENTATIVE. PROTECTION OF STORED MATERIALS AND EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
12. REFER TO SHEET E1.00 FOR ALL ELECTRICAL DEMOLITION REFERENCES NOT NOTED IN SHEETS L2.00-L2.07. IF ANY NOTES ARE CONFLICTING, E1.00 NOTES WILL TAKE PRECEDENCE.



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Drawing Title:

OVERALL DEMOLITION
PLAN

Sheet Number:

L2.00

LEGEND

- LIMIT OF WORK
- R&R CURB
- SAW CUT
- EROSION AND SEDIMENT CONTROL
- R&D BRICK PAVING
- R&D CEMENT CONCRETE PAVEMENT, COMPLETE.
- COLD PLANE BITUMINOUS CONCRETE
- R&D PLANTING BEDS
- STRIP & STOCKPILE TOPSOIL
- SITE AMENITIES, TYP.
- TREE PROTECTION, TYP.
- TYP. EX.
- R&D
- R&S
- R&R
- INLET SEDIMENT CONTROL

X

L0.00

X

L0.00

N/F
liam Gurwitz, Olga Gurwitz,
Gerson G. Gurwitz, Trustees
Book 5086
Page 107

N/F
ia R. Venincasa &
Stephen F. Venincasa, Trustees
Book 56460
Page 274

R&R GRANITE CURB, TYP.

N/F
Baptist Church
Book 669
Page 56

SAWCUT

R&D CEMENT
CONCRETE
PAVEMENT, TYP.

SAWCUT

COLD PLANE
CONCRETE, TYP.

SAWCUT

SAWCUT

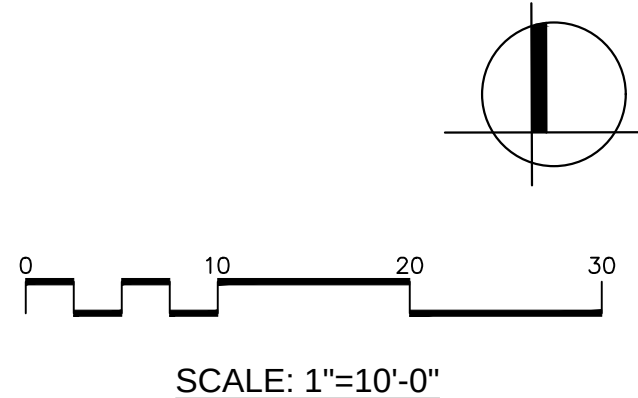
Church St

N/F
Millbury Federated Church
Book 3943
Page 79
PROTECT EXISTING TREES, TYP.

SAWCUT

MATCHLINE

MATCHLINE



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TOWN OF MILLBURY, MA



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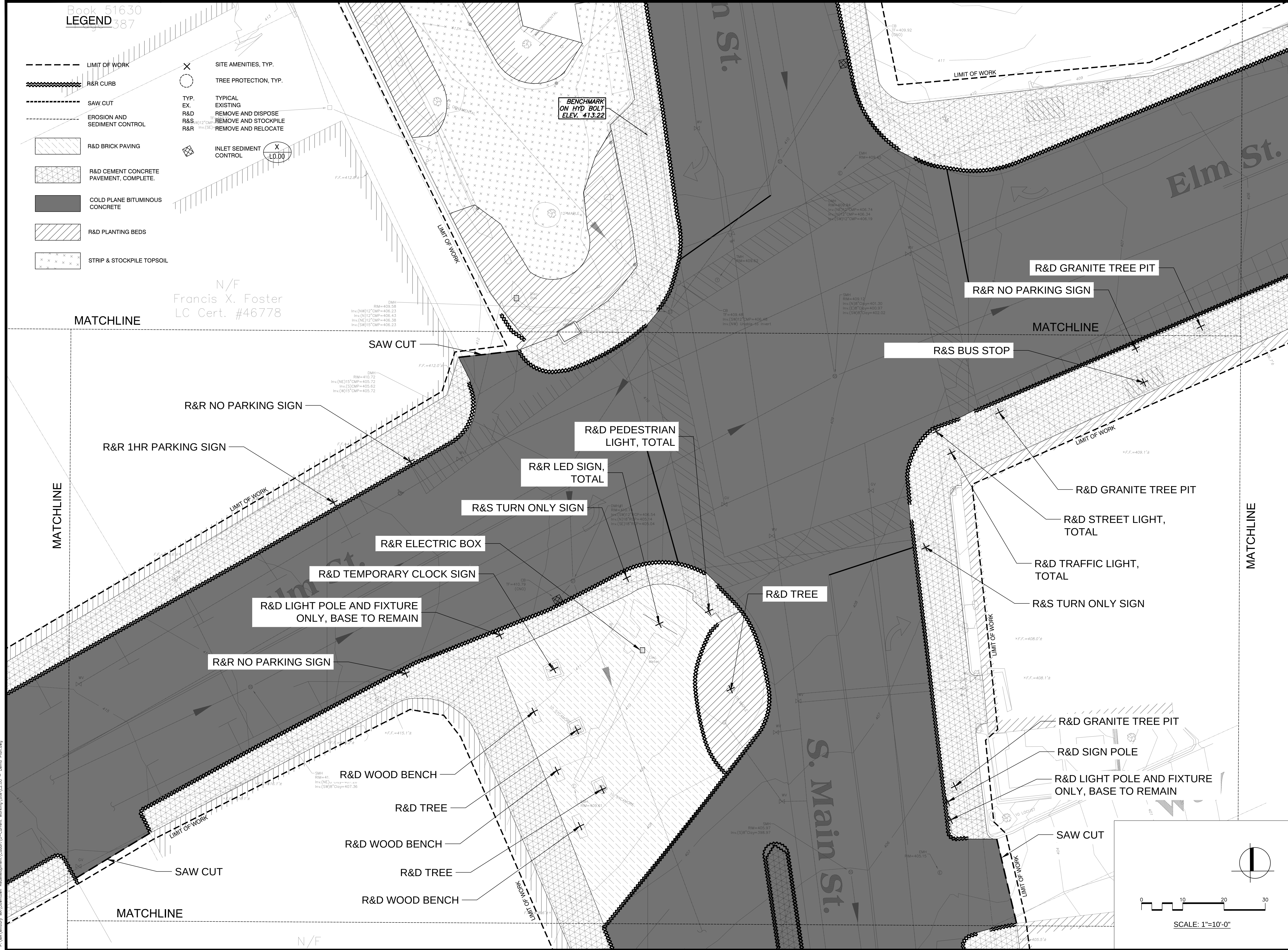
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Sheet Number:

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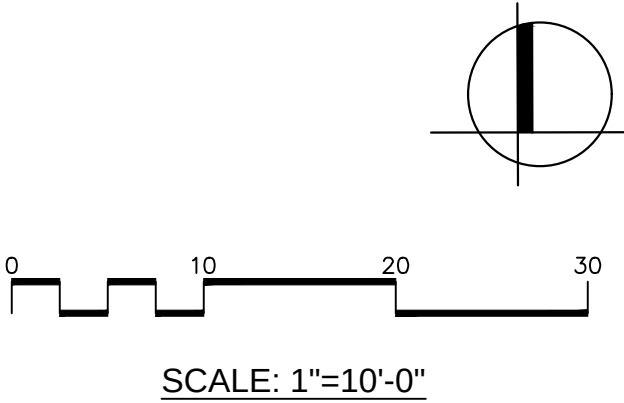
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PLAN ENLARGEMENT

Sheet Number:
L2.03



LEGEND

- LIMIT OF WORK
- R&R CURB
- SAW CUT
- EROSION AND SEDIMENT CONTROL
- R&D BRICK PAVING
- R&D CEMENT CONCRETE PAVEMENT, COMPLETE.
- COLD PLANE BITUMINOUS CONCRETE
- R&D PLANTING BEDS
- STRIP & STOCKPILE TOPSOIL
- X SITE AMENITIES, TYP.
- TREE PROTECTION, TYP.
- TYP. EX. R&D R&S R&R
- TYPICAL EXISTING REMOVE AND DISPOSE REMOVE AND STOCKPILE REMOVE AND RELOCATE
- INLET SEDIMENT CONTROL
- X L0.00



Project:
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Approved By: XXX

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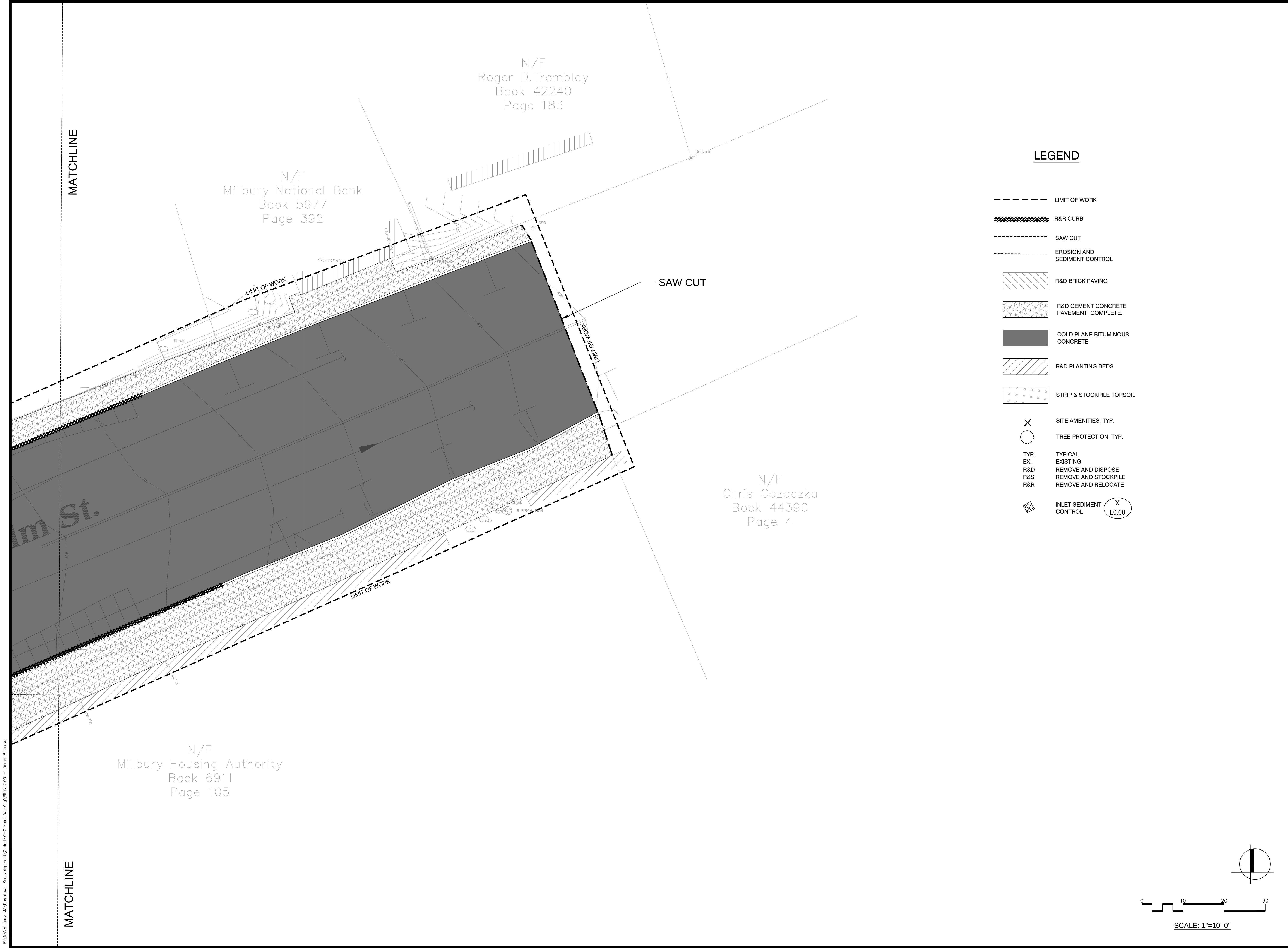
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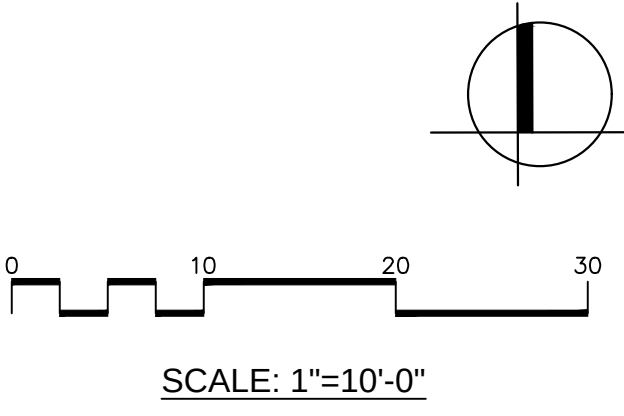
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LEGEND

- LIMIT OF WORK
- ===== R&R CURB
- SAW CUT
- EROSION AND SEDIMENT CONTROL
- [Pattern] R&D BRICK PAVING
- [Pattern] R&D CEMENT CONCRETE PAVEMENT, COMPLETE.
- [Solid] COLD PLANE BITUMINOUS CONCRETE
- [Pattern] R&D PLANTING BEDS
- [Pattern] STRIP & STOCKPILE TOPSOIL
- X SITE AMENITIES, TYP.
- TREE PROTECTION, TYP.
- TYP. EX. REMOVE AND DISPOSE
- R&D REMOVE AND STOCKPILE
- R&S REMOVE AND RELOCATE
- [Symbol] INLET SEDIMENT CONTROL



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W&S File No: XXX

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PLAN ENLARGEMENT**

Sheet Number:
L2.05

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MATCHLINE

MATCHLINE

MATCHLINE

N/F
Micheal Sciacca, Trustee
Book 56392
Page 176

N/F
Gianni Romeo, Trustee
Book 39983
Page 285

N/F
Millbury Properties LLC
DOC #77/108
Page 79

N/F
Harold J. Rivers
Book 15477
Page 275

LEGEND

- LIMIT OF WORK
- R&R CURB
- SAW CUT
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- TYP. TYPICAL
- EX. EXISTING
- R&D REMOVE AND DISPOSE
- R&S REMOVE AND STOCKPILE
- R&R REMOVE AND RELOCATE
- INLET SEDIMENT CONTROL

R&S NO PARKING SIGN

R&D STREET LIGHTING, TOTAL

R&D TREE AND GRANITE TREE PIT

SAW CUT

R&D GRANITE TREE PUT

Bernice M. Ogassian
Book 6696
Page 257

R&S 1 HR PARKING SIGN

R&D GRANITE TREE PUT

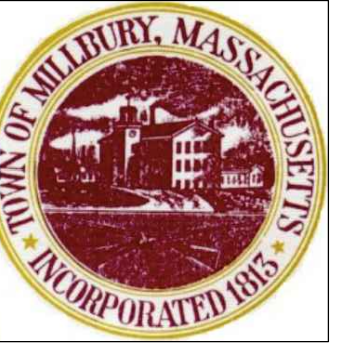
SAW CUT

MATCHLINE

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SCALE: 1"=10'-0"

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LEGEND

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- EROSION AND SEDIMENT CONTROL
- R&D BRICK PAVING
- R&D CEMENT CONCRETE PAVEMENT, COMPLETE.
- COLD PLANE BITUMINOUS CONCRETE
- R&D PLANTING BEDS
- STRIP & STOCKPILE TOPSOIL
- × SITE AMENITIES, TYP.
- TREE PROTECTION, TYP.
- TYP.
EX.
R&D
R&S
R&R
- TYPICAL
EXISTING
REMOVE AND DISPOSE
REMOVE AND STOCKPILE
REMOVE AND RELOCATE
- INLET SEDIMENT CONTROL
- X
L0.00

0 10 20 30

SCALE: 1"=10'-0"

Project:
TOWN OF MILLBURY, MA



DOWNTOWN
REDEVELOPMENT
MILLBURY, MA

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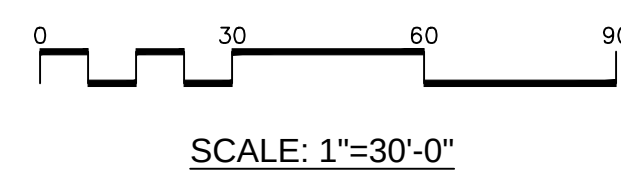
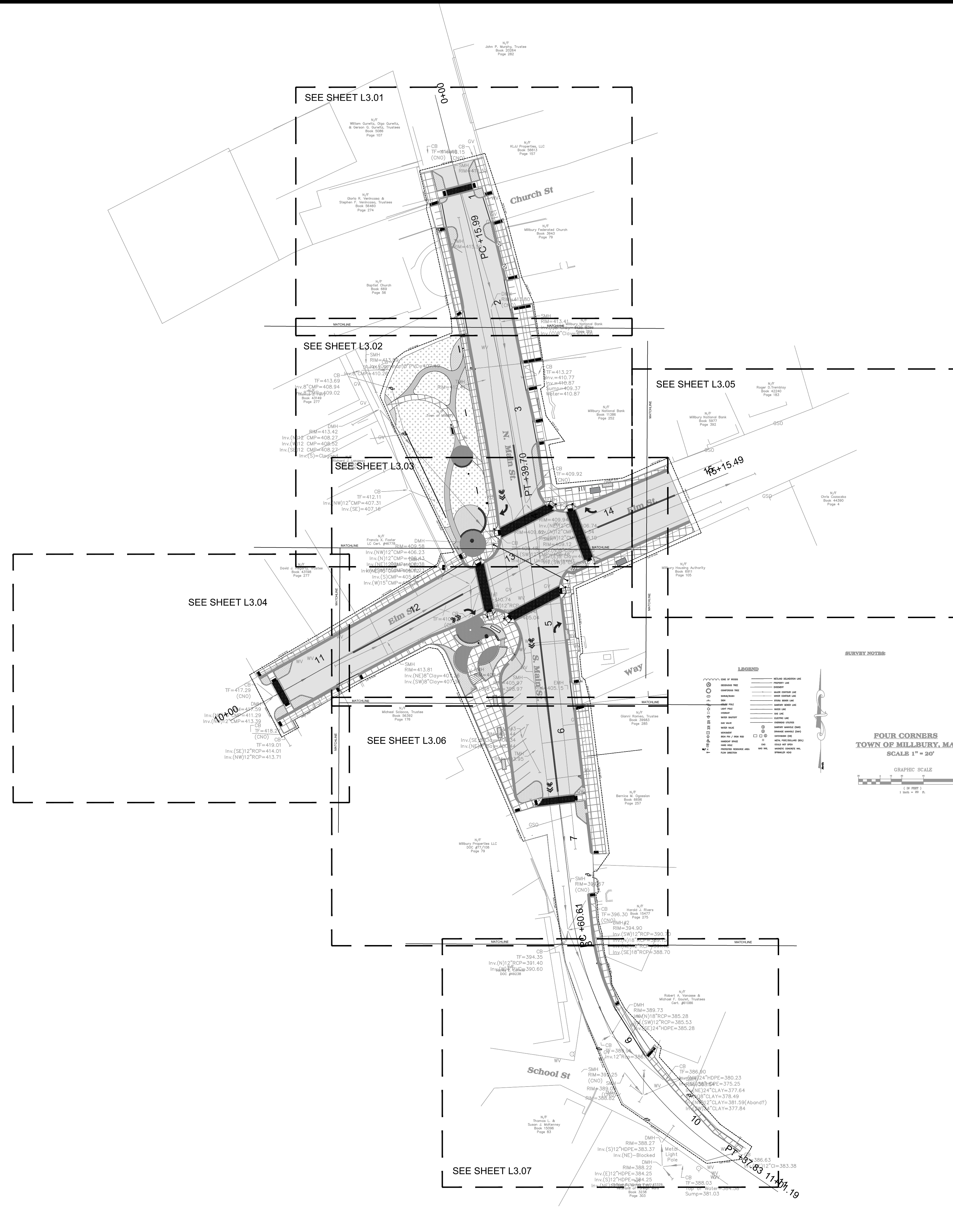
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OVERALL MATERIALS PLAN

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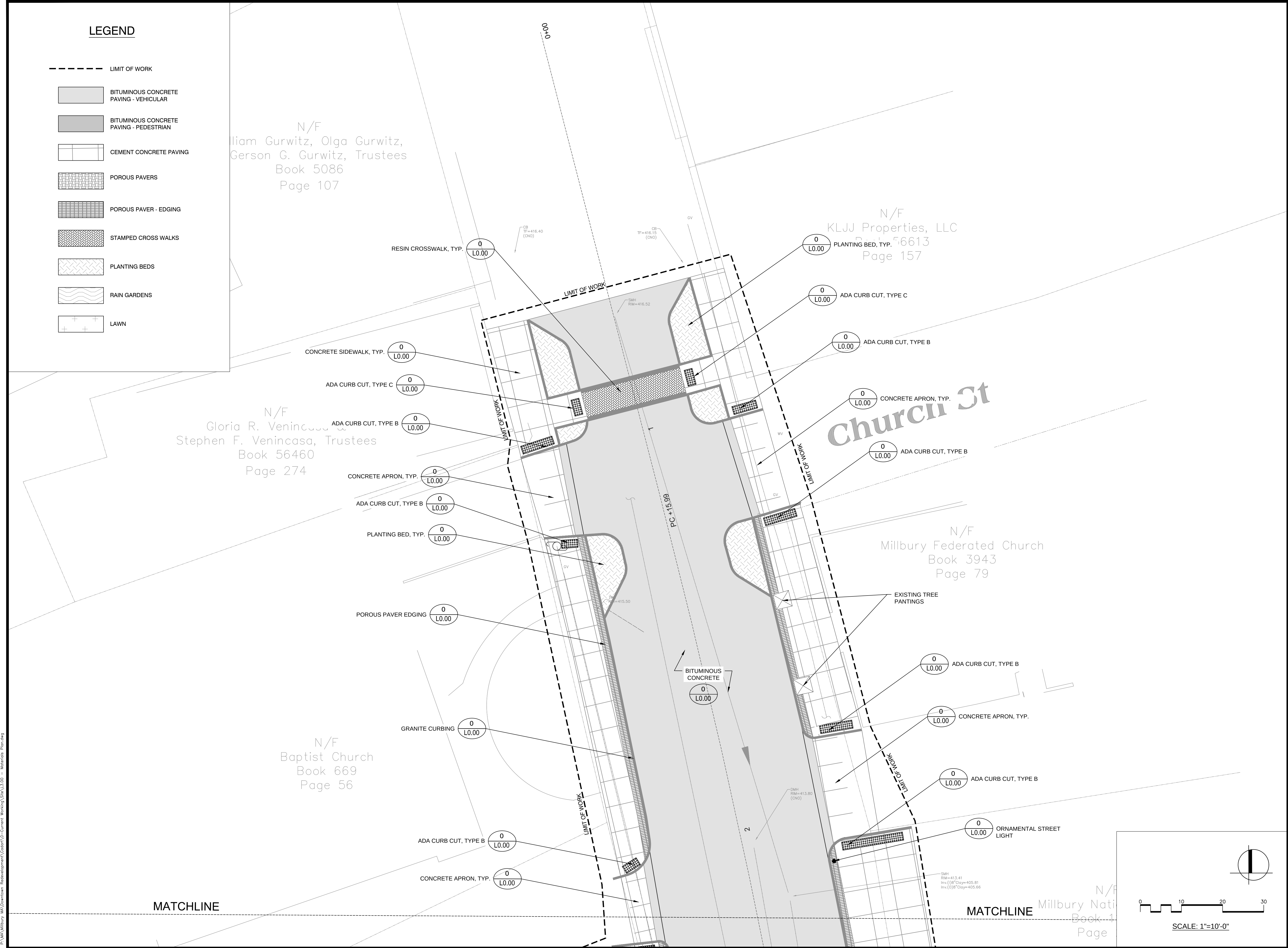
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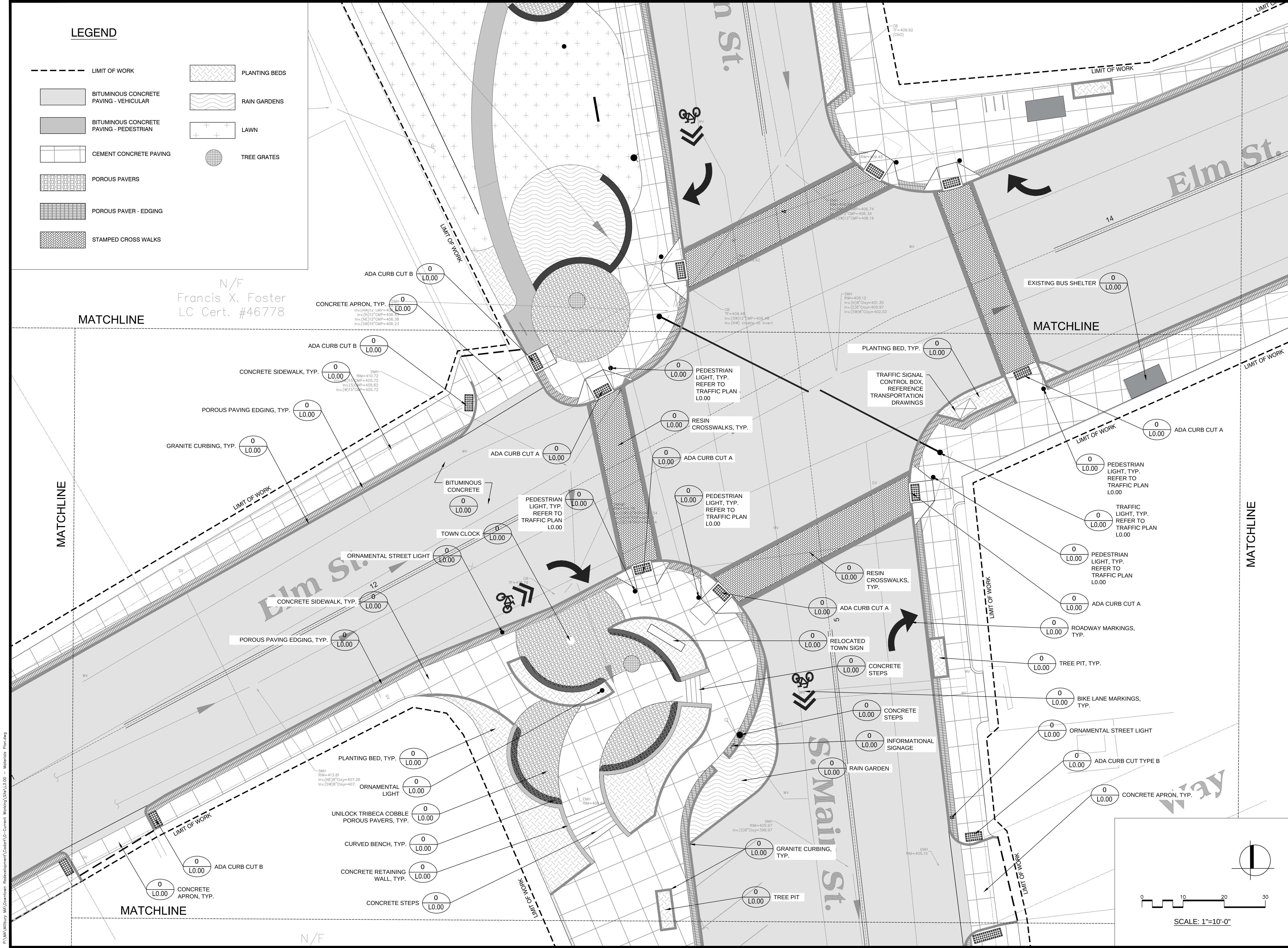
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LEGEND

- LIMIT OF WORK
- BITUMINOUS CONCRETE PAVING - VEHICULAR
- BITUMINOUS CONCRETE PAVING - PEDESTRIAN
- CEMENT CONCRETE PAVING
- POROUS PAVERS
- POROUS PAVER - EDGING
- STAMPED CROSS WALKS
- PLANTING BEDS
- RAIN GARDENS
- LAWN
- TREE GRATES

Project:
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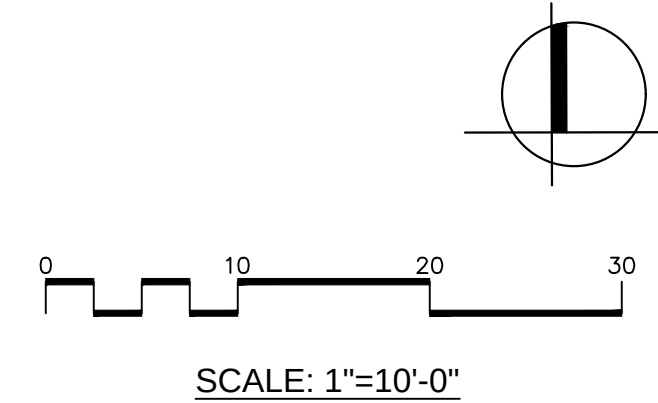
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Sheet Number:
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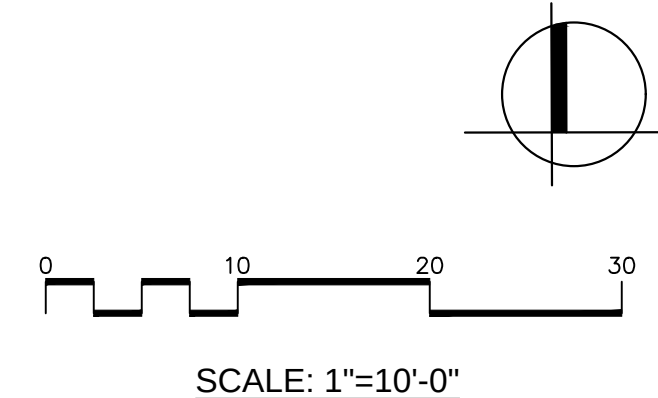
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	BITUMINOUS CONCRETE PAVING - PEDESTRIAN
	CEMENT CONCRETE PAVING
	POROUS PAVERS
	POROUS PAVER - EDGING
	STAMPED CROSS WALKS
	PLANTING BEDS
	RAIN GARDENS
	LAWN
	TREE GRATES

L3.04

	LIMIT OF WORK
	BITUMINOUS CONCRETE PAVING - VEHICULAR
	BITUMINOUS CONCRETE PAVING - PEDESTRIAN
	CEMENT CONCRETE PAVING
	POROUS PAVERS
	POROUS PAVER - EDGING
	STAMPED CROSS WALKS
	PLANTING BEDS
	RAIN GARDENS
	LAWN
	TREE GRATES

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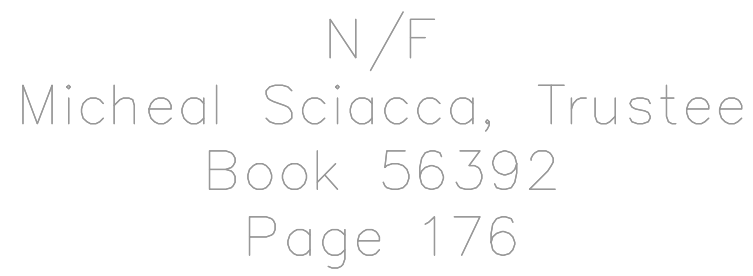
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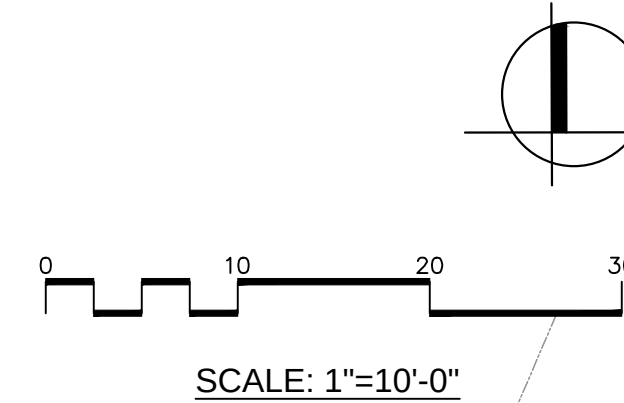
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 Book 39983
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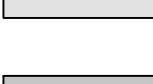
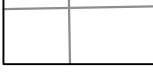
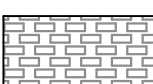
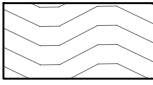
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Millbury Properties LLC
DOC #77/108
Page 79

N/F
Harold J. Rivers
Book 15477
Page 275



LEGEND

- LIMIT OF WORK**

	BITUMINOUS CONCRETE PAVING - VEHICULAR
	BITUMINOUS CONCRETE PAVING - PEDESTRIAN
	CEMENT CONCRETE PAVING
	POROUS PAVERS
	POROUS PAVER - EDGING
	STAMPED CROSS WALKS
	PLANTING BEDS
	RAIN GARDENS
	LAWN
	TREE GRATES

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James E. Cormier
DOC #49238

N/F
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Michael F. Goulet, Trustees
Cert. #61086

School St

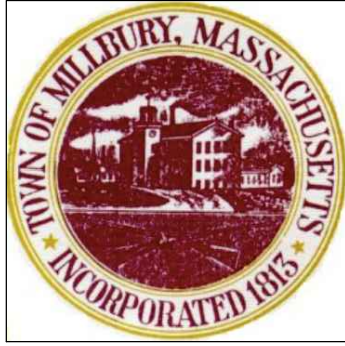
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Thomas L. &
Susan J. McKenney
Book 15096
Page 83

N/F
Charles F. Minney Post #3329

LEGEND

- LIMIT OF WORK
- BITUMINOUS CONCRETE
PAVING - VEHICULAR
- BITUMINOUS CONCRETE
PAVING - PEDESTRIAN
- CEMENT CONCRETE PAVING
- POROUS PAVERS
- POROUS PAVER - EDGING
- STAMPED CROSS WALKS
- PLANTING BEDS
- RAIN GARDENS
- LAWN
- TREE GRATES

Project:
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PLAN ENLARGEMENT

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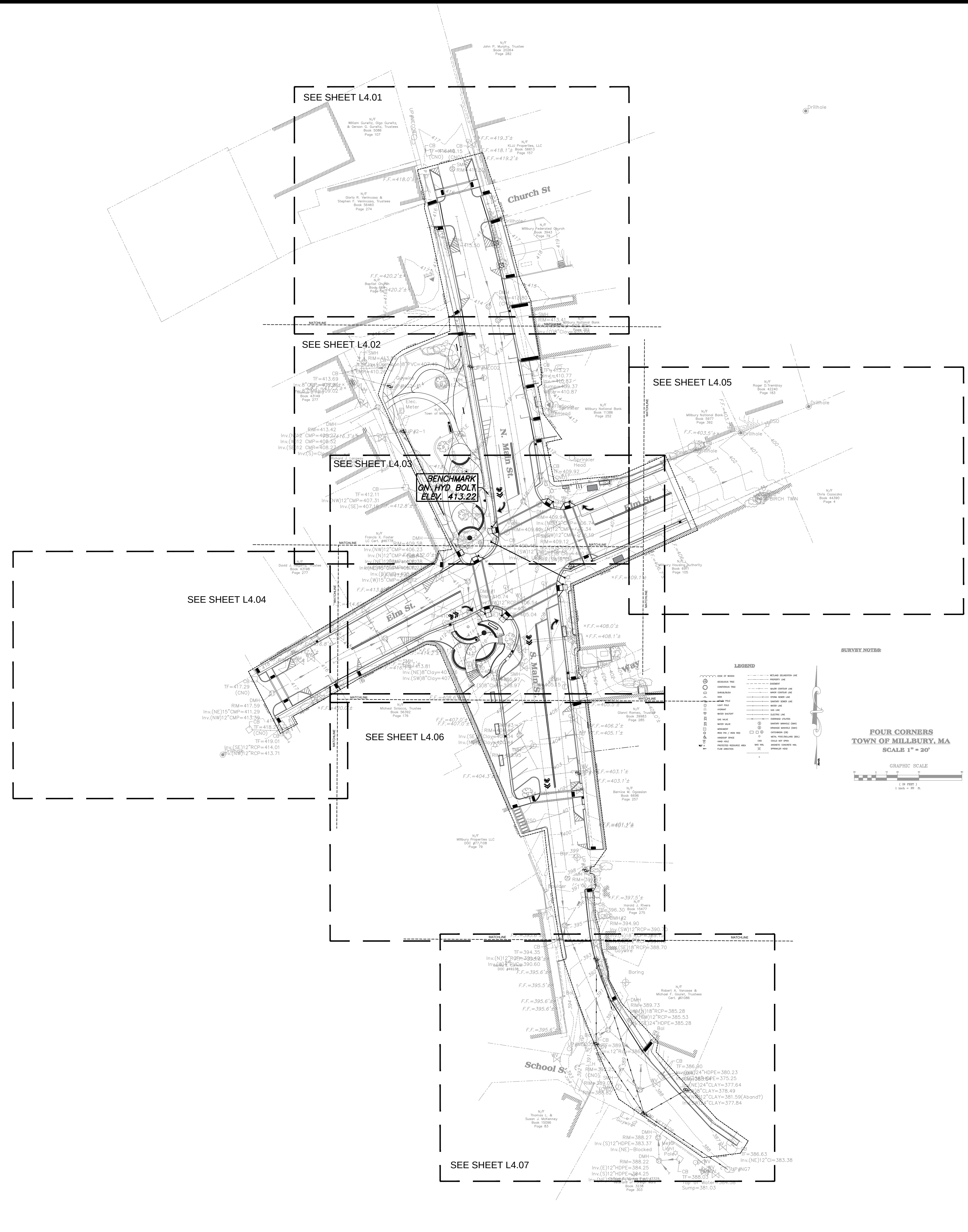
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OVERALL GRADING, DRAINAGE, AND UTILITIES PLAN

Sheet Number:

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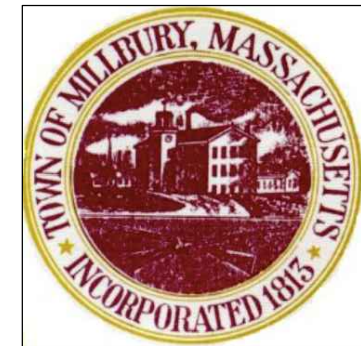


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- LIMIT OF WORK
- (D) EXISTING DRAINAGE STRUCTURE.
SEE UTILITIES PLAN
- 12 EXISTING CONTOURS
- 95.10 EXISTING SPOT ELEVATION
- 14 PROPOSED CONTOURS
- 15 PROPOSED SLOPE
- 1.5% PROPOSED SLOPE
- 8.25 PROPOSED SPOT ELEVATION
- ☐ CATCH BASIN
- ⊕ AREA DRAIN
- ^{CO} CLEAN OUT
- ⊙ DRAINAGE MAN HOLE
- ⊙ S SEWER MAN HOLE
- ★ ORNAMENTAL LIGHT
- HDPE PERF. DRAIN PIPE HDPE PERFORATED DRAIN PIPE, DIAMETER VARIES
- HDPE SOLID DRAIN PIPE, DIAMETER VARIES
- 2% MAX. SWALE LINE
- GRADE BREAK
- FFE FINISHED FLOOR ELEVATION
- HP HIGH POINT
- LP LOW POINT
- TW TOP OF WALL
- BW BOTTOM OF WALL
- TS TOP OF STEP
- BS BOTTOM OF STEP



Project:
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Drawing Title:

GRADING, DRAINAGE,
AND UTILITIES
ENLARGEMENT PLAN

Sheet Number:

L4.01

LEGEND:

- LIMIT OF WORK
- 12 EXISTING CONTOURS
- 14 EXISTING SPOT ELEVATION
- 15 PROPOSED CONTOURS
- 1.5% PROPOSED SLOPE
- 8.25 PROPOSED SPOT ELEVATION
- CATCH BASIN
- AREA DRAIN
- CLEAN OUT
- DRAINAGE MAN HOLE
- SEWER MAN HOLE
- ORNAMENTAL LIGHT
- HDPE PERF. DRAIN PIPE
- HDPE PERFORATED DRAIN PIPE, DIAMETER VARIES
- HDPE SOLID DRAIN PIPE, DIAMETER VARIES
- 2% MAX. SWALE LINE
- GRADE BREAK
- FFE FINISHED FLOOR ELEVATION
- HP HIGH POINT
- LP LOW POINT
- TW TOP OF WALL
- BW BOTTOM OF WALL
- TS TOP OF STEP
- BS BOTTOM OF STEP

Richard J. Langway
Book 51630
Page 387

N/F
Francis X. Foster
LC Cert. #46778

N/F
Town of Millbury

N/F
Millbury National Bank
Book 11386
Page 252

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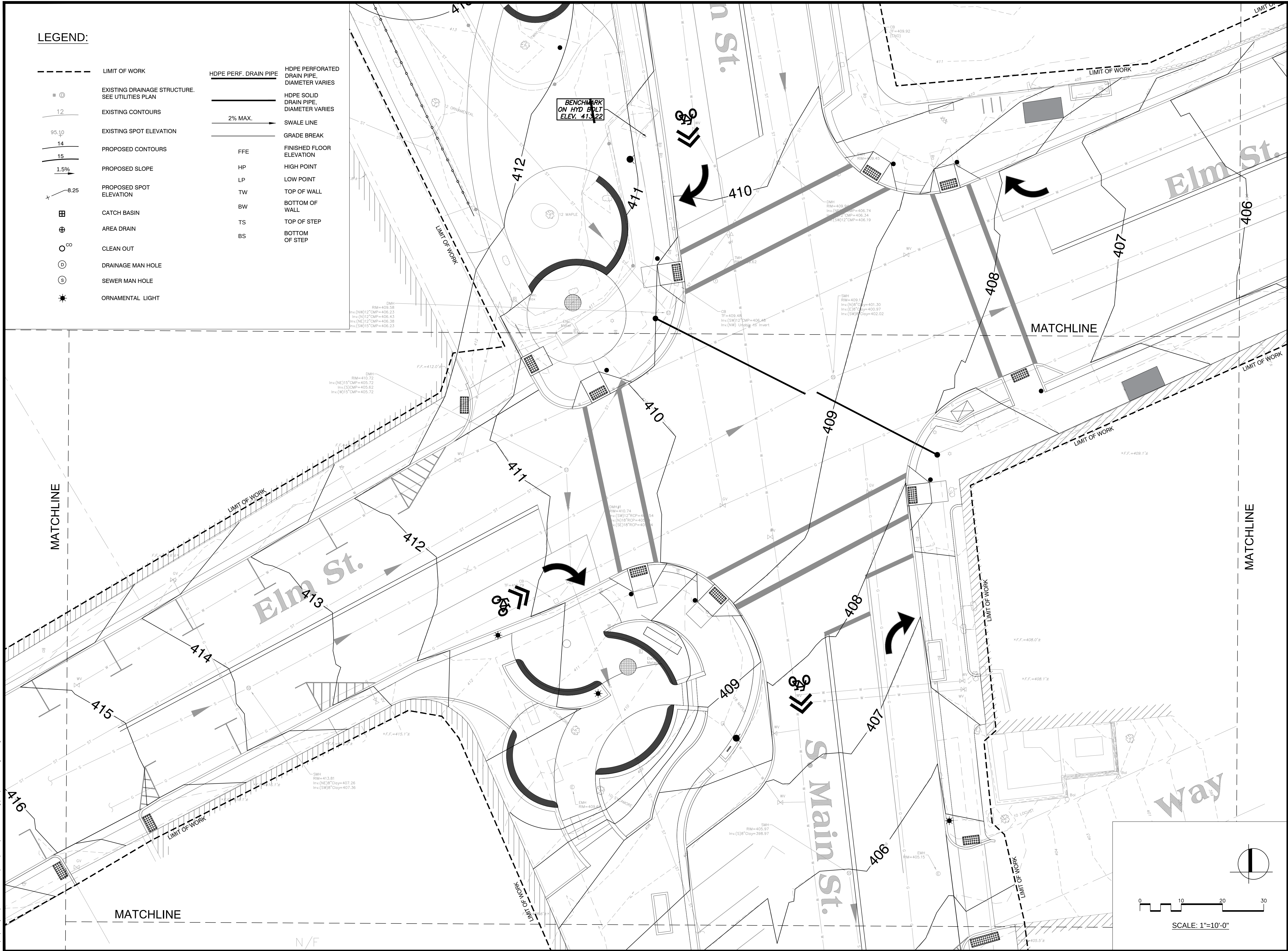
GRADING, DRAINAGE,
AND UTILITIES
ENLARGEMENT PLAN

Sheet Number:

L4.02

LEGEND:

- LIMIT OF WORK
- 12
95.10
14
15
1.5%
8.25
- CATCH BASIN
- AREA DRAIN
- CLEAN OUT
- DRAINAGE MAN HOLE
- SEWER MAN HOLE
- ORNAMENTAL LIGHT
- HDPE PERF. DRAIN PIPE
- HDPE PERFORATED DRAIN PIPE, DIAMETER VARIES
- HDPE SOLID DRAIN PIPE, DIAMETER VARIES
- 2% MAX.
- SWALE LINE
- GRADE BREAK
- FFE
HP
LP
TW
BW
TS
BS
- FINISHED FLOOR ELEVATION
- HIGH POINT
- LOW POINT
- TOP OF WALL
- BOTTOM OF WALL
- TOP OF STEP
- BOTTOM OF STEP



Project:
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Drawing Title:
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AND UTILITIES
ENLARGEMENT PLAN

Sheet Number:
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GRADING, DRAINAGE, AND UTILITIES ENLARGEMENT PLAN

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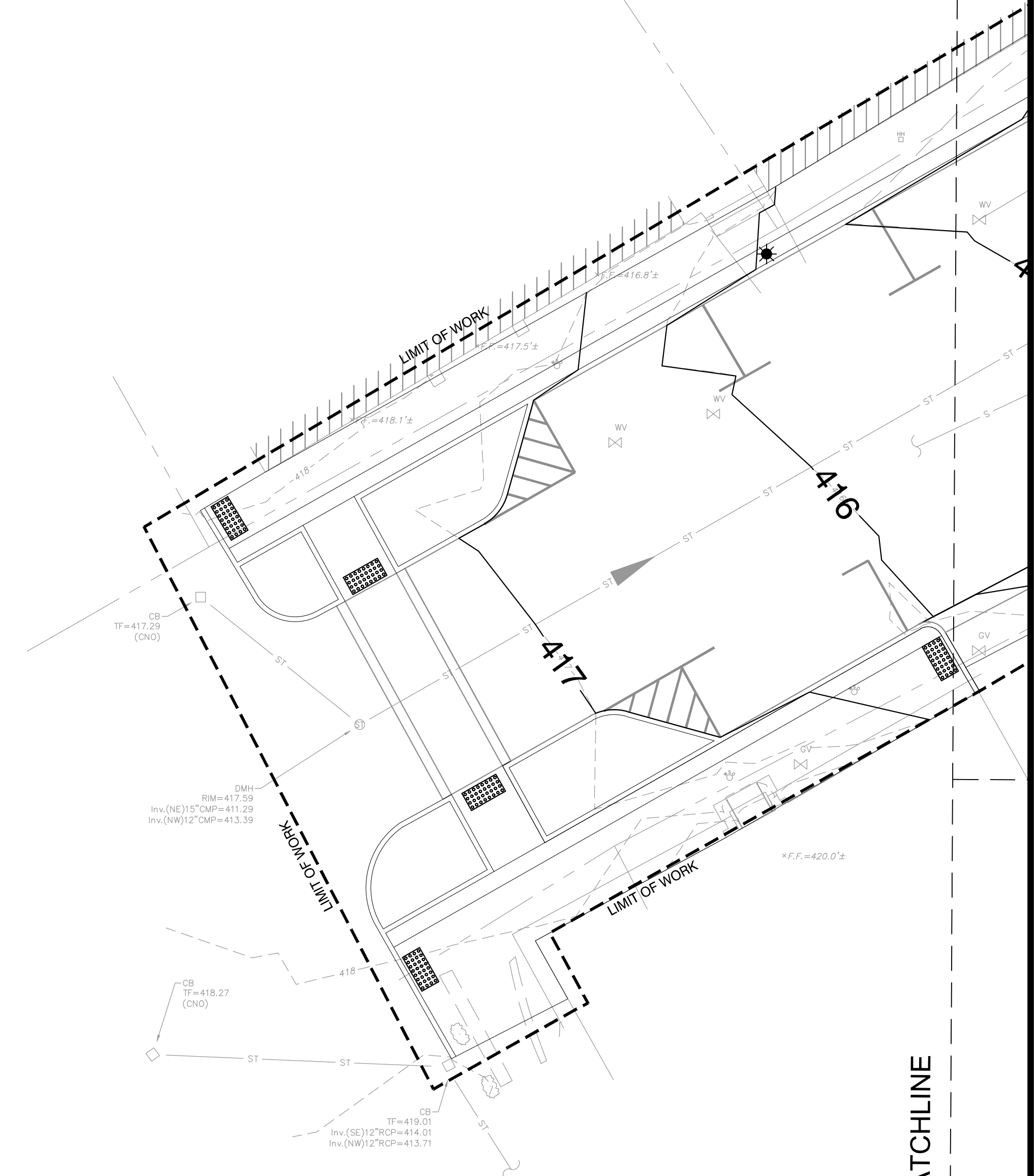
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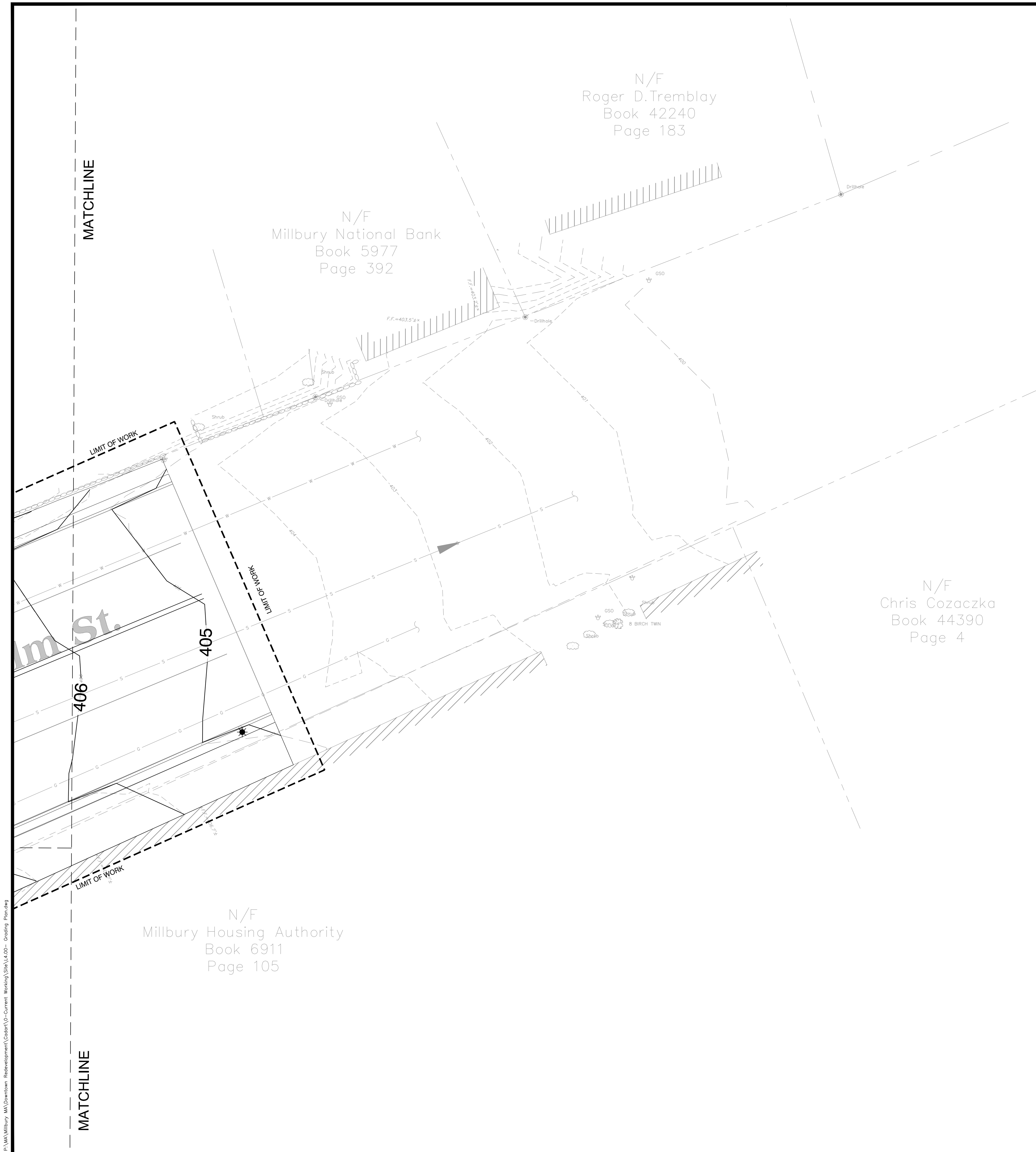
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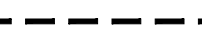
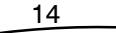
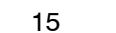
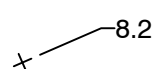
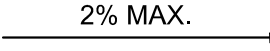
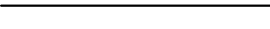


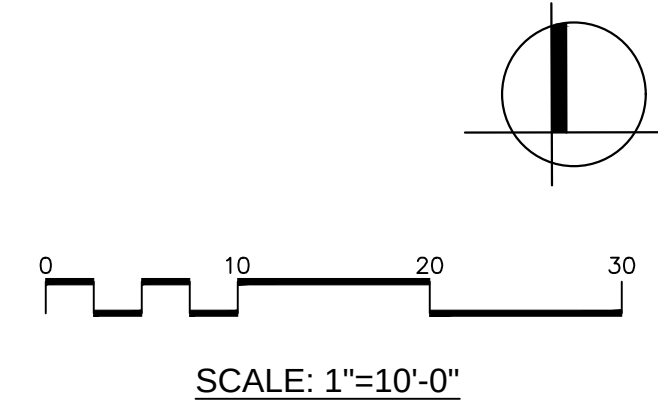
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|  | EXISTING DRAINAGE STRUCTURE.
SEE UTILITIES PLAN |
|  | EXISTING CONTOURS |
|  | EXISTING SPOT ELEVATION |
|  | PROPOSED CONTOURS |
|  | PROPOSED SLOPE |
|  | PROPOSED SPOT
ELEVATION |
|  | |
|  | CATCH BASIN |
|  | AREA DRAIN |
|  | CLEAN OUT |
|  | DRAINAGE MAN HOLE |
|  | SEWER MAN HOLE |
|  | ORNAMENTAL LIGHT |
| <u>HDPE PERF. DRAIN PIPE</u> | HDPE PERFORATED
DRAIN PIPE.
DIAMETER VARIES |
|  | HDPE SOLID
DRAIN PIPE.
DIAMETER VARIES |
|  | SWALE LINE |
|  | GRADE BREAK |
| FFE | FINISHED FLOOR
ELEVATION |
| HP | HIGH POINT |
| LP | LOW POINT |
| TW | TOP OF WALL |
| BW | BOTTOM OF
WALL |
| TS | TOP OF STEP |
| BS | BOTTOM
OF STEP |



Project:

TOWN OF MILLBURY, MA



DOWNTOWN
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GRADING, DRAINAGE,
AND UTILITIES
ENLARGEMENT PLAN

Sheet Number:

L4.05

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N/F
Gianni Romeo, Trustee
Book 39983
Page 285

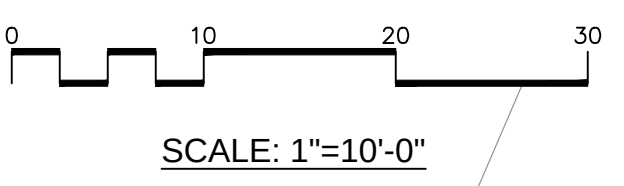
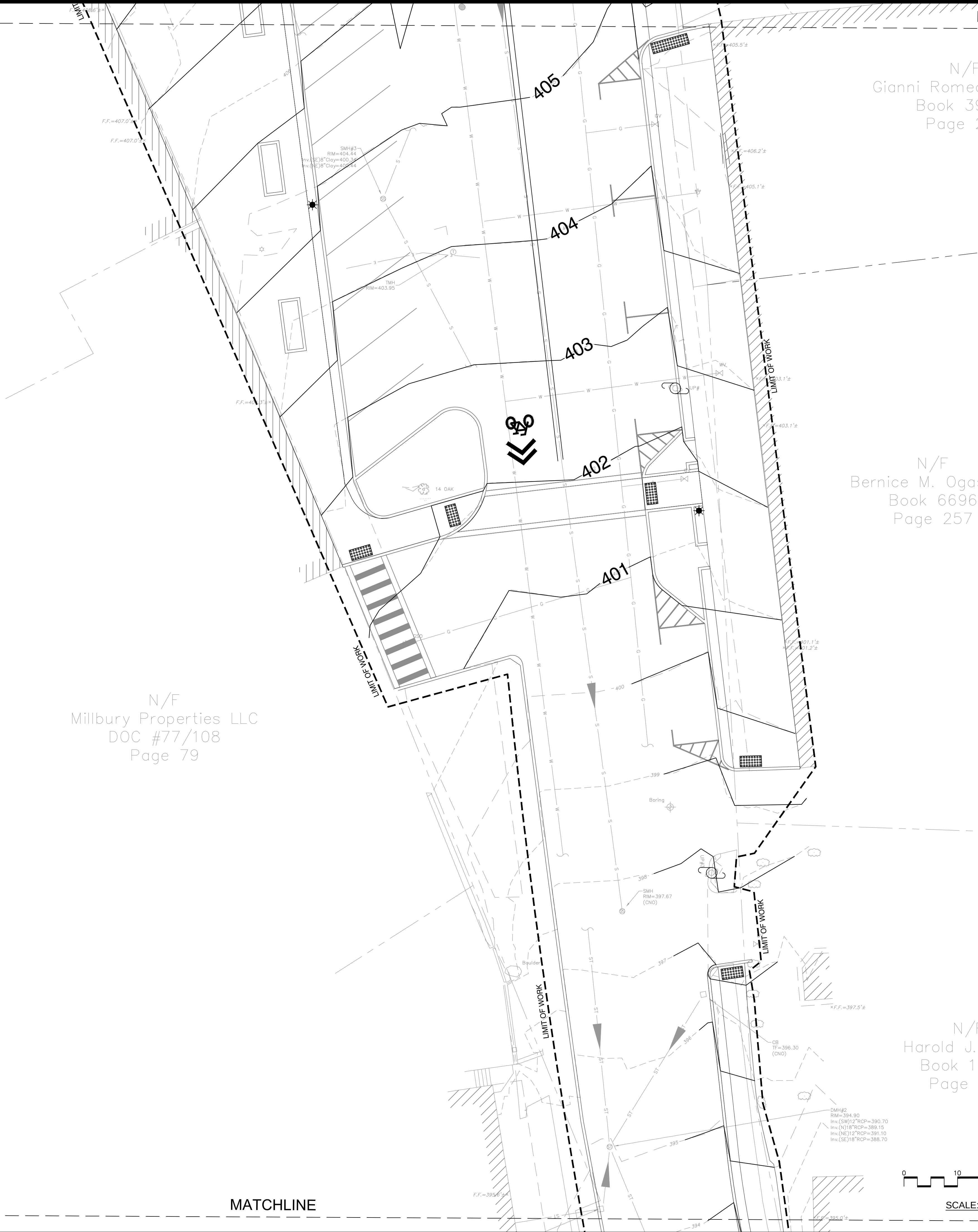
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DOC #77/108
Page 79

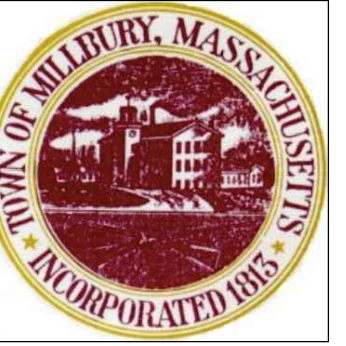
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Harold J. Rivers
Book 15477
Page 275

LEGEND:

- LIMIT OF WORK
- ⊕ EXISTING DRAINAGE STRUCTURE.
SEE UTILITIES PLAN
- 12 EXISTING CONTOURS
- 95.10 EXISTING SPOT ELEVATION
- 14 PROPOSED CONTOURS
- 15 PROPOSED SLOPE
- 1.5% PROPOSED SLOPE
- 8.25 PROPOSED SPOT
ELEVATION
- ⊕ CATCH BASIN
- ⊕ AREA DRAIN
- ^{CO} CLEAN OUT
- ⊕ DRAINAGE MAN HOLE
- ⊕ SEWER MAN HOLE
- ★ ORNAMENTAL LIGHT
- HDPE PERF. DRAIN PIPE HDPE PERFORATED
DRAIN PIPE,
DIAMETER VARIES
- HDPE SOLID DRAIN PIPE, DIAMETER VARIES
- 2% MAX. SWALE LINE
- GRADE BREAK
- FFE FINISHED FLOOR
ELEVATION
- HP HIGH POINT
- LP LOW POINT
- TW TOP OF WALL
- BW BOTTOM OF
WALL
- TS TOP OF STEP
- BS BOTTOM
OF STEP



Project:
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Drawing Title:

GRADING, DRAINAGE,
AND UTILITIES
ENLARGEMENT PLAN

Sheet Number:

L4.06

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James E. Cormier
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Michael F. Goulet, Trustees
Cert. #61086

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Thomas L. &
Susan J. McKenney
Book 15096
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N/F
Charles F. Minney Post #3329

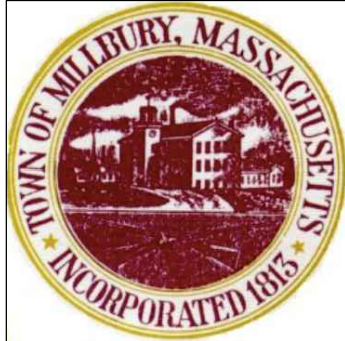
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- LIMIT OF WORK
- EXISTING DRAINAGE STRUCTURE.
SEE UTILITIES PLAN
- 12 --- EXISTING CONTOURS
- 95.10 --- EXISTING SPOT ELEVATION
- 14 --- PROPOSED CONTOURS
- 15 --- PROPOSED SLOPE
- 1.5% --- PROPOSED SLOPE
- 8.25 --- PROPOSED SPOT
ELEVATION
- CATCH BASIN
- AREA DRAIN
- CLEAN OUT
- DRAINAGE MAN HOLE
- SEWER MAN HOLE
- ORNAMENTAL LIGHT
- HDPE PERF. DRAIN PIPE --- HDPE PERFORATED
DRAIN PIPE,
DIAMETER VARIES
- HDPE SOLID
DRAIN PIPE,
DIAMETER VARIES
- 2% MAX. --- SWALE LINE
- GRADE BREAK
- FFE --- FINISHED FLOOR
ELEVATION
- HP --- HIGH POINT
- LP --- LOW POINT
- TW --- TOP OF WALL
- BW --- BOTTOM OF
WALL
- TS --- TOP OF STEP
- BS --- BOTTOM
OF STEP



SCALE: 1"=10'-0"

Project:
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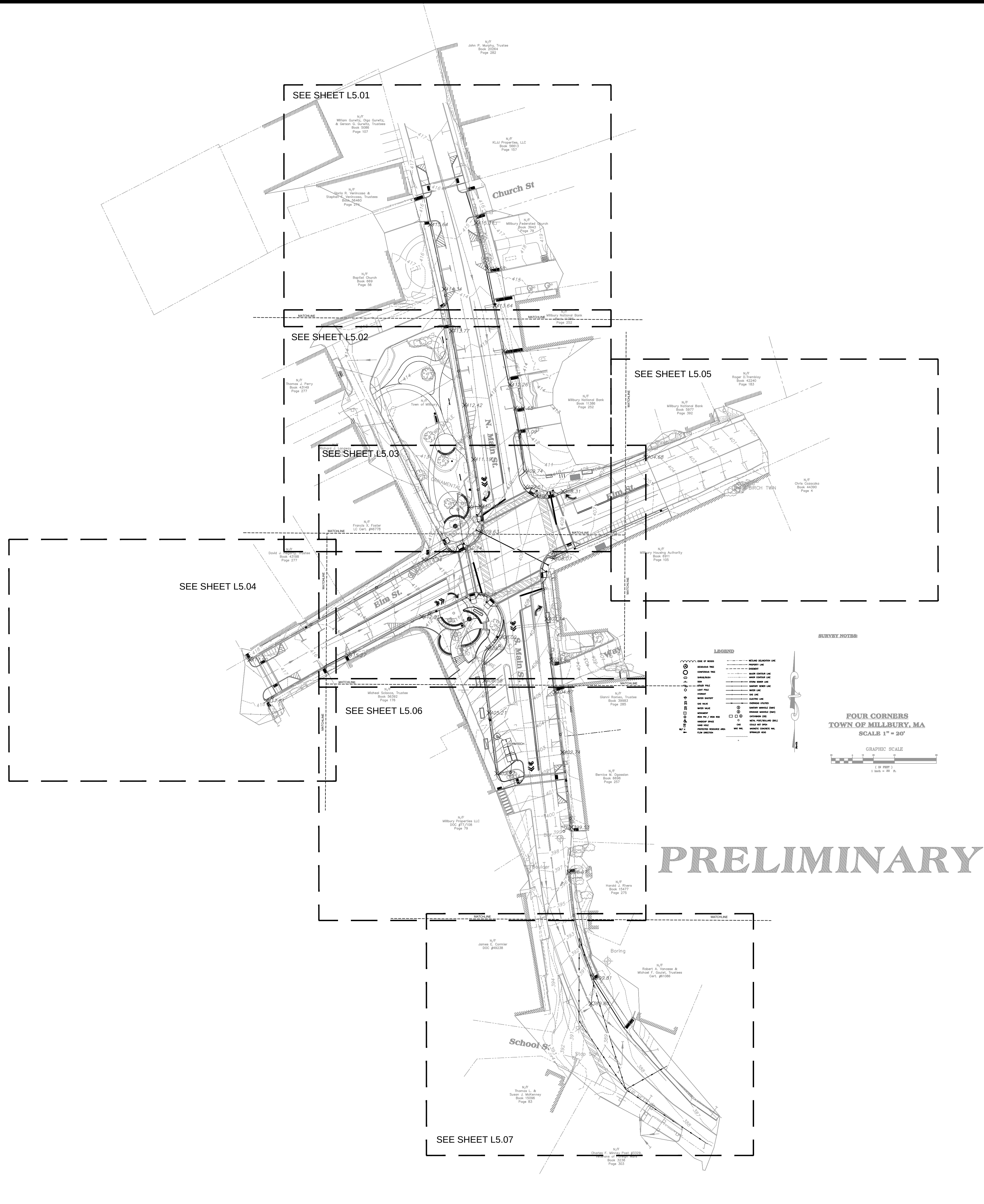
Drawing Title:

GRADING, DRAINAGE,
AND UTILITIES
ENLARGEMENT PLAN

Sheet Number:

L4.07

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Drawing Title:
**DRAINAGE
ENLARGEMENT PLAN**

Sheet Number:
L5.00

LEGEND:

- LIMIT OF WORK
- PROPERTY LINE
- ⑩ EXISTING DRAINAGE STRUCTURE.
SEE UTILITIES PLAN
- 12 EXISTING CONTOURS
- 95.10 EXISTING SPOT ELEVATION
- 14 PROPOSED CONTOURS
- 15 PROPOSED SLOPE
- 1.5% PROPOSED SLOPE
- 8.25 PROPOSED SPOT ELEVATION
- ⊞ CATCH BASIN
- ⊕ AREA DRAIN
- ^{CO} CLEAN OUT
- DRAINAGE MAN HOLE
- ⊙ SEWER MAN HOLE
- ★ ORNAMENTAL LIGHT
- HDPE PERF. DRAIN PIPE
- HDPE PERFORATED DRAIN PIPE, DIAMETER VARIES
- HDPE SOLID DRAIN PIPE, DIAMETER VARIES
- 2% MAX. SWALE LINE
- GRADE BREAK
- FFE FINISHED FLOOR ELEVATION
- HP HIGH POINT
- LP LOW POINT
- TW TOP OF WALL
- BW BOTTOM OF WALL
- TS TOP OF STEP
- BS BOTTOM OF STEP

NOTE: PE PIPE SHALL BE PERFORATED
IN SECTIONS LOCATED BENEATH PERMEABLE PAVERS.
PE SHALL BE SOLID PIPE BENEATH PAVEMENT SECTIONS.

PROPOSED 6" PERFORATED
PE STORM PIPE (SEE DETAIL)

PROPOSED 6" PERFORATED
HDPE STORM PIPE (SEE DETAIL)

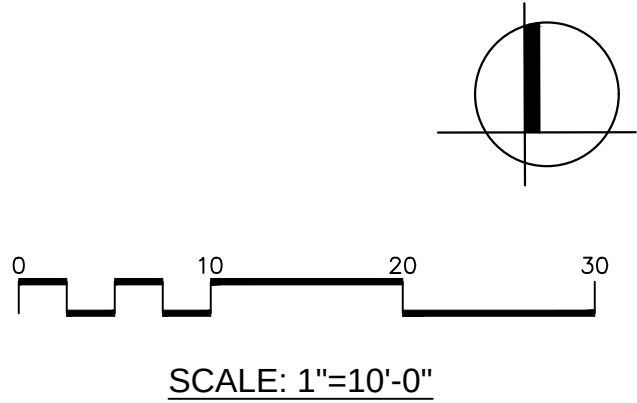
PROPOSED 6" SOLID
PE STORM PIPE (SEE TRENCH DETAIL)

PROPOSED 6"
PERFORATED PE
STORM PIPE
(SEE DETAIL)

PROPOSED 6" PERFORATED
PE STORM PIPE (SEE DETAIL)

PROPOSED 6" SOLID
PE STORM PIPE
(SEE TRENCH DETAIL)

Church St



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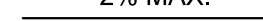
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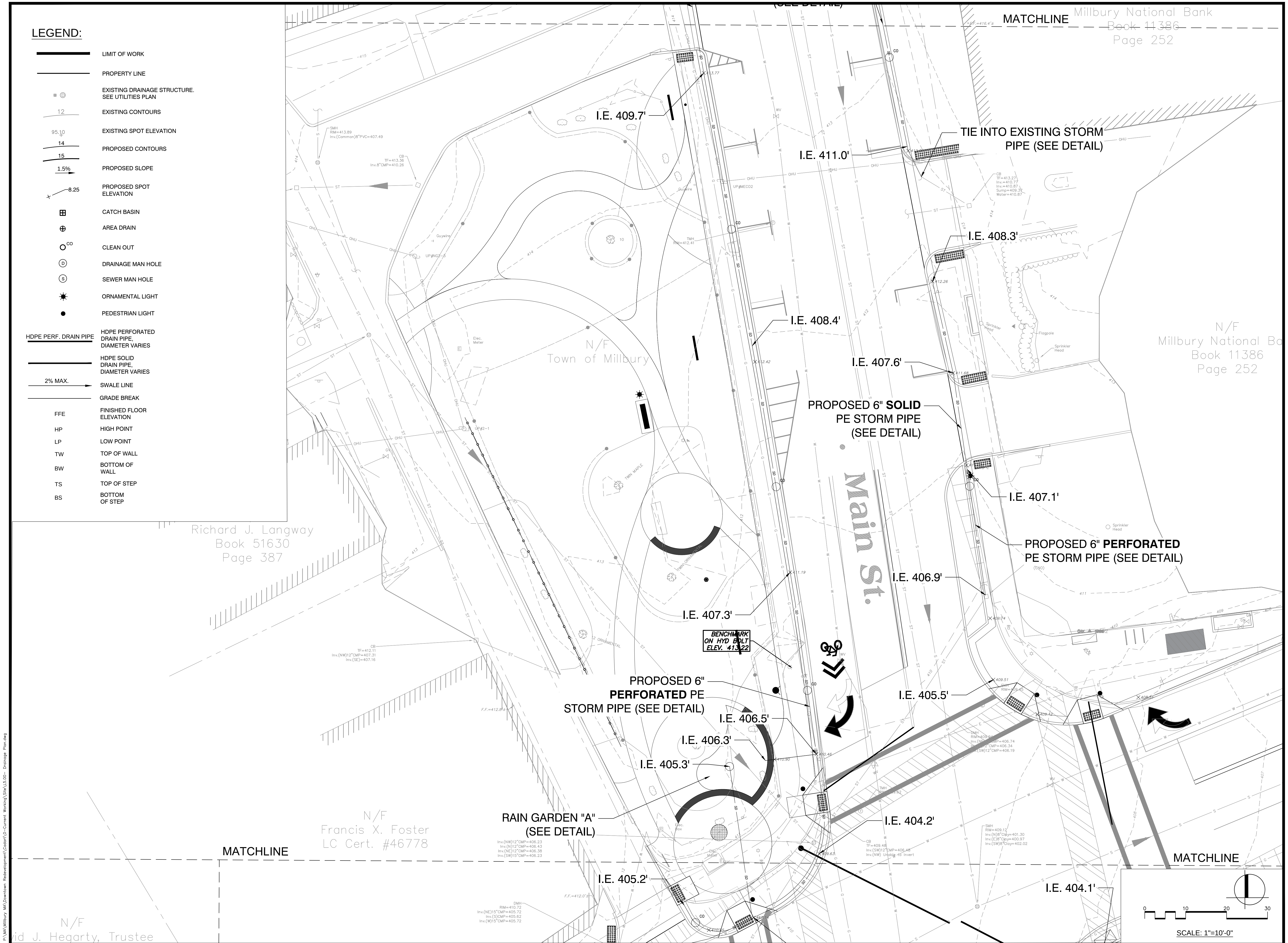
DRAINAGE
ENLARGEMENT PLAN

Sheet Number:

L5.01

	LIMIT OF WORK
	PROPERTY LINE
	EXISTING DRAINAGE STRUCTURE. SEE UTILITIES PLAN
	EXISTING CONTOURS
	EXISTING SPOT ELEVATION
	PROPOSED CONTOURS
	PROPOSED SLOPE
	PROPOSED SPOT ELEVATION
	CATCH BASIN
	AREA DRAIN
	CLEAN OUT
	DRAINAGE MAN HOLE
	SEWER MAN HOLE
	ORNAMENTAL LIGHT
	PEDESTRIAN LIGHT

<u>HDPE PERF. DRAIN PIPE</u>	HDPE PERFORATED DRAIN PIPE, DIAMETER VARIES
	HDPE SOLID DRAIN PIPE, DIAMETER VARIES
	SWALE LINE
	GRADE BREAK
FFE	FINISHED FLOOR ELEVATION
HP	HIGH POINT
LP	LOW POINT
TW	TOP OF WALL
BW	BOTTOM OF WALL
TS	TOP OF STEP
BS	BOTTOM OF STEP



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Drawing Title:

DRAINAGE
ENLARGEMENT PLAN

Sheet Number:

L5.02

GRADING, DRAINAGE & UTILITIES LEGEND:

	LIMIT OF WORK		ORNAMENTAL LIGHT
	PROPERTY LINE		PEDESTRIAN LIGHT
	EXISTING DRAINAGE STRUCTURE. SEE UTILITIES PLAN		HDPE PERFORATED DRAIN PIPE, DIAMETER VARIES
	EXISTING CONTOURS		HDPE SOLID DRAIN PIPE, DIAMETER VARIES
	EXISTING SPOT ELEVATION		2% MAX. SWALE LINE
	PROPOSED CONTOURS		GRADE BREAK
	PROPOSED SLOPE		FFE FINISHED FLOOR ELEVATION
	PROPOSED SPOT ELEVATION		HP HIGH POINT
	CATCH BASIN		LP LOW POINT
	AREA DRAIN		TW TOP OF WALL
	CLEAN OUT		BW BOTTOM OF WALL
	DRAINAGE MAN HOLE		TS TOP OF STEP
	SEWER MAN HOLE		BS BOTTOM OF STEP

PROPOSED 6"
PERFORATED PE
STORM PIPE (SEE DETAIL)

PROPOSED 6" PERFORATED
PE STORM PIPE (SEE DETAIL)

RAIN GARDEN "A"
(SEE DETAIL)

PROPOSED 6" SOLID
PE STORM PIPE
(SEE DETAIL)

PROPOSED 6" SOLID
PE STORM PIPE
(SEE DETAIL)

PROPOSED 6"
PERFORATED PE
STORM PIPE (SEE DETAIL)

PROPOSED 6" SOLID
PE STORM PIPE
(SEE DETAIL)

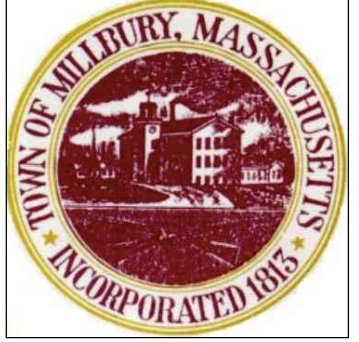
PROPOSED 6"
PERFORATED PE
STORM PIPE (SEE DETAIL)

RAIN GARDEN "B"
(SEE DETAIL)

NOTE: PE PIPE SHALL BE PERFORATED
IN SECTIONS LOCATED BENEATH PERMEABLE PAVERS.
PE SHALL BE SOLID PIPE BENEATH PAVEMENT SECTIONS.

0 10 20 30
SCALE: 1"=10'-0"

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DRAINAGE
ENLARGEMENT PLAN

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L5.03

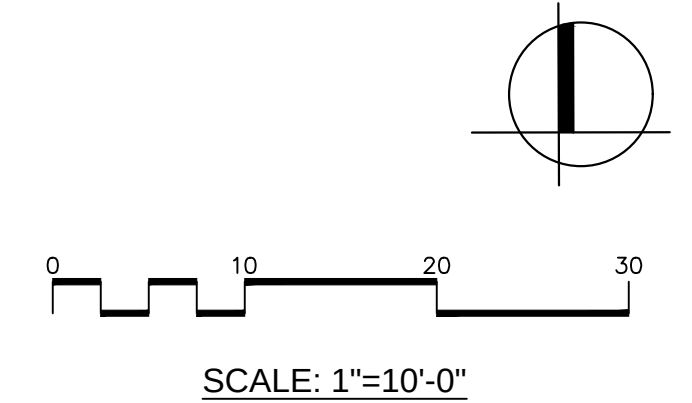
	LIMIT OF WORK
	PROPERTY LINE
	EXISTING DRAINAGE STRUCTURE. SEE UTILITIES PLAN
	EXISTING CONTOURS
	EXISTING SPOT ELEVATION
	PROPOSED CONTOURS
	PROPOSED SLOPE
	PROPOSED SPOT ELEVATION
	CATCH BASIN
	AREA DRAIN
	CLEAN OUT
	DRAINAGE MAN HOLE
	SEWER MAN HOLE
	ORNAMENTAL LIGHT
	PEDESTRIAN LIGHT

<u>HDPE PERF. DRAIN PIPE</u>	HDPE PERFORATED DRAIN PIPE, DIAMETER VARIES
	HDPE SOLID DRAIN PIPE, DIAMETER VARIES
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	GRADE BREAK
FFE	FINISHED FLOOR ELEVATION
HP	HIGH POINT
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PROPOSED 6"
PERFORATED PE
STORM PIPE (SEE DETAIL)

PROPOSED 6"
PERFORATED PE
STORM PIPE (SEE DETAIL)

NOTE: PE PIPE SHALL BE PERFORATED
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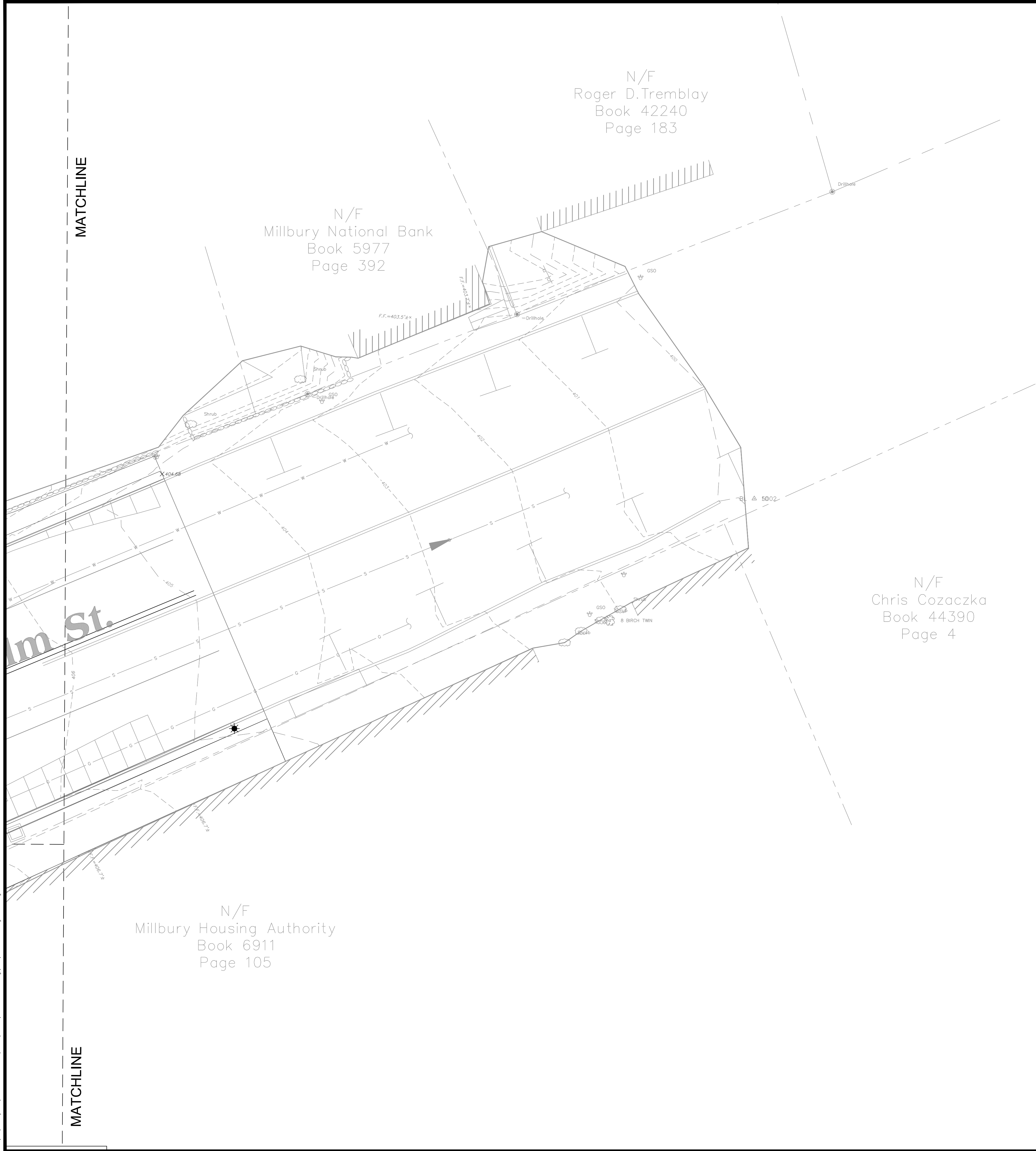
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DRAINAGE
ENLARGEMENT PLAN

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L5.04

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GRADING, DRAINAGE & UTILITIES LEGEND:

- LIMIT OF WORK
- PROPERTY LINE
- EXISTING DRAINAGE STRUCTURE. SEE UTILITIES PLAN
- EXISTING CONTOURS
- EXISTING SPOT ELEVATION
- PROPOSED CONTOURS
- PROPOSED SLOPE
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- HDPE SOLID DRAIN PIPE. DIAMETER VARIES
- SWALE LINE
- GRADE BREAK
- FFE
- HP
- LP
- TW
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- TS
- BS

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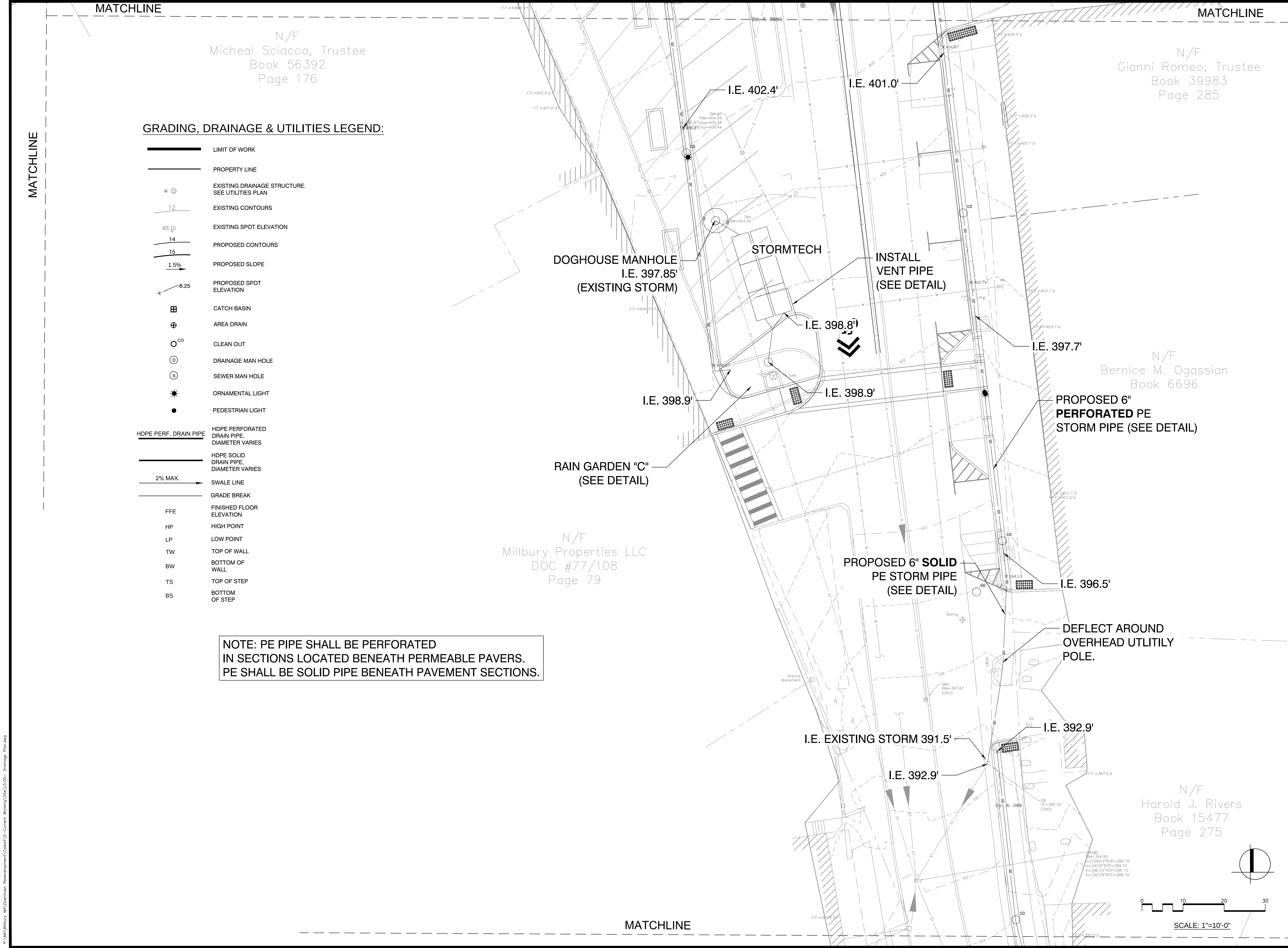
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GRADING, DRAINAGE & UTILITIES LEGEND:

- LIMIT OF WORK
- PROPERTY LINE
- ⊕ EXISTING DRAINAGE STRUCTURE. SEE UTILITIES PLAN
- 12 EXISTING CONTOURS
- 95.10 EXISTING SPOT ELEVATION
- 14 PROPOSED CONTOURS
- 15 PROPOSED SLOPE
- 1.5% PROPOSED SLOPE
- 8.25 PROPOSED SPOT ELEVATION
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- ⊕ AREA DRAIN
- ^{CO} CLEAN OUT
- ⊕ DRAINAGE MAN HOLE
- ⊕ SEWER MAN HOLE
- ⊕ ORNAMENTAL LIGHT
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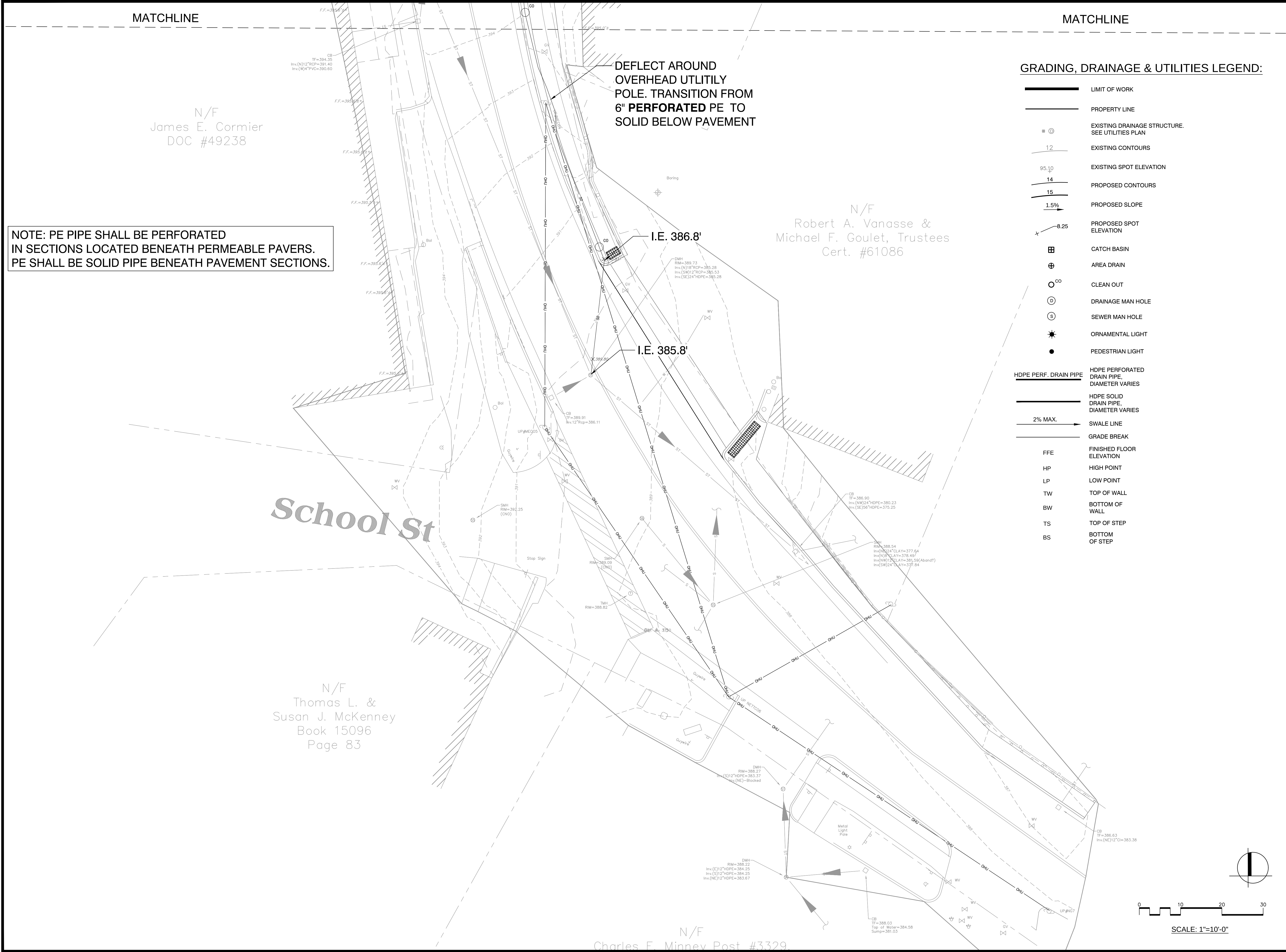
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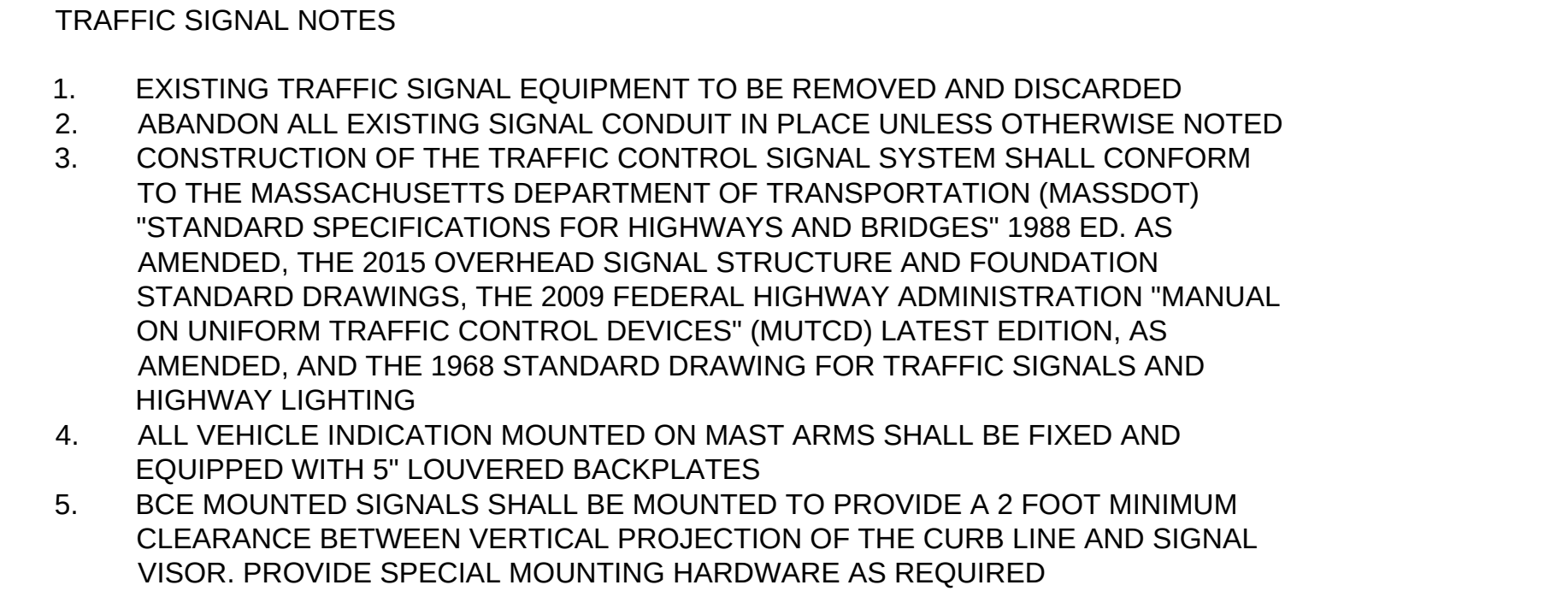
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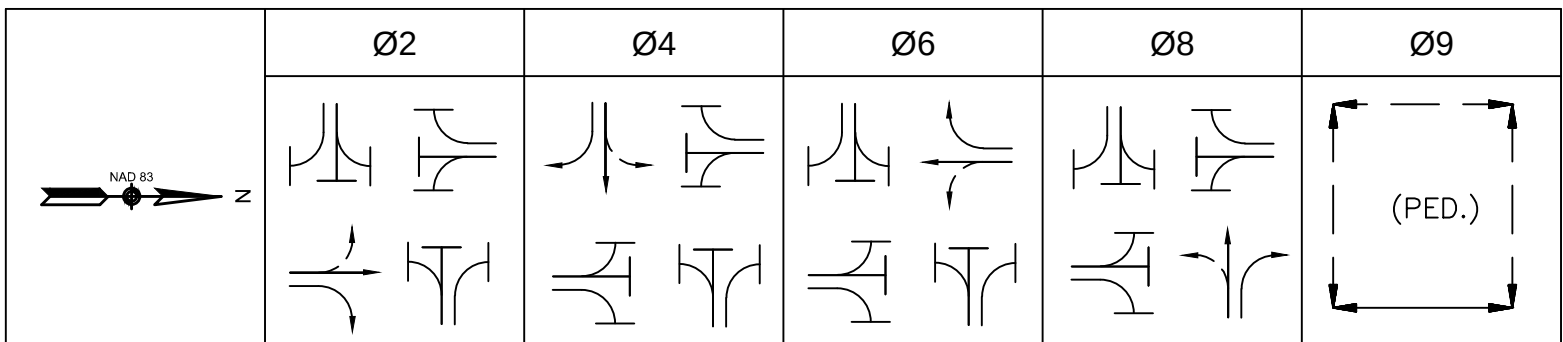
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**DRAINAGE
ENLARGEMENT PLAN**

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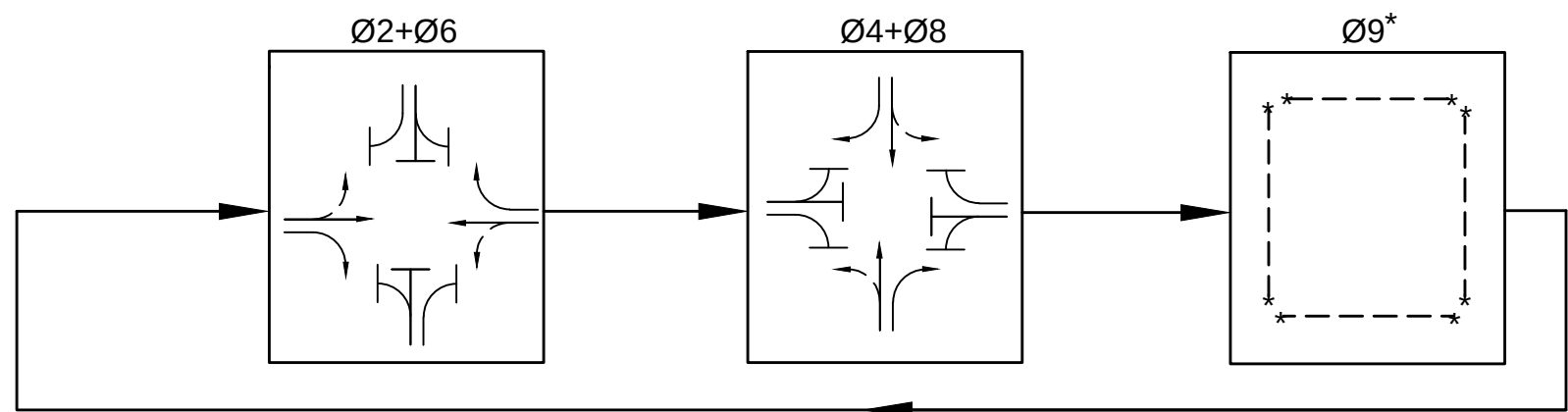
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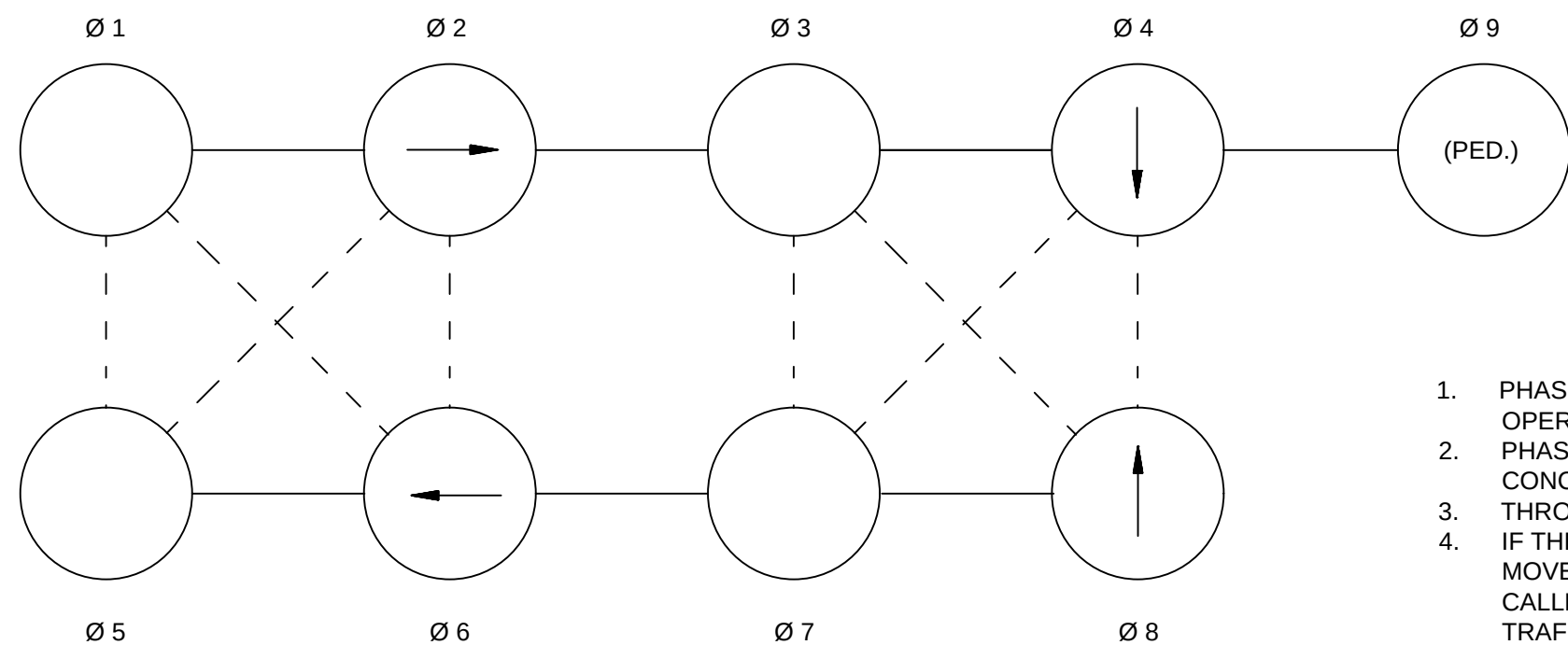
SEQUENCE AND TIMING FOR FULL ACTUATED CONTROL (ISOLATED)																		
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	FLASH OPER.
ELM STREET	EB	A	R	R	R	G	Y	R	R	R	R	R	R	R				FR
ELM STREET	EB	B	R	R	R	G	Y	R	R	R	R	R	R	R				FR
ELM STREET	EB	C	R	R	R	G	Y	R	R	R	R	R	R	R				FR
ELM STREET	WB	D	R	R	R	R	R	R	R	R	R	G	Y	R				FR
ELM STREET	WB	E	R	R	R	R	R	R	R	R	R	G	Y	R				FR
ELM STREET	WB	F	R	R	R	R	R	R	R	R	R	G	Y	R				FR
N. MAIN STREET	SB	G	R	R	R	R	R	R	G	Y	R	R	R	R				FY
N. MAIN STREET	SB	H	R	R	R	R	R	R	G	Y	R	R	R	R				FY
N. MAIN STREET	SB	J	R	R	R	R	R	R	GR	YR	RR	R	R	R				FYR
N. MAIN STREET	SB	K	R	R	R	R	R	R	GR	YR	RR	R	R	R				FYR
S. MAIN STREET	NB	L	G	Y	R	R	R	R	R	R	R	R	R	R				FY
S. MAIN STREET	NB	M	G	Y	R	R	R	R	R	R	R	R	R	R				FY
S. MAIN STREET	NB	N	G	Y	R	R	R	R	R	R	R	R	R	R				FY
PEDESTRIAN CROSSING	EB-WB	P3-P4	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	
PEDESTRIAN CROSSING	NB-SB	P1-P2	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	
PEDESTRIAN CROSSING	EB-WB	P7-P8	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	
PEDESTRIAN CROSSING	NB-SB	P5-P6	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	
TIMING IN SECONDS																		
MINIMUM GREEN (INITIAL)			10			5			10			5						EMERGENCY ONLY
PASSAGE TIME (VEHICLE)			3			3			3			3						
MAXIMUM 1			50			17			50			17						
MAXIMUM 2			85			17			85			17						
YELLOW CLEARANCE				3.5			3.5			3.5			3.5					
RED CLEARANCE					1.5			1.5			1.5			1.5			3	
WALK (W)															7			
PEDESTRIAN CLEARANCE																13		
RECALL			MAX			OFF			MAX			OFF			OFF			LOCK
MEMORY			NON-LOCK			NON-LOCK			NON-LOCK			NON-LOCK			LOCK			

MAX 1 - ALL OTHER TIMES
MAX 2 - PM PEAK HOURS 3-6 PM
★ PEDESTRIAN PHASE UPON PUSH BUTTON ACTIVATION ONLY
24" x 24" LED "NO RIGHT TURN" BLANK OUT SIGNS SHALL BE ILLUMINATED DURING EXCLUSIVE PEDESTRIAN PHASE



----- = PERMISSIVE MOVEMENT
★ = UPON PUSH BUTTON ACTIVATION

NEMA DUAL RING PHASING NOTES:



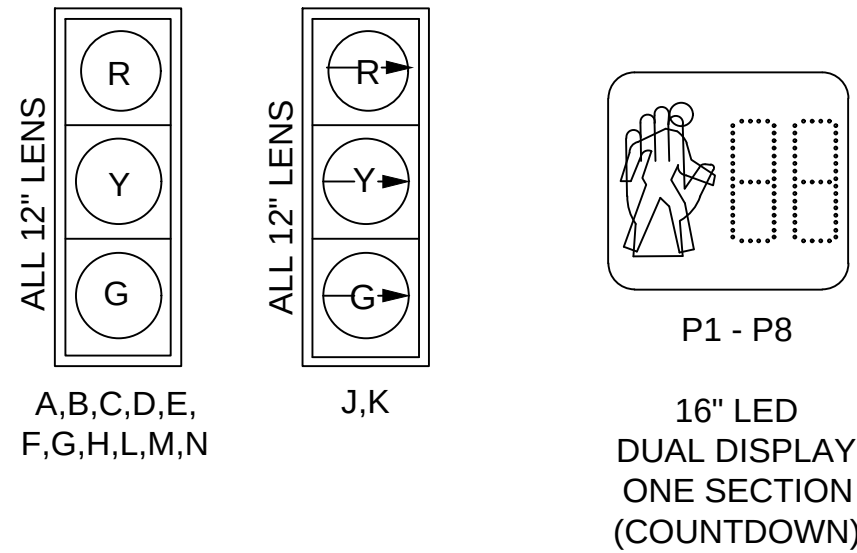
- PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
- PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
- THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
- IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

APPROACH	PREEMPTION PHASE DETECTOR	VEHICLE PHASE CALLED	MOVEMENT
EASTBOUND	D1	Ø4	
WESTBOUND	D3	Ø8	
NORTHBOUND	D4	Ø2	
SOUTHBOUND	D2	Ø6	

EMERGENCY VEHICLE PREEMPTION OPERATION:

- EMERGENCY VEHICLE PREEMPTION SHALL BE ACTUATED BY AN OPTICAL SIGNAL FROM AN OPTICAL EMITTER MOUNTED ON AN EMERGENCY VEHICLE AND RECEIVED BY AN OPTICAL DETECTOR LOCATED AT INTERSECTION. A SEPARATE RECEIVING DETECTOR IS REQUIRED FOR EACH DETECTED APPROACH.
- PREEMPTION SIGNALS FROM MULTIPLE APPROACHES SHALL BE SERVICED ON A FIRST DETECTED FIRST SERVED BASIS.
- IN RESPONSE TO A PREEMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL TIME THE CLEARANCE INTERVALS OF THE ACTIVE PHASE (IF DIFFERENT THAT TO BE SERVICED) AND ADVANCE TO AND/OR HOLD IN EMERGENCY VEHICLE PREEMPTION PHASE UNTIL PREEMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME CLEARANCES AND SIMILARLY SERVICE OTHER EMERGENCY VEHICLE PREEMPTION SEQUENCES IN THE ORDER RECEIVED (IF RECEIVED) OTHERWISE, RESUME NORMAL PREFERENTIAL PHASE SEQUENCE.
- PREEMPTION MINIMUM GREENS SHALL BE SIX SECONDS.
- NORMAL CLEARANCES SHALL BE PROVIDED ON PHASES THAT ARE TERMINATED BY PREEMPTION DEMAND.
- ACTUAL TIMING FOR PREEMPTION SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FIRE DEPARTMENT AND SHALL BE APPROVED BY MHD PRIOR TO OPERATION.

PROPOSED SIGNAL IDENTIFICATION



NOTES:

- ALL SIGNALS SHALL HAVE CAP VISORS
- ALL SIGNALS SHALL BE 12" LED WITH 5" LOUVERED BACKPLATES
- ALL BACKPLATES SHALL HAVE A 3" RETROREFLECTIVE BORDER
- ALL PED INDICATORS SHALL HAVE SUN CAP VISORS

MAJOR ITEMS REQUIRED		
PAY ITEM	QUANTITY	ITEM
815.01	1	CONTROLLER NEMA 8 PHASE T52 - TYPE 1 CAB. FDN
	1	SERVICE CONNECTION, TYPE UNDERGROUND
	4	8' SIGNAL POLE, BASE & FDN
	3	10' SIGNAL POLE, BASE & FDN
	13	1 WAY, 3 SECTION, SIGNAL HOUSINGS (12" LED)
	13	5" 3 SECTION BACK PLATES (COVERED) WITH 3" REFLECTIVE BORDER
	8	16" PEDESTRIAN COUNTDOWN HOUSING, TYPE LED (INT'L SYMBOL)
	4	PEDESTRIAN PUSH BUTTON SIGN & SADDLE (APS)
	2	EMERGENCY VEHICLE PREEMPTION PHASE SELECTION MODULE DUAL CHANNEL
	1	PREEMPTION CARD RACK
	1	EMERGENCY VEHICLE PREEMPTION CONFIRMATION STROBE (WHITE)
	1	40' TYPE II GALV. STEEL MAST ARM ASSEMBLY, BASE & FDN
	1	30' TYPE II GALV. STEEL MAST ARM ASSEMBLY, BASE & FDN
	4	24" x 24" LED BLANK OUT PANEL "NO RIGHT TURN" SYMBOL
	1	VIDEO DETECTION SYSTEM W/ 360° FISH EYE CAMERA W/ MOUNTING BRACKET & 10' EXTENSION POLE, MULTIPLEXER, MONITOR, AUTOMATIC CONTROL UNIT & POINTING DEVICE, ISOLATION AMPLIFIERS FOR CABLING & SOFTWARE
811.31	6	12" x 12" PULL BOX SD2.031
PLUS ALL NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION.		

VIDEO DETECTOR DATA

DETECTOR NUMBER	DETECTOR ZONE SIZE	Ø CALLED	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME
1	VIDEO 6'x50'	Ø2	B	-	-
2	VIDEO 6'x50'	Ø2	B	-	-
3	VIDEO 6'x50'	Ø6	B	-	-
4	VIDEO 6'x50'	Ø6	B	-	-
5	VIDEO 6'x50'	Ø4	B	-	-
6	VIDEO 6'x50'	Ø4	B	-	-
7	VIDEO 6'x50'	Ø8	B	-	-
8	VIDEO 6'x50'	Ø8	B	-	-

Project:
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Reviewed By: LFK

Approved By: JS

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Drawing Title:

SIGNAL TIMING PLAN

Sheet Number:

T1.00

ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR
AC	ALTERNATING CURRENT
AMP	AMPERE
AF	AMP FRAME
AT	AMP TRIP
ATC	AUTOMATIC TEMPERATURE CONTROLS
ATS	AUTOMATIC TRANSFER SWITCH
BKR	BREAKER
C	CONDUIT
CKT	CIRCUIT
CB	CIRCUIT BREAKER
EC	ELECTRICAL CONTRACTOR
EMT	ELECTRIC METALLIC TUBING
EWC	ELECTRIC WATER COOLER
EWI	ELECTRIC WATER HEATER
EF	EXHAUST FAN
FL	FLOOR
FLA	FULL LOAD AMPERE
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
HOA	HAND OFF AUTOMATIC
HP	HORSEPOWER
IG	ISOLATED GROUND
JB	JUNCTION BOX
KVA	KILOVOLT AMPERES
KW	KILOWATT
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
MC	MECHANICAL CONTRACTOR
MTD	MOUNTED
MTG	MOUNTING
NMC	NON-METALLIC CONDUIT
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NT	NOT TO SCALE
PNL	PANELBOARD
PH	PHASE
PVC	POLYVINYL CHLORIDE CONDUIT
RSC	RIGID GALVANIZED STEEL CONDUIT
SS	SUPPLY FAN
SF	SAFETY SWITCH
NEL	TELEPHONE
TRF	TRANSFORMER
V	VOLTS
W	WATTS OR WIRE
WP	WEATHERPROOF
4WSN	4-WIRE SOLID NEUTRAL

RECEPTACLE ABBREVIATIONS	
GFI	GROUND FAULT CIRCUIT INTERRUPTER, PERSONAL PROTECTION
WP	WEATHERPROOF RECEPTACLE WITH COVERPLATE LISTED FOR WET LOCATION WITH AN ATTACHMENT PLUG INSERTED.

		ELECTRICAL LEGEND
		<u>RACEWAY AND WIRING</u>
	1,3 LP1B	HOME RUNS ARE 3/4", 2#12 & 1#12 GND. UNLESS NOTED OTHERWISE ON PLAN.
		UNDERGROUND RACEWAY
		<u>LIGHTING FIXTURES</u>
P1 A		POLE & FIXTURE - 'P1' INDICATES POLE TYPE, 'A' INDICATES FIXTURE TYPE
		<u>RECEPTACLES</u>
	GFI 	DUPLEX CONVENIENCE OUTLET RATED 20A, 125V, U-SLOT GROUNDED TYPE. REFER TO RECEPTACLE ABBREVIATIONS FOR SPECIAL PURPOSE RECEPTACLES. GFI INDICATES GROUND FAULT INTERRUPTING TYPE.
		<u>POWER DISTRIBUTION EQUIPMENT</u>
HH		HAND HOLE
		GROUND - SYSTEM AND/OR EQUIPMENT

GENERAL NOTES	
1.	DRAWINGS ARE DIAGRAMMATIC ONLY. THE EXACT LOCATION, MOUNTING HEIGHTS, SIZE OF EQUIPMENT AND ROUTING OF RACEWAYS SHALL BE COORDINATED AND DETERMINED IN THE FIELD.
2.	WORK SHALL CONFORM TO THE MASSACHUSETTS ELECTRICAL CODE AND MASSACHUSETTS BUILDING CODE AND REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION.
3.	THE WORD "CONTRACTOR" AS USED IN THE "ELECTRICAL WORK" SHALL MEAN THE ELECTRICAL SUBCONTRACTOR.
4.	CONTRACTOR SHALL PAY FOR ALL PERMITS, INSURANCE AND TESTS, AND SHALL PROVIDE LABOR AND MATERIAL TO COMPLETE THE ELECTRICAL WORK SHOWN.
5.	CONTRACTOR SHALL PAY ELECTRIC UTILITY COMPANY BACKCHARGES AND PROVIDE COORDINATION WITH SAME.
6.	EXCEPT AS OTHERWISE NOTED, THE ELECTRICAL WORK SHALL INCLUDE PANELBOARDS, CIRCUIT BREAKERS, FEEDERS, WIRING, RACEWAYS, LIGHTING FIXTURES, DEVICES, SAFETY SWITCHES, MOUNTING AND WIRING, TRANSFORMERS AND CONNECTIONS NECESSARY TO OPERATE ALL EQUIPMENT.
7.	THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY LIGHTING AND POWER AND PAY ALL ENERGY CHARGES.
8.	DURING CONSTRUCTION, THE ELECTRICAL CONTRACTOR SHALL KEEP HIS PORTION OF THE WORK NEAT, CLEAN AND ORDERLY.
9.	ALL SYSTEMS SHALL BE TESTED FOR SHORT CIRCUIT AND GROUNDS PRIOR TO ENERGIZING AND ANY DEFECTS SHALL BE CORRECTED.
10.	ALL CUTTING AND PATCHING REQUIRED FOR ELECTRICAL WORK SHALL BE INCLUDED AS PART OF THIS SECTION.
11.	COMPLETE SHOP DRAWINGS SHALL BE SUBMITTED FOR ELECTRICAL EQUIPMENT. WHERE SPECIFIED, ELECTRICAL EQUIPMENT IS SUBSTITUTED. THE ELECTRICAL CONTRACTOR SHALL SUBMIT COMPLETE SPECIFICATIONS ON THE SUBSTITUTE AS WELL AS THE ITEM ORIGINALLY SPECIFIED.
12.	MATERIALS SHALL BE SPECIFICATION GRADE AND UL LISTED.
13.	WHERE MATERIAL IS CALLED OUT IN THE LEGEND BY MANUFACTURER, TYPE OR CATALOG NUMBER, SUCH DESIGNATIONS ARE TO ESTABLISH STANDARDS OR DESIRED QUALITY. ACCEPTANCE OR REJECTIONS OF PROPOSED SUBSTITUTIONS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER.
14.	WORK SHALL BE COORDINATED WITH THAT OF OTHER TRADES TO ELIMINATE INTERFERENCES.
15.	ELECTRICAL WORK SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF WHICH SYSTEM IS PUT INTO SERVICE.
16.	WORK SHALL BE GROUNDED IN ACCORDANCE WITH CODE REQUIREMENTS. COMPLETE EQUIPMENT (INSULATED GREEN WIRE) GROUNDING SYSTEM SHALL BE INSTALLED.
17.	WIRE SHALL BE TYPE "THHN/THWN" INSULATED FOR 600 VOLTS, MINIMUM SIZE #12 AWG COPPER UNLESS SPECIFICALLY NOTED OTHERWISE.
18.	WIRING METHODS: A. ALL BELOW GRADE DIRECT BURIED CONDUIT SHALL BE SCHEDULE 80 PVC. B. ALL BELOW GRADE CONCRETE ENCASED CONDUITS SHALL BE SCHEDULE 40 PVC. C. ALL ABOVE GRADE CONDUITS SHALL BE RGS.
19.	PANELBOARDS SHALL BE DEAD FRONT, THERMAL MAGNETIC BOLT-ON CIRCUIT BREAKER TYPE, DESIGNED FOR SURFACE MOUNTING AS INDICATED ON PLAN, AND HAVING CONNECTIONS TO 120/240 VOLT, 3 PHASE, 4 WIRE SERVICE. ALL BUS BARS SHALL BE COPPER. CABINETS SHALL BE MADE OF CODE GAUGE GALVANIZED SHEET STEEL, WITH A MINIMUM OF 4 INCH GUTTERS, DOOR IN DOOR CONSTRUCTION, LOCKED DOOR, AND FLUSH HINGES. TYPEWRITTEN INDEX SHALL BE MOUNTED ON DOOR INSIDE TRANSPARENT COVER INDICATING LOAD SERVED. PANELS SHALL INCLUDE SEPARATE EQUIPMENT GROUND BUS.
20.	CONDUIT RUNS AS SHOWN ON THE PLANS ARE DIAGRAMMATIC ONLY; EXACT LOCATION AND METHOD OF SUPPORT SHALL BE DETERMINED IN THE FIELD.
21.	CONTRACTOR SHALL CHECK EXISTING CONDITIONS TO DETERMINE EXACT EXTENT OF WORK TO BE PERFORMED PRIOR TO BIDDING. DIMENSIONS RELEVANT TO EXISTING WORK SHALL BE VERIFIED IN THE FIELD.
22.	PROVIDE AS-BUILT "CADD" DRAWINGS AT THE COMPLETION OF THE PROJECT.
23.	UTILITY WORK ORDERS FROM NATIONAL GRID: BILLBOARD SERVICE - 27758565 TRAFFIC CONTROL CABINET SERVICE - TBD STREET LIGHTING SERVICE - TBD

Project:

TOWN OF MILLBURY, MA



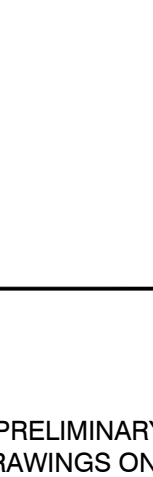
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Approved By: RFM		
W&S Project No: 2180403		
W&S File No: E0.00		

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**ELECTRICAL SYMBOLS,
NOTES &
ABBREVIATIONS**

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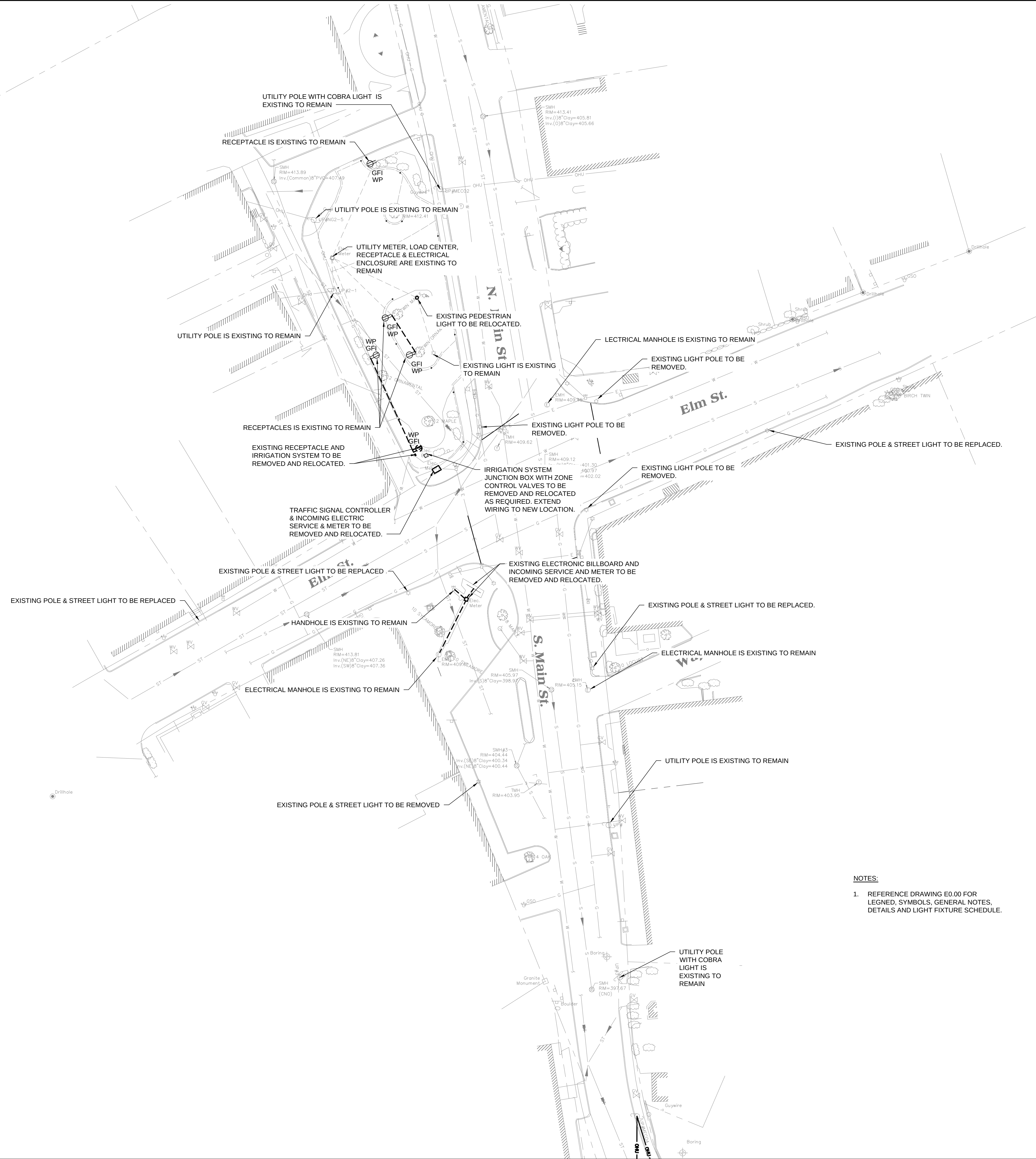
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ELECTRICAL DEMOLITION PLAN

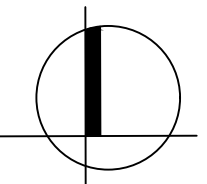
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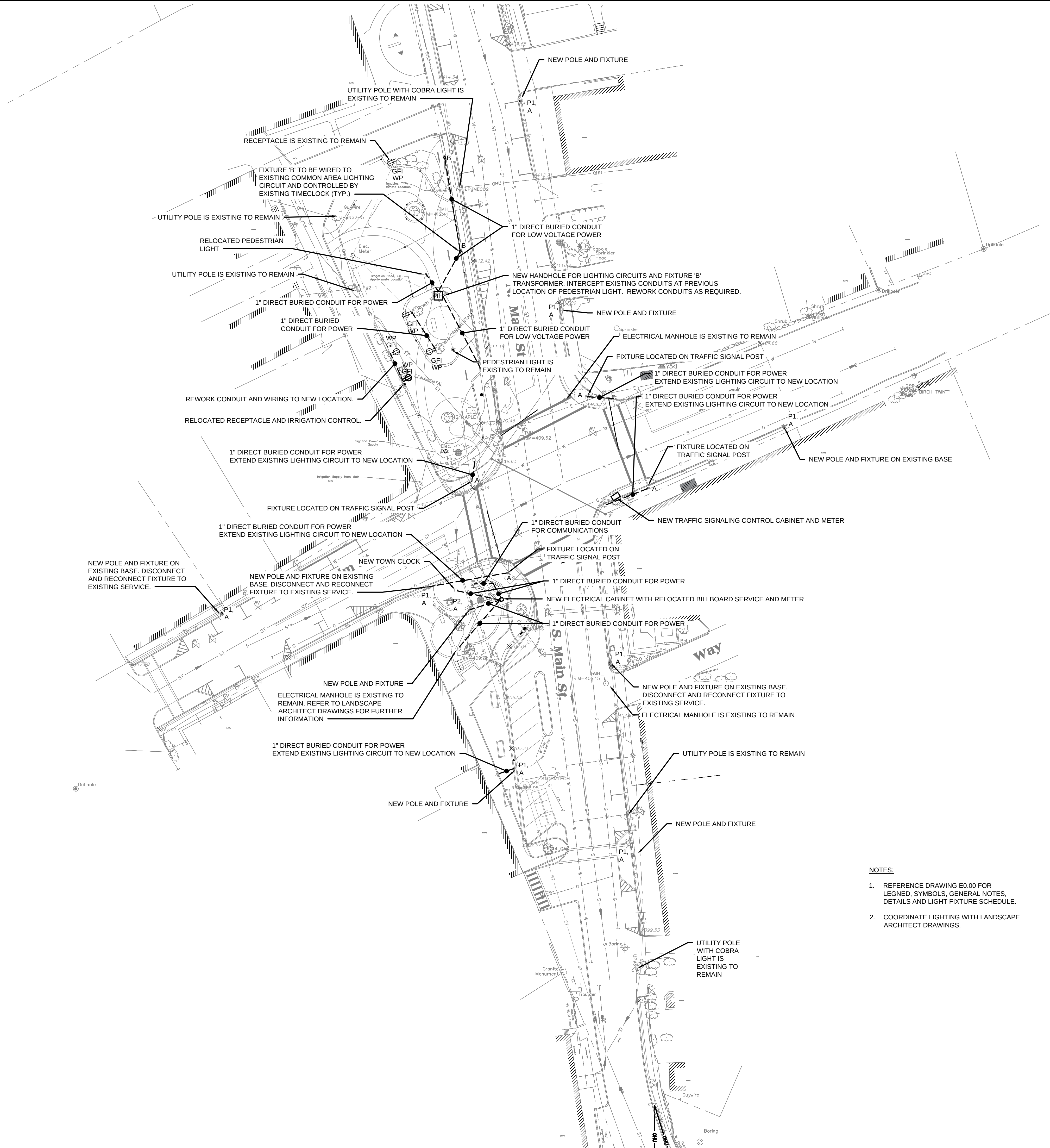
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1. REFERENCE DRAWING E0.00 FOR
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DETAILS AND LIGHT FIXTURE SCHEDULE.



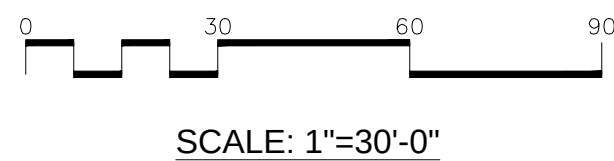
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NOTES:

1. REFERENCE DRAWING E0.00 FOR LEGEND, SYMBOLS, GENERAL NOTES, DETAILS AND LIGHT FIXTURE SCHEDULE.
2. COORDINATE LIGHTING WITH LANDSCAPE ARCHITECT DRAWINGS.



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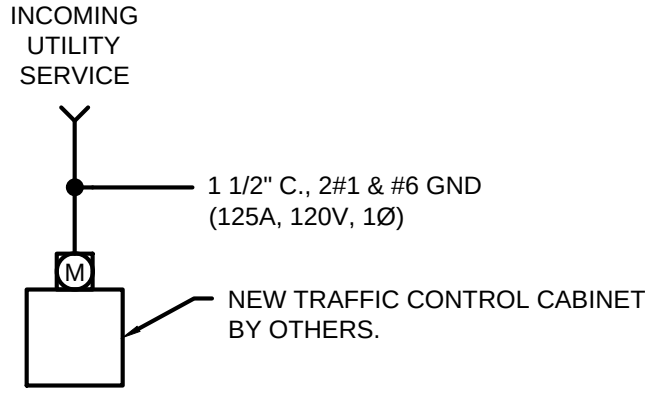
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PLAN

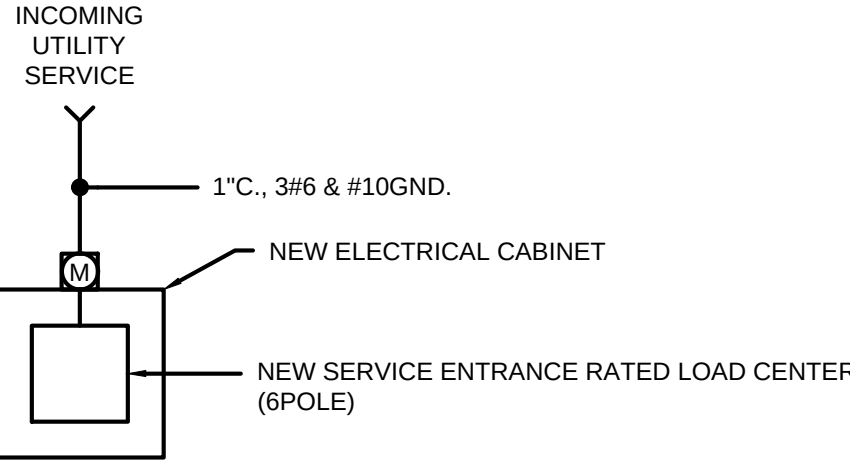
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TRAFFIC CONTROL CABINET ONE-LINE
SCALE: NONE

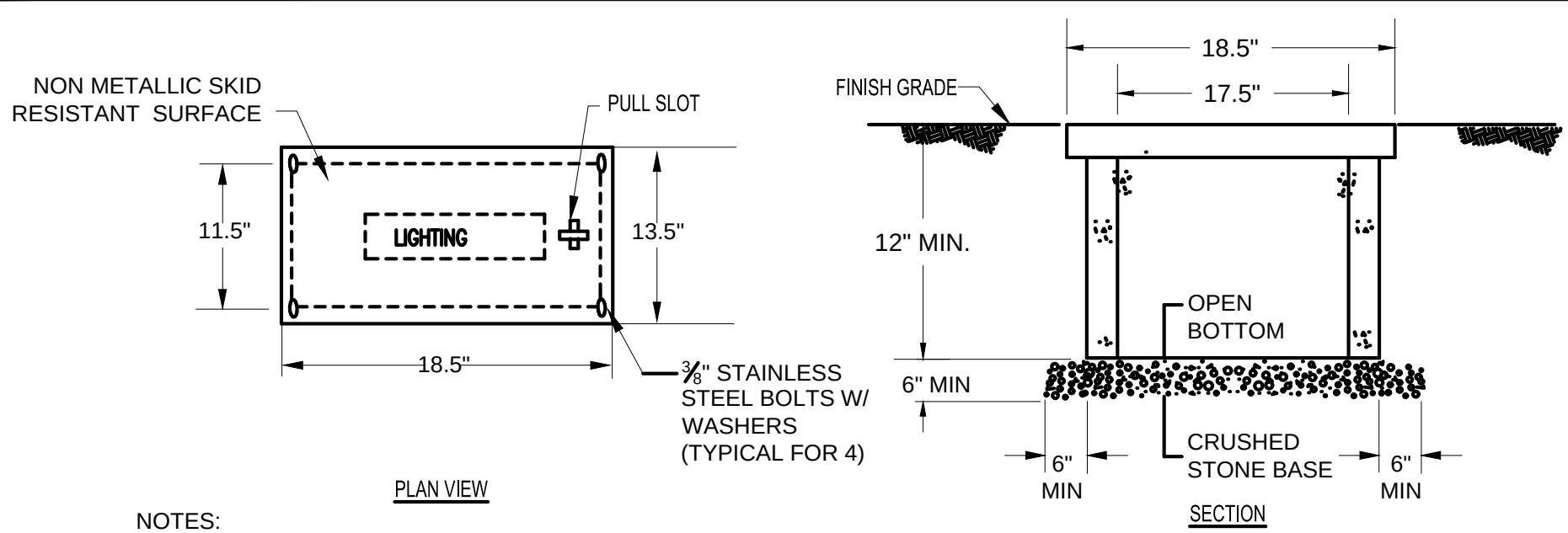


BILLBOARD ONE-LINE
SCALE: NONE

LOCATION: ELECTRICAL CABINET

LOAD CENTER						
SERVICE: 120/240V, 1Ø, 3W, 60Hz				100 AMP MAINS		
MOUNTING: SURFACE				60 AMP MAIN CIRCUIT BREAKER		
CKT #	CIRCUIT DESCRIPTION	LOAD		BREAKER		
		KW	HP	POLES	TRIP	
1	BILLBOARD	X	-	1	20	
2	CLOCK	0.1	-	1	20	
3	PEDESTRIAN LIGHT	0.1	-	1	20	
4	SPARE	-	-	1	20	
5	SPARE	-	-	1	20	
6	SPARE	-	-	1	20	

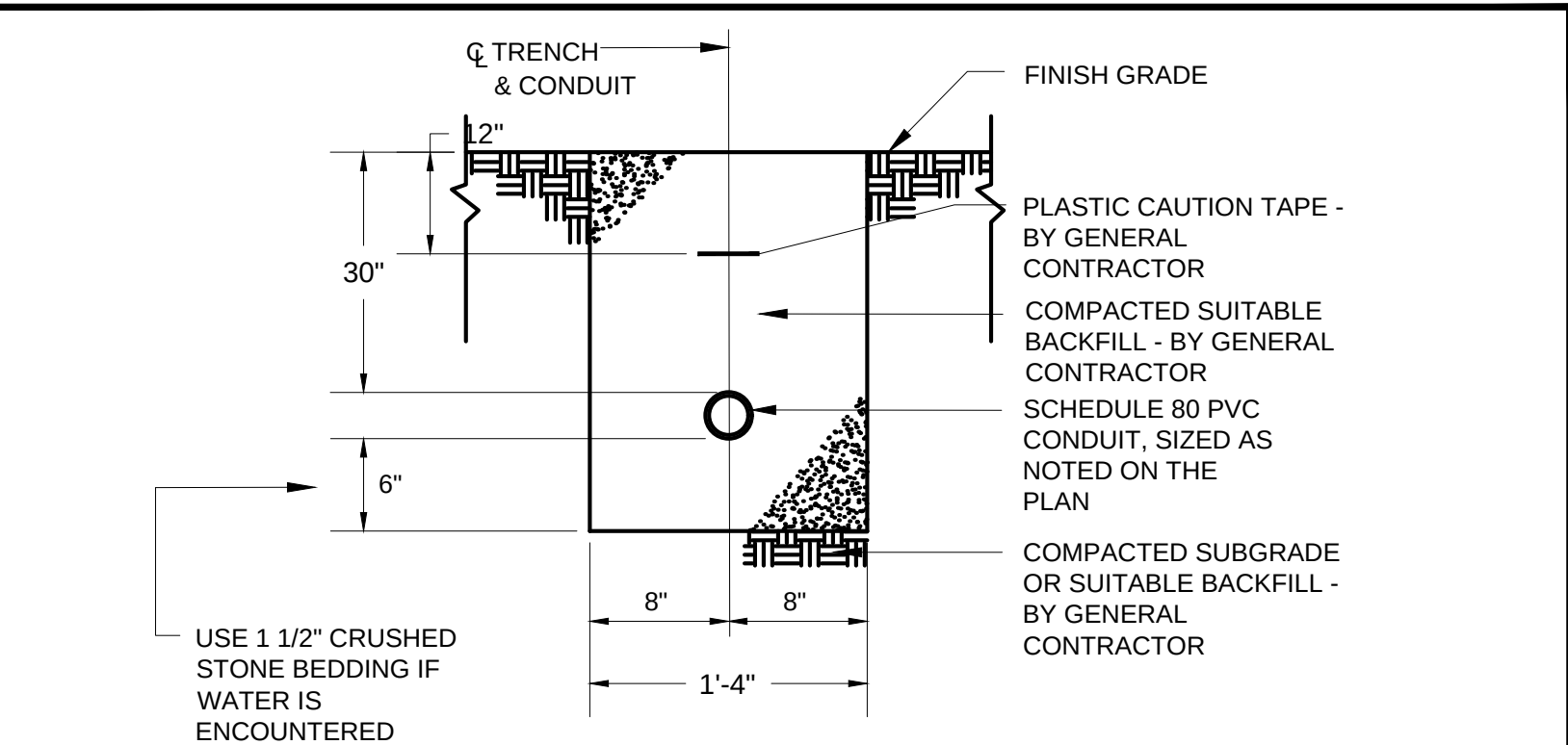
LIGHTING FIXTURE SCHEDULE									
TYPE	TYPE	MANUFACTURER	CATALOG NUMBER	LAMP		MOUNTING	VOLTAGE	LOAD	REMARKS
				NO.	TYPE				
A	DECORATIVE LED STREET LIGHT, ACORN STYLE	HALOPHANE	GVD2 P50 30K AS M BK 3 R B BK F H AO PCLL	1	LED 10,694 LUMENS 3000K	POLE	120	100W	(8) SUPPLIED BY OWNER. INDIVIDUAL PHOTOCELLS.
B	CONCRETE INCASED LED UPLIGHT	B-K LIGHTING	AW-LED-e65-XX-A9-XX-XX-XX-XX-CPC	1	LED 466 LUMENS 3000K	CONCRETE ENCASED	12	7W	PROVIDE WITH 12VAC BKSSL REMOTE TRANSFORMER MOUNTED IN HAND HOLE.
P1	CHARLSTON ALUMINUM POLE, 18'	HALOPHANE	CHA 18 L5J 16_1 P07 ABG BK BA 30 L45 B 5 BK	N/A	N/A	BASE/ANCHOR PLATE	N/A	N/A	(8) SUPPLIED BY OWNER.
P2	CHARLSTON ALUMINUM POLE, X'	HALOPHANE	CHA XX L5J 16_1 P07 ABG BK BA 30 L45 B 5 BK	N/A	N/A		N/A	N/A	HEIGHT TO BE DETERMINED BY ARCHITECT
LIGHTING FIXTURE SCHEDULE REQUIREMENTS 1. FURNISH AND INSTALL ALL MATERIALS, ACCESSORIES AND OTHER EQUIPMENT NECESSARY FOR THE COMPLETE AND PROPER INSTALLATION OF ALL LIGHTING FIXTURES INCLUDED IN THIS CONTRACT. PROVIDE ALL NECESSARY ACCESSORIES AS NECESSARY TO PROVIDE A COMPLETE LIGHTING SYSTEM. 2. SPECIFICATIONS AND DRAWINGS ARE INTENDED TO CONVEY THE FEATURES, FUNCTION AND CHARACTER OF THE FIXTURES ONLY, AND DO NOT UNDERTAKE TO SPECIFY EVERY ITEM OR DETAIL NECESSARY. MINOR DETAILS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE LIGHTING SYSTEM NOT INDICATED ON THE DRAWINGS NOR SPECIFIED SHALL BE PROVIDED AS IF THEY WERE SPECIFIED HERE OR INDICATED ON THE DRAWINGS. 3. FIXTURES SUBSTITUTIONS (FROM MANUFACTURERS OTHER THAN THOSE LISTED) SHALL BE EQUAL IN ALL RESPECTS OF PERFORMANCE, QUALITY OF CONSTRUCTION, SUITABILITY TO PROJECT CONDITIONS AND APPEARANCE OF THE SPECIFIED FIXTURE. SUBSTITUTIONS SHALL BE SUBMITTED FOR APPROVAL IN THE FORM OF CATALOG CUTS OR DETAIL DRAWINGS. UPON REQUEST SUBMIT SAMPLES OF SUBSTITUTE FIXTURES FOR APPROVAL. 4. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE LIGHTING FIXTURE INSTALLATION WITH THE DRAWINGS AND DETAIL OF THE ARCHITECTURAL, STRUCTURAL AND OTHER RELATED TRADES TO ASSURE A PERFECT AND EFFICIENT INSTALLATION.									



- NOTES:
- THIS HANDHOLE IS INTENDED FOR NON-DELIBERATE VEHICULAR TRAFFIC ONLY.
 - HANDHOLE SHALL BE PREFABRICATED POLYMER CONCRETE AGGREGATE EQUAL TO QUAZITE OR EQUAL PRE CAST CONCRETE CONSTRUCTION.

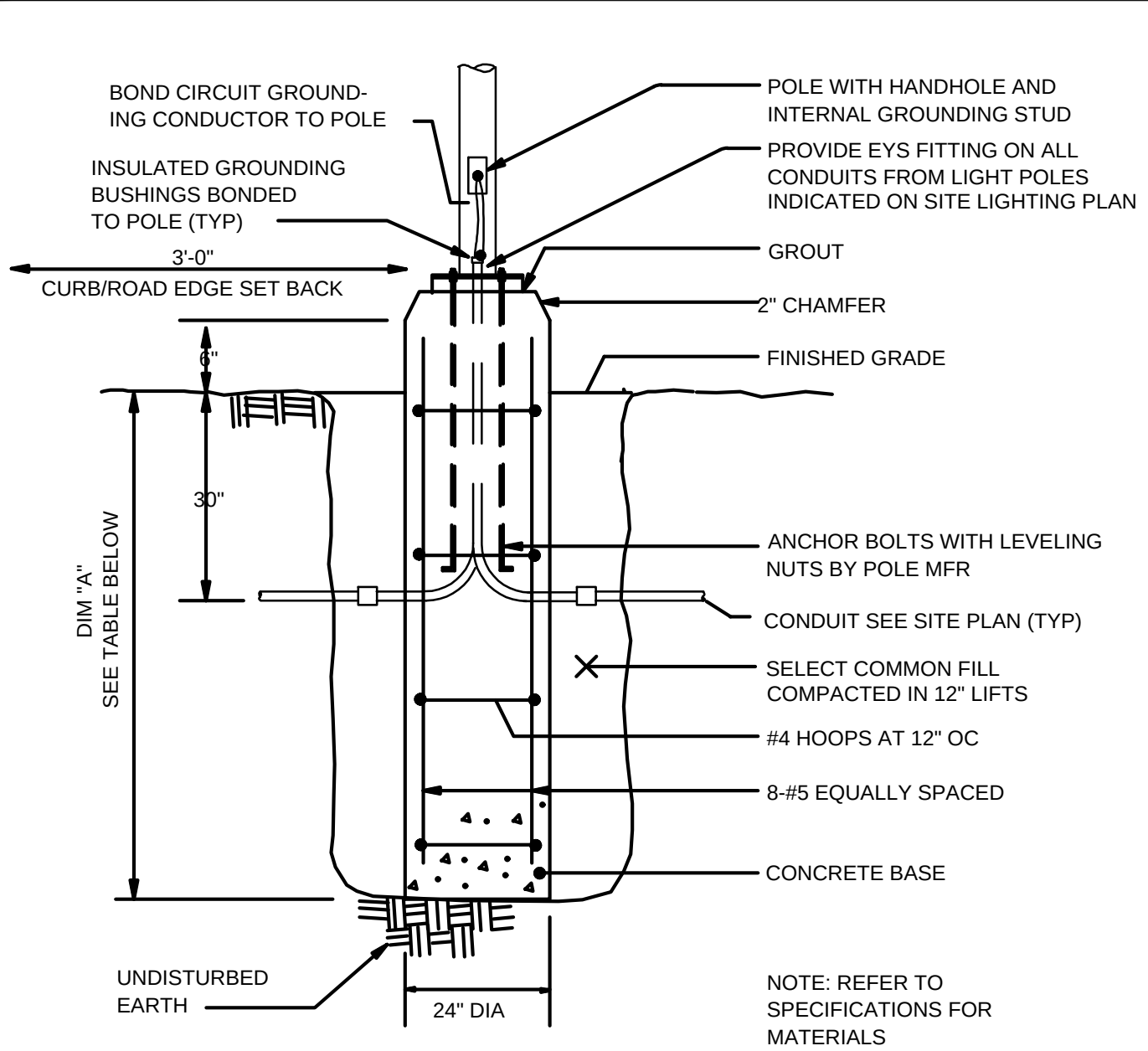
1 PREFABRICATED HANDHOLE DETAIL

NO SCALE



2 TYPICAL DIRECT BURIED DUCTBANK DETAIL

NO SCALE

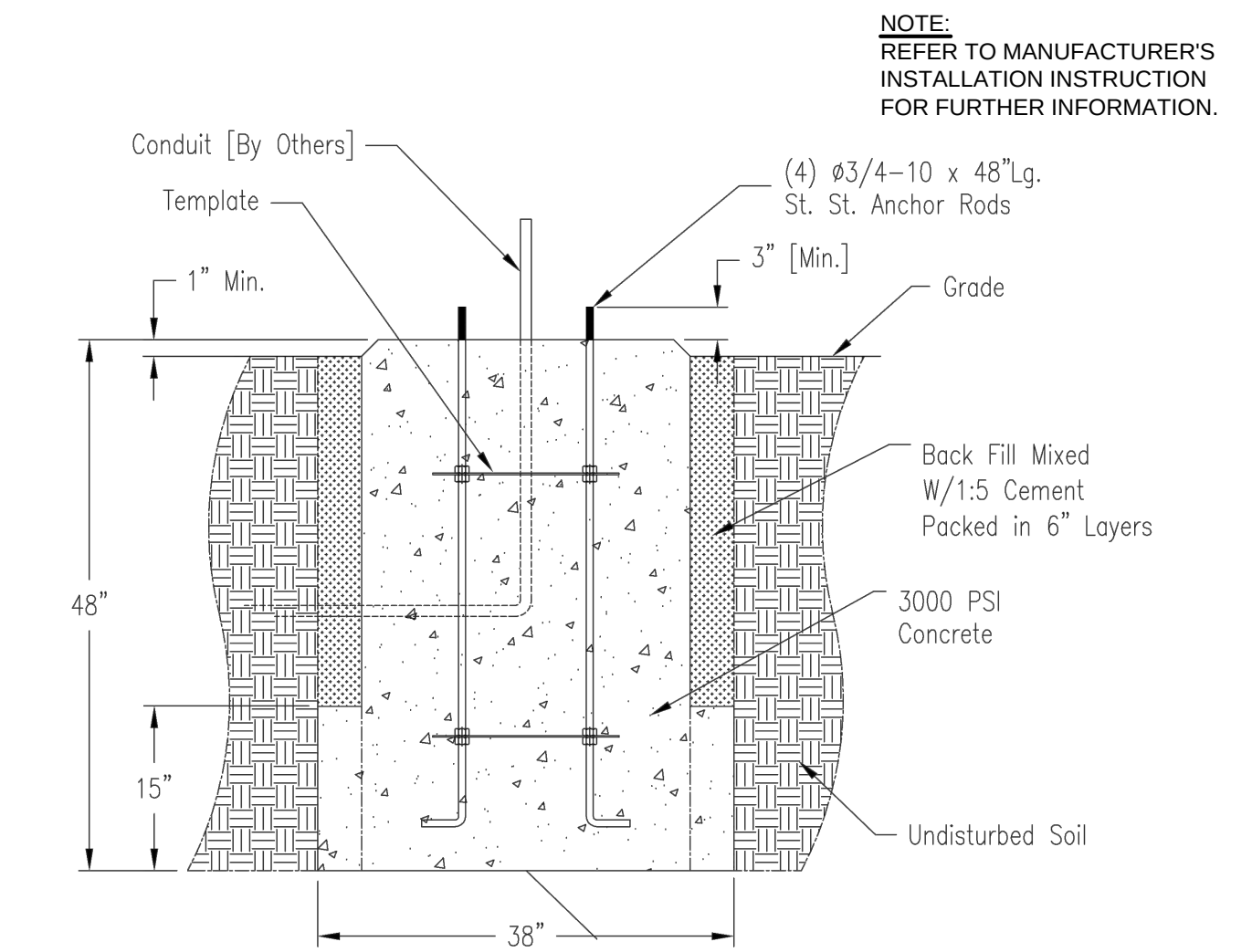


POLE HEIGHT	DIMENSION "A"
10'-0"	4'-6"
20'-0"	4'-6"
30'-0"	6'-6"
40'-0"	6'-6"

NOTE: ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR. ALL EXCAVATION, BACKFILL & CONCRETE SHALL BE BY GENERAL CONTRACTOR

3 TYPICAL LIGHT POLE BASE DETAIL

NO SCALE



NOTE: ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR. ALL EXCAVATION, BACKFILL & CONCRETE SHALL BE BY GENERAL CONTRACTOR

4 CLOCK BASE DETAIL

NO SCALE

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ELECTRICAL DETAILS,
SCHEDULES &
ONE-LINES

Sheet Number:

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