

GENERAL NOTES:

1. BENCHMARK: IRON PIN LOCATED NEAR THE PROPOSED ENTRANCE OF THE PROPERTY ON THE EAST SIDE OF 8TH AVENUE, ELEVATION: 524.58
VERTICAL DATUM: NAVD 88
HORIZONTAL DATUM: NAD83 - COR 96
2. MATTHEW A HOCKEY ASSOCIATES, LTD. PERFORMED THE SURVEY AS SHOWN HEREON ON JULY 3, 2019.
3. UNDERGROUND UTILITIES ARE SHOWN ACCORDING TO INFORMATION PROVIDED BY OTHERS AND MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION, EXCAVATION OR BLASTING. THE ACTUAL LOCATIONS OF THESE UTILITIES HAVE NOT BEEN FIELD VERIFIED AND THE LOCATIONS ARE APPROXIMATE. CHRISLAND ENGINEERING DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE, OR GUARANTEE THAT THE UNDERGROUND UTILITY LOCATION PROVIDED BY OTHERS AND REFLECTED ON THESE DRAWINGS ARE CORRECT AND ACCURATE. CHRISLAND ENGINEERING ASSUMES NO RESPONSIBILITY FOR ANY DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN.
4. NO FLOOD ZONE EXISTS ON THIS SITE ACCORDING TO FLOOD INSURANCE RATE MAP FOR LEBANON COUNTY, PENNSYLVANIA (ALL JURISDICTIONS), COMMUNITY NUMBER 421131, MAP NUMBER 42075C0257E, EFFECTIVE DATE JULY 8, 2020.
5. THE WETLANDS DEPICTED WERE IDENTIFIED VIA A WETLANDS DELINEATION REPORT PREPARED BY VORTEX ENVIRONMENTAL, INC. DATED JANUARY 3, 2020.
6. ANY REVISION TO THESE PLANS AFTER THE DATE OF PLAN PREPARATION OR LATEST REVISION DATE SHALL NOT BE THE RESPONSIBILITY OF CHRISLAND ENGINEERING.
7. NO ONE SHALL SCALE FROM THESE PLANS FOR CONSTRUCTION PURPOSES.
8. THE INFORMATION SHOWN ON THIS DRAWINGS MAY HAVE ALSO BEEN PROVIDED BY DIGITAL FILE. AFTER A DIGITAL FILE IS RELEASED FROM CHRISLAND ENGINEERING THE VIEWER IS THEREFORE CAUTIONED TO COMPARE ANY SUBSEQUENT REPRODUCTIONS OF THIS DATA WITH THE ORIGINAL HARD COPY SEALED PLAN.
9. ALL SITE DEVELOPMENT SHALL BE DONE IN ACCORDANCE WITH FEDERAL, STATE, COUNTY, AND TOWNSHIP STANDARDS AND REQUIREMENTS.
10. CHRISLAND ENGINEERING HAS NOT PERFORMED ANY SUBSURFACE INVESTIGATIONS, GEOLOGICAL STUDIES, SOUNDINGS OR EVALUATIONS OF THE SUBSURFACE CONDITIONS PRESENT THROUGHOUT THE SITE OTHER THAN THE PROVIDED PROBE AND INFILTRATIONS TESTS. NUMEROUS UNKNOWN GEOLOGICAL SITE CONDITIONS AND THE UTILIZATION OF NUMEROUS CONSTRUCTION PRACTICES MEAN THAT CHRISLAND ENGINEERING CANNOT CONSIDER EVERY POTENTIAL GEOLOGICAL IMPACT CAUSED BY CONSTRUCTION ON ANY PORTION OF THE SITE WHICH IS THE SUBJECT OF THIS PLAN.
11. IT IS THE RESPONSIBILITY OF THE LANDOWNER, LAND PURCHASER, OR PROSPECTIVE BUYER OF ANY PORTION OF THE SITE DEPICTED ON THIS PLAN TO PERFORM THEIR OWN INDIVIDUAL EVALUATION OF THE GEOLOGY OF THIS SITE TO ASCERTAIN THE GEOLOGICAL FORMATION(S) WHICH UNDERLAY IT, AND THE IMPACT WHICH THOSE FORMATION(S) MAY HAVE UPON THEIR LAND OR ANY CONSTRUCTION PROPOSED THEREON, INCLUDING THE ABILITY TO CONSTRUCT THE REQUIRED STORM WATER MANAGEMENT FACILITIES AND OTHER SITE WORK IN ACCORDANCE WITH THE APPROVED SUBDIVISION PLAN.
12. CHRISLAND ENGINEERING SHALL NOT BE RESPONSIBLE FOR THE COST OF ANY ROCK REMOVAL, SINKHOLES, SOLUTION CHANNELS OR ROCK FRACTURES, OR FOR THE CONSTRUCTION, ENGINEERING, PERMITTING AND INSPECTION COST IMPACT WHICH ANY OF THESE GEOLOGICAL FEATURES MAY HAVE UPON THE LAND OWNER.
13. MATERIALS AND DETAILS SPECIFIED ON THE APPROVED PLAN SHALL NOT BE ALTERED DURING CONSTRUCTION WITHOUT WRITTEN APPROVAL BY THE TOWNSHIP.
14. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS ON SITE PRIOR TO THE START OF CONSTRUCTION. UNDERGROUND UTILITIES HAVE BEEN SHOWN ACCORDING TO INFORMATION PROVIDED BY OTHERS AND MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION, EXCAVATION OR BLASTING. THE ACTUAL LOCATIONS OF THESE UTILITIES HAVE NOT BEEN FIELD VERIFIED AND THE LOCATIONS ARE APPROXIMATE. CHRISLAND ENGINEERING DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE OR GUARANTEE THAT THE UNDERGROUND UTILITY LOCATION INFORMATION PROVIDED BY OTHERS AND REFLECTED ON THESE DRAWINGS IS CORRECT AND ACCURATE. CHRISLAND ENGINEERING ASSUMES NO LIABILITY FOR ANY DAMAGE INCURRED AS A RESULT OF UNDERGROUND UTILITIES OMITTED OR INACCURATELY SHOWN.
15. ALL IMPROVEMENTS SHALL BE INSPECTED BY THE COUNTY ENGINEER AND/OR ROADMASTER. INSPECTIONS SHALL BE REQUIRED PRIOR TO THE START OF CONSTRUCTION, DURING INSTALLATION OF MATERIALS AND STRUCTURES, AND UPON THE COMPLETION OF ALL IMPROVEMENTS.
16. PRIOR TO THE INITIATION OF CONSTRUCTION, THE DEVELOPER SHALL ARRANGE A PRE-CONSTRUCTION MEETING WITH THE COUNTY ENGINEER AND / OR ROADMASTER SO THAT A DEVELOPER'S AGREEMENT CAN BE AGREED UPON AND AN INSPECTION SCHEDULE CAN BE COORDINATED WITH THE CONSTRUCTION SCHEDULE. THE COUNTY ENGINEER AND/OR ROADMASTER SHALL BE NOTIFIED TWO WORKING DAY IN ADVANCE OF ANY INTENDED DATE OF CONSTRUCTION.
17. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. DAMAGE TO ANY UTILITY SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER, UTILITY COMPANY OR AUTHORITY, AT THE CONTRACTOR'S EXPENSE.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS FROM THE MUNICIPALITY, COUNTY, STATE OR AUTHORITY RELATIVE TO CONSTRUCTION SHOWN ON THIS PLAN.
19. THE CONTRACTOR IS RESPONSIBLE FOR ALL TESTING AND RECORD DRAWINGS AS MAY BE REQUIRED BY THE MUNICIPALITY AND/OR THE VARIOUS AUTHORITIES RELATIVE TO THE CONSTRUCTION SHOWN ON THESE PLANS.
20. THE DEVELOPER SHALL BE FINANCIALLY RESPONSIBLE FOR ANY ATTORNEY FEES WHERE THE ATTORNEY IS ENGAGED ON BEHALF OF THE TOWNSHIP/AUTHORITY RELATING TO THE REVIEW OF THE SUBDIVISION PLANS OR LAND DEVELOPMENT PLANS THAT ARE SUBMITTED TO THE TOWNSHIP/AUTHORITY. THESE FEES ARE IN ADDITION TO SUBMISSION FEES CHARGED BY THE TOWNSHIP AND AUTHORITY. PAYMENT OF ALL INVOICES IS DUE AND PAYABLE WITHIN 30 DAYS OF RECEIPT BUT IN ALL CASES PRIOR TO PLAN APPROVAL BY THE BOARD OF SUPERVISORS. ANY QUESTIONS ON INVOICES MUST BE REPORTED TO THE TOWNSHIP/AUTHORITY IN WRITING WITHIN 10 DAYS OF RECEIPT OF THE BILL.
21. ALL PROPOSED SIGNS SHALL BE IN ACCORDANCE WITH THE NORTH LEBANON TOWNSHIP ZONING ORDINANCE.
22. THE PROPOSED SITE IS LOCATED WITHIN THE "LEBANON COUNTY RESIDUAL" STORMWATER MANAGEMENT DISTRICT.
23. ALL APPLICABLE CORNER MARKERS SHALL BE SET UPON APPROVAL OF THE FINAL SUBDIVISION PLAN. RESETTING OF CORNER MARKERS AFTER CONSTRUCTION OF THE DWELLINGS AND BUILDINGS SHOWN HEREON SHALL BE THE RESPONSIBILITY OF THE DEVELOPER OR LOT OWNER.
24. ALL PROPOSED UTILITIES SHALL BE UNDERGROUND.
25. ALL PROPOSED STREET SIGNS SHALL BE INSTALLED BY THE DEVELOPER. INSTALLATION AND SIGN TYPE SHALL BE IN ACCORDANCE WITH THE TOWNSHIP AND/OR PENNDOT SPECIFICATIONS.
26. ALL STREET LIGHTS SHALL BE INSTALLED IN ACCORDANCE WITH METROPOLITAN-EDISON STANDARDS AND NORTH LEBANON TOWNSHIP STANDARDS. THE EXACT TYPE, NUMBER, AND LOCATION OF STREET LIGHTS SHALL BE APPROVED BY METROPOLITAN-EDISON AND NORTH LEBANON TOWNSHIP PRIOR TO INSTALLATION.
27. ALL PUBLIC WATER FACILITIES SHALL BE INSTALLED IN ACCORDANCE WITH CURRENT TOWNSHIP AND CITY OF LEBANON AUTHORITY SPECIFICATIONS AND DETAILS.
28. CLEAR SIGHT TRIANGLES SHALL BE KEPT CLEAR OF ANY OBSTRUCTIONS WITH A HEIGHT GREATER THAN 30 INCHES.
29. THE RESIDUAL LOT SHALL HAVE A FINAL LAND DEVELOPMENT PLAN APPROVED SUBJECT TO THE NORTH LEBANON TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE PRIOR TO THE ISSUANCE OF ANY BUILDING PERMITS.
30. ALL PLAN SHEETS, INCLUDING THE APPROVED POST-CONSTRUCTION STORMWATER MANAGEMENT REPORT AND EROSION AND SEDIMENT POLLUTION CONTROL REPORT ARE PART OF THIS PLAN AND ARE ENFORCEABLE AS IF THEY APPEARED IN TOTAL HEREIN.
31. THE INSTALLATION OF A KNOX LOOK BOX PRIOR TO THE ISSUANCE OF AN OCCUPANCY PERMIT IS REQUIRED PER ORDINANCE 2-2010.
32. A STREET CUT PERMIT AND BONDING WILL BE REQUIRED FROM NORTH LEBANON TOWNSHIP FOR ALL UTILITY CONNECTIONS.
33. ALL SANITARY SEWER CONSTRUCTION SHALL BE COMPLETED PER THE RULES AND REGULATIONS OF THE NORTH LEBANON TOWNSHIP MUNICIPAL AUTHORITY.
34. ALL SHOP DRAWINGS SHALL BE SUBMITTED TO THE DESIGN ENGINEER AND MARKED APPROVED PRIOR TO SUBMISSION TO NORTH LEBANON TOWNSHIP AND LEBANON COUNTY.
35. THE HOA SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPLACEMENT OF THE GANG MAILBOXES AND THE YELLOW CROSS HATCH LINES IN FRONT OF MAILBOXES. THE PLACEMENT AND CONFIGURATION OF THE MAILBOXES SHALL BE APPROVED BY NORTH LEBANON TOWNSHIP AND THE POST MASTER.

ZONING DATA

NORTH LEBANON TOWNSHIP
ZONING DISTRICT: HIGH DENSITY RESIDENTIAL (R2)

ZONING REQUIREMENTS:

ACCESSORY STRUCTURE SETBACK: FIVE (5) FEET.

GARDEN APARTMENTS, PROVIDED THAT THE FOLLOWING CONDITIONS ARE MET:

- A. MAXIMUM DEVELOPMENT DENSITY SHALL NOT EXCEED 12 DWELLING UNITS PER GROSS ACRE. IN DETERMINING A "GROSS ACRE" WETLANDS, EASEMENTS, STORMWATER DETENTION FACILITIES, R-O-W AND UNUSABLE LAND SHALL BE EXCLUDED.
- B. A MINIMUM SITE SIZE OF 24,000 SQUARE FEET SHALL BE PROVIDED FOR GARDEN APARTMENT DEVELOPMENT.
- C. GARDEN APARTMENT BUILDINGS SHALL CONTAIN AT LEAST FOUR BUT NOT MORE THAN 12 DWELLING UNITS IN A SINGLE STRUCTURE.
- D. A MINIMUM SETBACK OF 30 FEET SHALL BE PROVIDED FROM ANY ROAD RIGHT-OF-WAY, DRIVEWAY OR PAVED PARKING AREA. ADDITIONALLY, THE BUILDING SETBACK LINE SHALL BE A MINIMUM DISTANCE OF 30 FEET FROM ANY FRONT, SIDE OR REAR PROPERTY LINE.
- E. A MINIMUM ISOLATION DISTANCE OF 75 FEET SHALL BE PROVIDED BETWEEN GARDEN APARTMENT BUILDINGS.
- F. THE SITE SHALL BE SERVED BY PUBLIC WATER AND PUBLIC SEWER FACILITIES.
- G. BALCONIES SHALL BE REQUIRED FOR EACH DWELLING UNIT ABOVE THE GROUND FLOOR AND SHALL NOT EXTEND MORE THAN EIGHT FEET FROM THE FACE OF ANY PRINCIPAL BUILDING. THE MINIMUM FLOOR AREA OF ANY BALCONY SHALL BE 72 SQUARE FEET.
- H. PATIOS SHALL BE PROVIDED AT GROUND LEVEL, AND THEY SHALL BE DESIGNED FOR VISUAL PRIVACY AND SHALL BE A MINIMUM OF 160 SQUARE FEET.
- I. GARDEN APARTMENT DEVELOPMENT SHALL BE IN COMPLIANCE WITH 27-404 OF THIS CHAPTER.
- J. OFF-STREET PARKING, AS REQUIRED BY PART 14 OF THIS CHAPTER, SHALL BE LOCATED WITHIN 100 FEET OF THE DWELLING UNIT TO BE SERVED. FURTHERMORE, PARKING FACILITIES AND DRIVEWAYS SHALL BE LOCATED NO LESS THAN 25 FEET FROM ANY ROAD RIGHT-OF-WAY AND 10 FEET FROM ALL OTHER PROPERTY LINES.
- K. GARDEN APARTMENT DEVELOPMENT REQUIRES THE SUBMISSION OF A SUBDIVISION PLAN AND COMPLIANCE WITH THE LAND SUBDIVISION REGULATIONS OF NORTH LEBANON TOWNSHIP.

§ 27-404. SUPPLEMENTAL TOWNHOUSE AND GARDEN APARTMENT STANDARDS. [ORD. 6-4-84, 6/4/1984, § 9.04; AS AMENDED BY ORD. 2-2001, 12/26/2001, § IV]

1. THE FOLLOWING DESIGN CRITERIA SHALL APPLY AS ADDITIONAL REQUIREMENTS FOR TOWNHOUSE AND GARDEN APARTMENT DEVELOPMENT:
- A. THE DEVELOPER SHOULD VARY ARCHITECTURAL TREATMENTS WITHIN APARTMENT PROJECTS, INDIVIDUAL APARTMENTS AND BETWEEN DWELLING UNITS IN A TOWNHOUSE DEVELOPMENT. VARIATIONS MAY INCLUDE THOSE OF EXTERIOR ELEVATION, BUILDING SETBACKS, PROVISIONS OF BALCONIES, ARCHITECTURAL DETAILS, PITCH OF ROOF, EXTERIOR MATERIALS OR USE OF COLOR.
- B. VARIETY AND FLEXIBILITY IN DESIGN LAYOUT AND ARRANGEMENT OF BUILDINGS, PARKING AREAS, SERVICES, RECREATION AREAS, COMMON OPEN SPACE AND PLANTINGS THAT FULLY CONSIDER THE PARTICULAR PHYSICAL CHARACTERISTICS OF SITE AND NATURAL AMENITIES IS HIGHLY DESIRED.
- C. DENSE SCREEN PLANTINGS SHALL BE PROVIDED WHERE MULTIPLE DWELLING UNIT LAND DEVELOPMENTS ABUT ANY NONRESIDENTIAL USE OR WHERE SUCH DEVELOPMENTS ABUT ANY SINGLE-FAMILY RESIDENTIAL OR OTHER ZONING DISTRICT. SCREEN PLANTINGS SHALL BE DESIGNED, LOCATED AND MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS OF PART 12 OF THIS CHAPTER.
- D. ALL UTILITY LINES WITHIN A TOWNHOUSE OR GARDEN APARTMENT DEVELOPMENT SHALL BE PLACED UNDERGROUND.
- E. ALL OPEN SPACE, GREEN AREAS, PATIOS, COURTS AND BUFFER YARDS SHALL BE LANDSCAPED AND MAINTAINED TO INSURE THE SAFETY, PRIVACY AND COMFORT OF TOWNHOUSE AND GARDEN APARTMENT RESIDENTS.
- F. EXTERIOR STORAGE AREAS FOR TRASH AND RUBBISH SHALL BE ON A CONCRETE PAD AND SCREENED WITH A FOUR SIDED, GATED FENCE. THE CONTAINER SHALL BE COVERED AND VERMIN-PROOFED.

§ 27-404.1. SUPPLEMENTAL GARDEN APARTMENT REQUIREMENTS. [ORD. 6-4-84, 6/4/1984; AS ADDED BY ORD. 2-2001, 12/26/2001, § IV]

1. COMMON OPEN SPACE AREAS.
- A. THE GARDEN APARTMENTS SHALL BE PROVIDED WITH A COMMON AREA NOT LESS THAN 10% OF THE GROSS GARDEN APARTMENT LAND AREA, WHICH SHALL BE FOR THE ENJOYMENT OF ALL RESIDENTS. THE AREAS MAY INCLUDE, BUT ARE NOT LIMITED TO, SUCH FACILITIES AS SERVICE BUILDINGS FOR MEETING ROOMS, LAUNDROMATS, STORAGE CUBICLES FOR RESIDENTS, EITHER INDIVIDUALLY OR COLLECTIVELY, AND SUCH OTHER FACILITIES AS MAY BE APPROVED BY THE BOARD OF SUPERVISORS OF NORTH LEBANON TOWNSHIP.
- B. THE PARK SHALL HAVE AT LEAST HALF ITS COMMON AREA AT ONE CONTINUOUS LOCATION, AND NOT MORE THAN HALF ITS COMMON AREA MAY BE IN THE BUFFER YARD.

§ 27-1405. SCHEDULE OF REQUIRED OFF-STREET PARKING SPACES. [ORD. 6-4-84, 6/4/1984, § 17.05; AS AMENDED BY ORD. 2-2001, 12/26/2001, IV; BY ORD. 1-2007, 5/21/2007, § XV; AND BY ORD. 2-2014, 5/19/2014, § VIII]

THE MINIMUM NUMBER OF OFF-STREET PARKING SPACES REQUIRED FOR A SPECIFIC USE IS LISTED IN THE FOLLOWING CHART. WHERE APPROPRIATE WHEN COMPUTING THE NUMBER OF REQUIRED PARKING SPACES, THE ZONING ADMINISTRATOR MAY EXCLUDE FLOOR AREA OF STRUCTURES (E.G. STORAGE, EMPLOYEE LOUNGE, BATHROOM) WHICH DOES NOT BEAR ANY RELATIONSHIP TO THE PARKING NEEDS OF THE USE.

STRUCTURE OR USE	PARKING SPACES REQUIRED
RESIDENTIAL	
MULTI-FAMILY RESIDENCE (INCLUDING TOWNHOUSES AND GARDEN APARTMENTS)	3 SPACES PER DWELLING UNIT

APARTMENT PARKING CALCULATION:

REQUIRED: 3 SPACES PER UNIT X 8 UNITS PER BUILDING = 24 SPACES PER BUILDING

LOT 24 - 3 BUILDINGS, REQUIRED 72 SPACES

LOT 25 - 2 BUILDINGS, REQUIRED 48 SPACES

PROVIDED: LOT 24 - PROVIDED 48 SPACES

LOT 24 - PROVIDED GARAGES 24

LOT 25 - PROVIDED 32 SPACES

LOT 25 - PROVIDED GARAGES 16

GARAGE RESTRICTION NOTES:

1. TENANT IS PROHIBITED FROM SUBLEASING OR OTHERWISE RENTING ANY GARAGE ASSIGNED TO TENANT TO ANY THIRD PARTY; AND
2. TENANT MAY NOT UTILIZE ANY GARAGE ASSIGNED TO TENANT PRIMARILY FOR STORAGE. GARAGES MUST PRIMARILY BE USED TO PARK VEHICLES AND ANY STORAGE OF A TENANT'S BELONGINGS MUST BE SECONDARY TO THE PRIMARY USE OF STORING VEHICLES.

DECLARATION OF COVENANTS, RESTRICTIONS AND EASEMENTS PLAN NOTES

1. THE REAL ESTATE DESCRIBED AND DEPICTED HEREIN CONSTITUTING THE TOWN'S EDGE DEVELOPMENT ARE BEING SUBMITTED TO THE PROVISIONS OF THE PENNSYLVANIA UNIFORM PLANNED COMMUNITY ACT, 68 PA. C.S. §5101 ET SEQ. AS AMENDED.
2. A DECLARATION OF COVENANTS, RESTRICTIONS AND EASEMENTS FOR TOWN'S EDGE, A PLANNED COMMUNITY, HAS BEEN RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF LEBANON COUNTY IN PLAN BOOK 2298, PAGE 8278 (THE "DECLARATION").
3. FIRST AMENDMENT TO DECLARATION OF COVENANTS, RESTRICTIONS AND EASEMENTS FOR TOWN'S EDGE, A PLANNED COMMUNITY, HAS BEEN RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF LEBANON COUNTY IN PLAN BOOK _____, PAGE _____ (THE "DECLARATION").
4. THE DECLARANT HAS ESTABLISHED OR WILL ESTABLISH A NON-PROFIT UNIT OWNERS ASSOCIATION FOR PURPOSES OF CARRYING OUT THE OBLIGATIONS AND DUTIES DESCRIBED IN THE DECLARATION.
5. THE DECLARATION:
- a. ESTABLISHES AND ALLOCATES PERCENTAGE INTERESTS APPURTENANT TO EACH UNIT FOR PURPOSES OF VOTING AND COMMON EXPENSE LIABILITIES;
- b. DEFINES "COMMON ELEMENTS" AND "CONTROLLED FACILITIES" AND ESTABLISHES ASSOCIATION MAINTENANCE RESPONSIBILITIES FOR THEM;
- c. DESCRIBES CERTAIN EASEMENTS WITH RESPECT TO UNITS AND COMMON AREAS;
- d. ESTABLISHES USE AND OCCUPANCY RESTRICTIONS FOR UNITS;
- e. ESTABLISHMENTS REQUIREMENTS FOR LEASING OF UNITS;
- f. ESTABLISHES RULES FOR THE ASSESSMENTS AND COLLECTION OF COMMON EXPENSES AND OTHER ASSESSMENTS;
- g. DEFINES THE "DECLARANT CONTROL PERIOD" AND "SPECIAL DECLARANT RIGHTS"; AND
- h. DELINEATES THE POWERS OF THE ASSOCIATION.
6. ALL PURCHASERS OF UNITS IN TOWN'S EDGE DEVELOPMENT WILL BE SUBJECT TO THE COVENANTS, RESTRICTIONS AND EASEMENTS SET FORTH IN THE DECLARATION AND WILL BE MEMBERS OF THE ASSOCIATION ESTABLISHED THEREBY.

Owner

Equitable Owner

Notary

Notary

My Commission Expires _____, 20____

My Commission Expires _____, 20____

LOT DENSITY CALCULATION

Square Feet
Total Gross Area: 496,706.93
Acres: 13.6673

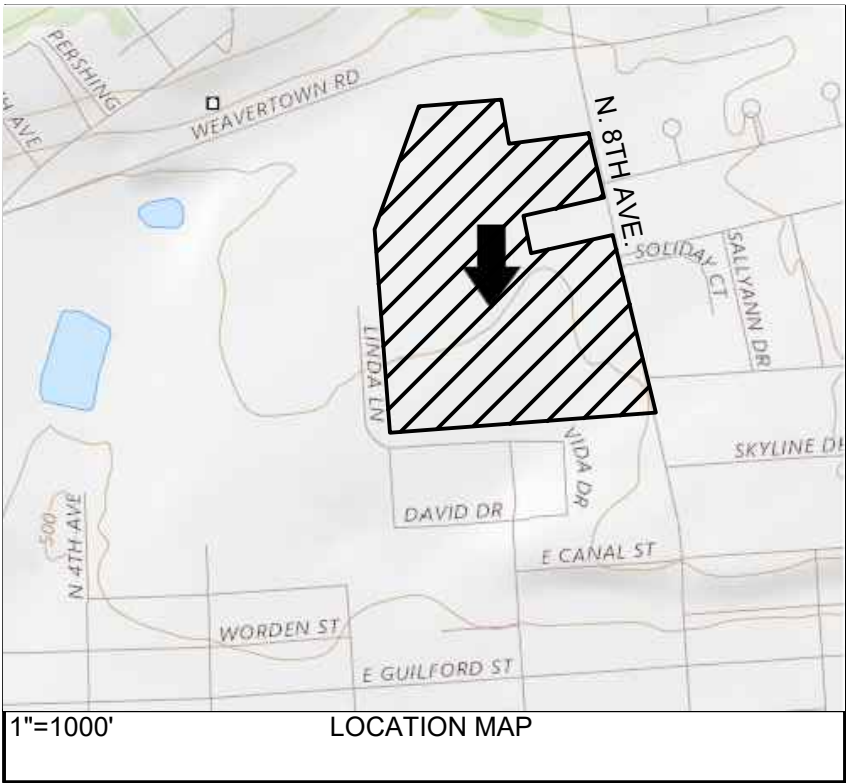
Residual Lot	63,579.01	1.5054
Right-of-Way (Ries.)	5,897.94	0.1352
Right-of-Way	106,927.66	2.6147

LOT NUMBER	STREET ADDRESS	LOT NUMBER	STREET ADDRESS
1	100	27	153
2	102	28	155
3	104	29	113
4	106	30	115
5	108	31	117
6	112	32	119
7	114	33	121
8	116	34	123
9	118	35	125
10	120	36	127
11	122	37	129
12	124	38	147
13	126	39	149
14	128	40	151
15	130	41	153
16	132	42	155
17	134	43	157
18	136	44	159
19	138	45	161
20	140	46	163
21	142	47	165
22	144	48	167
23	146	49	169
24	150	50	171
25	160	51	173
26	161	52	110

No. of Units	Units/Ac	Req'd Area(ac)
Townhouses	40	6
Apartments	40	12
Total Units	80	18.0000

Total Area Required: 11.3233 Acres

REVISED FINAL SUBDIVISION & LAND DEVELOPMENT PLAN FOR TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25) MARCH 10, 2022



OWNER DATA
MR. DANIEL E. MARTIN
1850 W. ROUTE 897
DENVER, PA 17517
717-629-0325
danbitt@dojazzd.com

EQUITABLE OWNER DATA
TOWNS EDGE APARTMENTS LLC
MICHAEL CHARLES
2931 CHARLESTOWN ROAD
LANCASTER, PA 17603
717-672-7621 x101
mike@charlesbrothersinc.com

SITE DATA

ADDRESS: 777 NORTH 8TH AVENUE
LEBANON, PA 17046

DEED BOOK/PAGE: 2298/3763
INSTRUMENT NO.: 202110783
PARCEL NO.: 2723447303742370000
2723447303743690000
17.8362 ACRES

SITE AREA:

WATER: PUBLIC

SEWER: PUBLIC

PURPOSE OF PLAN NOTE

THE PURPOSE OF THIS PLAN IS TO DEPICT THE CONSTRUCTION OF 40 ENCLOSED GARAGE SPACES FOR THE APARTMENTS ON LOTS 24 AND 25 ALONG WITH OTHER MINOR GRADING AND CALL OUT ADJUSTMENTS.

SEWAGE DISPOSAL NOTE:

1. SEWAGE DISPOSAL FOR THE PROPOSED LOTS SHALL BE PROVIDED BY EXTENSION OF THE PUBLIC SEWAGE DISPOSAL SYSTEM. EXTENSION OF THE EXISTING SEWAGE DISPOSAL SYSTEM SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER/ SUBDIVIDER/ DEVELOPER, AS SHOWN HEREON. CONNECTION TO THE PUBLIC SEWAGE DISPOSAL SYSTEM IS REQUIRED.

WATER SUPPLY NOTE:

1. WATER SUPPLY FOR THE PROPOSED LOTS SHALL BE PROVIDED BY EXTENSION OF THE PUBLIC WATER DISTRIBUTION SYSTEM. EXTENSION OF THE EXISTING WATER DISTRIBUTION SYSTEM SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER/ SUBDIVIDER/ DEVELOPER, AS SHOWN HEREON. CONNECTION TO THE PUBLIC WATER DISTRIBUTION SYSTEM IS REQUIRED.

BUILDING CODE NOTE:

1. ALL RESIDENTIAL STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PENNSYLVANIA UNIFORM CONSTRUCTION CODE (UCC).

BMP FACILITY LOCATION

FACILITY NAME	LATITUDE	LONGITUDE
SWALE A	40°21'8.9"N	76°24'7.6"W
SWALE B	40°21'10.5"N	76°24'6.5"W
SWALE C	40°21'10.4"N	76°24'5.0"W
SWALE D	40°21'10.2"N	76°24'1.6"W
INFILTRATION BASIN	40°21'5.0"N	76°24'1.0"W

E&SPC PLAN & NPDES PERMIT

THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN AND PADEP NPDES PERMIT NO. PAC380189 WAS APPROVED BY THE LEBANON COUNTY CONSERVATION DISTRICT VIA A LETTER DATED 10/14/20. THE NPDES PERMIT WILL EXPIRE DECEMBER 7, 2024.

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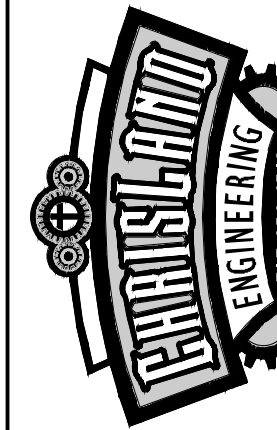
SHEET ES1 of 23	E&SPC PLAN
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*TO BE RECORDED

PRELIMINARY PLAN NOTE

A PRELIMINARY/FINAL PLAN FOR TOWN'S EDGE DEVELOPMENT WAS APPROVED BY NORTH LEBANON TOWNSHIP SUPERVISORS AT THEIR REGULARLY SCHEDULED MEETING HELD ON FEBRUARY 15, 2021. THE PLAN WAS RECORDED ON MAY 26, 2021 IN PLAN BOOK 97, PAGE 7.

TOWN'S EDGE APARTMENTS, LLC



MANAGER: JOSHUA T. WEABER, P.E.
DESIGN BY: JTW
DRAWN BY: RDT
SURVEY: M&H
PLAN DATE: MARCH 10, 2022
PROJECT #: CH2 21.1

Chrisland Engineering, Inc.
602 Cornwall Road, Lebanon, PA 17042
www.chrislandengineering.com

REVISED FINAL SUBDIVISION & LAND DEVELOPMENT PLAN FOR TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)

FOR

NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

Coversheet

1

OF 23

HOME OWNER'S ASSOCIATION NOTES

- I. COMMON ELEMENTS; CONTROLLED FACILITIES
- A. DESCRIPTION OF COMMON ELEMENTS. THE FOLLOWING, AS MORE FULLY DEPICTED ON THE SUBDIVISION PLAN, SHALL BE COMMON ELEMENTS AND SHALL BE OWNED AND MAINTAINED BY THE ASSOCIATION, UNLESS OTHERWISE SET FORTH HEREIN:
1. WETLANDS AREAS DESCRIBED AND DEPICTED AS LOT 48 ON THE SUBDIVISION PLAN.
 2. PERMANENT STORM WATER CONVEYANCE AND MANAGEMENT FACILITIES (INCLUDING, BUT NOT LIMITED TO, BASINS, SWALES, INLETS, HEADWALLS, ENDWALLS, ROOF DRAIN COLLECTORS, AND UNDERGROUND STORAGE/RETENTION SYSTEMS) NOT LOCATED WITHIN STREET RIGHTS OF WAY AS DESCRIBED AND DEPICTED AS LOT 52 ON THE SUBDIVISION PLAN, AND AS DESCRIBED IN THE SUBDIVISION/LAND DEVELOPMENT/STORMWATER MANAGEMENT ("SWM") SITE PLAN FOR TOWN'S EDGE DEVELOPMENT RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF LEBANON COUNTY IN PLAN BOOK _____, SHEET _____ (THE "SWM PLAN"). THE SWM BEST MANAGEMENT PRACTICES ("BMP") DETENTION AND MAINTENANCE PLAN AS APPROVED OR TO BE APPROVED BY LEBANON COUNTY AND NORTH LEBANON TOWNSHIP (THE "BMP PLAN") AND ANY OTHER WRITTEN AGREEMENTS ENTERED INTO BY DECLARANT AND/OR NORTH LEBANON TOWNSHIP AND RECORDED OR TO BE RECORDED IN THE OFFICE OF THE LEBANON COUNTY RECORDER OF DEEDS.
 3. RETAINING WALLS IDENTIFIED AND DEPICTED IN THE SUBDIVISION PLAN, INCLUDING ANY PORTION THEREOF LOCATED OR TO BE LOCATED IN THE PUBLIC RIGHT-OF-WAY.
 4. CONTROLLED FACILITIES. THE CONTROLLED FACILITIES ARE THOSE PARTS OF THE PLANNED COMMUNITY, WHETHER OR NOT PART OF A UNIT, THAT ARE NOT A COMMON ELEMENT BUT ARE MAINTAINED, IMPROVED, REPAIRED, REPLACED, REGULATED, MANAGED OR CONTROLLED BY THE ASSOCIATION, WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, THE CONTROLLED FACILITIES SHALL INCLUDE ALL OF THE FOLLOWING AREAS AND IMPROVEMENTS OR FACILITIES LOCATED THEREIN, AS IDENTIFIED ON THE SUBDIVISION PLAN:
 1. COMMON SIDEWALKS AND CURBS WITHIN OR ABUTTING THE RIGHTS OF WAY OF STREETS, INCLUDING THE CONCRETE DRIVEWAY APRONS BETWEEN SUCH SIDEWALKS AND CURBS.
 2. LAWN AREAS, SOLELY FOR THE PURPOSES AS MORE FULLY DESCRIBED IN ARTICLE V.
- THE ASSOCIATION SHALL BE RESPONSIBLE FOR THE MAINTENANCE, IMPROVEMENT, REPAIR, REPLACEMENT, REGULATION, MANAGEMENT, INSURANCE AND CONTROL OF SUCH CONTROLLED FACILITIES, THE COST OF WHICH SHALL BE ASSESSED AS A COMMON EXPENSE ALLOCATED IN THE SAME MANNER AS OTHER COMMON EXPENSES FOR COMMON ELEMENTS.
- II. MAINTENANCE, REPAIR AND REPLACEMENT RESPONSIBILITIES
- A. MAINTENANCE RESPONSIBILITIES/COMMON ELEMENTS AND CONTROLLED FACILITIES
- THE ASSOCIATION SHALL MAINTAIN, REPAIR AND REPLACE ALL OF THE COMMON ELEMENTS AND CONTROLLED FACILITIES, IN ACCORDANCE WITH THE REQUIREMENTS OF THE SUBDIVISION PLAN, THE SWM PLAN, THE BMP PLAN, THE OPERATION AND MAINTENANCE ("O&M") AGREEMENT APPLICABLE TO THE PLANNED COMMUNITY (THE "O&M AGREEMENT"), ANY APPLICABLE LEBANON COUNTY OR NORTH LEBANON TOWNSHIP STORMWATER MANAGEMENT ORDINANCES AND ANY OTHER WRITTEN AGREEMENTS RELATED THERETO BETWEEN DECLARANT AND LEBANON COUNTY AND/OR NORTH LEBANON TOWNSHIP RECORDED OR TO BE RECORDED IN THE LAND RECORDS OF LEBANON COUNTY, WITHOUT LIMITING THE FOREGOING
1. ALL PERMANENT STORM WATER CONVEYANCE AND MANAGEMENT FACILITIES (INCLUDING BASINS, SWALES, INLETS, HEADWALLS, ENDWALLS, ROOF DRAIN COLLECTORS, ETC.) NOT LOCATED WITHIN THE STREET RIGHTS-OF-WAY SHALL BE MAINTAINED BY THE ASSOCIATION. MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO, REPAIR AND MAINTENANCE IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE SCHEDULE CONTAINED IN THE SUBDIVISION PLAN OR IN ANY WRITTEN AGREEMENT WITH NORTH LEBANON TOWNSHIP, NORMAL MAINTENANCE AS WELL AS REPAIR OF STRUCTURAL DAMAGE OR DETERIORATION OF ANY KIND, INCLUDING THAT CAUSED BY SINKHOLES WITHIN THE COMMON ELEMENTS OR OTHER EVENTS, THE FORGOING NOTWITHSTANDING, THE ASSOCIATION SHALL HAVE NO DUTY TO REPAIR SINKHOLES WHICH MAY FORM WITHIN THE BOUNDARIES OF ANY UNIT OR UNITS. NORTH LEBANON TOWNSHIP SHALL HAVE THE RIGHT, BUT NOT THE DUTY, OF ACCESS AT ANY TIME TO INSPECT AND MAINTAIN THE FACILITY AT THE ASSOCIATION'S EXPENSE, IF THE ASSOCIATION SHOULD FAIL TO PROPERLY MAINTAIN THE FACILITY.
 2. UNITS. EACH UNIT OWNER SHALL MAINTAIN, REPAIR AND REPLACE, AT HIS OR HER OWN EXPENSE, ALL PORTIONS OF HIS OR HER UNIT.
 3. ACCESS. ANY PERSON AUTHORIZED BY THE EXECUTIVE BOARD SHALL HAVE THE RIGHT OF ACCESS TO THE PROPERTY UPON SUCH NOTICE AS SHOWN ON THE PLANS AND THROUGH THE COMMON ELEMENTS AND CONTROLLED FACILITIES WITHIN THE PLANNED COMMUNITY. IN THE PROPERTY, THE COMMON ELEMENTS OR THE CONTROLLED FACILITIES AND FOR ANY OTHER PROPER PURPOSE, PROVIDED THAT ALL REQUESTS FOR ENTRY ARE MADE IN ADVANCE AND THAT ANY SUCH ENTRY IS AT A TIME REASONABLY CONVENIENT TO THE AFFECTED UNIT OWNER. NORTH LEBANON TOWNSHIP SHALL ALSO HAVE THE RIGHT TO ACCESS THE STORM WATER MANAGEMENT FACILITIES AND THE CURBS AND SIDEWALKS.
 4. LIMITED MAINTENANCE - SIDEWALKS. THE ASSOCIATION SHALL PROVIDE SNOW REMOVAL SERVICES WITH REGARD TO COMMON SIDEWALKS (BUT NOT WALKWAYS TO UNITS OR UNIT DRIVEWAYS) WITHIN THE PLANNED COMMUNITY AND THE COST THEREOF SHALL BE ASSESSED AS A COMMON EXPENSE. UNIT OWNER SHALL BE RESPONSIBLE FOR SNOW REMOVAL FROM PARKING AREAS WHICH SERVE ONLY THEIR UNITS.
 5. LIMITED MAINTENANCE - LAWNS. THE ASSOCIATION SHALL PROVIDE REGULAR LAWN MOWING, AND ANNUAL WEEDING AND MULCHING OF ALL AREAS WITHIN THE PLANNED COMMUNITY, INCLUDING UPON UNITS. UNIT OWNERS SHALL BE RESPONSIBLE FOR THE TRIMMING OF ANY TREES LOCATED ON WITHIN THEIR UNIT BOUNDARIES.
- III. EASEMENTS
- A. ADDITIONAL EASEMENTS. EACH UNIT OWNER SHALL HAVE AN UNRESTRICTED RIGHT OF INGRESS AND EGRESS TO AND FROM HIS OR HER UNIT OVER, UPON AND THROUGH THE COMMON ELEMENTS AND CONTROLLED FACILITIES WITHIN THE PLANNED COMMUNITY. IN ADDITION TO SUCH AND IN SUPPLEMENTATION OF THE EASEMENTS PROVIDED FOR BY, AND HEREBY CREATED PURSUANT TO, SECTIONS 5216, 5217, 5218 AND 5302(A)(9) OF THE ACT, THE FOLLOWING ADDITIONAL EASEMENTS ARE HEREBY CREATED:
1. DECLARANT'S USE FOR SALES PURPOSES. DECLARANT SHALL HAVE THE RIGHT TO MAINTAIN ONE OR MORE SALES OFFICES, MANAGEMENT OFFICES AND MODELS THROUGHOUT THE PROPERTY AND TO MAINTAIN ONE OR MORE DIRECTIONAL, PROMOTIONAL, AND ADVERTISING SIGNS ON THE COMMON ELEMENTS AND ON UNITS OWNED BY DECLARANT PURSUANT TO SECTION 5217 OF THE ACT. DECLARANT SHALL HAVE THE RIGHT TO PLACE MODELS, MANAGEMENT OFFICES AND ADVERTISING OFFICES ON ANY PORTION OF THE COMMON ELEMENTS OR IN A UNIT OWNED BY DECLARANT IN SUCH A MANNER, OR SUCH SIZE AND NUMBER AND IN SUCH LOCATIONS AS DECLARANT DEEMS APPROPRIATE. DECLARANT MAY FROM TIME TO TIME RELOCATE MODELS, MANAGEMENT OFFICES AND SALES OFFICES TO DIFFERENT LOCATIONS WITHIN THE PROPERTY NOTWITHSTANDING THAT THE PLANNED COMMUNITY DOCUMENTS MAY OTHERWISE PRECLUDE SUCH USE IN THOSE LOCATIONS. UPON THE RELOCATION OF A MODEL, MANAGEMENT OFFICE OR SALES OFFICE CONSTITUTING A COMMON ELEMENT, DECLARANT MAY REMOVE ALL PERSONAL PROPERTY AND FIXTURES THEREFROM, ANY FIXTURES NOT SO REMOVED SHALL BE DEEMED COMMON ELEMENTS, AND ANY REAL OR PERSONAL PROPERTY NOT SO REMOVED SHALL BE DEEMED THE PROPERTY OF THE ASSOCIATION.
 2. UTILITY EASEMENTS. THE UNITS AND COMMON ELEMENTS SHALL BE, AND ARE HEREBY, MADE SUBJECT TO EASEMENTS IN FAVOR OF THE DECLARANT, APPROPRIATE UTILITY AND SERVICE COMPANIES AND GOVERNMENTAL AGENCIES OR AUTHORITIES FOR SUCH UTILITY AND SERVICE LINES, DUCTS AND EQUIPMENT AS MAY BE NECESSARY OR DESIRABLE TO SERVE ANY PORTION OF THE PROPERTY. THE EASEMENTS CREATED IN THIS SECTION SHALL INCLUDE, WITHOUT LIMITATION, RIGHTS OF DECLARANT, OR THE PROVIDING UTILITY OR SERVICE COMPANY, OR GOVERNMENTAL AGENCY OR AUTHORITY TO INSTALL, LAY, MAINTAIN, REPAIR, RELOCATE AND REPLACE GAS LINES, PIPES AND CONDUITS, WATER MAINS AND PIPES, SEWER AND DRAIN LINES, TELEPHONE WIRES AND EQUIPMENT, TELEVISION EQUIPMENT AND FACILITIES (CABLE OR OTHERWISE), ELECTRIC WIRES, CONDUITS AND EQUIPMENT AND DUCTS AND VENTS OVER, UNDER, THROUGH, ALONG AND ON THE UNITS AND COMMON ELEMENTS, NOTWITHSTANDING THE FOREGOING PROVISIONS OF THIS SECTION, UNLESS APPROVED IN WRITING BY THE UNIT OWNER OR UNIT OWNERS AFFECTED THEREBY, ANY SUCH EASEMENT THROUGH A UNIT SHALL BE LOCATED EITHER IN SUBSTANTIALLY THE SAME LOCATION AS SUCH FACILITIES OR SIMILAR FACILITIES EXISTED AT THE TIME OF FIRST CONVEYANCE OF THE UNIT BY THE DECLARANT, OR SO AS NOT TO MATERIALLY INTERFERE WITH THE USE OR OCCUPANCY OF THE UNIT BY ITS OCCUPANTS.
 3. DECLARANT'S EASEMENT TO CORRECT DRAINAGE. DECLARANT RESERVES AN EASEMENT ON, OVER AND UNDER THE PROPERTY AND COMMON ELEMENTS FOR THE PURPOSE OF MAINTAINING AND CORRECTING DRAINAGE OF SURFACE WATER IN ORDER TO MAINTAIN REASONABLE STANDARDS OF HEALTH, SAFETY AND APPEARANCE. THE EASEMENT CREATED BY THIS SECTION EXPRESSLY INCLUDES THE RIGHT TO CUT ANY TREES, BUSHES, OR SHRUBBERY, TO GRADE THE SOIL, AND TO TAKE ANY OTHER ACTION REASONABLY NECESSARY TO ACHIEVE THIS PURPOSE, FOLLOWING WHICH THE DECLARANT SHALL RESTORE THE AFFECTED PROPERTY AS CLOSELY TO ITS ORIGINAL CONDITION AS PRACTICABLE.
 4. DECLARANT'S RESERVATION OF RIGHT TO GRANT EASEMENTS. DECLARANT RESERVES THE RIGHT TO GRANT, SELL AND CONVEY EASEMENTS FOR THE PURPOSE OF BENEFITTING ANY TRACT OF LAND ADJACENT TO THE PROPERTY, WITHOUT LIMITING THE GENERALITY OF THE PRECEDING SENTENCE. THE DECLARANT MAY SUBJECT THE PROPERTY TO: (i) STORM WATER AND DETENTION POND EASEMENTS TO BE USED JOINTLY WITH ADJOINING PROPERTY OWNERS; AND (ii) UTILITY EASEMENTS.
 5. EASEMENT FOR ENCROACHMENTS. TO THE EXTENT THAT ANY UNIT OR PORTION OF THE COMMON ELEMENTS ENDOACHES UPON ANY OTHER UNIT OR PORTION OF THE COMMON ELEMENTS BECAUSE OF THE CONSTRUCTION, RECONSTRUCTION, REPAIR, SHIFTING, SETTLEMENT OR OTHER MOVEMENT OF ANY PORTION OF THE IMPROVEMENTS, A VALID EASEMENT FOR THE ENCROACHMENT AND ITS MAINTENANCE SHALL EXIST, PROVIDED THAT THE PHYSICAL BOUNDARIES OF THE UNITS AFTER CONSTRUCTION, RECONSTRUCTION OR REPAIR WILL BE IN SUBSTANTIAL ACCORD TO THE DESCRIPTIONS THEREOF SET FORTH IN THE SUBDIVISION PLAN. THE EASEMENT SHALL EXTEND FOR WHATEVER PERIOD OF TIME THE ENCROACHMENT CONTINUES TO EXIST. THIS EASEMENT DOES NOT RELIEVE A UNIT OWNER OF LIABILITY IN THE CASE OF WILLFUL MISCONDUCT NOR THE DECLARANT OR ITS AGENTS OF LIABILITY FOR FAILURE TO COMPLY WITH THIS DECLARATION OR THE SUBDIVISION PLAN.
 6. EASEMENT FOR ACCESS TO REAR YARDS OF UNITS. DECLARANT HEREBY DECLARES UPON THE PROPERTY AND LOTS A COMMON CROSS EASEMENT FOR ACCESS TO THE REAR YARDS OF UNITS IN FAVOR OF ALL UNITS AND UNIT OWNERS, AS MORE FULLY SHOWN ON THE SUBDIVISION PLAN.
- IV. APARTMENT GARAGES
- A. AN APARTMENT OWNER LEASING AN INDIVIDUAL APARTMENT SHALL INCLUDE THE FOLLOWING PROVISIONS IN ANY LEASES FOR SUCH UNIT:
1. TENANT IS PROHIBITED FROM SUBLEASING OR OTHERWISE RENTING ANY GARAGE ASSIGNED TO TENANT TO ANY THIRD PARTY; AND
 2. TENANT MAY NOT UTILIZE ANY GARAGE ASSIGNED TO TENANT PRIMARILY FOR STORAGE. GARAGES MUST PRIMARILY BE USED TO PARK VEHICLES AND ANY STORAGE OF A TENANT'S BELONGINGS MUST BE SECONDARY TO THE PRIMARY USE OF STORING VEHICLES.

WATER NOTES - CITY OF LEBANON AUTHORITY:

1. CONTACT INFORMATION FOR THE CITY OF LEBANON AUTHORITY:
- City of Lebanon Authority
2311 Ridgeway Road
Lebanon, PA 17042
Bob Sentz
bsentz@lebanonauthority.org
717-272-2841
2. WATER SYSTEMS SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH THE CURRENT CITY OF LEBANON AUTHORITY'S GENERAL SPECIFICATIONS FOR WATER SYSTEM CONSTRUCTION.
3. THE CONSTRUCTION OF WATER MAINS REQUIRES A WATER MAIN EXTENSION AGREEMENT BETWEEN THE DEVELOPER AND THE AUTHORITY.
4. EXISTING WATER MAINS ARE SHOWN AT AN APPROXIMATE LOCATION. THE CONTRACTOR SHALL EXCAVATE TEST PITS TO DETERMINE ACTUAL LOCATIONS AND VERIFY WATER MAIN SIZES AT UTILITY CROSSING, EXCAVATED AREAS, AND TIE-IN LOCATIONS.
5. WATER LATERAL CONNECTION REQUIRES AN APPLICATION AND PAYMENT FO A CAPACITY FEE WITH THE AUTHORITY PRIOR TO MAKING THE WATER TAPS.
6. FIRE SERVICE CONNECTION REQUIRES AN APPLICATION AND PAYMENT FOR A CAPACITY FEE WITH THE AUTHORITY PRIOR TO MAKING THE FIRE LINE TAP.
7. ANY WORK WITHIN PENNDOT RIGHT-OF-WAY REQUIRES A PENNDOT HIGHWAY OCCUPANCY PERMIT (HOP). THE PERMIT TYPICALLY IS REQUIRED TO BE IN THE AUTHORITY'S NAME, AND THE AUTHORITY REQUIRES THE CONTRACTOR TO PROVIDE A REFUNDABLE DEPOSIT TO THE AUTHORITY UNTIL PENNDOT SIGNS OFF ON THE PERMIT AFTER CONSTRUCTION IS COMPLETE.
8. ANY WORK WITHIN MUNICIPAL RIGHT-OF-WAYS MIGHT REQUIRE A MUNICIPAL PERMIT. THE PERMIT SHALL BE ACQUIRED IN THE CONTRACTOR'S NAME.
9. THE AUTHORITY SHALL APPROVE ALL MATERIALS PRIOR TO CONSTRUCTION.
10. A MANDATORY PRE-CONSTRUCTION MEETING SHALL BE HELD BETWEEN THE AUTHORITY, BUREAU OF WATER, AND WATERLINE CONSTRUCTION CONTRACTOR.
11. THE BUREAU OF WATER WILL INSPECT THE WATER MAIN INSTALLATION AND TESTING. THERE ARE FEES CHARGED TO THE DEVELOPER/ CONTRACTOR FOR INSPECTION SERVICES. WATER MAIN CONSTRUCTION AND FEES SHALL BE COORDINATED WITH THE AUTHORITY.
12. THE PROPERTY OWNER/ DEVELOPER SHALL INSTALL THE WATER TAP AND SERVICE LINE TO THE CURB STOP UNDER THE INSPECTION OF THE BUREAU OF WATER. THE PROPERTY OWNER IS RESPONSIBLE FOR THE WATER SERVICE AFTER THE CURB STOP. THE BUREAU OF WATER WILL INSTALL THE WATER METER WITHIN THE BUILDING OR AN APPROVED METER PIT AS INSTRUCTED BY THE BUREAU OF WATER. CONTACT THE BUREAU OF WATER METER DEPARTMENT FOR METER INSTALLATION, 2200 WEST CHESTNUT STREET, 717-273-2606.
13. WATER SERVICE LATERALS OVER 100- FEET FROM THE CURB STOP TO THE ENTRANCE OF THE BUILDING REQUIRES THE INSTALLATION OF A METER PIT WITHIN 10- FEET OF THE CURB STOP. METER PITS SHALL BE APPROVED BY THE METER DEPARTMENT PRIOR TO INSTALLATION.
14. SEWER AND WATER MAINS SHALL HAVE A MINIMUM OF AN 18-INCH SEPERATION, OR THE SEWER MAIN SHALL BE CONCRETE ENCASED IN THE AREA WHERE THE 18 INCH SEPERATION CANNOT BE MAINTAINED.
15. WATER MAINS AND LATERALS THAT ARE LESS THAT 18-INCHES FROM A STORM SEWER OR CULVERT SHALL BE INSULATED WITH A FOAM WRAP.
16. AT THE CONCLUSION OF THE INSTALLATION OF THE WATER SYSTEM AND SERVICE LINES, AND SUCCESSFUL TESTING THEREOF, THE WATER SYSTEM WILL BE OFFERED FOR DEDICATION TO THE CITY OF LEBANON AUTHORITY.
17. ALL EXISTING WATER LATERALS SHALL BE TERMINATED AT THE WATER MAIN BY TURNING OFF THE CORPORATION STOP AT THE MAIN, AND THE SERVICE LINES CUT AND CRIMPED WITHIN ONE FOOT OF THE CORPORATION STOP. ALL WORK, INCLUDING SAW CUTTING, EXCAVATION, LATERAL, TERMINATION, BACKFILL, AND PAVING, SHALL BE DONE BY THE CONTRACTOR AND INSPECTED BY THE BUREAU OF WATER.

REQUIRED INSPECTIONS DURING SITE CONSTRUCTION

THE LEBANON COUNTY ENGINEER SHALL INSPECT THE IMPROVEMENTS DURING CONSTRUCTION. THE DEVELOPER OR SITE WORK CONTRACTOR SHALL PROVIDE AT LEAST 2 WORKING DAYS NOTICE PRIOR TO THE START OF ANY IMPROVEMENTS WHICH REQUIRE INSPECTION BY CALLING THE LEBANON COUNTY PLANNING DEPARTMENT AT 717-228-4444.

ALL INSPECTIONS OF COMPLETED ITEMS SHALL BE REQUESTED IN WRITING AT LEAST 48 HOURS IN ADVANCE OF THE FINAL INSPECTION DATE & TIME.

INSPECTIONS ARE REQUIRED FOR THE FOLLOWING ACTIVITIES:

1. UPON COMPLETION OF PRELIMINARY SITE PREPARATION INCLUDING STRIPING OF VEGETATION, STOCKPILING OF TOPSOIL AND TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES.
2. UPON COMPLETION OF ROUGH GRADING, BUT PRIOR TO PLACING TOPSOIL, PERMANENT DRAINAGE OR OTHER SITE IMPROVEMENTS AND GROUND COVERS.
3. DURING THE CONSTRUCTION OF PERMANENT STORM BMP FACILITIES, ALL SYSTEM BMP FACILITIES, CULVERTS, ETC. PRIOR TO BACKFILL.
4. FOR RETENTION BASIN- SEE BELOW
5. UPON FINAL COMPLETION OF PERMANENT STORM WATER MANAGEMENT AND BMP FACILITIES AND THE ESTABLISHMENT OF GROUND COVERS AND PLANTINGS.
6. AFTER REVIEW OF THE AS-BUILT DRAWINGS BUT PRIOR TO THE RELEASE OF THE FINAL FINANCIAL GUARANTEE FOR COMPLETION OF FINAL GRADING, VEGETATIVE CORRECTION AND THE BMP STABILIZATION PERIOD.
7. FINANCIAL SECURITY FOR THE IMPROVEMENTS WILL NOT BE CONSIDERED FOR RELEASE UNLESS THE TOWNSHIP ENGINEER IS PROPERLY NOTIFIED AND THE SUBSURFACE IMPROVEMENTS ARE INSPECTED PRIOR TO BACKFILLING.

STORMWATER MANAGEMENT NOTES:

1. ALL STORMWATER FACILITIES LOCATED IN PUBLIC STREET RIGHTS-OF-WAY SHALL BE DEDICATED TO THE MUNICIPALITY WITH JURISDICTION OVER THE RIGHT-OF-WAY. SPECIFICALLY, NORTH LEBANON TOWNSHIP WILL OWN AND MAINTAIN STORM WATER FACILITIES WITHIN THEIR RESPECTIVE STREET RIGHTS-OF-WAY.
2. MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES AND EASEMENTS NOT LOCATED WITHIN PUBLIC RIGHTS-OF-WAY, INCLUDING THE STORMWATER MANAGEMENT FACILITIES, SHALL BE THE RESPONSIBILITY OF THE CURRENT PROPERTY OWNER, OWNERSHIP AND MAINTENANCE RESPONSIBILITIES WILL TRANSFER TO SUBSEQUENT OWNERS WITH THE TRANSFER OF PROPERTY OWNERSHIP.
3. DETENTION BASIN, SWALES AND OTHER STORMWATER MANAGEMENT FACILITIES SHALL BE MAINTAINED IN ACCORDANCE WITH THE DESIGN AND KEPT FREE OF FILL AND OBSTRUCTIONS.
4. ALL YARD INLETS SHALL BE SUMPED AT LEAST SIX (6) INCHES BELOW SURROUNDING GRADE TO CAPTURE TRIBUTARY RUNOFF AND PREVENT BYPASS FLOWS.
5. NO ALTERATION TO ANY STORMWATER MANAGEMENT FACILITIES SHALL BE PERMITTED WITHIN EASEMENTS.
6. NOTHING SHALL BE PLACED, PLANTED, SET OR PUT WITHIN ANY EASEMENT WHICH COULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT. WEST LEBANON TOWNSHIP SHALL HAVE THE RIGHT TO:
 - 6.1. ACCESS THE SITE TO INSPECT STORM WATER FACILITIES AT ANY TIME.
 - 6.2. REQUIRE THE CURRENT LAND OWNER TAKE CORRECTIVE MEASURES AND ASSIGN THE LAND OWNER A REASONABLE PERIOD TO TAKE CORRECTIVE ACTION.
 - 6.3. AUTHORIZE MAINTENANCE TO BE DONE AND LIEN ALL COSTS OF WORK AGAINST THE PROPERTIES OF THE PRIVATE ENTITY RESPONSIBLE FOR MAINTENANCE.
7. THE MAINTENANCE OF ALL STORMWATER CONVEYANCE AND MANAGEMENT FACILITIES SHALL BE BY THE PROPERTY OWNER. MAINTENANCE SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
 - 7.1. ROUTINE MOWING SHALL BE CONDUCTED AT LEAST EVERY OTHER WEEK DURING THE GROWING SEASON.
 - 7.2. REMOVAL OF SILT AND DEBRIS FROM ALL STORM WATER MANAGEMENT STRUCTURES.
 - 7.3. PERIODIC REPLACEMENT OF SILT FENCE OR OTHER SIMILAR MEASURES.
 - 7.4. ESTABLISHMENT OR RE-ESTABLISHMENT BY SEEDING AND MULCHING OR SODDING OF SCoured AREAS
 - 7.5. INSTALLATION OF NECESSARY CONTROLS TO CORRECT UNFORESEEN PROBLEMS CAUSED BY STORM EVENTS.
 - 7.6. REMOVAL OF ALL TEMPORARY STORMWATER MANAGEMENT CONTROL FACILITIES UPON THE INSTALLATION OF PERMANENT STORMWATER FACILITIES AT THE COMPLETION OF THE DEVELOPMENT.
 - 7.7. REPAIR OF STRUCTURAL DAMAGE OR DETERIORATION OF ANY KIND, INCLUDING THAT CAUSED BY SINKHOLES OR OTHER EVENTS
8. ACCESS TO ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING INLETS, MANHOLES, STORM PIPES, ENDWALLS, HEADWALLS, SWALES, AND BASINS SHALL BE PROVIDED VIA EASEMENTS TO REPRESENTATIVES OF NORTH LEBANON TOWNSHIP.
9. STORMWATER MANAGEMENT FACILITIES (DETENTION FACILITIES, STORM DRAINAGE PIPES, INLETS AND ENDWALLS) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF NORTH LEBANON TOWNSHIP, LEBANON COUNTY CONSERVATION DISTRICT, LEBANON COUNTY, AND PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
10. ALL STORM SEWER JOINTS SHALL BE WATERTIGHT.
11. ALL STORM SEWERS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH PENNDOT PUB. 408 SPECIFICATIONS, PENNDOT PUB. 72, AND AS SHOWN ON THESE DRAWINGS.
12. SHOP DRAWINGS SHALL BE PROVIDED TO THE TOWNSHIP ENGINEER FOR REVIEW FOR ALL STORM SEWER STRUCTURES PRIOR TO INSTALLATION.
13. RUNOFF FROM THE PROPOSED IMPROVEMENTS SHALL BE DIRECTED TO THE STORM WATER MANAGEMENT FACILITIES.
14. TOWNSHIP AND COUNTY OFFICIALS, AND THEIR AGENTS OR EMPLOYEES, HAVE THE RIGHT OF ACCESS FOR INSPECTION AND, IN CASES OF CONSTRUCTION DEFAULT, CONSTRUCTION OF THE STORM WATER MANAGEMENT FACILITIES, THE DEVELOPER/OWNER GRANTS THE TOWNSHIP THE RIGHT TO ACCESS TO ALL STORMWATER MANAGEMENT EASEMENTS ON THE SUBJECT TRACT VIA THE ACCESS DRIVES, DRIVEWAYS, PARKING AREAS, AND SIMILAR FEATURES WITHIN THE SITE.
15. ACCESSORY BUILDINGS, STRUCTURES, FENCES, WALLS, HEDGES, AND POOLS SHALL NOT BE LOCATED WITHIN OR OBSTRUCT ANY STORMWATER MANAGEMENT FACILITY AND ASSOCIATED CONVEYANCE SYSTEMS.
16. ALL DRAINAGE PIPES SHALL BE LAID TO A MINIMUM DEPTH OF EIGHTEEN (18) INCHES FROM FINISHED SUBGRADE TO THE CROWN OF THE PIPE IN PAVED OR STONE AREAS AND TWELVE (12) INCHES FROM FINISHED GRADE TO THE CROWN OF PIPE IN GRASSSED AREAS.
17. NO PERSON SHALL MODIFY, REMOVE, FILL, LANDSCAPE, OR ALTER STORMWATER MANAGEMENT FACILITIES WHICH MAY WERE INSTALLED ON THE PROPERTY UNLESS A STORMWATER MANAGEMENT SITE PLAN HAS BEEN APPROVED BY NORTH LEBANON TOWNSHIP WHICH ALLOWS SUCH MODIFICATION, REMOVAL, FILL, LANDSCAPING OR ALTERATION. NO PERSON SHALL PLACE ANY STRUCTURE, FILL, LANDSCAPING OR VEGETATION INTO A STORMWATER MANAGEMENT FACILITY OR WITHIN A DRAINAGE EASEMENT WHICH COULD LIMIT OR ALTER THE FUNCTIONING OF THE FACILITY OR EASEMENT IN ANY MANNER.
18. AS PER SECTION 31.0 OF THE NORTH LEBANON TOWNSHIP STORMWATER MANAGEMENT ORDINANCE, THE TOWNS EDGE DEVELOPMENT SUBDIVISION DEPICTED HEREIN IS LOCATED WITHIN THE "LEBANON TOWNSHIP RESIDUAL" STORMWATER MANAGEMENT DISTRICT.
19. THE TOWNSHIP, TOWNSHIP ENGINEER AND DESIGN ENGINEER SHALL BE CONTACTED REGARDING INSPECTION OF THE STORMWATER MANAGEMENT FACILITIES. INSPECTIONS SHALL BE REQUIRED DURING CONSTRUCTION AND AT COMPLETION OF THE FACILITIES AND OCCASIONALLY PERMIT SHALL BE ISSUED UNTIL THE STORMWATER MANAGEMENT FACILITIES HAVE BEEN INSTALLED AND APPROVED THROUGH INSPECTION BY THE TOWNSHIP.

EASEMENT NOTES:

1. A STORMWATER MANAGEMENT CONVEYANCE EASEMENT SHALL BE LOCATED AROUND EACH CONVEYANCE FACILITY (I.E. SWALES, PIPES, ETC.) AND SHALL BE TWENTY (20) FEET IN WIDTH. THE EASEMENT SHALL EXTEND TEN (10) FEET FROM THE CENTERLINE OF THE CONVEYANCE FACILITY.
2. A STORMWATER MANAGEMENT EASEMENT SHALL BE LOCATED AROUND EACH STORMWATER MANAGEMENT FACILITY (I.E. DETENTION BASINS, INFILTRATION TRENCHES, RAIN GARDENS, ETC.) AND SHALL ENCOMPASS ALL COMPONENTS OF THE FACILITY.
3. AN EASEMENT SHALL ENCOMPASS ALL WETLANDS AND OPEN STREAM CHANNELS. THE EASEMENT SHALL BE LOCATED TWENTY-FIVE (25) FEET FROM THE CENTERLINE OF THE STREAM CHANNEL AND AT THE BOUNDARY OF ALL WETLANDS.
4. THE GRANTOR, FOR ITSELF, ITS SUCCESSORS, AND ASSIGNS, AUTHORIZES THE TOWNSHIP AND COUNTY AND ITS AUTHORIZED REPRESENTATIVES TO ENTER UPON THE PREMISES TO INSPECT THE FACILITIES LOCATED WITHIN THE EASEMENT.
5. ALL FACILITIES LOCATED WITHIN THE ABOVE MENTIONS EASEMENTS SHALL BE SUBJECT TO THE PROVISIONS OF THE STORMWATER MAINTENANCE AND OWNERSHIP PROGRAM.

INFILTRATION BASIN

INFILTRATION BASINS ARE SHALLOW, IMPOUNDED AREAS DESIGNED TO TEMPORARILY STORE AND INFILTRATE STORMWATER RUNOFF. THE SIZE AND SHAPE CAN VARY FROM ONE LARGE BASIN TO MULTIPLE, SMALLER BASINS THROUGHOUT A SITE. IDEALLY, THE BASIN SHOULD AVOID DISTURBANCE OF EXISTING VEGETATION, IF DISTURBANCE IS UNAVOIDABLE, REPLANTING AND LANDSCAPING MAY BE NECESSARY AND SHOULD INTEGRATE THE EXISTING LANDSCAPE AS SUBTLY AS POSSIBLE AND COMPACTION OF THE SOIL MUST BE PREVENTED INFILTRATION BASINS USE THE EXISTING SOIL MANTLE TO REDUCE THE VOLUME OF STORMWATER RUNOFF BY INFILTRATION AND EVAPOTRANSPIRATION. THE QUALITY OF THE RUNOFF IS ALSO IMPROVED BY THE NATURAL CLEANSING PROCESSES OF THE EXISTING SOIL MANTLE AND ALSO BY THE VEGETATION PLANTED IN THE BASINS.

CONSTRUCTION SEQUENCE

1. PROTECT INFILTRATION BASIN AREA FROM COMPACTION PRIOR TO INSTALLATION.
2. IF POSSIBLE, INSTALL INFILTRATION BASIN DURING LATER PHASES OF SITE CONSTRUCTION TO PREVENT SEDIMENTATION AND/OR DAMAGE FROM CONSTRUCTION ACTIVITY. AFTER INSTALLATION, PREVENT SEDIMENT LADEN WATER FROM ENTERING INLETS AND PIPES.
3. INSTALL AND MAINTAIN PROPER EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
4. IF NECESSARY, EXCAVATE INFILTRATION BASIN BOTTOM TO AN UNCOMPACTED SUBGRADE FREE FROM ROCKS AND DEBRIS. DO NOT COMPACT SUBGRADE.
5. INSTALL OUTLET CONTROL STRUCTURES.
6. SEED AND STABILIZE TOPSOIL. (VEGETATE IF APPROPRIATE WITH NATIVE PLANTINGS.)
6. DO NOT REMOVE INLET PROTECTION OR OTHER EROSION AND SEDIMENT CONTROL MEASURES UNTIL SITE IS FULLY STABILIZED.

MAINTENANCE ISSUES

PROPERLY DESIGNED AND INSTALLED RETENTION AREAS REQUIRE SOME REGULAR MAINTENANCE:

- MAINTENANCE ACTIVITIES TO BE DONE ANNUALLY AND WITHIN 48 HOURS AFTER EVERY MAJOR STORM EVENT (> 1 INCH RAINFALL DEPTH):
1. INSPECT AND CORRECT EROSION PROBLEMS, DAMAGE TO VEGETATION, AND SEDIMENT AND DEBRIS ACCUMULATION (ADDRESS WHEN > 3 INCHES AT ANY SPOT OR COVERING VEGETATION)
 2. INSPECT VEGETATION ON SIDE SLOPES FOR EROSION AND FORMATION OF RILLS OR GULLIES, CORRECT AS NEEDED
 3. MOW AND TRIM VEGETATION TO ENSURE SAFETY, AESTHETICS, PROPER RETENTION BASIN OPERATION, OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION; DISPOSE OF CUTTINGS IN A LOCAL COMPOSTING FACILITY; MOW ONLY WHEN RETENTION BASSIN IS DRY TO AVOID RUTTING
 4. INSPECT FOR LITTER, REMOVE PRIOR TO MOWING
 5. INSPECT RETENTION BASIN INLET (CURB CUTS, PIPES, ETC.) AND OUTLET FOR SIGNS OF EROSION OR BLOCKAGE, CORRECT AS NEEDED

MAINTENANCE ACTIVITIES TO BE DONE AS NEEDED:

1. RE-PLANT SPECIFIED GRASS SPECIES IN THE EVENT OF UNSUCCESSFUL ESTABLISHMENT. INSTALL NAG 575 MATTING IN AREAS WHERE INITIAL GRASS ESTABLISHMENT WAS NOT SUCCESSFUL.
2. RESEED BARE AREAS, INSTALL APPROPRIATE EROSION CONTROL MEASURES WHEN NATIVE SOIL IS EXPOSED OR EROSION CHANNELS ARE FORMING.
3. ROTOTILL AND REPLANT RETENTION BASIN/BIORETENTION IF DRAIN DOWN TIME IS MORE THAN 72 HOURS.
4. WATER DURING DRY PERIODS, FERTILIZE, AND APPLY PESTICIDE ONLY WHEN ABSOLUTELY NECESSARY.

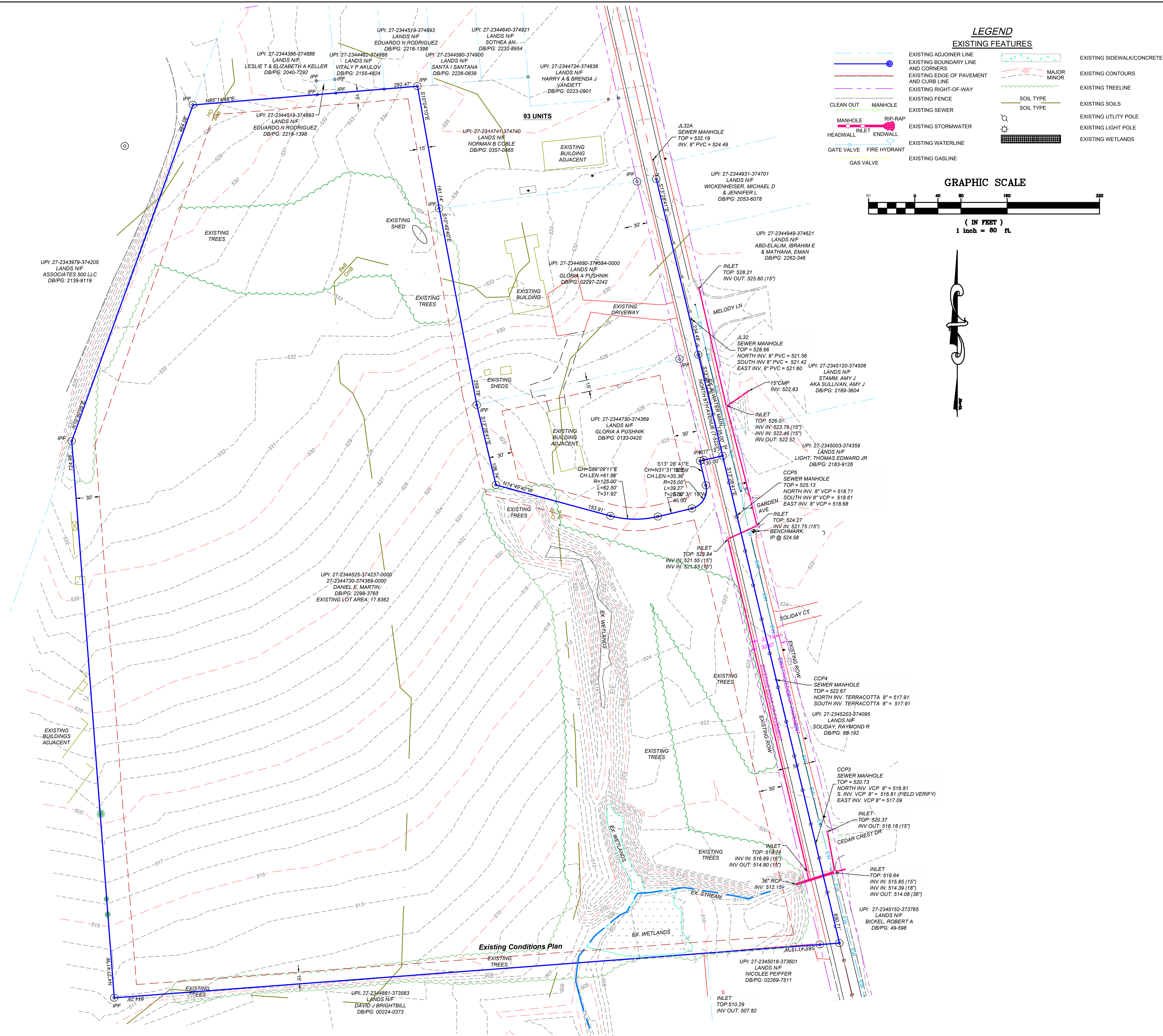
SERIAL NUMBER: 20220691013 (NORTH LEBANON TOWNSHIP)				DATE: 3/10/2022			
NORTH LEBANON TOWNSHIP				CITY OF LEBANON AUTHORITY			
722 KIMERLINGS ROAD				231 RIDGEWAY ROAD			
LEBANON, PA 17046				LEBANON, PA 17042			
CONTACT - CHERI GRUMBINE				717-272-2841			
717-273-7132				717-273-7132			
BUCKEYE PARTNERS				UGI UTILITIES INC			
515 TEK PARK				1301 AIP DR			
9899 HAMILTON BLVD				MIDDLETOWN, PA 17057-5987			
BREINISVILLE, PA 18031				INDIANAPOLIS, IN 46240			
CONTACT - DAVE JONES				CONTACT - JOANNE ARCHFIELD			
dajones@buckeye.com				jarchfield@ugi.com			
610-904-4000				717-255-1453			
317-575-7800				FIRSTENERGY CORP			
				76 S MAIN ST			
				ELKHART, OH 44030-1890			
				CONTACT - OFFICE PERSONNEL			
				800-634-3766			

CHRISLAND ENGINEERING, INC. HEREBY STATES THAT, PURSUANT TO THE PROVISIONS OF ACT NO. 287 OF 1974 AS AMENDED BY ACT 121 OF 2008 OF THE PENNSYLVANIA GENERAL ASSEMBLY, IT HAS PERFORMED THE FOLLOWING IN PREPARING THESE DRAWINGS REQUIRING EXCAVATION OR DEMOLITION WORK AT SITES WITHIN THE POLITICAL SUBDIVISION(S) SHOWN ON THE DRAWINGS:

- (1) PURSUANT TO SECTION 4, CLAUSE (2) OF SAID ACT, CHRISLAND ENGINEERING, INC. REQUESTED THE LINE AND FACILITY INFORMATION PRESCRIBED BY SECTION 2, CLAUSE (4) FROM A ONE CALL SYSTEM NOT LESS THAN TEN NOR MORE THAN NINETY WORKING DAYS BEFORE FINAL DESIGN IS TO BE COMPLETED.
 - (2) PURSUANT TO SECTION 4, CLAUSE (3) OF SAID ACT, CHRISLAND ENGINEERING, INC. SHOWN UPON THE DRAWING(S) THE POSITION AND TYPE OF EACH FACILITY OWNERS LINE, DERIVED PURSUANT TO THE REQUEST MADE AS REQUIRED BY SECTION 4, CLAUSE (2), AND THE NAME OF THE FACILITY OWNER, AND THE FACILITY OWNERS DESIGNATED OFFICE ADDRESS AND THE TELEPHONE NUMBER AS SHOWN ON THE LIST REFERRED TO IN SECTION 3.
 - (3) PURSUANT TO SECTION 4, CLAUSE (4) OF SAID ACT, CHRISLAND ENGINEERING, INC. MADE A REASONABLE EFFORT TO PREPARE THE AN EXCAVATION DRAWING(S) TO AVOID DAMAGE TO AND MINIMIZE INTERFERENCE WITH A FACILITY OWNERS FACILITIES IN THE CONSTRUCTION AREA BY MAINTAINING AN EIGHTEEN-INCH CLEARANCE OF THE FACILITY OWNERS FACILITIES WHERE POSSIBLE.
 - (4) PURSUANT TO SECTION 4, CLAUSE (5) OF SAID ACT, CHRISLAND ENGINEERING, INC. SHALL BE DEEMED TO HAVE MET THE OBLIGATIONS OF CLAUSE (2) BY CALLING A ONE CALL SYSTEM AND SHOWING AS PROOF THE SERIAL NUMBER OF THE ONE CALL NOTICE ON THE DRAWING(S).
- AND CHRISLAND ENGINEERING, INC. DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE OR GUARANTEE THAT THE INFORMATION RECEIVED PURSUANT TO SAID REQUEST AND AS REFLECTED ON THESE DRAWINGS IS CORRECT OR ACCURATE, BUT, CHRISLAND ENGINEERING, INC. IS REFLECTING SAID INFORMATION ON THESE DRAWINGS ONLY DUE TO THE REQUIREMENTS OF THE SAID ACT 187, DECEMBER 19, 1996.

STANDARD E&S PLAN NOTES

1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN, A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL NOTIFY THE TOWNSHIP ENGINEER, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARED, THE PCSM PLAN PREPARED, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE OWNER AND/OR OPERATOR SHALL NOTIFY THE TOWNSHIP ENGINEER, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARED, THE PCSM PLAN PREPARED, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPs SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN FULLY INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF DURING CLEARING AND GRUBBING OPERATIONS.
8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINAL GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 280.1 ET SEQ. 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
11. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL, FORM FP-001 MUST BE RETAINED BY THE CONTRACTOR UNTIL THE SITE IS FULLY STABILIZED. ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
14. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RETENING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
15. A LOG SHOWING DATES THAT E&S BMPs WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
16. SEDIMENT TRACKED ONTO ANY PUBLIC ROAD



REVISION
PER SKT LETTER DATED 1/22/22
BY JTW
DATE 1/22/22
PER LCDR LETTER DATED 4/11/22
BY JTW
DATE 4/20/22

**TOWN'S EDGE
APARTMENTS, LLC**

MANAGER: JOSHUA T. WEABER, P.E.
DESIGN BY: JTW CHECKED BY: RDT
DRAWN BY: RDT CHECKED BY: JTW
SURVEY: M&H PLD DATE: MARCH 10, 2022
PROJECT #: CH2.21.1



**REVISED FINAL SUBDIVISION &
LAND DEVELOPMENT PLAN**

FOR

TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)

NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

Existing Conditions

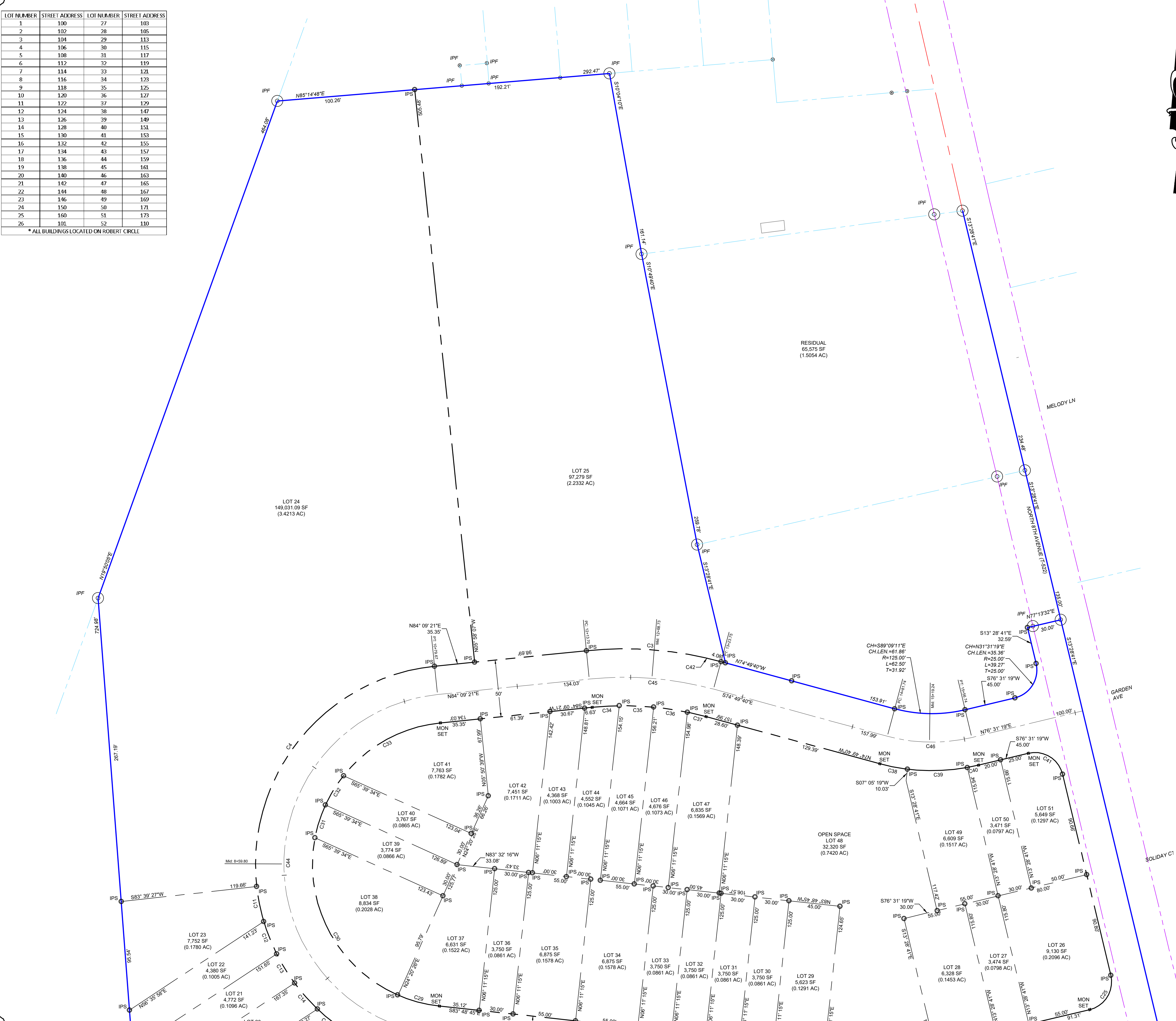
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OF 23

LOT NUMBER	STREET ADDRESS	LOT NUMBER	STREET ADDRESS
1	100	27	103
2	102	28	105
3	104	29	113
4	106	30	115
5	108	31	117
6	112	32	119
7	114	33	121
8	116	34	123
9	118	35	125
10	120	36	127
11	122	37	129
12	124	38	147
13	126	39	149
14	128	40	151
15	130	41	153
16	132	42	155
17	134	43	157
18	136	44	159
19	138	45	161
20	140	46	163
21	142	47	165
22	144	48	167
23	146	49	169
24	150	50	171
25	160	51	173
26	101	52	110

* ALL BUILDINGS LOCATED ON ROBERT CIRCLE

\\christland\Public\Project Files\CH2 - Mike Charles\CH2 21 - Towns Edge Revised Apartments\DWG\PRELIM\FINAL LD PLAN\2022 2:48 AM



LEGEND

EXISTING FEATURES

- EXISTING ADJOINER LINE
- EXISTING BOUNDARY LINE AND CORNERS
- EXISTING EDGE OF PAVEMENT AND CURB LINE
- EXISTING RIGHT-OF-WAY

PROPOSED FEATURES

- PROPOSED BUILDING SETBACK
- PROPOSED BOUNDARY LINE AND CORNERS
- PROPOSED EDGE OF PAVEMENT AND CURB LINE
- PROPOSED RIGHT-OF-WAY

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

CURVE TABLE				
CURVE #	LENGTH (FT)	RADIUS (FT)	CHORD LENGTH (FT)	CHORD DIRECTION
C3	119.21	325.00	118.54	N 85°20'10" W
C4	276.41	175.00	248.56	N 38°54'24" E
C11	31.40	175.00	31.36	N 11°29'01" W
C12	30.68	175.00	30.64	N 21°38'50" W
C13	30.05	175.00	30.01	N 31°35'22" W
C14	30.34	175.00	30.30	N 41°28'32" W
C15	31.63	175.00	31.58	N 51°37'09" W
C16	24.33	175.00	24.31	N 60°46'46" W
C17	32.55	175.00	32.51	N 70°05'30" W
C18	25.63	175.00	25.61	N 79°37'00" W
C19	2.46	513.35	2.46	N 83°56'53" W
C20	45.06	524.96	45.05	N 86°32'23" W
C21	63.79	525.00	63.75	N 87°31'13" E
C22	45.19	525.00	45.18	S 81°34'25" W
C23	23.69	525.00	23.69	S 77°48'53" W
C24	39.27	25.00	35.36	S 58°28'41" E
C25	39.27	25.00	35.36	N 31°31'19" E
C26	48.77	475.00	48.75	N 79°27'48" E
C27	96.14	475.00	95.97	S 88°12'11" W
C28	18.12	475.00	18.12	S 84°54'20" E
C29	37.71	125.00	37.57	N 75°10'10" W
C30	168.75	125.00	156.22	S 27°51'06" E
C31	30.28	125.00	30.20	S 17°45'44" W
C32	30.32	125.00	30.25	S 31°39'01" W
C33	99.39	125.00	96.79	S 61°22'39" W
C34	23.86	275.00	23.85	N 86°38'27" E
C35	30.09	275.00	30.07	S 87°44'23" E
C36	30.04	275.00	30.02	S 81°28'34" E
C37	16.89	275.00	16.89	S 76°35'14" E
C38	24.69	175.00	24.67	S 78°52'11" E
C39	52.81	175.00	52.61	S 88°26'36" W
C40	10.01	175.00	10.00	S 78°09'36" W
C41	39.27	25.00	35.36	N 58°28'41" W
C42	119.21	325.00	118.54	N 85°20'10" W
C43	171.61	500.00	170.77	S 86°21'17" W
C44	439.74	150.00	298.35	N 00°10'18" E
C45	110.04	300.00	109.43	S 85°20'10" E
C46	75.01	150.00	74.23	S 89°09'11" E
C47	20.01	475.00	20.01	N 87°07'59" E
C48	63.79	525.00	63.75	N 87°31'13" E

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C52	10.01	175.00	10.00	S 66°24'02" E
C53	16.09	25.00	15.81	N 31°54'47" W
C54	20.89	174.99	20.88	N 34°03'21" E
C55	112.95	175.00	111.00	N 12°08'49" E

DATE: 3/7/22
BY: JTW
4/20/22
JTW
4/20/22
JTW

REVISION: PER SUBMITTER DATED 3/22/22
PER SET LETTER DATED 4/15/22
PER LPCD LETTER DATED 4/11/22

TOWN'S EDGE APARTMENTS, LLC

MANAGER: JOSHUA T. WEAVER, P.E.
DESIGN BY: JTW CHECKED BY: RDT
DRAWN BY: RDT CHECKED BY: JTW
SURVEY: M&H PLAN DATE: MARCH 10, 2022
PROJECT #: CH2 21.1

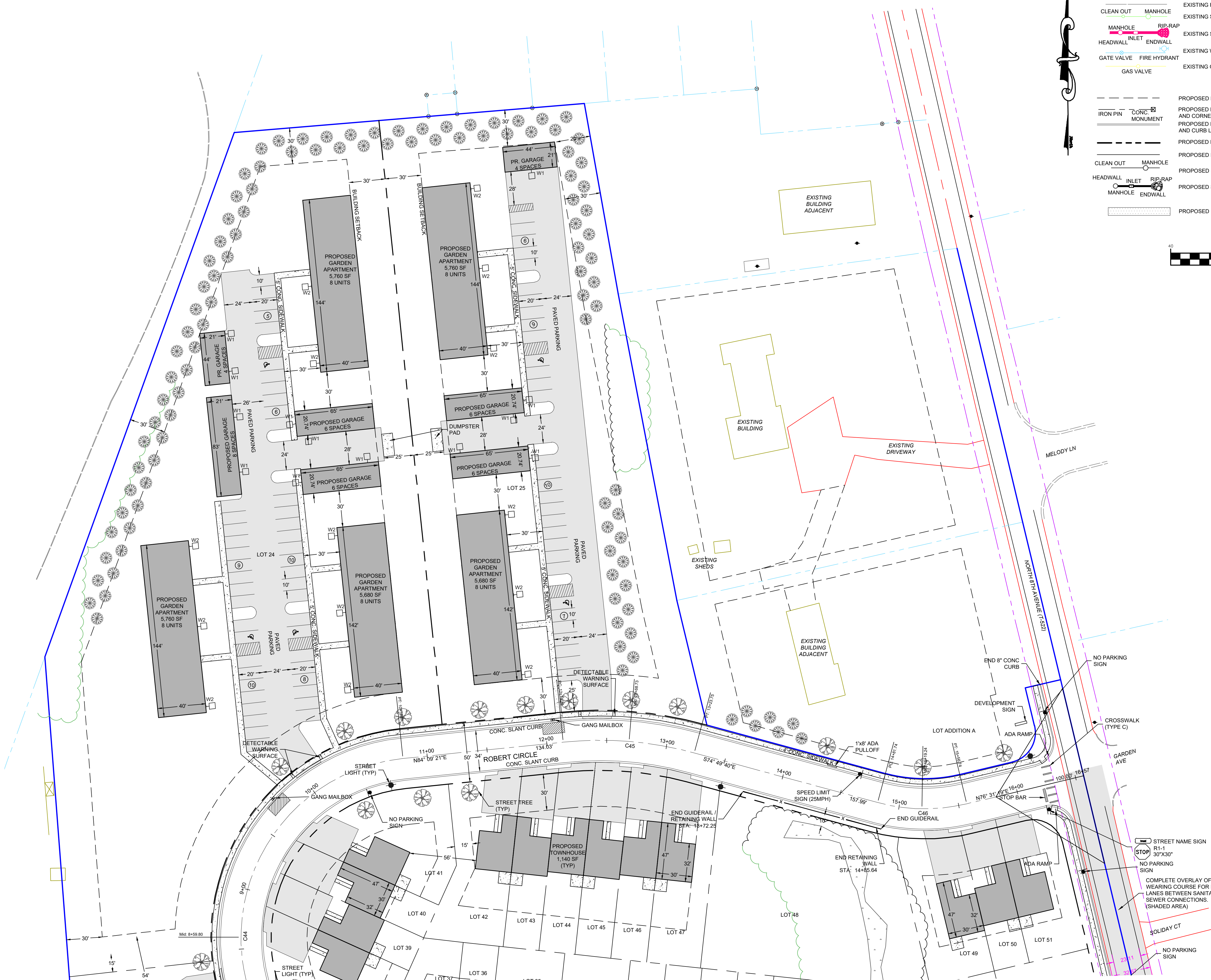


REVISED FINAL SUBDIVISION & LAND DEVELOPMENT PLAN

FOR

TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)

NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA



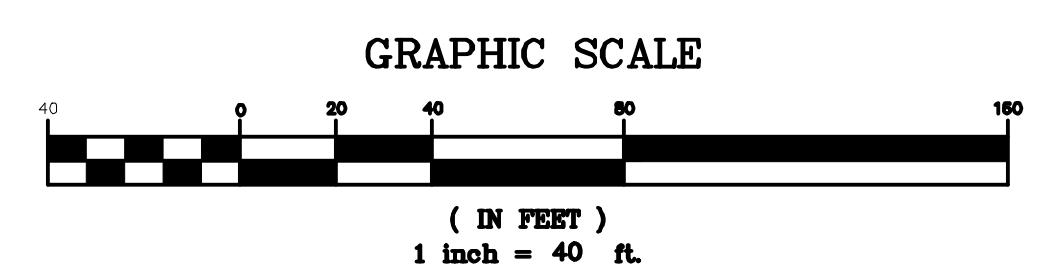
LEGEND

EXISTING FEATURES

- EXISTING ADJOINER LINE
- EXISTING BOUNDARY LINE AND CORNERS
- EXISTING EDGE OF PAVEMENT AND CURB LINE
- EXISTING RIGHT-OF-WAY
- EXISTING FENCE
- EXISTING SEWER
- EXISTING STORMWATER
- EXISTING WATERLINE
- EXISTING GASLINE
- EXISTING SIDEWALK/CONCRETE
- EXISTING CONTOURS
- EXISTING TREELINE
- EXISTING SOILS
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING WETLANDS

PROPOSED FEATURES

- PROPOSED BUILDING SETBACK
- PROPOSED BOUNDARY LINE AND CORNERS
- PROPOSED EDGE OF PAVEMENT AND CURB LINE
- PROPOSED RIGHT-OF-WAY
- PROPOSED FENCE
- PROPOSED SEWER
- PROPOSED STORMWATER
- PROPOSED DRAINAGE EASEMENT
- PROPOSED DOMESTIC WATERLINE
- PROPOSED GASLINE
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REVISION
PER SSI LETTER DATED 3/22/22
PER SSI LETTER DATED 4/15/22
PER LCPD LETTER DATED 4/11/22

DATE
4/7/22
4/20/22
4/20/22

BY
JTW
JTW
JTW

TOWN'S EDGE APARTMENTS, LLC

MANAGER: JOSHUA T. WEABER, P.E.
DESIGN BY: JTW CHECKED BY: RDT
DRAWN BY: RDT CHECKED BY: JTW
SURVEY: M&H PLAN DATE: MARCH 10, 2022
PROJECT #: CH2.21.1

CHRISLAND ENGINEERING

Chrisland Engineering, Inc.
602 Cornwall Road, Lebanon, PA 17042
www.chrislandengineering.com

REVISED FINAL SUBDIVISION & LAND DEVELOPMENT PLAN

FOR

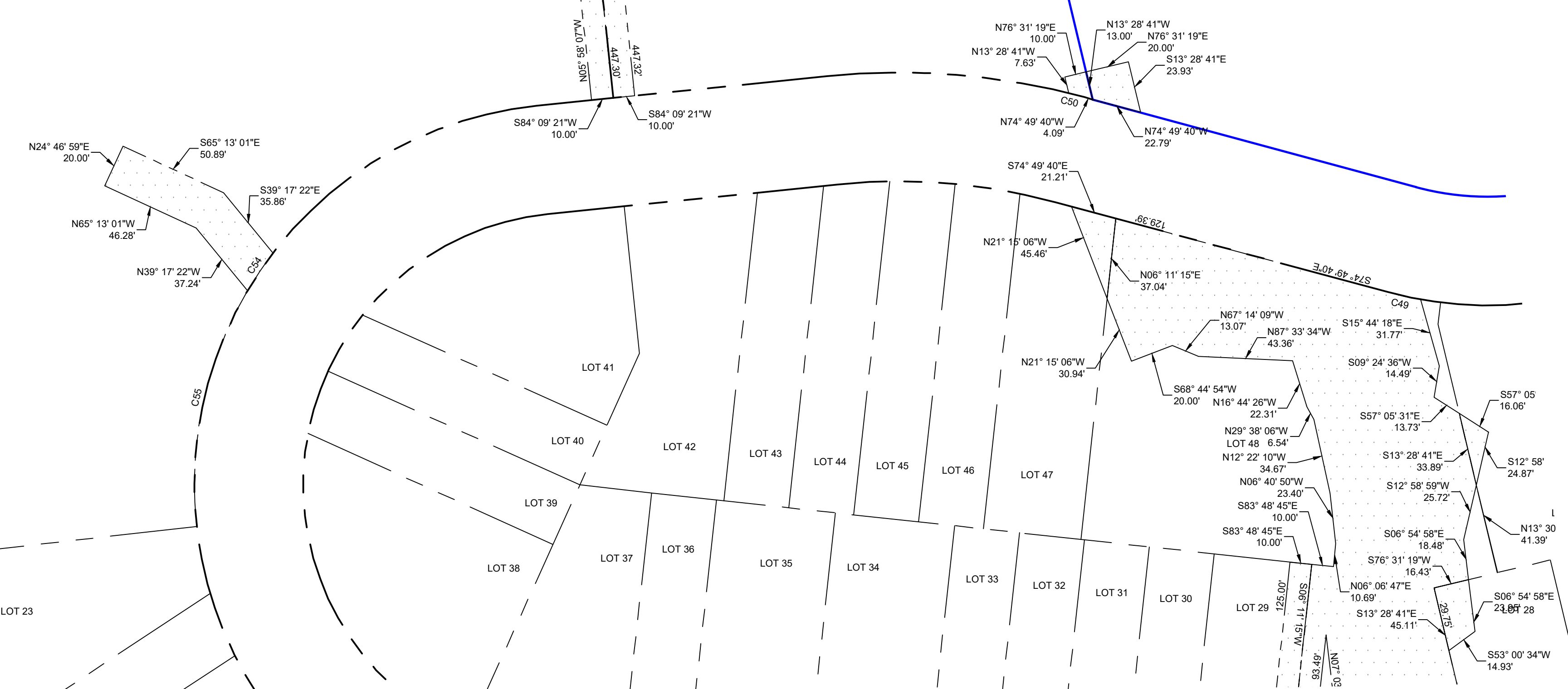
TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)

NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

Layout Plan

5

OF 23



STORMWATER MANAGEMENT EASEMENT NOTES

1. THE PROPOSED STORMWATER MANAGEMENT EASEMENT IS NOT LOCATED WITHIN AREAS OF CARBONATE GEOLOGY THAT RESTRICT CONSTRUCTION OF THIS FACILITY.
2. IN THE EVENT OF DISCOVERY OF ANY SINKHOLE OR CARBONATE GEOLOGY FORMATIONS DURING CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITIES, A PROFESSIONAL GEOLOGIST OR GEOTECHNICAL ENGINEER MUST BE CONTACTED, IN ADDITION TO PARADISE TOWNSHIP.

EASEMENT NOTES:

THE GRANTOR, FOR ITSELF, ITS SUCCESSORS, AND ASSIGNS, AUTHORIZES THE TOWNSHIP OF
COUNTY, AND ITS AUTHORIZED REPRESENTATIVES TO ENTER UPON THE PREMISES TO INSPECT
MAINTAIN, AND REPAIR THE FACILITIES LOCATED WITHIN ANY EASEMENT.

DRAINAGE EASEMENTS

- A MINIMUM TWENTY (20) FOOT WIDE DRAINAGE EASEMENT SHALL BE PROVIDED AROUND ALL WATER MAINS AND SEWER LINES WHICH PROVIDES ACCESS FROM THE STREET TO EGRESS TO A PUBLIC RIGHT-OF-WAY. EASEMENTS SHALL BE PROVIDED TO ALLOW FOR THE COLLECTION AND DISCHARGE OF WATER, THE INSPECTION, MAINTENANCE, REPAIR AND RECONSTRUCTION OF THE DRAINAGE FACILITIES, AND THE PASSAGE OF MACHINERY FOR THE PURPOSES OF THE DRAINAGE FACILITIES.
2. PROVISIONS FOR PERMANENT ACCESS OR MAINTENANCE EASEMENTS FOR ALL EXISTING AND PROPOSED PHYSICAL STORM WATER MANAGEMENT FACILITIES, SUCH AS PONDS AND STORM STRIP STRUCTURES, SHALL BE PROVIDED TO THE SATISFACTION OF THE O&M MAINTENANCE (O&M) PLAN. ALL SUCH AGREEMENTS SHALL BE DULY RECORDED IN THE OFFICE OF THE RECORDER DEEDS AND SHALL CONSTITUTE A BINDING PERMANENT EASEMENT. IN THE EVENT OF A CONFLICT BETWEEN THE O&M PLAN AND THE PERMANENT EASEMENT, THE PERMANENT EASEMENT SHALL PREVAIL. ALL SUCH AGREEMENTS SHALL BE SUBORDINATE TO ANY EASEMENT OR RESTRICTION THAT WOULD INTERFERE WITH THE PROVISIONS AND THE IMPLEMENTATION THEREOF.
3. IN THE EVENT OF THE NEED FOR EXCAVATION, THE PLACING OF FILL OR CONSTRUCTION OF STRUCTURES, AND ANY ALTERATIONS THAT MAY AFFECT ADVERSELY THE FLOW OF STORM WATER WITHIN ANY PORTION OF THE EASEMENT.
4. THE EASEMENT SHALL BE PLACED, SITED, SET, OR FURNISHED IN THE AREA OF AN EASEMENT THAT WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT OR CONFLICT WITH THE EASEMENT AGREEMENT.

UTILITY EASEMENTS








1. UTILITY EASEMENTS SHALL BE LOCATED AROUND ALL SEWER, WATER, ELECTRIC, GAS, ETC. NOT LOCATED WITHIN THE DEDICATED RIGHT-OF-WAY AND SHALL PROVIDE FOR PERMANENT ACCESS AND MAINTENANCE OF SUCH UTILITIES.
2. NOTHING SHALL BE PLACED, PLANTED, SET, OR PUT WITHIN THE AREA OF AN EASEMENT THAT WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT OR CONFLICT WITH THE EASEMENT AGREEMENT.

LEGEND

EXISTING FEATURES

-
- — — — — EXISTING ADJOINER LINE
 ————— EXISTING BOUNDARY LINE AND CORNERS
 ————— EXISTING EDGE OF PAVEMENT AND CURB LINE
 — — — — — EXISTING ADJOINER LINE
 — — — — — EXISTING RIGHT-OF-WAY

PROPOSED FEATURES

- | | |
|---|---|
|  | PROPOSED BUILDING SETBACK |
|  | PROPOSED BOUNDARY LINE
AND CORNERS |
|  | PROPOSED EDGE OF PAVEMENT
AND CURB LINE |
|  | PROPOSED RIGHT-OF-WAY |
|  | PROPOSED SANITARY SEWER EASEMENT |
|  | PROPOSED DRAINAGE EASEMENT |
|  | PROPOSED COMBINED
SANITARY SEWER/DRAINAGE EASEMENT |

GRAPHIC SCALE



(IN FEET)
1 inch = 40 ft

CURVE TABLE				
CURVE #	LENGTH (FT)	RADIUS (FT)	CHORD LENGTH (FT)	CHORD DIRECTION
C49	15.39	175.00	15.39	N 77°20'53" W
C50	7.27	324.52	7.27	N 75°28'10" W
C51	10.01	175.00	10.00	S 63°07'29" E
C52	10.01	175.00	10.00	S 66°24'02" E
C53	16.09	25.00	15.81	N 31°54'47" W
C54	20.89	174.99	20.88	N 34°03'21" E
C55	112.95	175.00	111.00	N 12°08'49" E

LOT DENSITY CALCULATION

Total Gross Area:	Square Feet 856,706.39	Acre 19.6673
Residual Lot	65,575.01	1.5054
Right-of-Way (Res.)	5,887.34	0.1352
Right-of-Way	100,827.66	2.3147

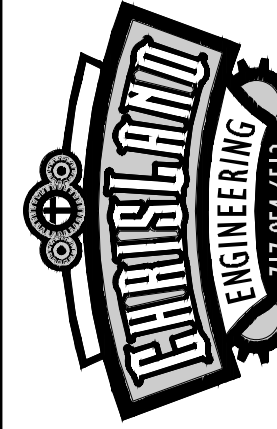
Easement

Lot 1	594.39	0.0038
Lot 1	256.29	0.0187
Lot 2	106.94	0.0074
Lot 3	217.25	0.0050
Lot 4	212.83	0.0040
Lot 5	87.76	0.0026
Lot 5	69.96	0.0020
Lot 5	1.26 97	0.0029
Lot 17	1,269.43	0.0381
Lot 18	1,839.95	0.0539
Lot 28	93.95	0.0092
Lot 29	1,255.00	0.0287
Lot 49	137.75	0.0047
Lot 49	472.88	0.0127
Lot 24	1,638.86	0.0390
Lot 25	4,753.59	0.1027
Lot 25	100.90	0.0024
Lot 47	387.94	0.0089
Lot 48	13,023.96	0.4005
Lot 48 - Unusable	1,438.82	0.0330
Lot 48 - Unusable	328.32	0.0074
Lot 51	121,787.46	2.6959
Lot 52 - Unusable	2,300.09	0.0533
Lot 52 - Unusable	46,291.47	0.8726

Total Net Lot Area: 504,863.51 11.5901

**TOWN'S EDGE
APARTMENTS, LLC**

MANAGER: JOSHUA T. WEABER, P.E.
DESIGN BY: JTW CHECKED BY: RDT
DRAWN BY: RDT CHECKED BY: JTW
SURVEY: M&H PLAN DATE: MARCH 10, 2022
PROJECT #: CH2.21.1



Chrisland Engineering, Inc.
602 Cornwall Road, Lebanon, PA 17042
www.chrislandengineering.com

**REVISED FINAL SUBDIVISION &
LAND DEVELOPMENT PLAN**

FOR

TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)

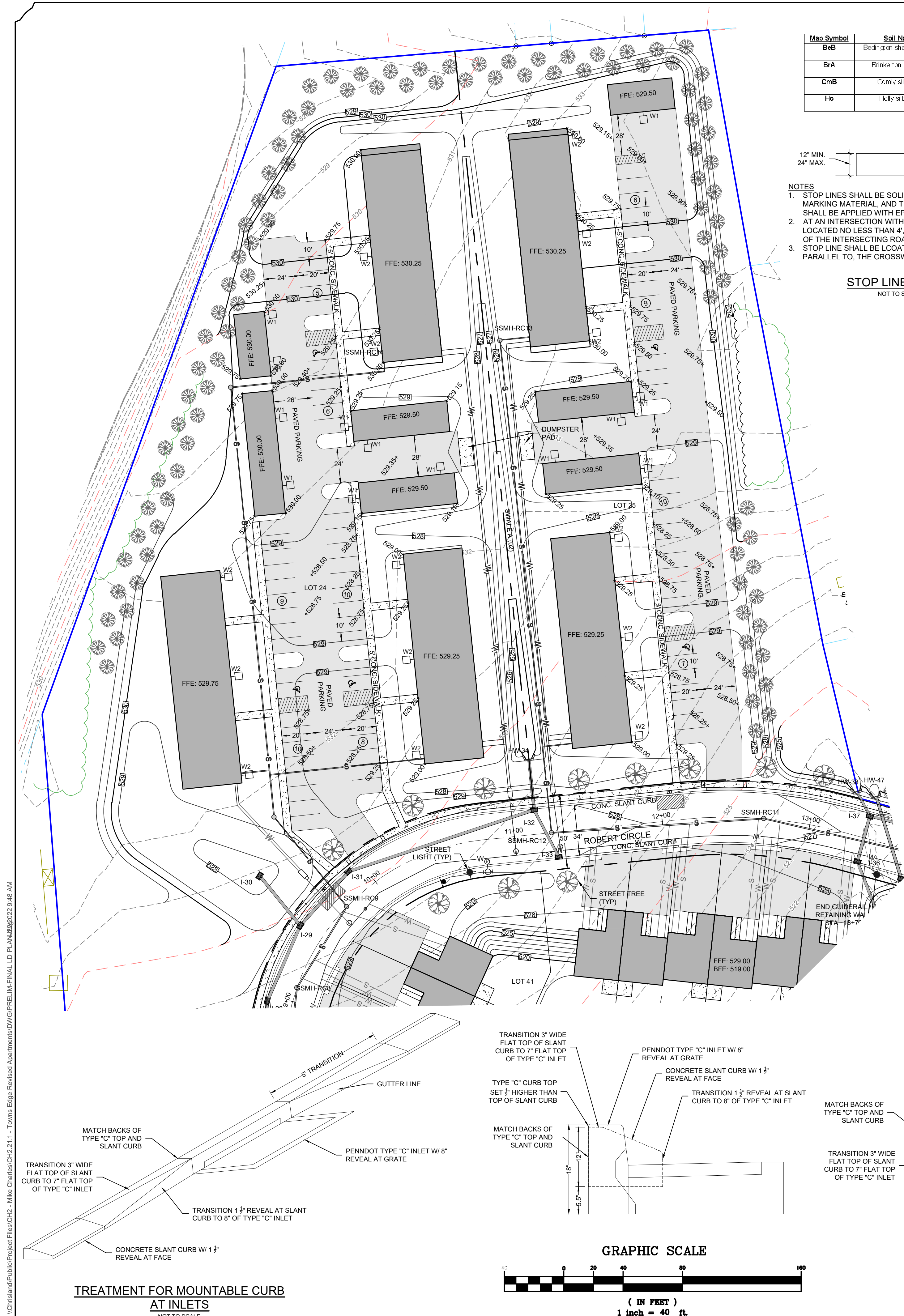
NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

Easement Plan

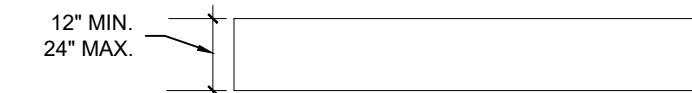
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\\christland\Public\Project Files\CH2 - Mike Charles\CH2 21 - Towns Edge Apartments\DWG\PRELIM\FINAL LD PLAN\dwg\022 2 48 AM

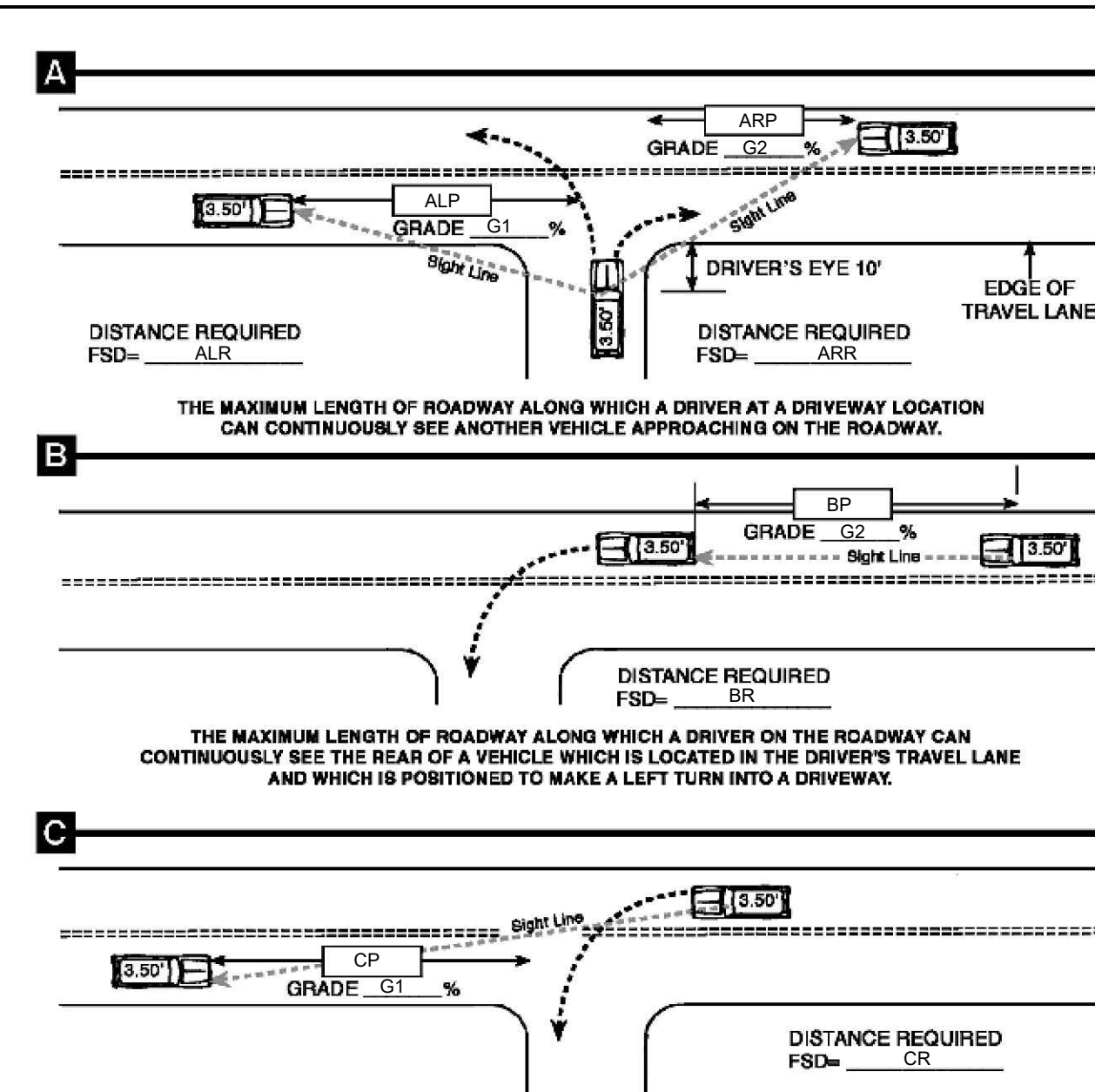


Map Symbol	Soil Name	Slope	Hydrologic Group
BeB	Bedford clay silt loam	3-5%	D
BrA	Brinkerton silt loam	0-3%	D
CmB	Comly silt loam	3-8%	C
Ho	Holly silt loam	0-3%	B/D



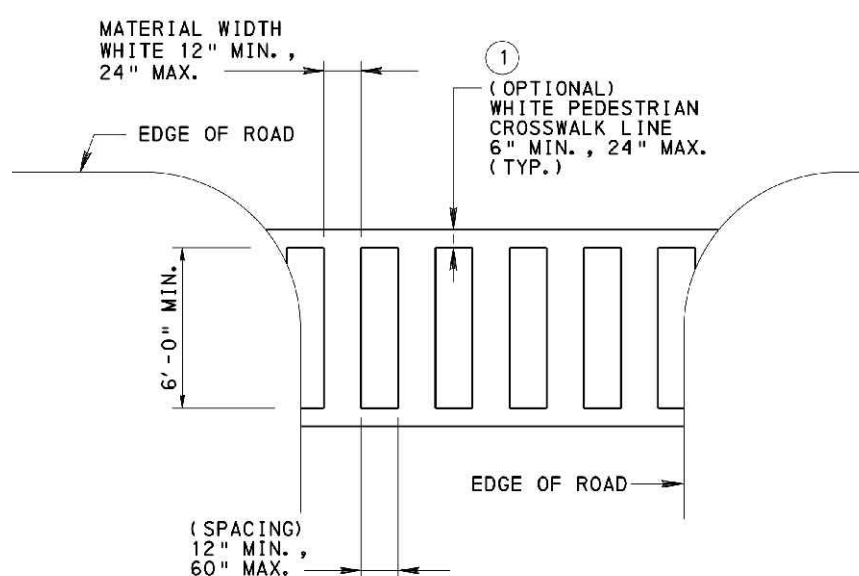
- NOTES
1. STOP LINES SHALL BE SOLID, BE AN APPROVED PENNDOT PAVEMENT MARKING MATERIAL, AND TRANSVERSE EACH TRAFFIC LANE. STOP LINES SHALL BE APPLIED WITH EPOXY, NOT PAINT.
 2. AT AN INTERSECTION WITH A STOP SIGN, THE STOP LINE SHOULD BE LOCATED NO LESS THAN 4', OR MORE THAN 30' FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY.
 3. STOP LINE SHALL BE LOCATED A MINIMUM OF 4' IN ADVANCE OF, AND PARALLEL TO, THE CROSSWALK LINES UNLESS OTHERWISE NOTED.

STOP LINE DETAIL
NOT TO SCALE



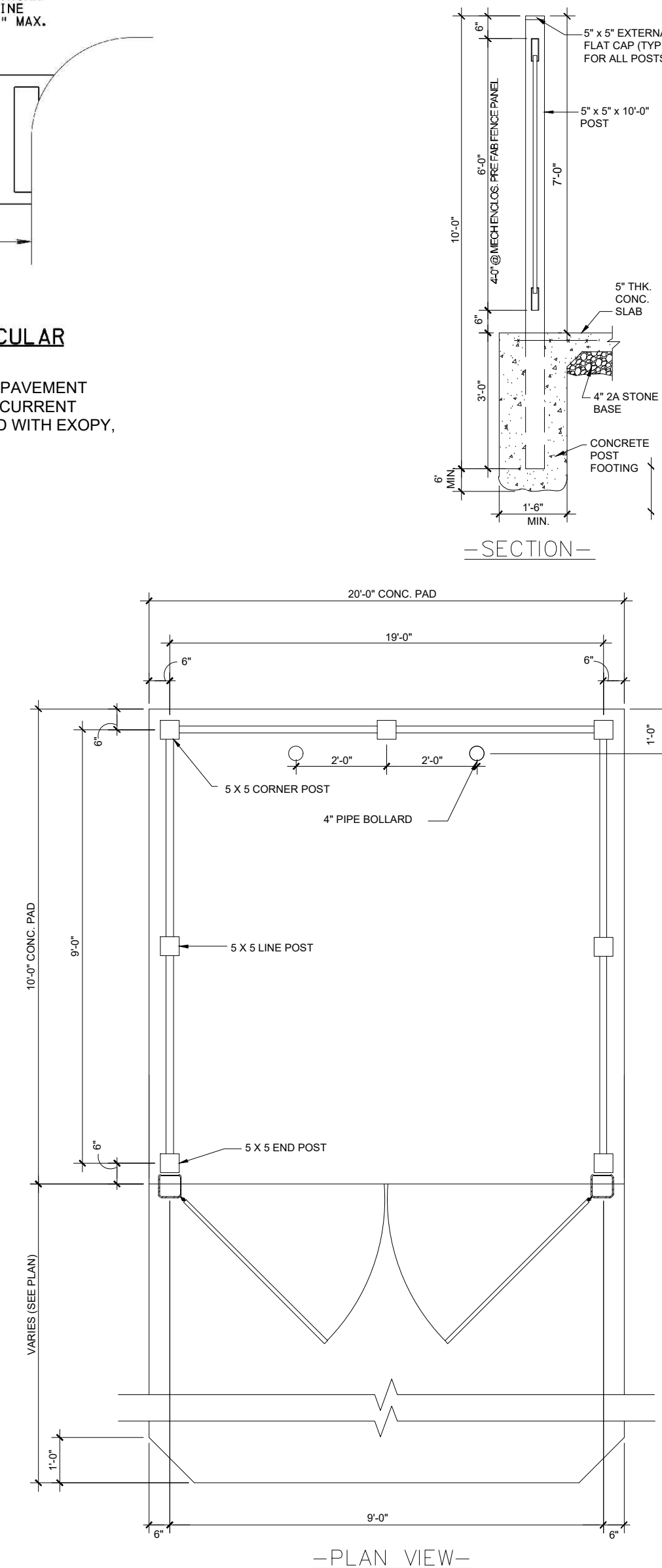
LOCATION	ALP	ALR	ARP	ARR	BP	BR	CP	CR	G1 (%)	G2 (%)
ROBERT CIRCLE (NORTH)	500'	254'	500'	244'	500'	244'	500'	254'	-1.3	+1.4
ROBERT CIRCLE (SOUTH)	500'	252'	500'	245'	500'	245'	500'	252'	-1.0	+1.0
DRIVEWAY (LOT 24)	377'	146'	173'	146'	150'	145'	177'	146'	+0.75	+0.75
DRIVEWAY (LOT 25)	306'	146'	256'	148'	199'	148'	352'	146'	+0.75	-0.75

SAFE STOPPING SIGHT DISTANCE DETAIL
NOT TO SCALE



NOTE
CROSSWALKS SHALL BE AN APPROVED PENNDOT PAVEMENT MARKING MATERIAL IN ACCORDANCE WITH THEIR CURRENT SPECIFICATIONS. CROSSWALKS SHALL BE APPLIED WITH EXOPY, NOT PAINT.

CROSSWALK DETAIL
NOT TO SCALE

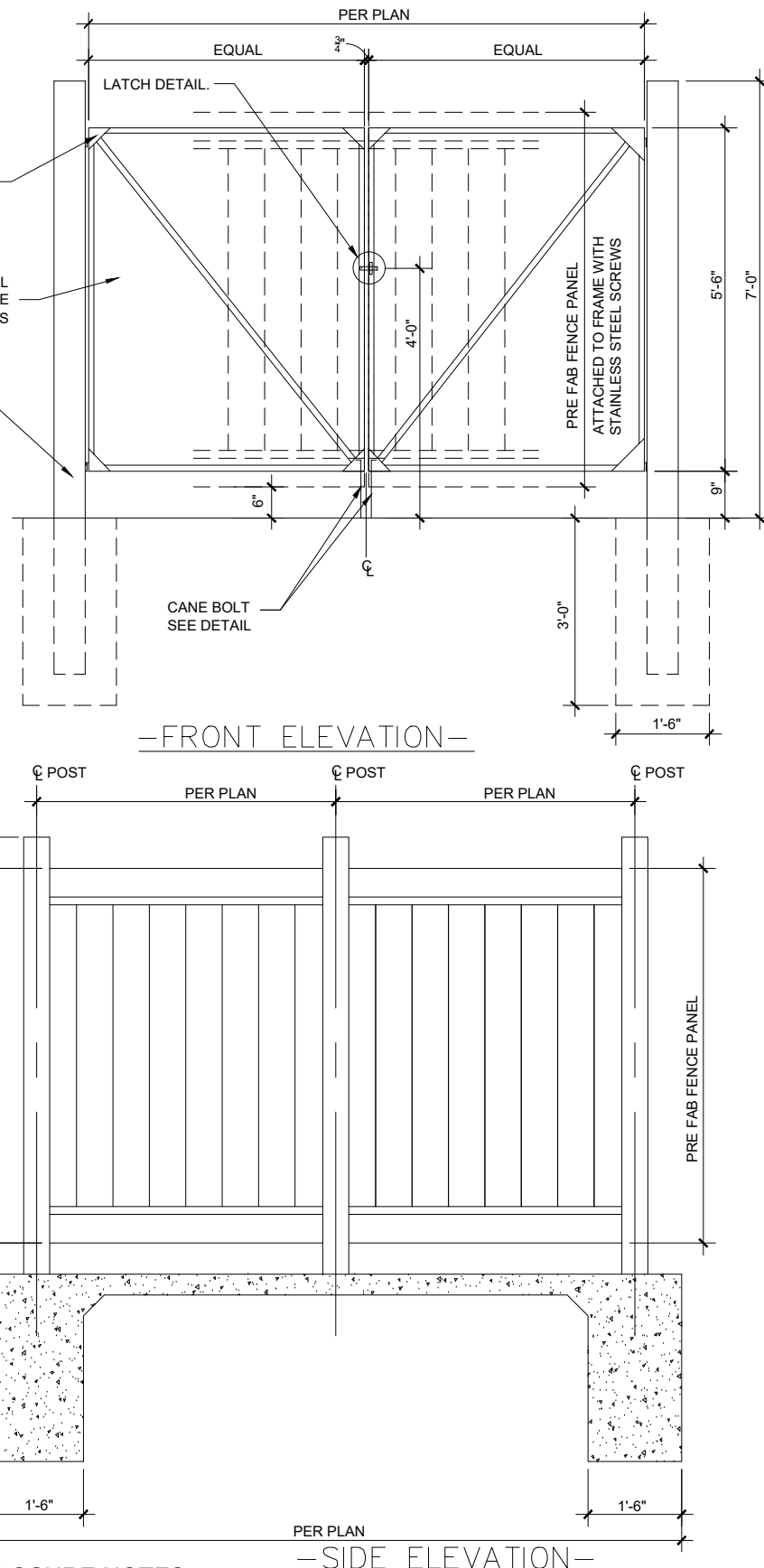


- DUMPSTER ENCLOSURE NOTES:
1. DUMPSTER ENCLOSURE SHALL ONLY BE REQUIRED IF A DUMPSTER, OR EXTERIOR TRASH STORAGE IS TO BE PROVIDED ON-SITE.
 2. POSTS, FENCING, AND ACCESSORIES TO BE POLYVINYL CHLORIDE (PVC) COMPONENTS.
 3. MATERIALS TO BE 6'-0" HIGH PRIVACY FENCING, CHESTERFIELD STYLE, WHITE, TAN OR CLAY COLOR AVAILABLE. ACTUAL COLOR TO BE SELECTED BY OWNER.
 4. INSTALL DUMPSTER ENCLOSURE COMPONENTS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 5. ALL GATE ASSEMBLIES TO INCLUDE HINGES, HARDWARE, LATCH ASSEMBLY AND DROP-PIN KIT.
 6. PAINT ALL GATE FRAMES AND PIPES.
 7. ALTERNATE ENCLOSURES MAY BE ACCEPTABLE TO THE TOWNSHIP. ALTERNATE ENCLOSURES SHALL BE APPROVED BY THE TOWNSHIP PRIOR TO INSTALLATION.

DUMPSTER ENCLOSURE DETAIL
NOT TO SCALE

- LEGEND
- EXISTING FEATURES
- EXISTING ADJOINER LINE
 - EXISTING BOUNDARY LINE AND CORNERS
 - EXISTING EDGE OF PAVEMENT AND CURB LINE
 - EXISTING RIGHT-OF-WAY
 - EXISTING FENCE
 - EXISTING SEWER
 - EXISTING STORMWATER
 - EXISTING WATERLINE
 - EXISTING GASLINE
 - EXISTING SIDEWALK/CONCRETE
 - EXISTING CONTOURS
 - EXISTING TREELINE
 - EXISTING SOILS
 - EXISTING UTILITY POLE
 - EXISTING LIGHT POLE

- PROPOSED FEATURES
- PROPOSED BUILDING SETBACK
 - PROPOSED BOUNDARY LINE AND CORNERS
 - PROPOSED EDGE OF PAVEMENT AND CURB LINE
 - PROPOSED RIGHT-OF-WAY
 - PROPOSED FENCE
 - PROPOSED SEWER
 - PROPOSED STORMWATER
 - PROPOSED ACCESS EASEMENT
 - PROPOSED DRAINAGE EASEMENT
 - PROPOSED UTILITY/DRAINAGE EASEMENT
 - PROPOSED SNOW PLOW EASEMENT
 - EXISTING ELECTRIC EASEMENT
 - PROPOSED DOMESTIC WATERLINE
 - PROPOSED GASLINE
 - PROPOSED CONCRETE/SIDEWALK
 - PROPOSED CONTOURS
 - PROPOSED TREELINE
 - PROPOSED UTILITY POLE
 - PROPOSED LIGHT POLE
 - PROPOSED PAVING



REVISION
DATE
BY
4/20/22
JTW
4/20/22
JTW

TOWN'S EDGE
APARTMENTS, LLC

MANAGER: JOSHUA T. WEAVER, P.E.
DESIGN BY: JTW
DRAWN BY: RDT
SURVEY: M&H
CHECKED BY: JTW
PLAN DATE: MARCH 10, 2022
PROJECT #: CH2 21.1



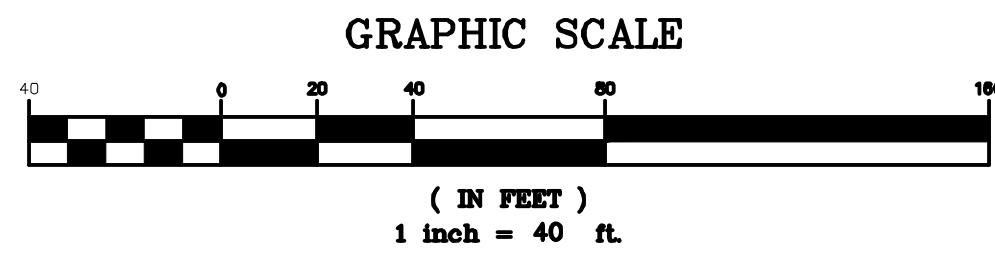
REVISED FINAL SUBDIVISION &
LAND DEVELOPMENT PLAN
FOR
TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)
NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

Grading Plan

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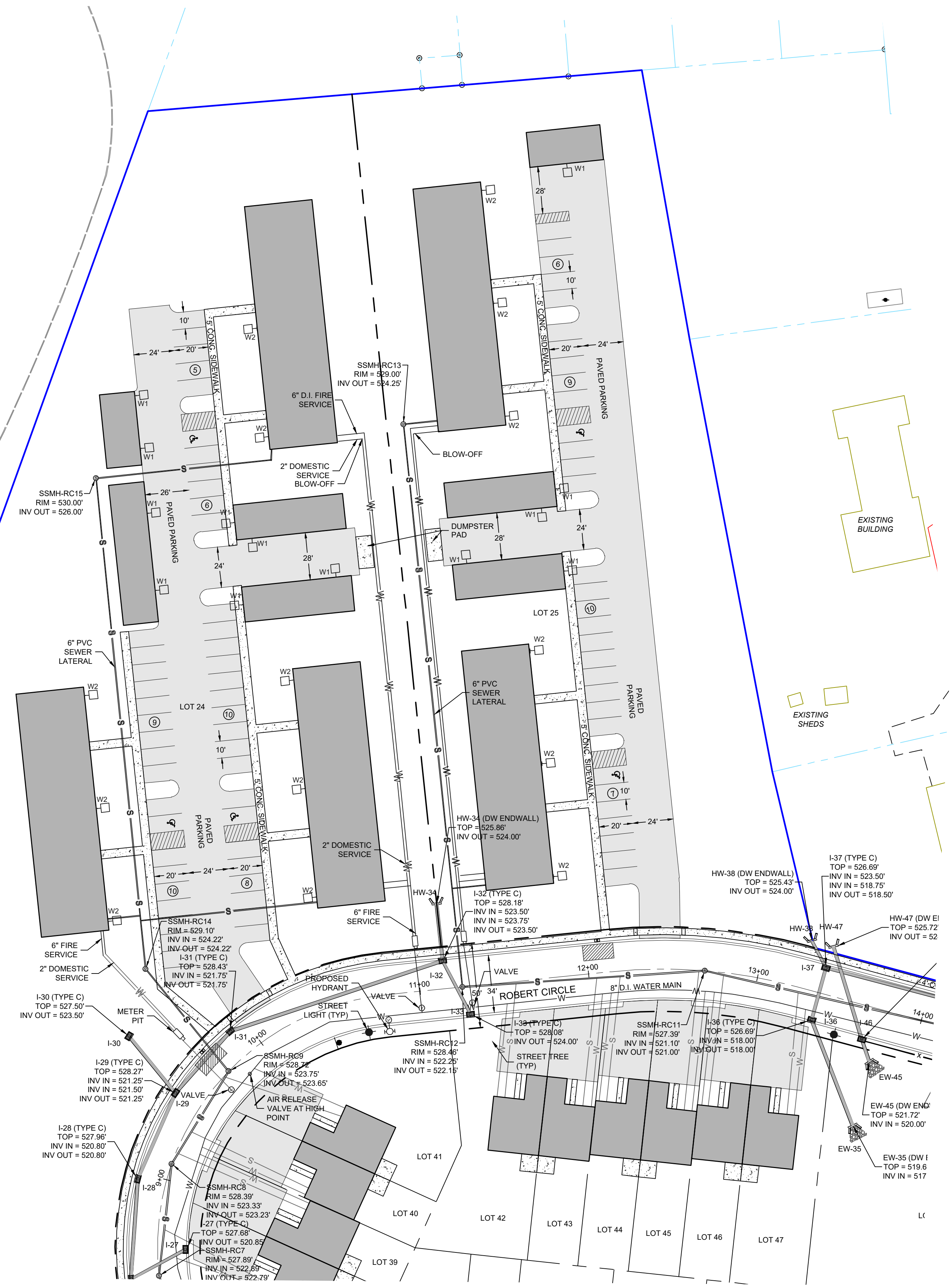


LEGEND

EXISTING FEATURES	
	EXISTING ADJOINER LINE
	EXISTING BOUNDARY LINE AND CORNERS
	EXISTING EDGE OF PAVEMENT AND CURB LINE
	EXISTING RIGHT-OF-WAY
	EXISTING FENCE
	EXISTING SEWER
	CLEAN OUT
	MANHOLE
	MANHOLE
	RIP-RAP
	HEADWALL
	INLET
	ENDWALL
	GATE VALVE
	FIRE HYDRANT
	GAS VALVE
	EXISTING SIDEWALK/CONCRETE
	MAJOR
	MINOR
	SOIL TYPE
	SOIL TYPE
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE

PROPOSED FEATURES

	PROPOSED BUILDING SETBACK
	PROPOSED BOUNDARY LINE AND CORNERS
	PROPOSED EDGE OF PAVEMENT AND CURB LINE
	PROPOSED RIGHT-OF-WAY
	PROPOSED FENCE
	PROPOSED SEWER
	PROPOSED STORMWATER
	CLEAN OUT
	MANHOLE
	HEADWALL
	INLET
	ENDWALL
	MANHOLE
	RIP-RAP
	PROPOSED ACCESS EASEMENT
	PROPOSED DRAINAGE EASEMENT
	PROPOSED UTILITY/DRAINAGE EASEMENT
	PROPOSED SNOW PLOW EASEMENT
	EXISTING ELECTRIC EASEMENT
	GATE VALVE
	FIRE HYDRANT
	GAS VALVE
	PROPOSED DOMESTIC WATERLINE
	PROPOSED GASLINE
	PROPOSED CONCRETE/SIDEWALK
	MAJOR
	MINOR
	PROPOSED CONTOURS
	PROPOSED TREELINE
	PROPOSED UTILITY POLE
	PROPOSED LIGHT POLE
	PROPOSED PAVING



TOWN'S EDGE
APARTMENTS, LLC

MANAGER: JOSHUA T. WEBER, P.E.
DESIGN BY: JTW CHECKED BY: RDT
DRAWN BY: RDT CHECKED BY: JTW
SURVEY: M&H PLAN DATE: MARCH 10, 2022
PROJECT #: CH2.21.1



REVISED FINAL SUBDIVISION &
LAND DEVELOPMENT PLAN
FOR
TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)
NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

Utility Plan

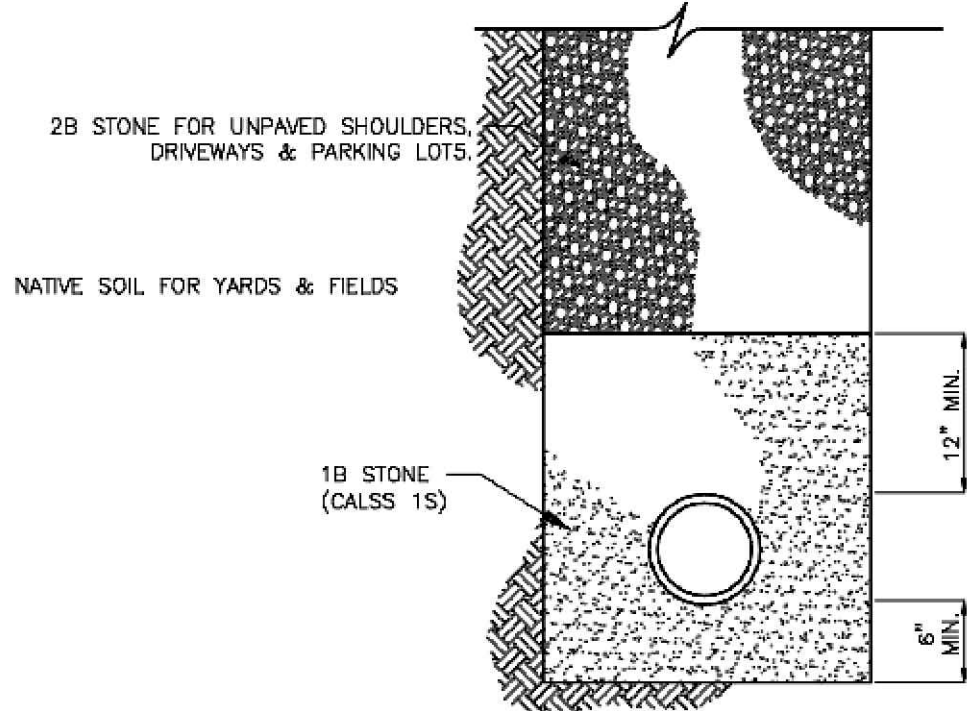
8

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\\christland\Public\Project Files\CH2 - Mike Charles\CH2 21 - Towns Edge Revised Apartments\DWG\PRELIM\FINAL.DWG 3/22/22 4:48 AM

NOTES

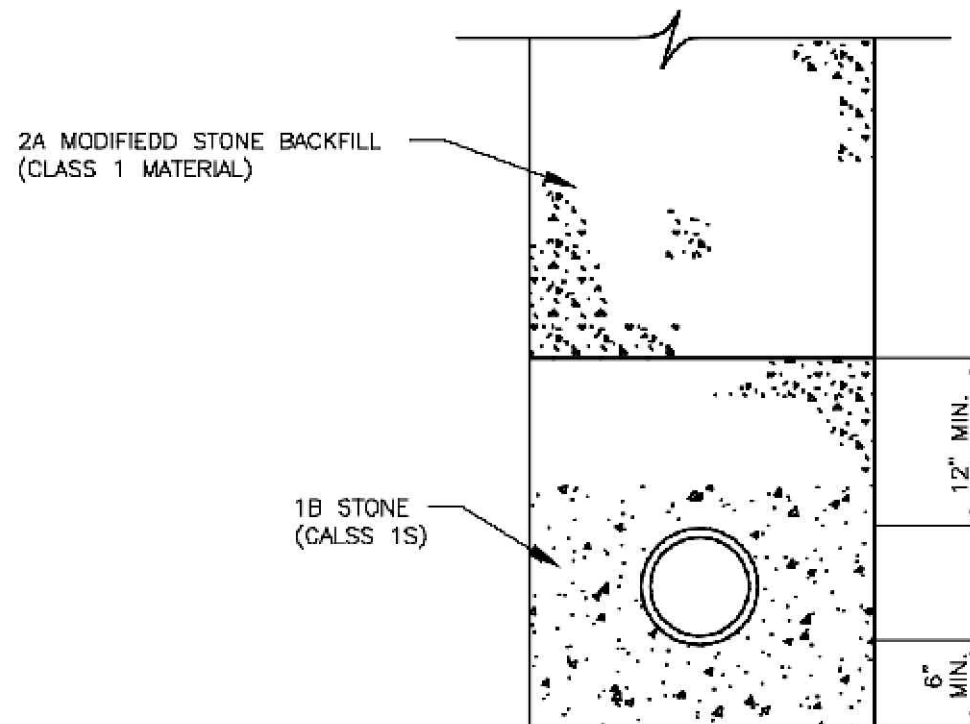
1. THE TRENCHES SHALL BE EXCAVATED TRUE TO LINE SO THAT A CLEAR SPACE NOT LESS THAN 6" NOR MORE THAN 8" IN WIDTH IS PROVIDED ON EACH SIDE OF THE BARREL OF THE PIPE. IF SHEETING IS REQUIRED, THE FORGOING DIMENSIONS SHALL BE APPLICABLE TO THE INSIDE FACES OF THE SHEETING.
2. FOR MORE DETAIL ON TRENCHING, BACKFILLING & COMPACTING SEE SECTION 02221 OF P.U.C.A.
3. IN STONE BACKFILL WAIVER IS GRANTED SEE NLTMA 1031 DETAIL.



OTHER THAN ROADWAYS AND PAVED SHOULDERS

NOTES

1. THE TRENCHES SHALL BE EXCAVATED TRUE TO LINE SO THAT A CLEAR SPACE NOT LESS THAN 6" NOR MORE THAN 8" IN WIDTH IS PROVIDED ON EACH SIDE OF THE BARREL OF THE PIPE. IF SHEETING IS REQUIRED, THE FORGOING DIMENSIONS SHALL BE APPLICABLE TO THE INSIDE FACES OF THE SHEETING.
2. FOR MORE DETAIL ON TRENCHING, BACKFILLING & COMPACTING SEE SECTION 02221 OF P.U.C.A.
3. IN STONE BACKFILL WAIVER IS GRANTED SEE NLTMA 1031 DETAIL.



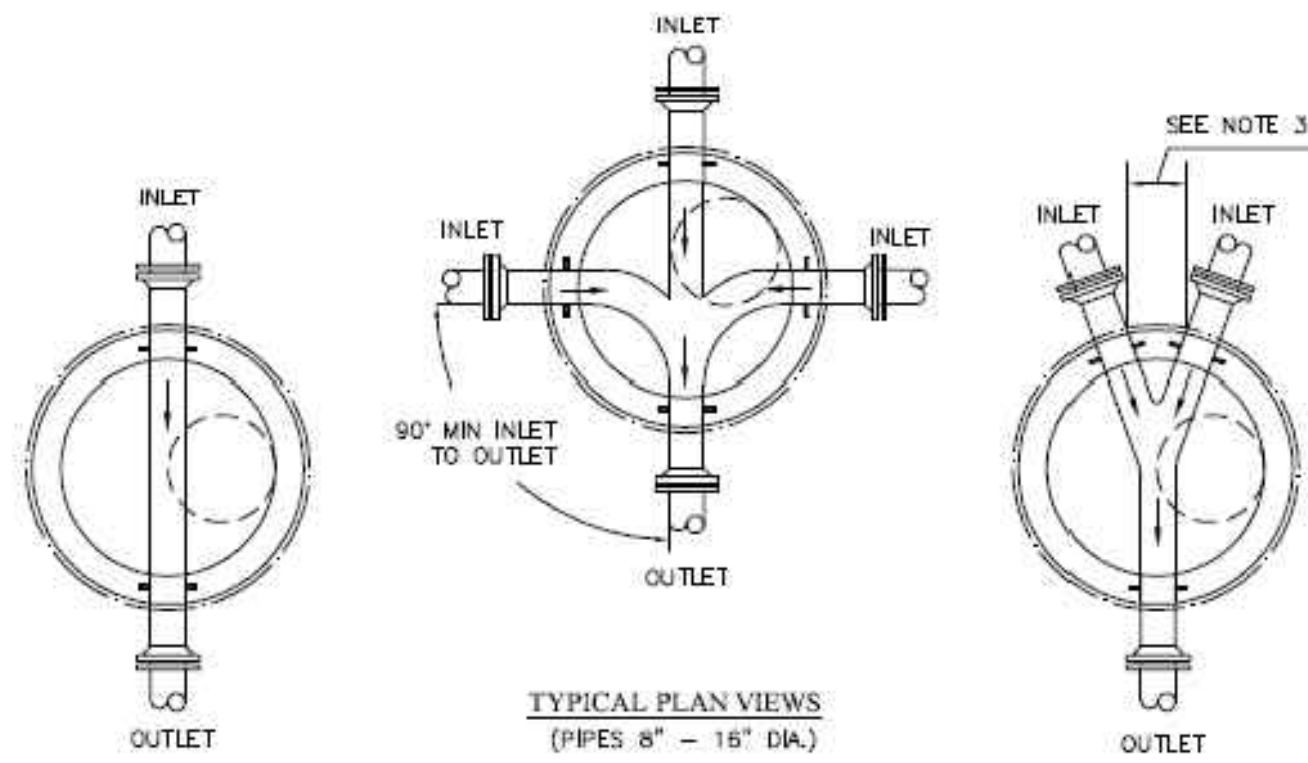
ALL ROADWAYS & PAVED SHOULDERS

NOTES

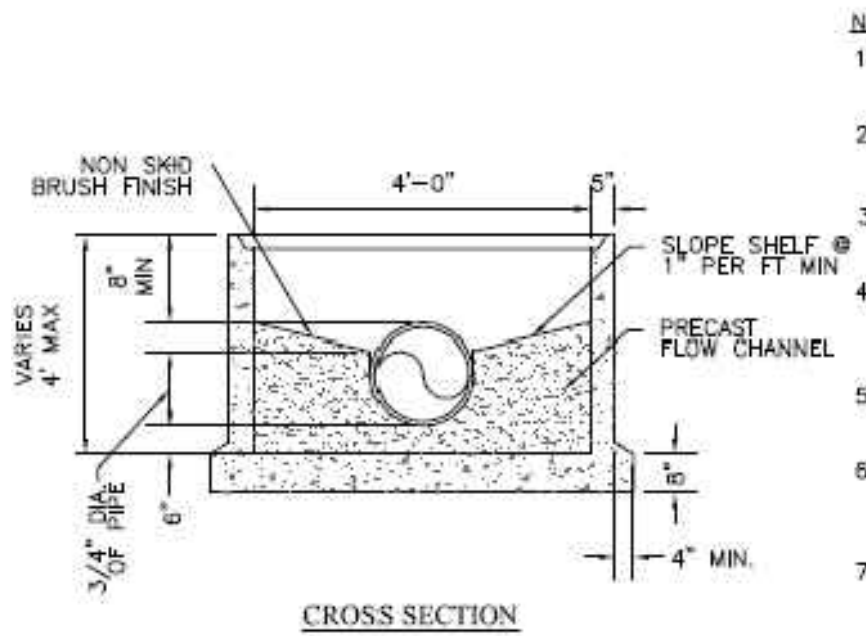
1. TYPICAL NLTMA TRENCH BACKFILL DETAILS FOR SANITARY SEWERS ONLY. SEE OTHER DETAIL SHEETS FOR BACKFILL AND TRENCH RESTORATION REQUIREMENTS FOR WATER LINES AND OTHER MISC. STREET RESTORATION.
2. WHERE SANITARY SEWERS ARE PLACED ON FILL, FILL MATERIAL SHALL BE PENNDOT 2A MODIFIED OF 2RC COARSE AGGREGATE PLACED IN 8-INCH LAYERS AND COMPACTED TO 100% OF MAXIMUM DRY DENSITY BASED ON ASTM D698, METHOD C.

NLTMA TYPICAL TRENCH BACKFILL DETAIL

NOT TO SCALE



TYPICAL PLAN VIEWS (PIPES 8" - 16" DIA.)



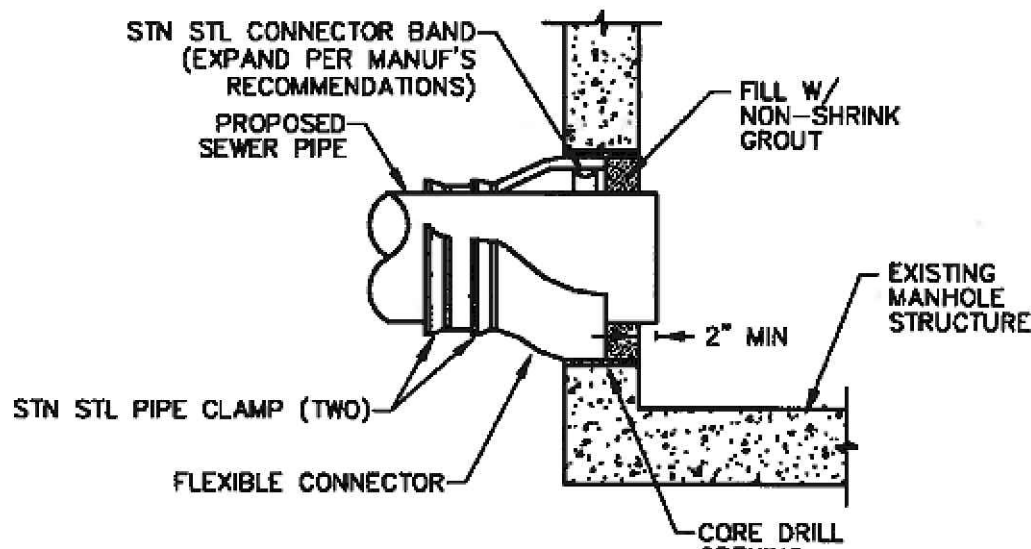
CROSS SECTION

NOTES

1. THREE INLET PIPES AND ONE OUTLET PIPE MAX INTO 4" DIA. MANHOLE.
2. NO LATERALS INTO MANHOLES, EXCEPT BY SPECIAL EXCEPTION FROM NLTMA.
3. MINIMUM 12" SEPARATION FROM EDGE OF PIPE PENETRATION TO EDGE OF PIPE PENETRATION.
4. MINIMUM CHANNEL DROP THROUGH MANHOLE: STRAIGHT THROUGH - 0.1 FEET BEND - 0.2 FEET
5. ALL CHANNELS SHALL BE PRECAST, UNLESS APPROVED OTHERWISE BY THE NLTMA.
6. THESE DETAILS APPLY TO PRECAST CHANNELS IN NEW MANHOLES, AND FIELD-FORMED CHANNELS IN EXISTING MANHOLES.
7. CHANNELS SHALL MATCH THE CROSS-SECTIONAL DIMENSIONS OF THE PIPES ENTERING AND EXITING THE MANHOLE. SMOOTH TRANSITIONS SHALL BE PROVIDED BETWEEN CHANGES IN PIPE SIZE.

NLTMA PRECAST MANHOLE BASE DETAIL

NOT TO SCALE

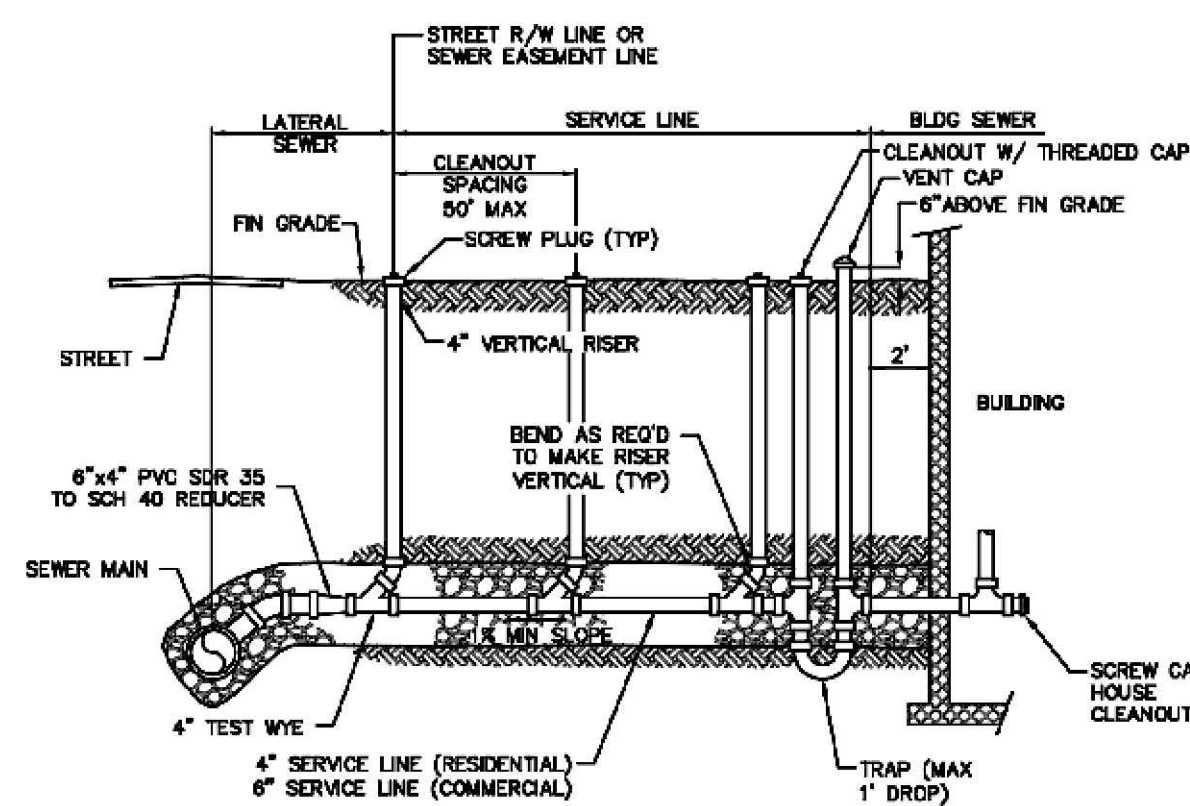


PIPE TO MANHOLE CONNECTOR DETAIL

NOT TO SCALE

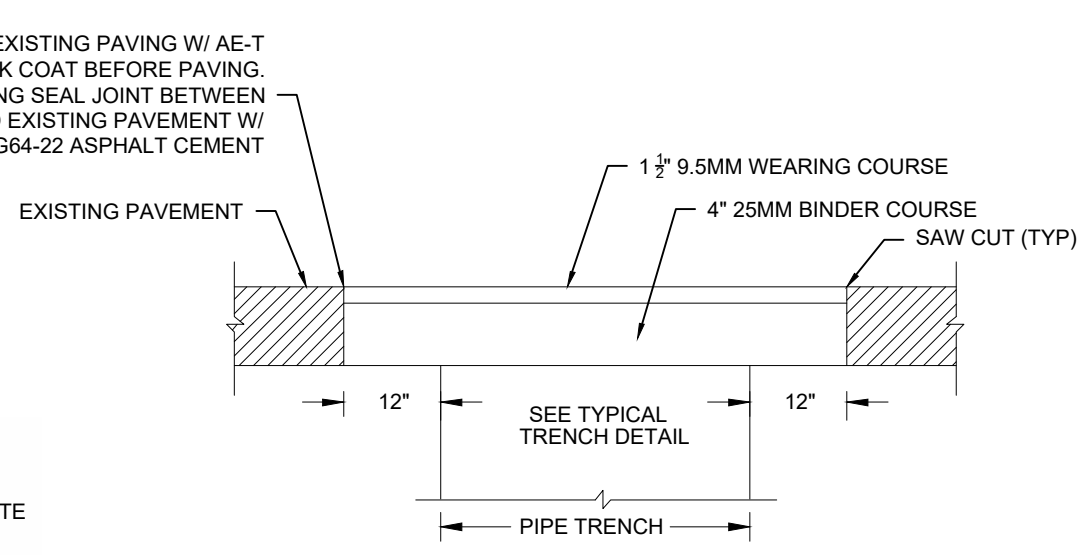
NOTES

1. PROVIDE 6" OF AASHTO NO. 8 (1/2) STONE BELOW PIPE AND 12" ABOVE PIPE (TYPICAL ENTIRE LENGTH OF LATERAL)
2. MINIMUM SLOPE - 1% (1/8" PER FT)
3. MINIMUM DEPTH OF COVER - 3 FT
4. PIPE MATERIALS: LATERAL SEWER - PVC SDR 35 BUILDING SEWER - PVC SCH 40
5. ALL RISERS SHALL BE SOLVENT WELDED.



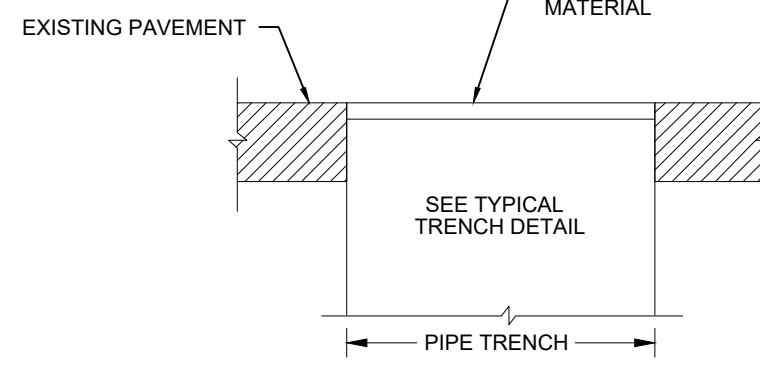
NLTMA TYPICAL BUILDING LATERAL DETAIL

NOT TO SCALE



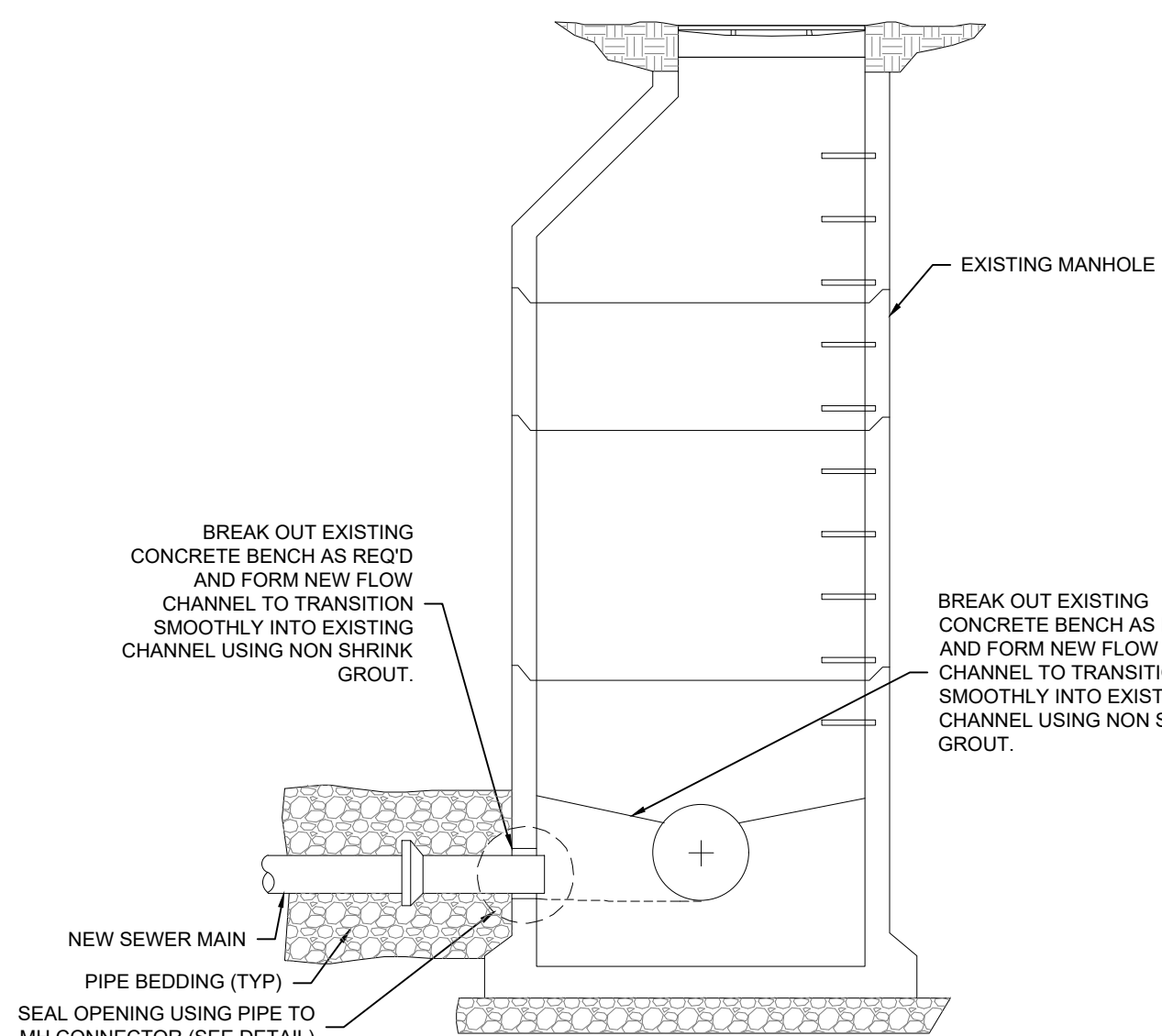
TOWNSHIP ROAD PAVEMENT REPLACEMENT

NOT TO SCALE



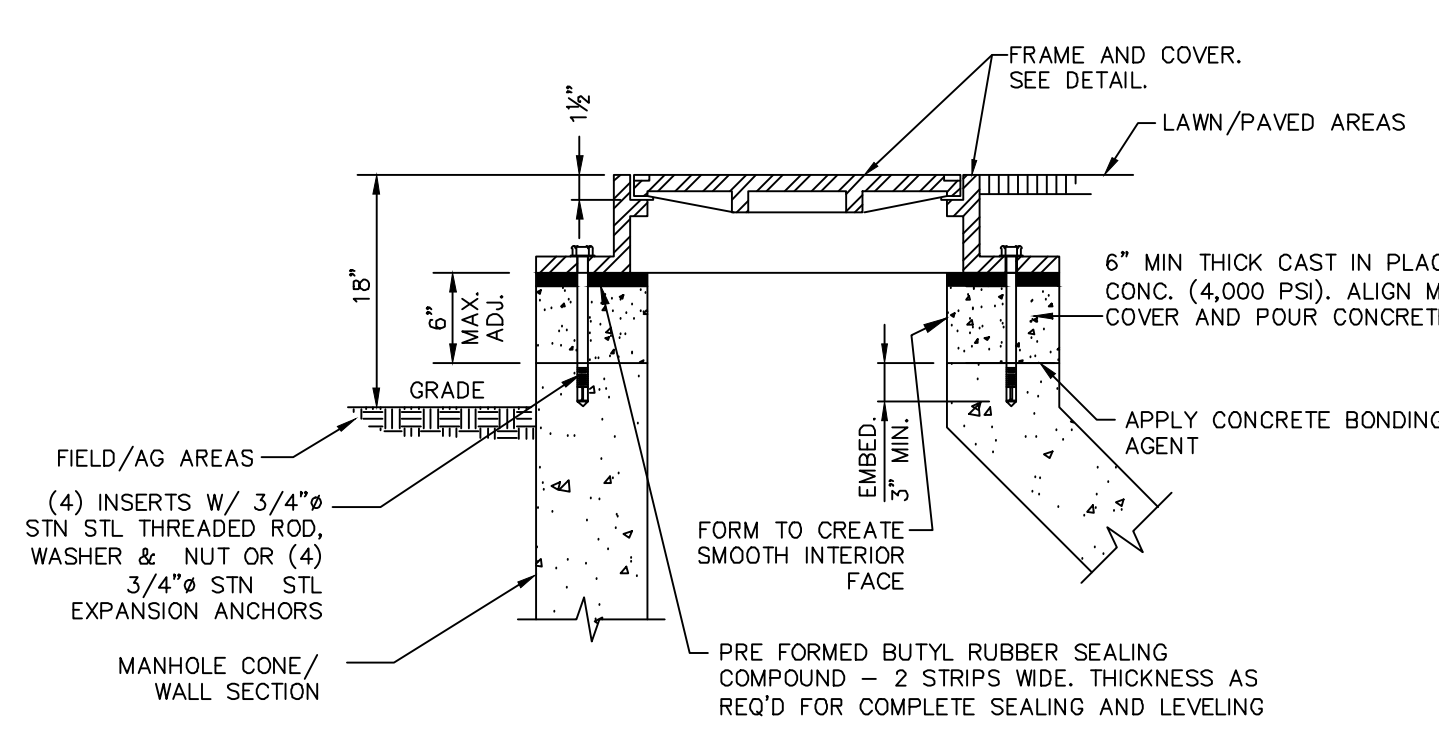
TEMPORARY PAVEMENT REPLACEMENT

NOT TO SCALE

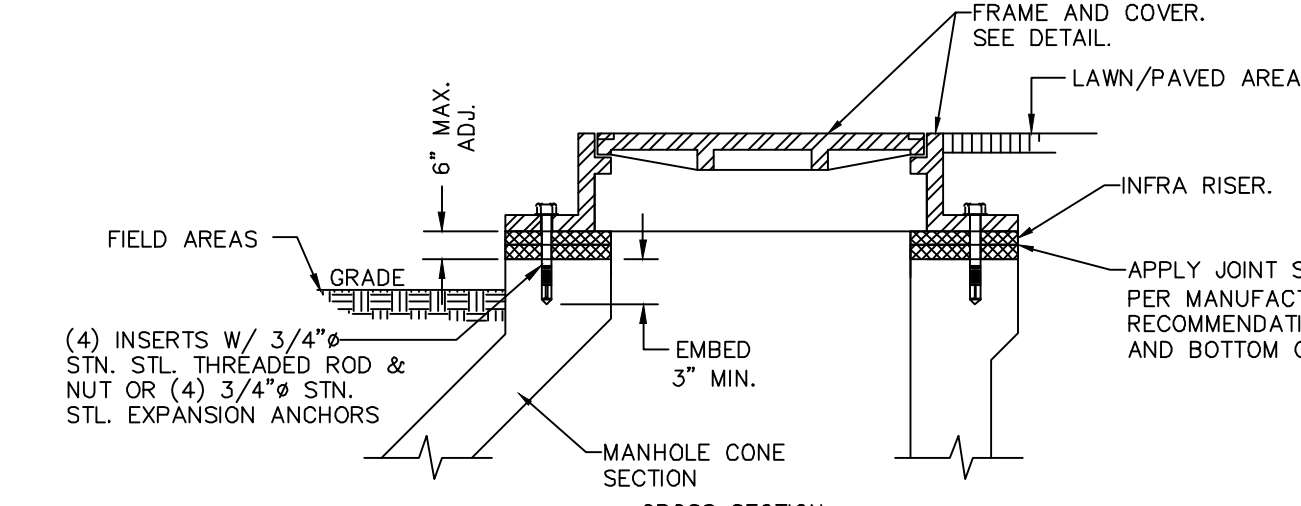


NLTMA MANHOLE BREAK IN CONNECTION DETAIL

NOT TO SCALE



OPTION 1 - CAST-IN-PLACE CONCRETE RISER



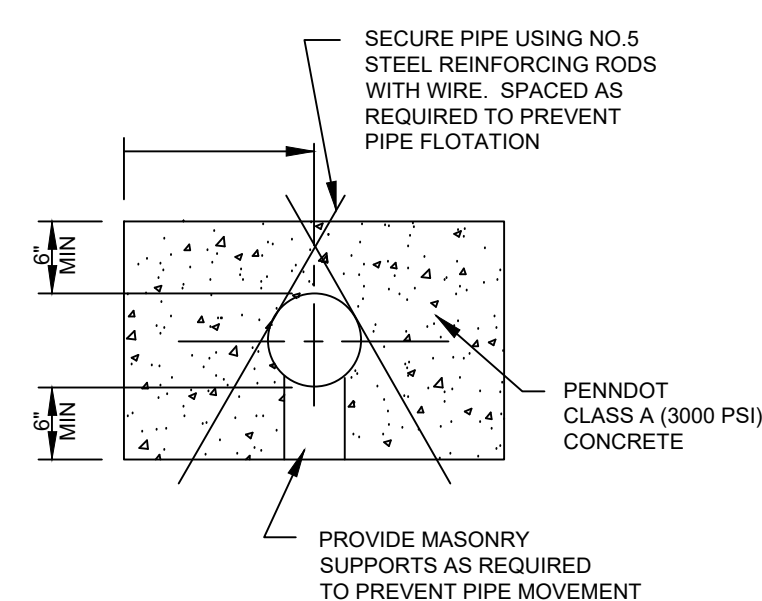
OPTION 2 - RUBBER RISERS

NOTES

1. CONTRACTOR HAS OPTION TO PROVIDE ANY OF THE OPTIONS INDICATED.
2. TAPER GRADE RINGS TO MATCH ROAD PROFILE IN PAVED AREAS.

MANHOLE GRADE RINGS DETAIL

NOT TO SCALE

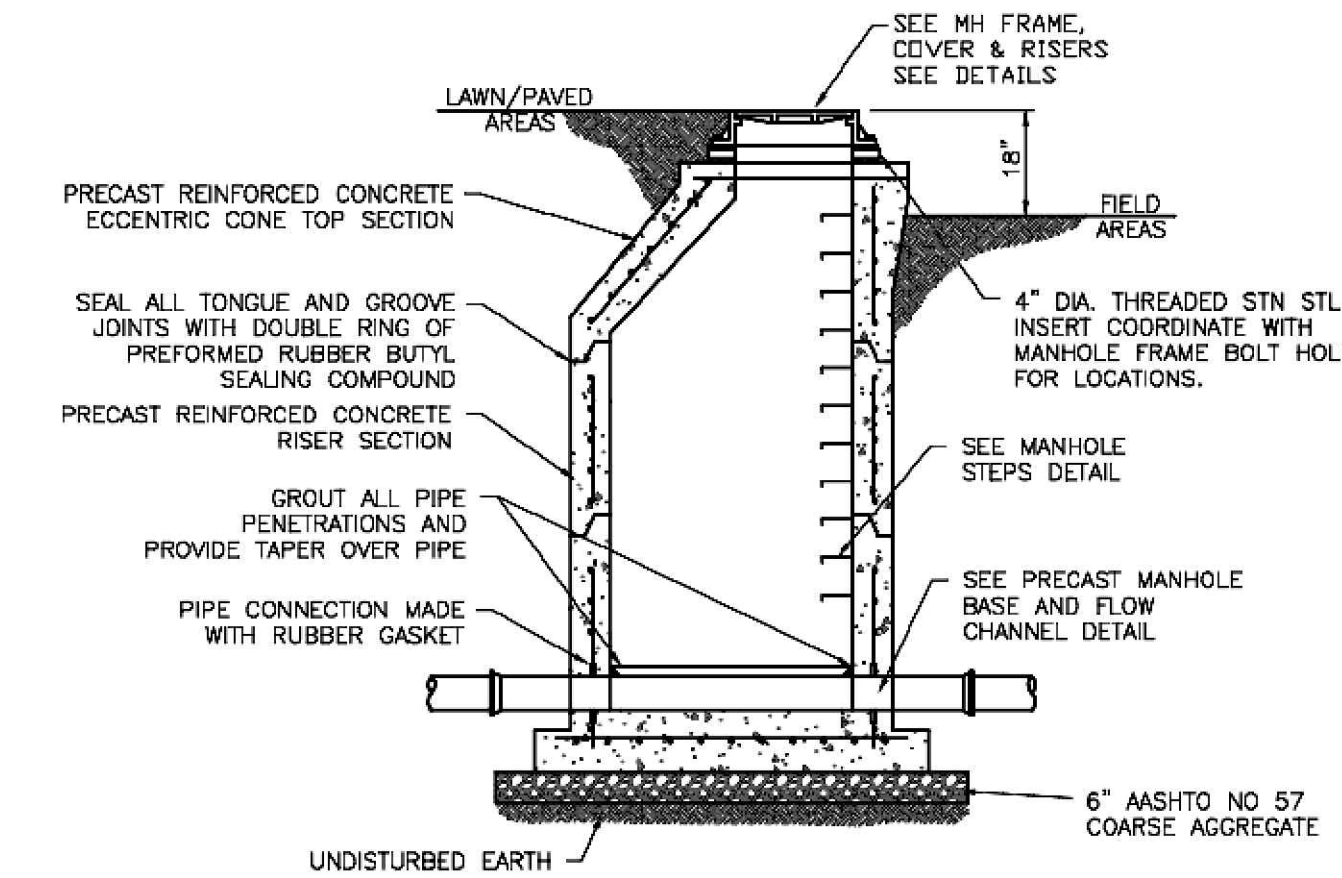


CONCRETE ENCASEMENT DETAIL

NOT TO SCALE

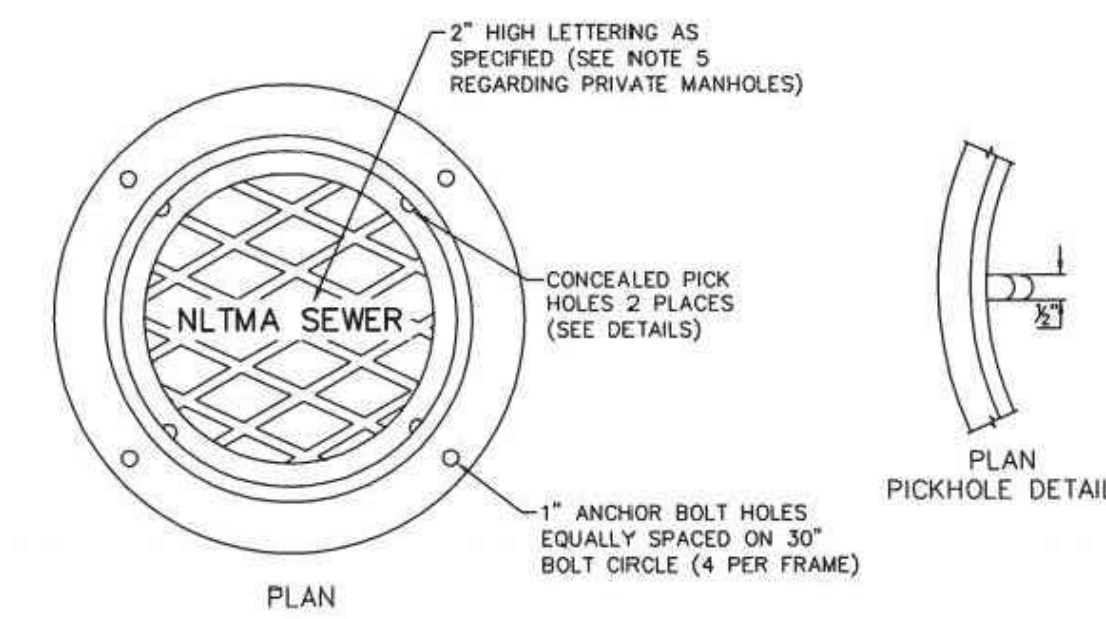
NOTES

1. PRECAST CONCRETE SHALL CONFORM TO ASTM C478. CONCRETE SHALL BE MECHANICALLY VIBRATED. FOR ADDITIONAL DETAILS SEE NLTMA STANDARD CONSTRUCTION AND MATERIAL SPECIFICATIONS FOR SANITARY SEWER EXTENSIONS.
2. ADJUST TO GRADE ACCORDING TO DETAIL. MAXIMUM GRADE RING ADJUSTMENT SHALL BE 6". SEE MANHOLE FRAME AND COVER DETAILS FOR GRADE RING DETAILS.
3. USE FLAT TOPS IN LIEU OF CONE TOPS WHERE MANHOLE DEPTH (TOP OF RIM TO INVERT) IS 5'-0" OR LESS.
4. FILL ALL LIFTING HOLES WITH NON SHRINK GROUT PRIOR TO BACKFILLING.
5. PROVIDE MANHOLE INSERTS FOR ALL MANHOLES. SEE MANHOLE FRAME AND COVER DETAILS FOR ADDITIONAL DETAILS.
6. ALL MANHOLE FRAMES SHALL BE BOLTED TO MANHOLE. SEE MANHOLE FRAME AND COVER DETAILS FOR ADDITIONAL DETAILS.

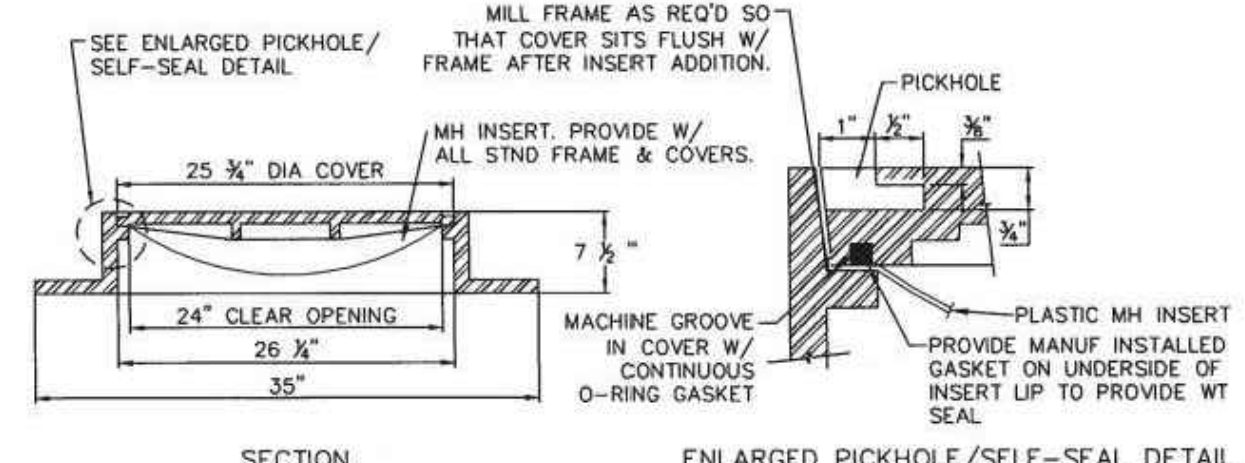


PRECAST CONCRETE MANHOLE 8"-24" SEWERS

NOT TO SCALE



PLAN



SECTION

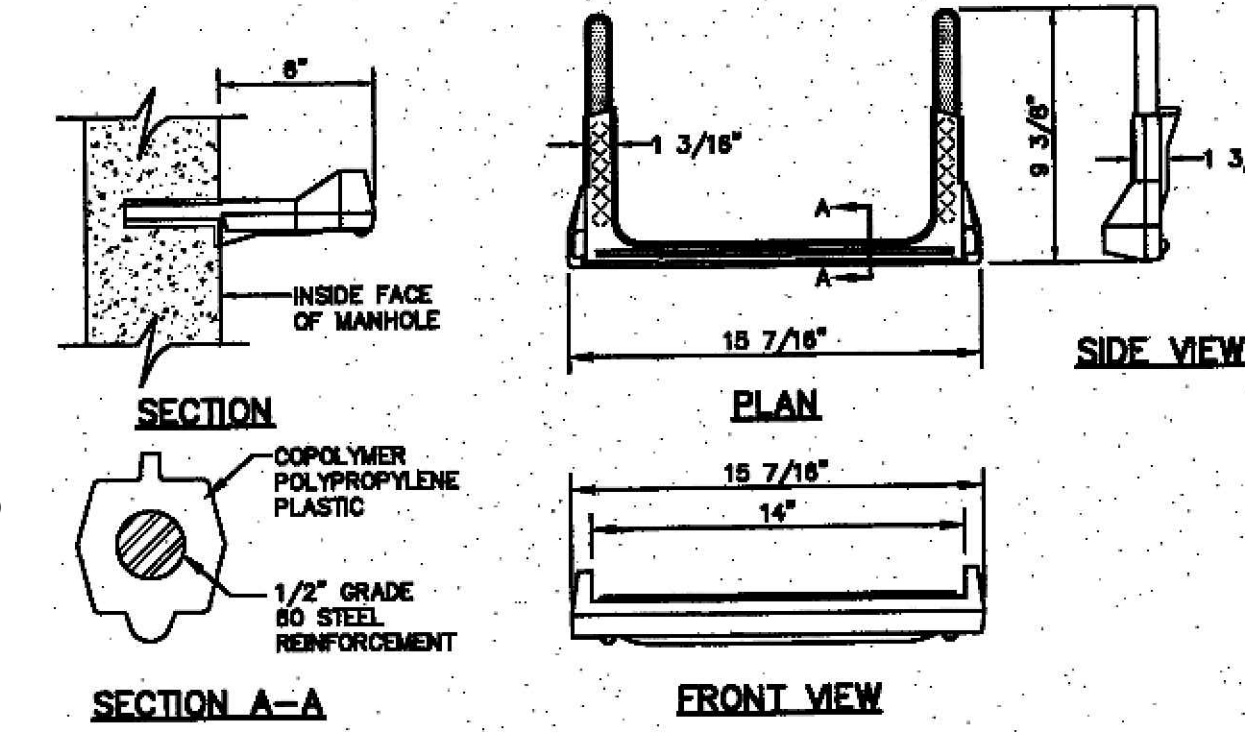
ENLARGED PICKHOLE/SELF-SEAL DETAIL

NOTES

1. CAST IRON MEETS ASTM SPEC A-48 CLASS 35B, AASHTO HIGHWAY LOADING HS - 20.
2. APPROVED MANUFACTURER: NEENAH FOUNDRY COMPANY MODEL R - 1643. NO SUBSTITUTIONS ALLOWED UNLESS OTHERWISE APPROVED BY NLTMA.
3. LOW PROFILE FRAME AND COVERS SHALL ONLY BE USED FOLLOWING APPROVAL BY NLTMA DUE TO RISER AND ADJUSTMENT LIMITATIONS.
4. APPLY ANTI-SEIZE COMPOUND TO ALL THREADED SURFACES.
5. LETTERING FOR PRIVATE MANHOLES SHALL BE "PRIVATE SEWER".

NLTMA MANHOLE FRAME AND COVER DETAIL

NOT TO SCALE



POLYPROPYLENE MANHOLE STEPS DETAIL

NOT TO SCALE

DATE: 3/22/22
BY: JTW
DATE: 4/20/22
BY: JTW
DATE: 4/20/22
BY: JTW

REVISION: 3/22/22
PER SSI LETTER DATED 3/22/22
PER SSI LETTER DATED 4/15/22
PER LCPD LETTER DATED 4/11/22

TOWN'S EDGE APARTMENTS, LLC

MANAGER: JOSHUA T. WEBER, P.E.
DESIGN BY: JTW CHECKED BY: RDT
DRAWN BY: RDT CHECKED BY: JTW
SURVEY: M&H PLAN DATE: MARCH 10, 2022
PROJECT #: CH2.21.1



Chrisland Engineering, Inc.
602 Cornwall Road, Lebanon, PA 17042
www.chrislandengineering.com

REVISED FINAL SUBDIVISION & LAND DEVELOPMENT PLAN

FOR

TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)

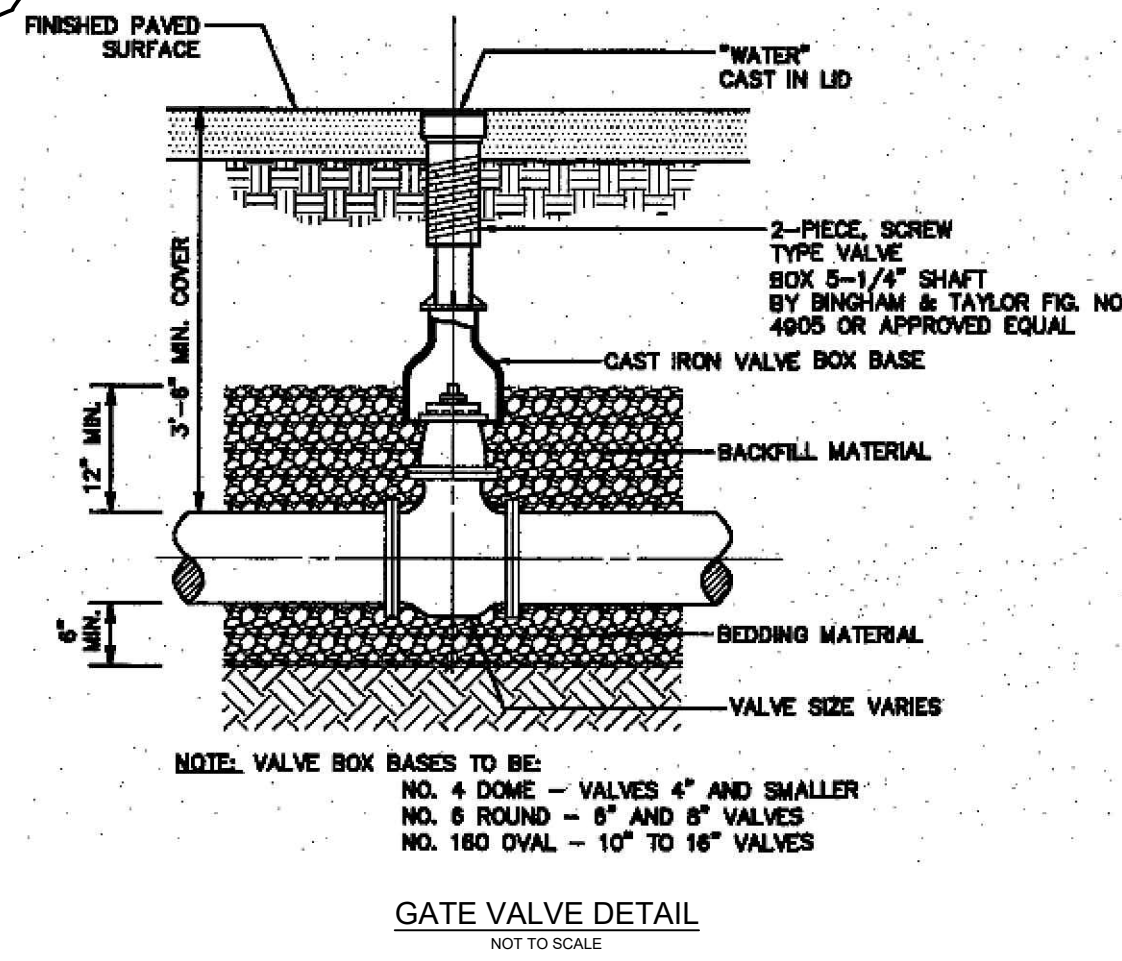
NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

Sewer Details

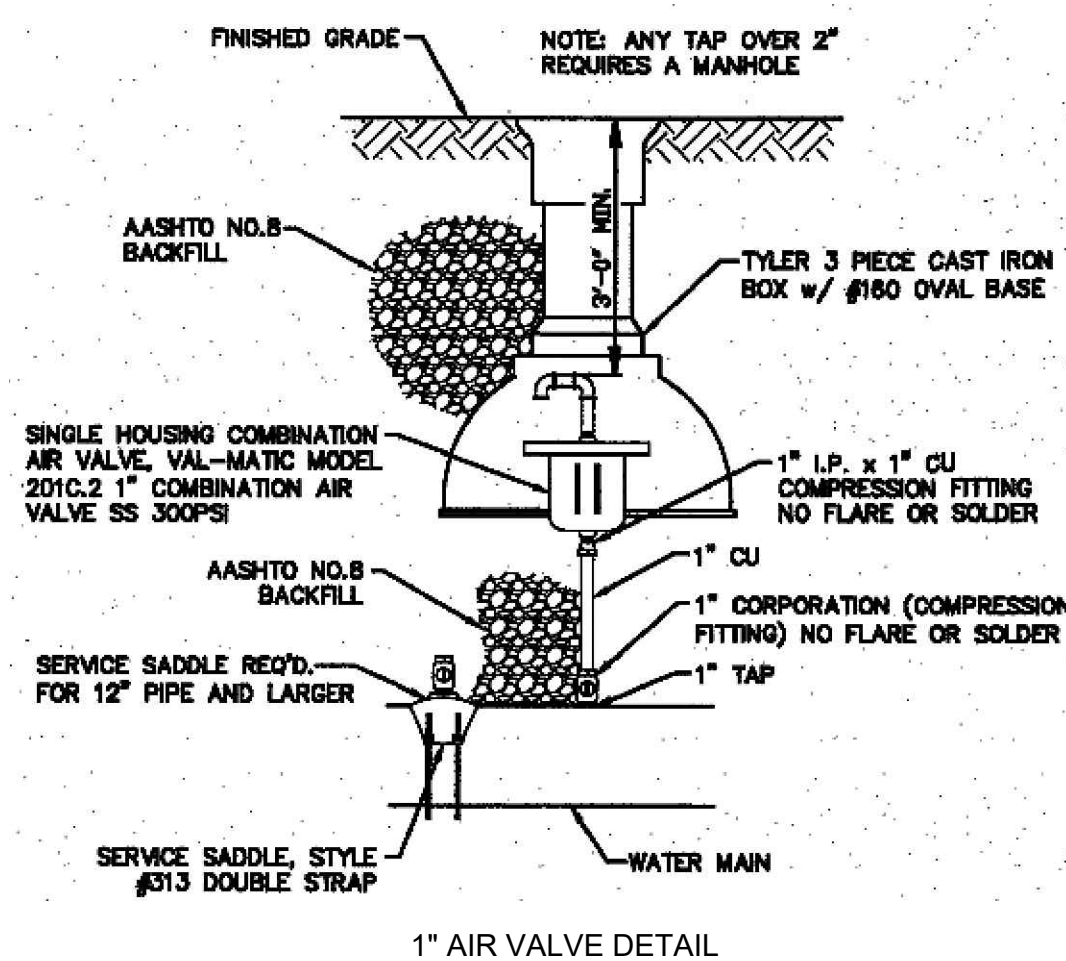
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OF 23

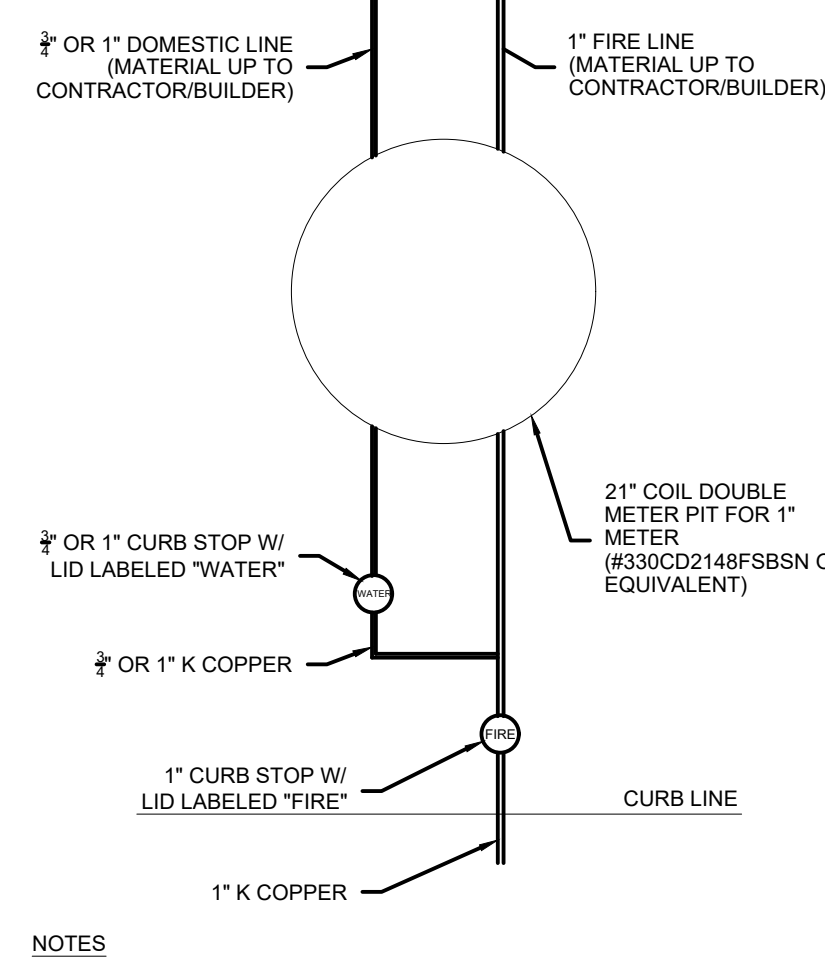
\\christland\Public\Project Files\CH2 - Mike Charles\CH2 21 - Towns Edge Revised Apartments\DWG\PRELIM\FINAL LD PLAN\dwg\022 1-48 AM



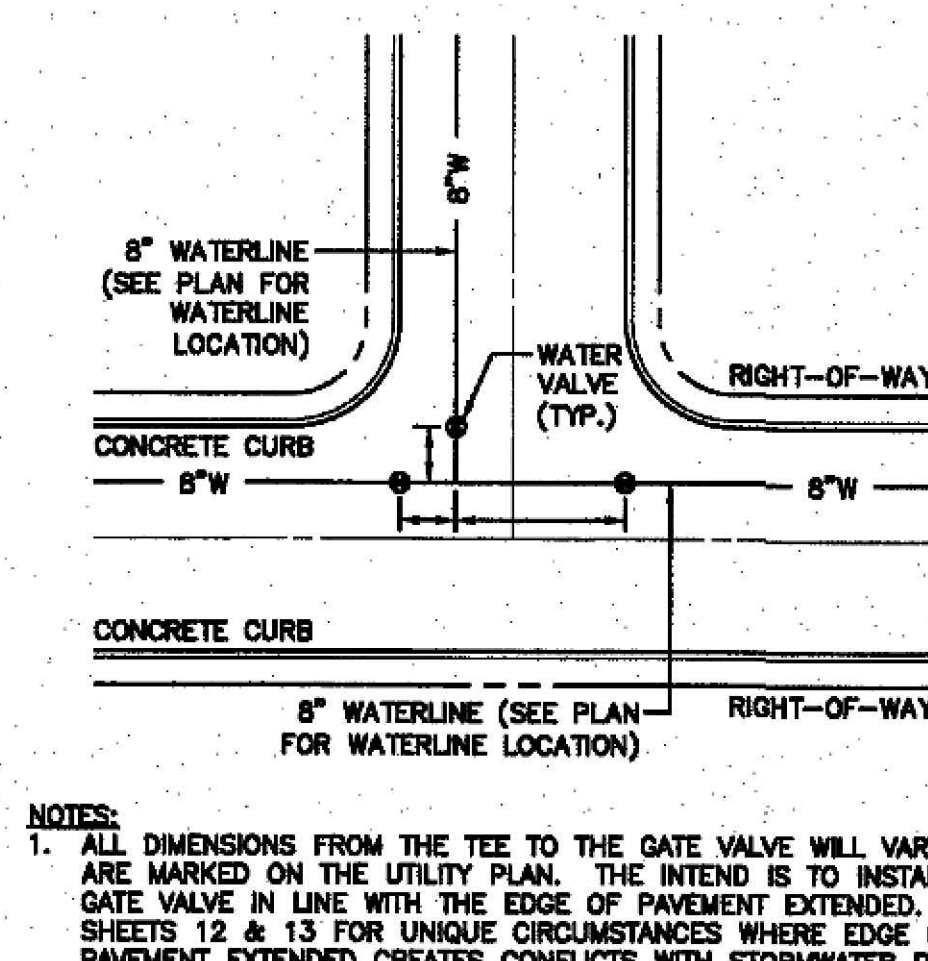
GATE VALVE DETAIL
NOT TO SCALE



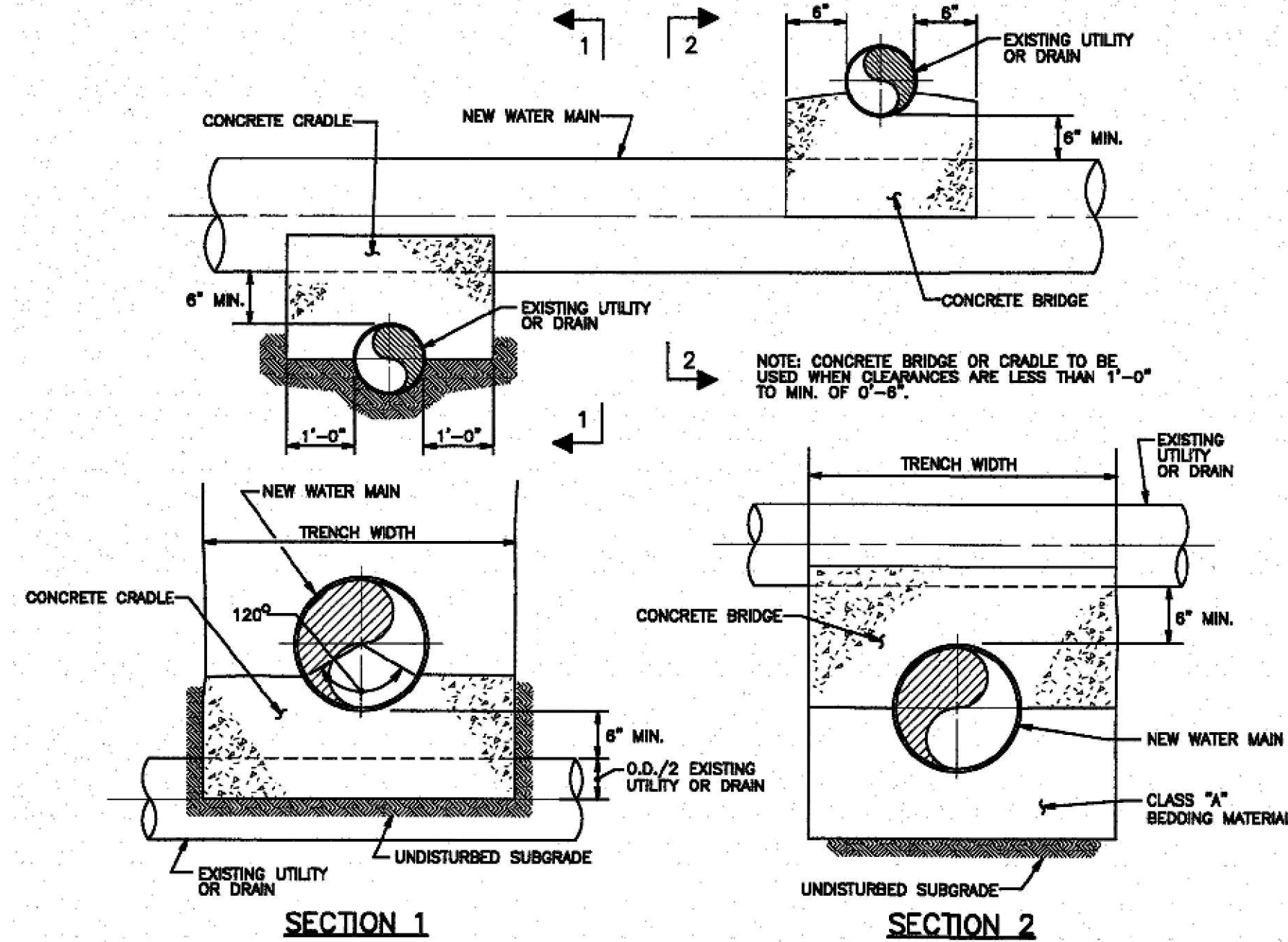
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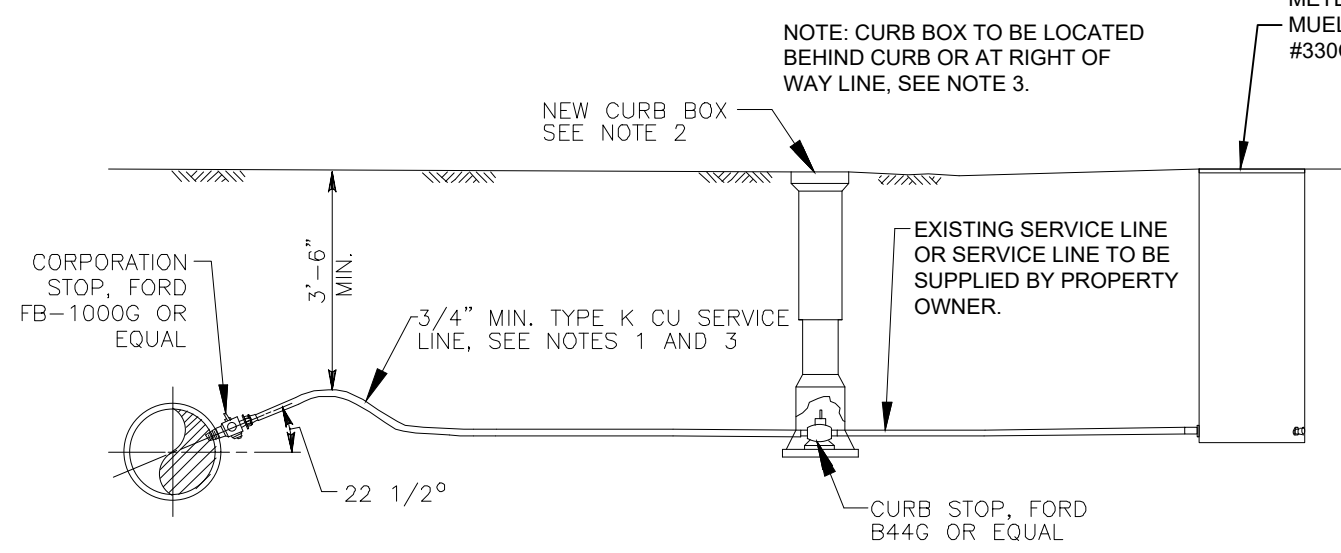
DOMESTIC/FIRE LINE DETAIL
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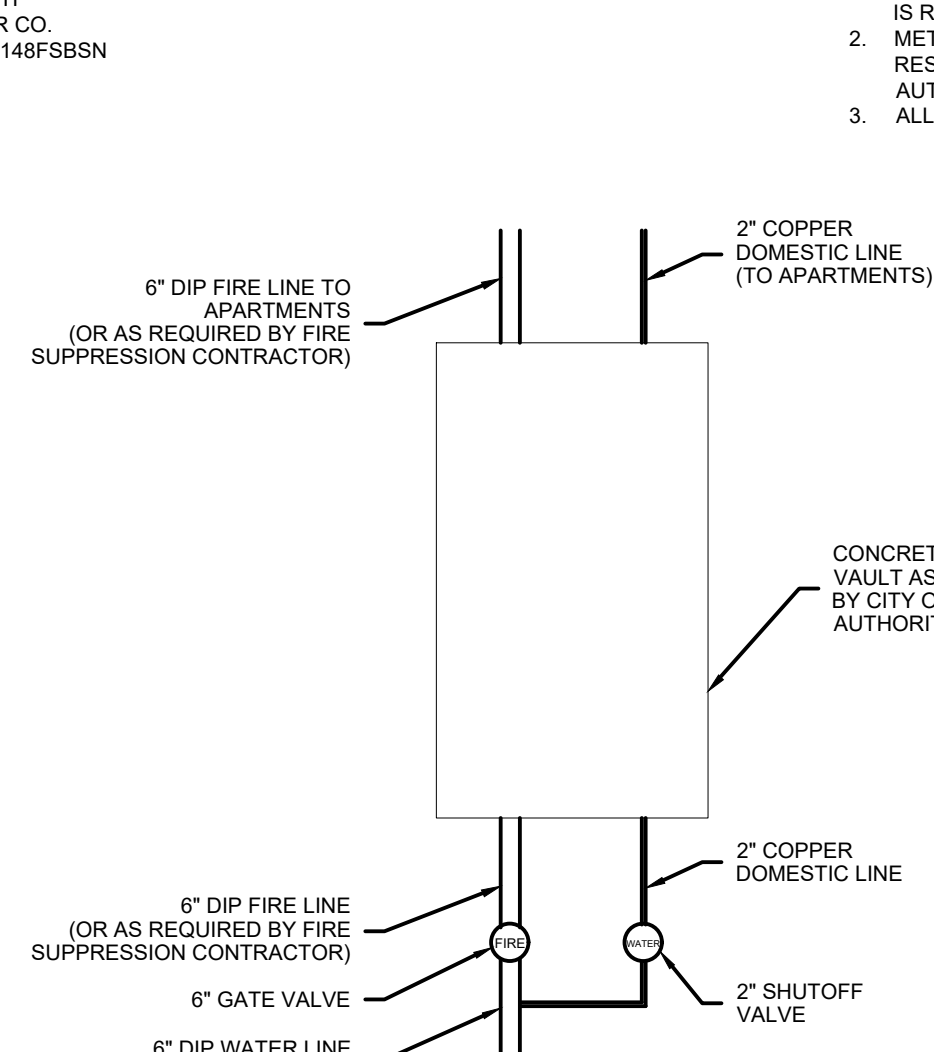
WATER VALVE LOCATION DETAIL
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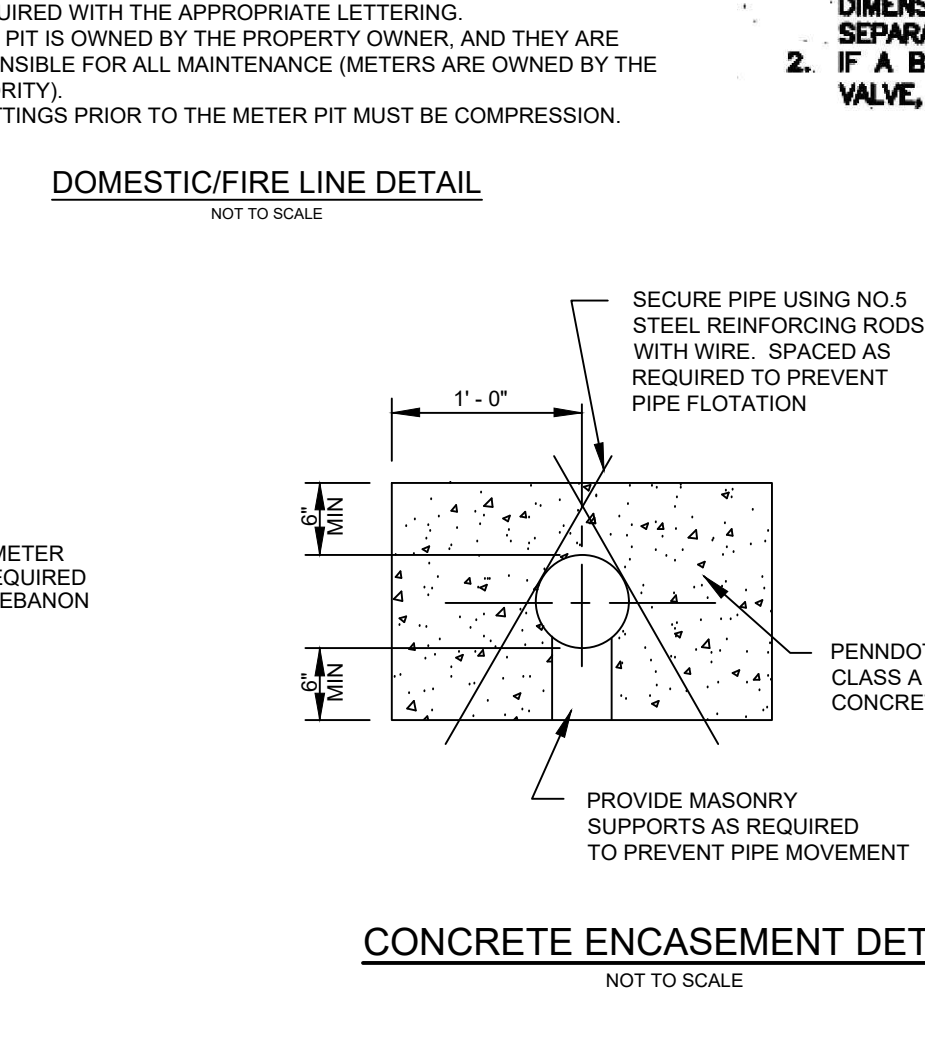
CONCRETE CRADLE AND BRIDGE DETAIL
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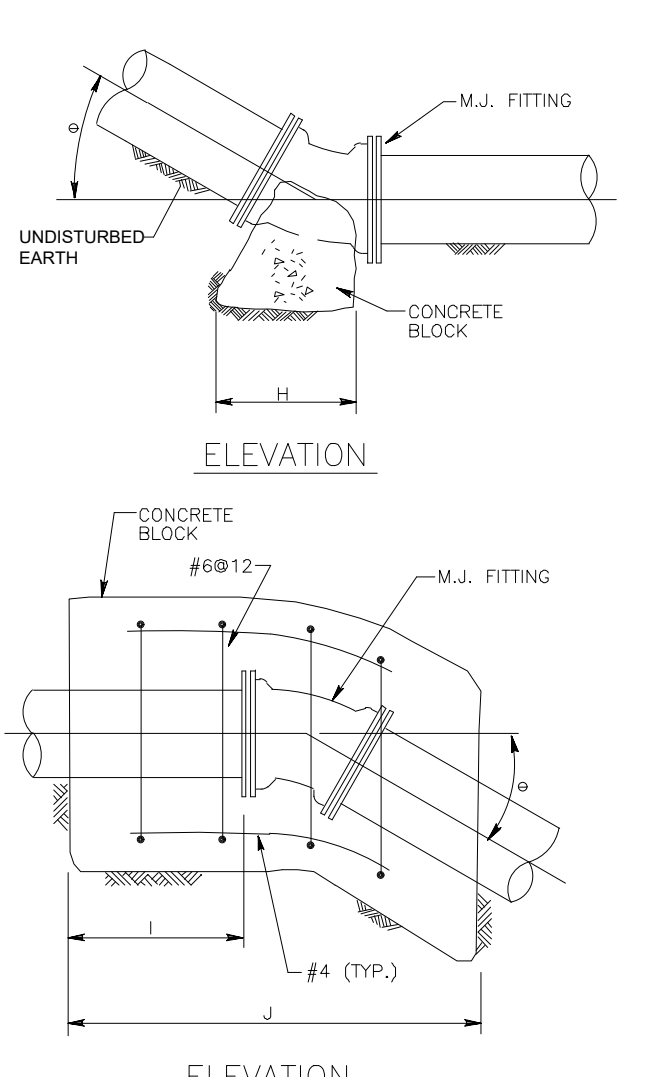
TYPICAL WATER SERVICE WITH METER PIT
CONNECTION DETAIL
NOT TO SCALE



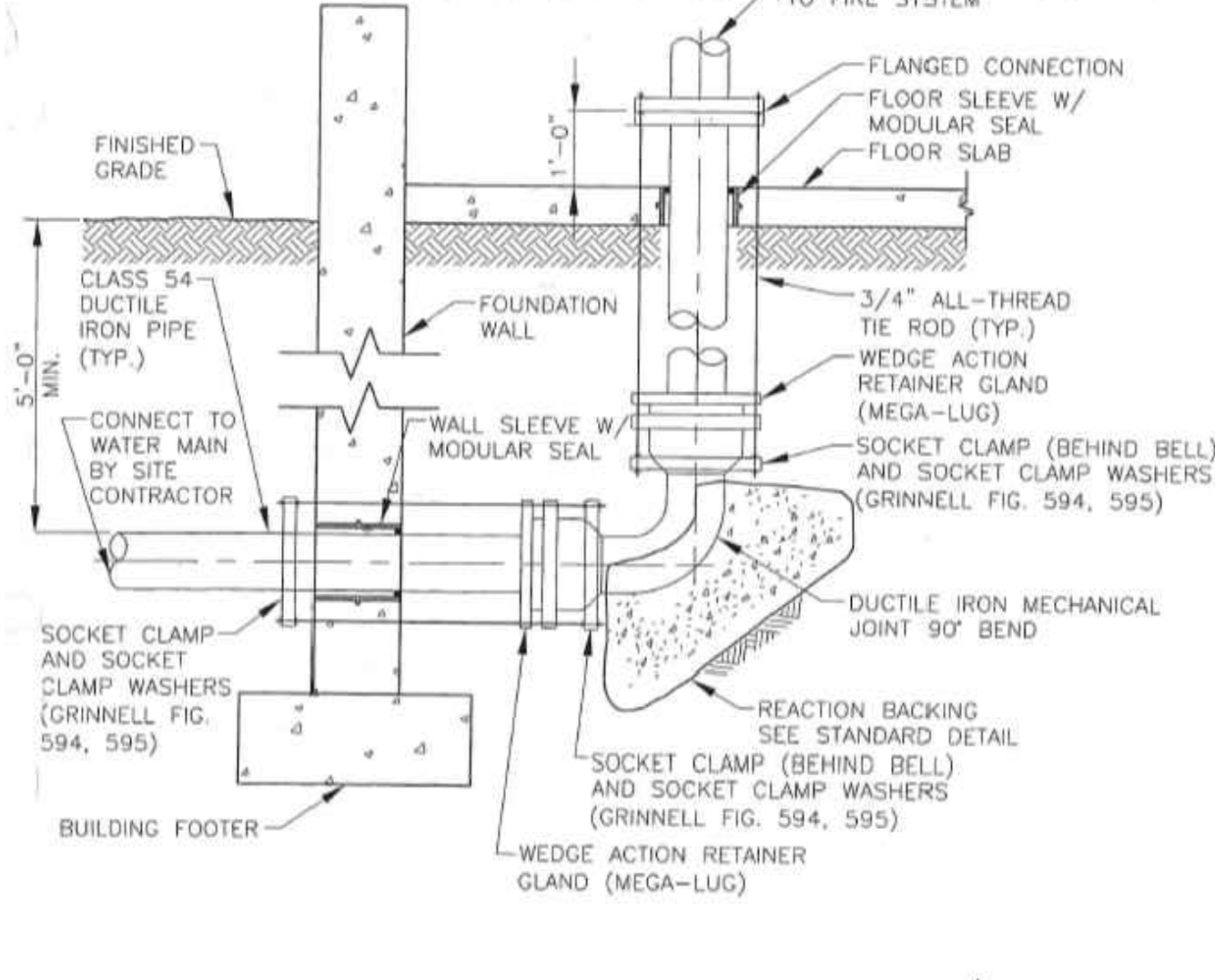
WATER LINE ENLARGEMENT DETAIL (APARTMENTS)
NOT TO SCALE



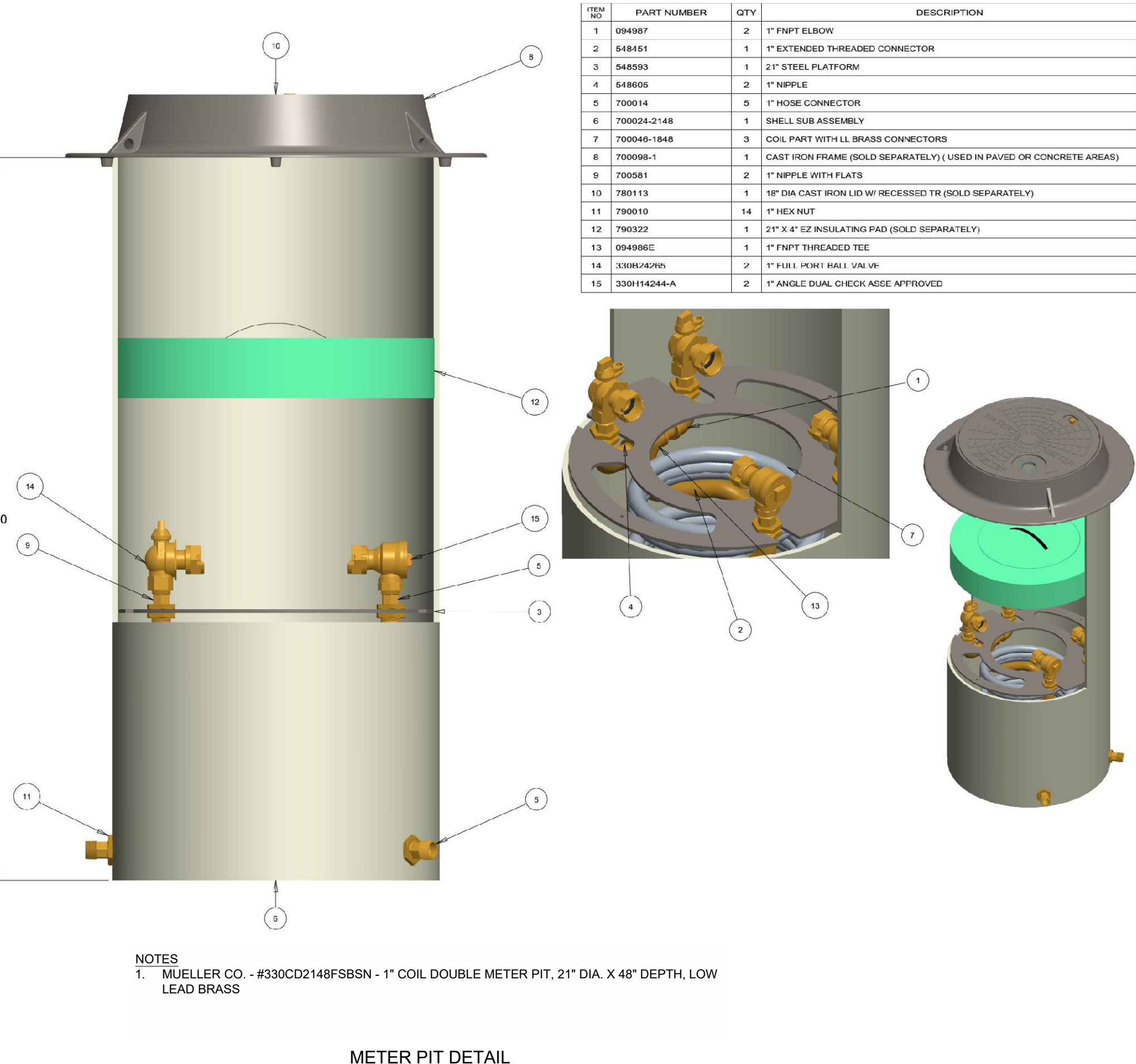
CONCRETE ENCASUREMENT DETAIL
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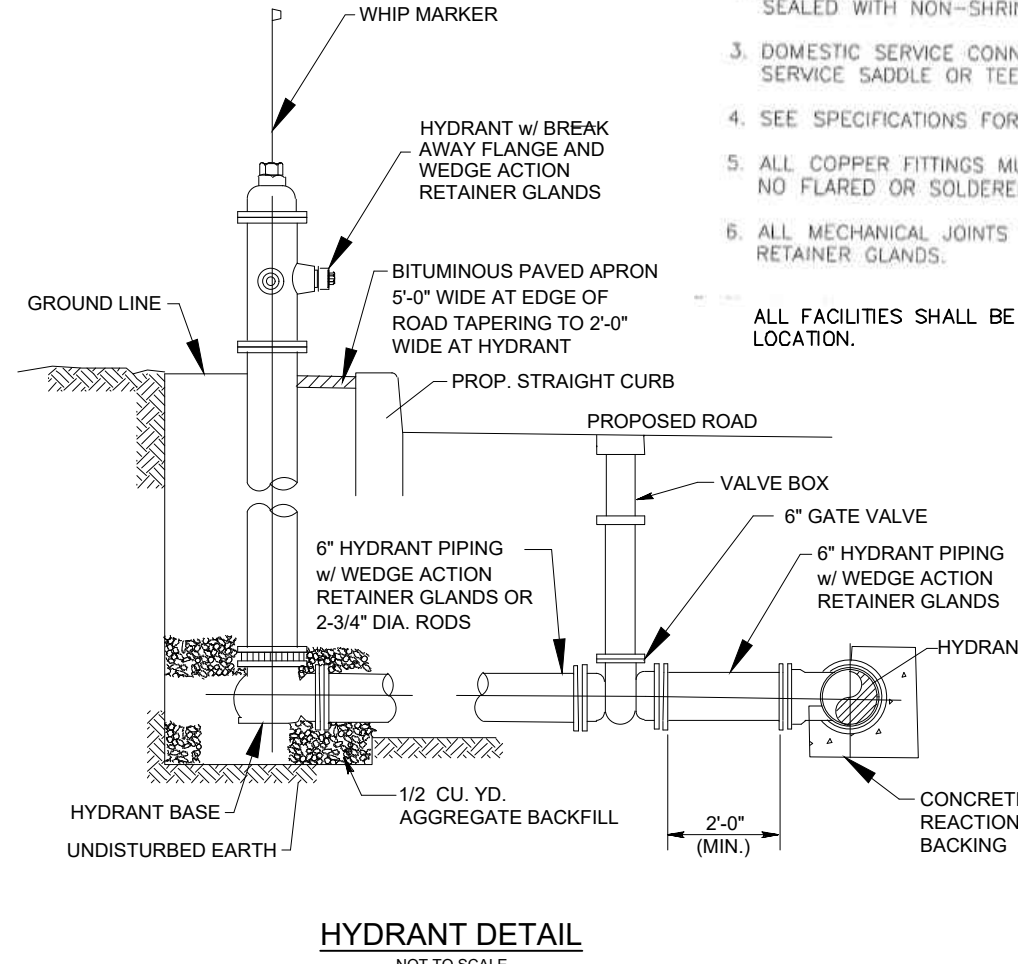
VERTICAL BACKING REACTION DETAILS
NOT TO SCALE



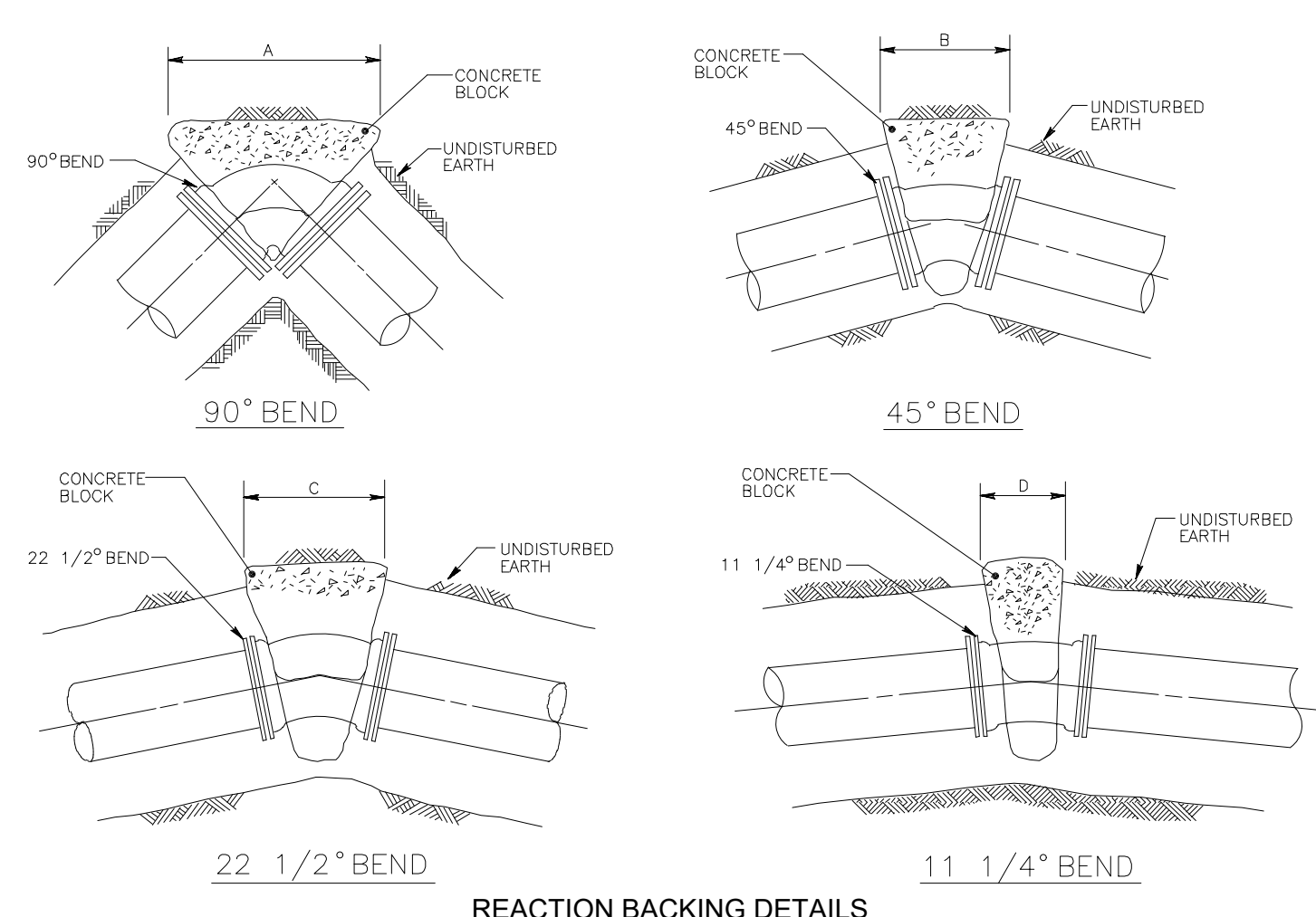
FIRE HYDRANT DETAIL
NOT TO SCALE



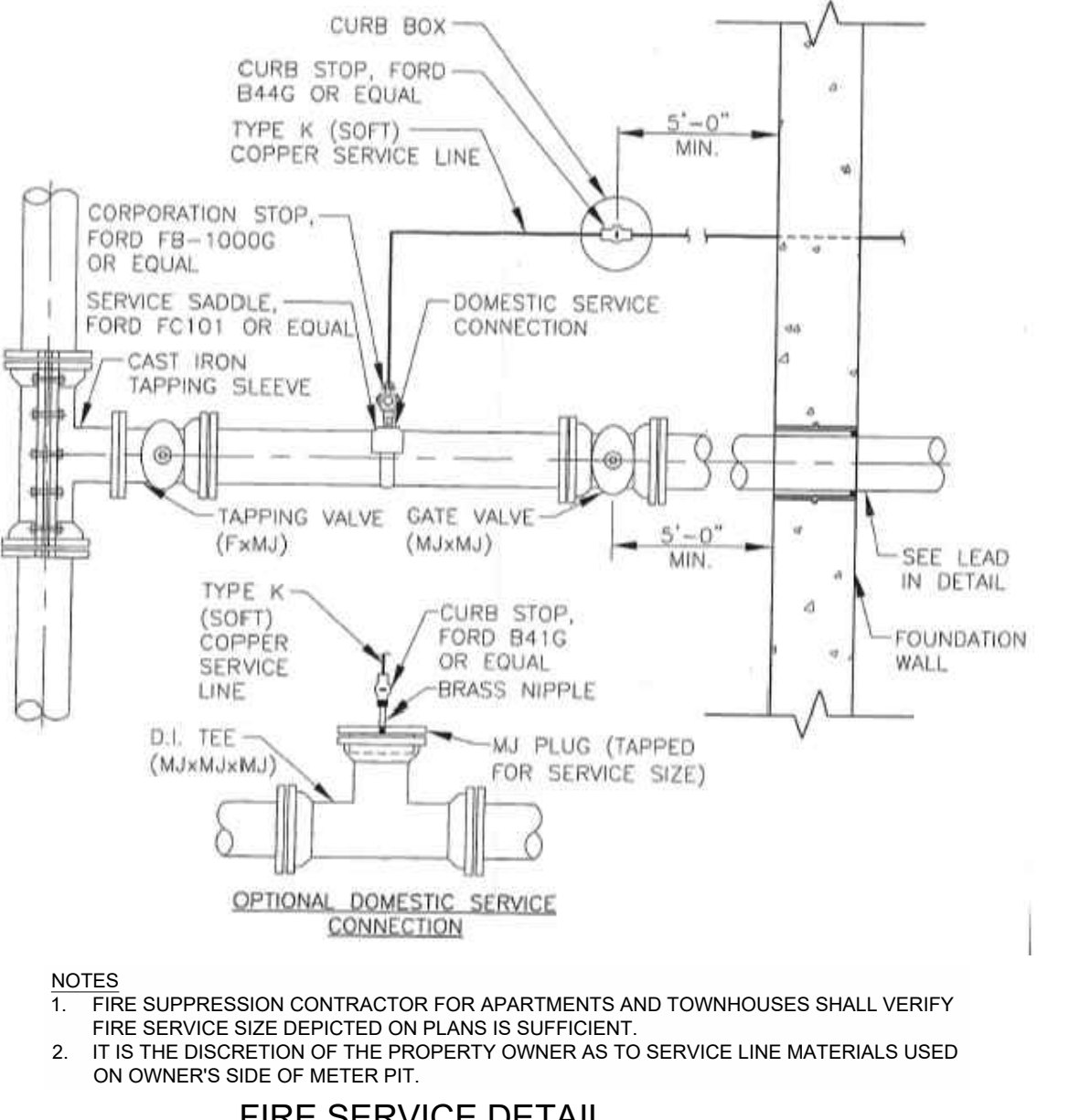
METER PIT DETAIL
NOT TO SCALE



HYDRANT DETAIL
NOT TO SCALE



REACTION BACKING DETAILS
NOT TO SCALE



FIRE SUPPRESSION DETAIL
NOT TO SCALE

ITEM	PART NUMBER	QTY	DESCRIPTION
1	094987	2	1" FNPT ELBOW
2	548151	1	1" EXTENDED THREADED CONNECTOR
3	548553	1	1" STEEL PLATE
4	548555	2	1" NIPPLE
5	700014	5	1" HOSE CONNECTOR
6	700024-2148	1	SHELL SUB ASSEMBLY
7	700045-1548	3	COIL PART WITH LL BRASS CONNECTORS
8	700058-1	1	CAST IRON FRAME (SOLD SEPARATELY) (USED IN PAVED OR CONCRETE AREAS)
9	700581	2	1" NIPPLE WITH FLATS
10	780113	1	1/2" DIA CAST IRON LID W/ RECESSED TR (SOLD SEPARATELY)
11	790010	14	1" HEX NUT
12	790322	1	21" X 41" EZ INSULATING PAD (SOLD SEPARATELY)
13	094986C	1	1" FNPT THREADED TEE
14	320874202	2	1" FULL PORT BALL VALVE
15	330114244-A	2	1" ANGLE DUAL CHECK ASSE APPROVED

- NOTES
1. WRAP FITTING w/ POLYETHYLENE WRAP PRIOR TO CONCRETE WORK
 2. USE AUTHORITY STANDARD PAINT SCHEME OF SILVER WITH YELLOW DOMES AND CAPS
 3. 5" STANDARD MARKER - FLAT BRACKET w/ SPRING - STOCK # 22516

NLT RIGHT-OF-WAY IMPROVEMENTS AND OTHER RELATED SPECIFICATIONS

- SECTION 114 - FIRE HYDRANT MARKERS
1. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PURCHASE AND INSTALL FIRE HYDRANT MARKERS FOR ALL NEWLY INSTALLED FIRE HYDRANTS PER TOWNSHIP REQUIREMENTS
 2. SPRING-EQUIPPED FIRE HYDRANT MARKERS SHALL BE 5' IN HEIGHT WITH 3/4" DIAMETER MARKER POLE WITH REFLECTIVE RED/WHITE STRIPING. MARKER MUST BE CORROSION RESISTANT AND HAVE HIGH VISIBILITY AND BEND STRENGTH. MIL-SPEC STEEL "L-BRACKET" WITH POLYURETHANE COATING FOR HYDRANT FLANGE BOLT MOUNTING. MARKERS CAN BE PURCHASED FROM TOWNSHIP STOCK OR DEVELOPER CAN PROVIDE MARKER OF EQUAL QUALITY, AS APPROVED BY THE TOWNSHIP ROADMASTER
 3. HYDRANTS IN INTERSECTIONS OR OTHER CRITICAL AREAS SHALL INCLUDE A 4" X 5" MINI FLAG, WHICH IS MADE OF WHITE UV-PROTECTED, EXTERIOR-GRADE PVC AND STRIPED WITH RED REFLECTIVE TAPE. MINI FLAGS MOUNT TO THE 3/4" MARKER POLES USING AN INTEGRAL SCREW-TIGHTENING CLAMP.

DATE: 3/22/22
BY: JTW
DATE: 4/20/22
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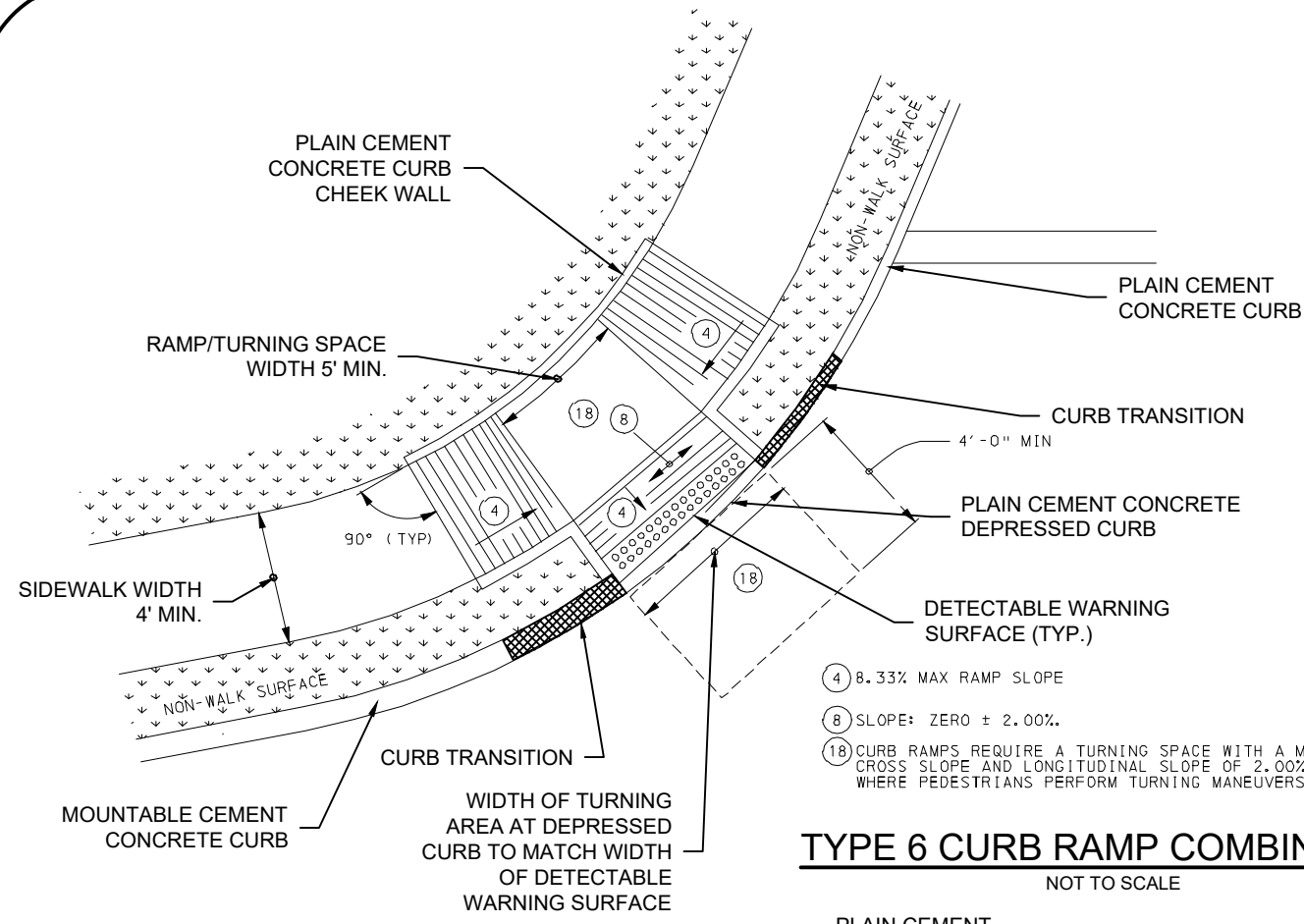
TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)

NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

Water Details

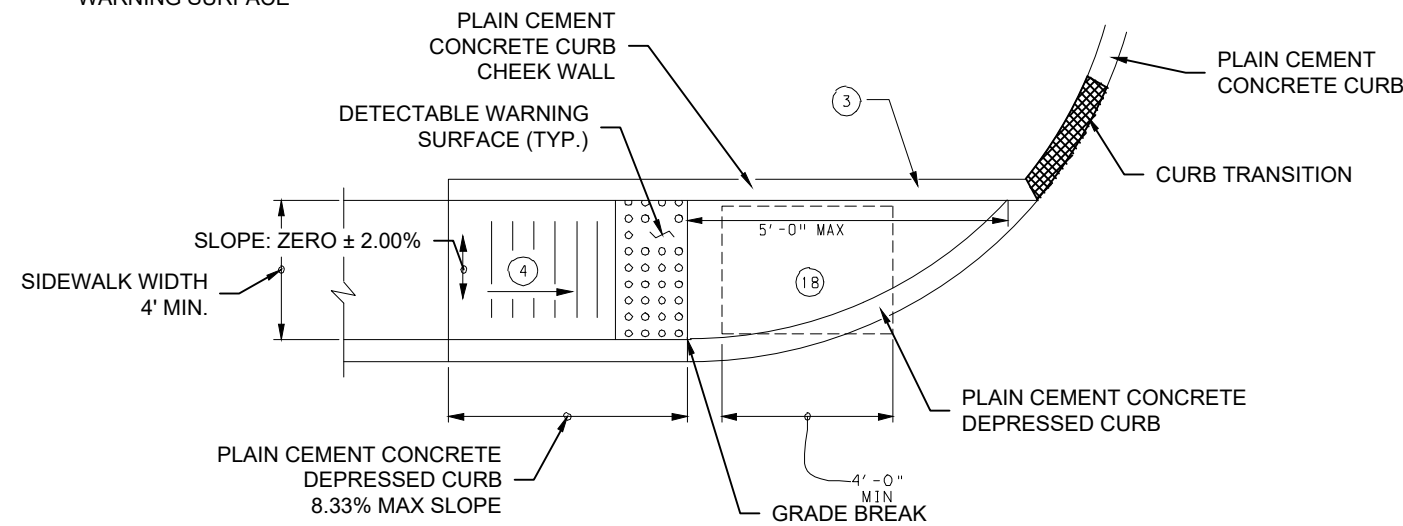
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TYPE 6 CURB RAMP COMBINATION

NOT TO SCALE

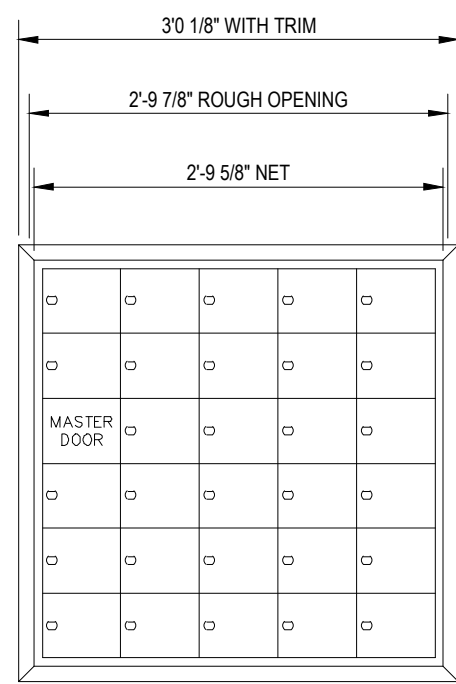


TYPE 1A CURB RAMP

NOT TO SCALE

CURB RAMP NOTES:

1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTIONS 350, 409, 630, 676, 694, AND 695.
2. PROVIDE EXPANSION JOINT MATERIAL 3/4" THICK WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
3. SEAL JOINTS WITH AN APPROVED SEALING MATERIAL.
4. PROVIDE SLIP RESISTANT TEXTURE ON CURB RAMP BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP. EXTEND TEXTURE THE FULL WIDTH AND LENGTH OF THE CURB RAMP INCLUDING SIDE FLARES.
5. TO AVOID CHASING GRADE INDEFINITELY WHEN TRAVERSING THE HEIGHT OF CURB, RAMP LENGTH NOT TO EXCEED 15'-0". ADJUST RAMP SLOPE AS NEEDED TO PROVIDE ACCESS TO THE MAXIMUM EXTENT FEASIBLE.
6. NON-WALK AREA IS AN OBSTRUCTED OR GRASS/ON-PAVED AREA ADJACENT TO THE PEDESTRIAN ACCESS ROUTE THAT IS NOT USED BY THE PEDESTRIAN FOR ACCESS.
7. ALIGN DETECTABLE WARNING SURFACE TRUNCATED DOMES ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF THE RAMP AND PERPENDICULAR TO CURB.
8. PROVIDE DETECTABLE WARNING SURFACES (DWS) 24" MINIMUM (IN THE DIRECTION OF PEDESTRIAN TRAVEL) ACROSS FULL WIDTH OF RAMP AT THE GRADE BREAK NEAR STREET EDGE. PROVIDE DWS THAT CONTRAST VISUALLY WITH ADJACENT WALKWAY SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT FOR THE FULL WIDTH OF RAMP.

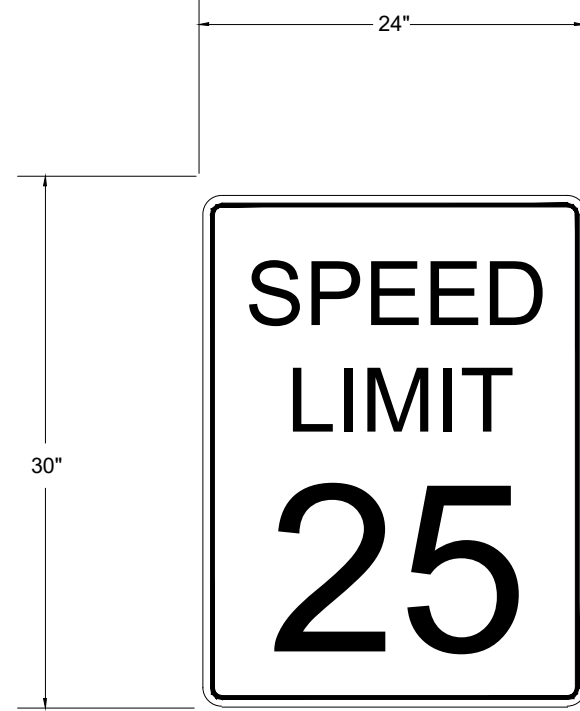


NOTES:

1. INSTALL IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS AND SPECIFICATIONS.
2. INDIVIDUAL UNITS SHALL NOT HAVE THEIR OWN MAILBOXES.
3. THE NUMBER OF DOORS AND LOCATIONS OF MAIL BOXES SHALL BE SHALL BE APPROVED BY THE POST OFFICE AND TOWNSHIP.
4. MAILBOX SHALL BE POSTAL PRODUCTS UNLIMITED, INC. OR APPROVED EQUAL.

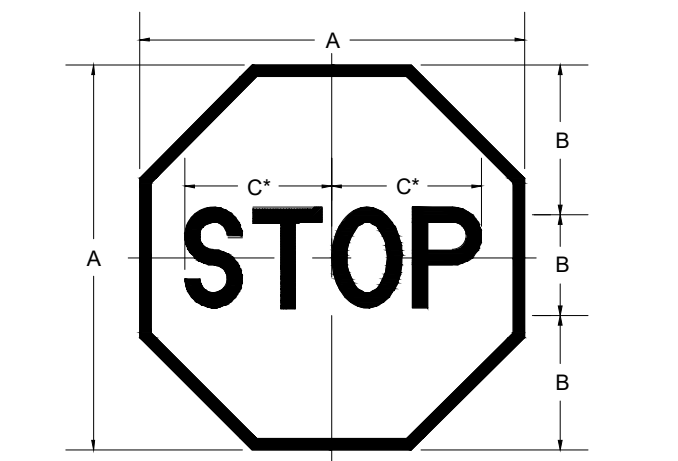
MAILBOX DETAIL DETAIL

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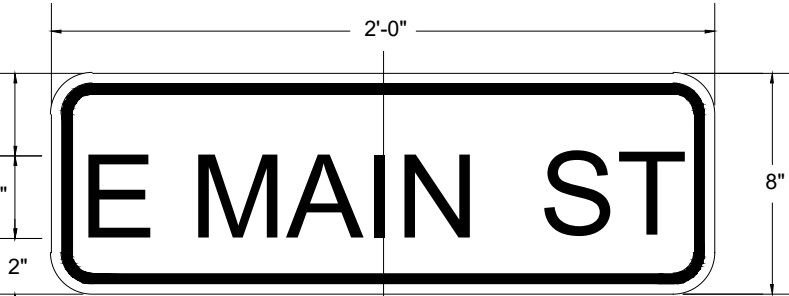
SPEED LIMIT SIGN DETAIL (R2-1)

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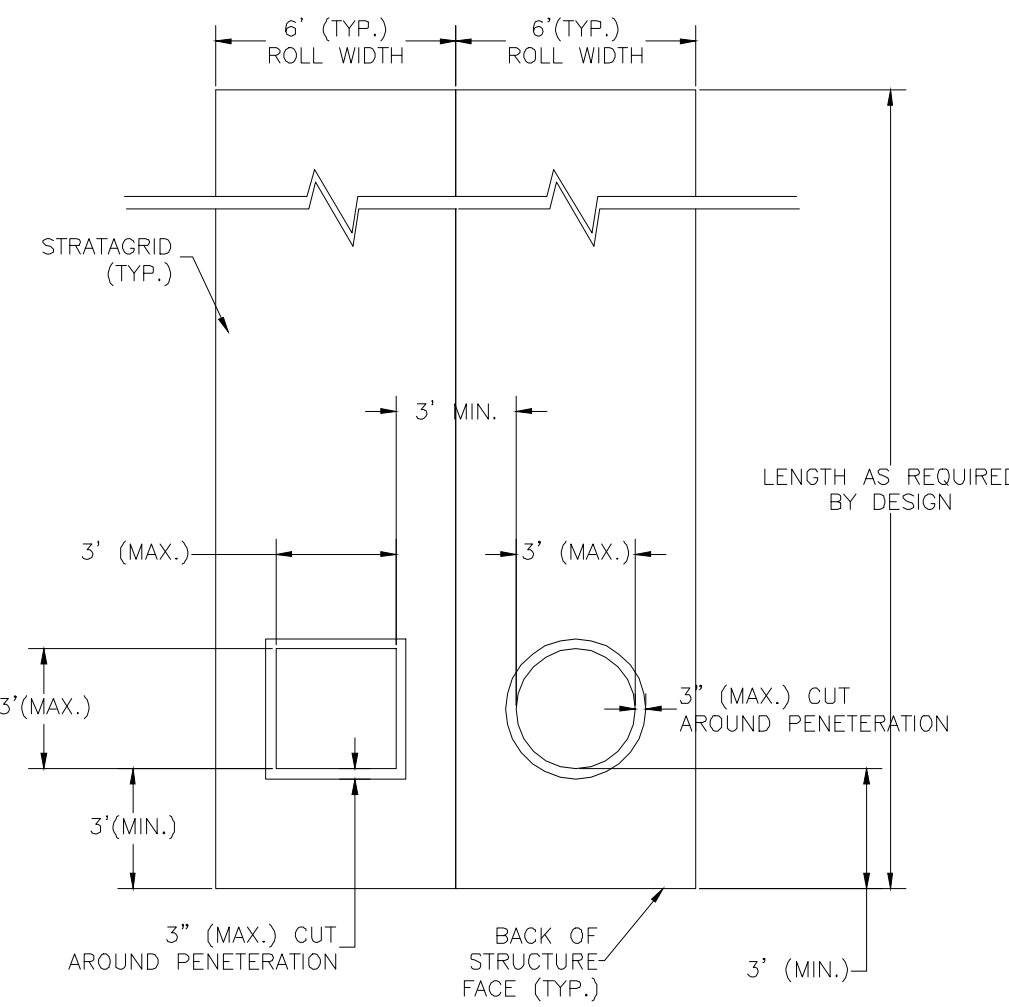
STOP SIGN DETAIL

NOT TO SCALE



STREET NAME SIGN DETAIL

NOT TO SCALE



GEOGRID AROUND PIPE AND VERTICAL PENETRATIONS DETAIL

NOT TO SCALE

SECTION 110 - STREET CUT SPECIFICATIONS.

1. WHEN WORKING WITHIN THE NORTH LEBANON TOWNSHIP RIGHT-OF-WAY, ALL OPENINGS AND OBSTRUCTIONS (ABOVE GROUND) REQUIRE A PERMIT AND MUST BE COMPLETED IN ACCORDANCE WITH TOWNSHIP SPECIFICATION PERMIT. BONDING AND INSURANCE CERTIFICATES REQUIRED PER TOWNSHIP ORDINANCE. THIS SHALL APPLY TO ANY RIGHT-OF-WAY INTENDED TO BE DEDICATED TO THE TOWNSHIP REGARDLESS OF WHETHER IN BINDER COURSE ONLY OR BOTH BINDER AND WEARING COURSE. THE CONTRACTOR OR PARTY RESPONSIBLE FOR THE REPAIR HAS TWO OPTIONS: (SEE EXHIBIT "I")
 - A) INSTALL PERMANENT REPAIRS INITIALLY OR;
 - B) INSTALL A TEMPORARY REPAIR, THEN RETURN TO INSTALL A PERMANENT REPAIR WITHIN 90 DAYS.
2. WITH EITHER OPTION THE CONTRACTOR, OR RESPONSIBLE PARTY, CAN BE REQUIRED TO RETURN AT ANY TIME DURING TWO YEARS MINIMUM, FOLLOWING THE INITIAL WORK TO CORRECT ANY DEFICIENCIES IN ACCORDANCE WITH THE TOWNSHIP SPECIFICATIONS AND THE RECOMMENDATIONS OF THE TOWNSHIP ROADMASTER OR BOARD OF SUPERVISORS. FAILURE TO CORRECT ANY DEFICIENCIES WITHIN FIVE DAYS OF NOTIFICATION, WILL RESULT IN TOWNSHIP PERFORMING THE CORRECTIONS AND BILLING THE RESPONSIBLE PARTY. SPECIAL AGREEMENTS MAY BE REQUIRED FOR UNIQUE CIRCUMSTANCES AT THE DISCRETION OF THE BOARD OF SUPERVISORS, WHICH WOULD OVERRIDE THESE MAINTENANCE REQUIREMENTS.
3. EXCAVATION - TEMPORARY/PERMANENT - IN ADDITION TO THE TRENCH, EXCAVATIONS SHOULD INCLUDE THE REMOVAL OF THE EXISTING PAVED SURFACES 8" BACK FROM THE SIDES OF THE TRENCH EXPOSING UNDISTURBED SUBGRADE. THE PRESENT ROAD SHALL BE CUT OR SAVED IN A NEAT STRAIGHT LINE TO THE BOTTOM OF THE EXISTING BASE COURSE. THE DETACHED MATERIAL SHALL BE REMOVED. NOTE: THE 9" CUTBACK IS MANDATORY FOR ALL TRENCHES.
4. BACKFILL - TEMPORARY/PERMANENT - THE TRENCH MUST BE BACKFILLED WITH 2A OR FINE MATERIAL (TYPE A OR BETTER STONE MEETING THE REQUIREMENTS FOR NO. 1 AGGREGATE) AROUND THE PIPE TO 6 INCHES ABOVE THE PIPE OR AS REQUIRED BY OTHER SPECIFICATIONS (WATER, SEWER, OR GAS) AND APPROVED BY THE TOWNSHIP.
5. COMPACTION - TEMPORARY/PERMANENT - MATERIALS USED FOR BACKFILL MUST BE 2A MODIFIED AND MECHANICALLY TAMPED IN LAYERS OF 10-INCHES OR LESS.
6. WEARING AND BINDER - PERMANENT - THE PERMANENT BINDER AND SURFACE COURSE SHALL BE PLACED IN ACCORDANCE WITH THE DEPTHS OF EXISTING BITUMINOUS SURFACE. HOWEVER, IN NO CASE, SHALL THE BINDER COURSE BE LESS THAN 4" 25 MM SUPERPAVE 0.3 < 3 ESALS (AFTER COMPACTION) AND THE WEARING COURSE BE LESS THAN 1-1/2" 3.5 MM SUPERPAVE 0.3 < 3 ESALS - (AFTER COMPACTION); SRL TO BE BASED ON ADT. BINDER COURSE MAY NOT BE INSTALLED IN MORE THAN 7" INCREMENTS. PAVING SEAMS MUST BE SEALED. FOR NON-RESIDENTIAL STREETS THE TOWNSHIP SHALL DETERMINE ESALS ACCORDING TO TRAFFIC LEVEL.
7. IDENTIFICATION - TEMPORARY/PERMANENT - AFTER THE REPAIR HAS BEEN INSTALLED, THE STREET CUT SHOULD BE IDENTIFIED BY THE USE OF A ONE FOOT PAINTED SQUARE WITH DURABLE WEAR-RESISTANT PAINT. STREET CUTS SHOULD BE CODED ACCORDING TO USE: BLUE FOR WATER, YELLOW FOR GAS OR PETROLEUM, RED FOR ELECTRIC, ORANGE FOR COMMUNICATIONS, AND GREEN FOR SEWERS. TRENCH SHOULD BE SPRAYED WITH MONTH, DAY, AND YEAR WHEN THE PERMANENT REPAIR WAS COMPLETED.
8. ALL MATERIALS AND EQUIPMENT SHALL BE IN CONFORMANCE WITH THE LATEST REVISION OF PADOT FORM 408. ANY EXCAVATION IN NORTH LEBANON TOWNSHIP RIGHT-OF-WAY MUST BE SCHEDULED WITH THE ROAD FOREMAN (273-1132) PRIOR TO COMMENCEMENT OF WORK. ANY WORK DONE WITHOUT THE PRIOR APPROVAL FROM NORTH LEBANON TOWNSHIP WILL BE SUBJECT TO THE ROAD FOREMAN'S DISCRETION FOR ACCEPTANCE. THE ROAD FOREMAN OR DESIGNEE, MUST BE NOTIFIED OF START DATE AND MUST BE ON SITE DURING ALL STONE FILL OPERATIONS, PAVING OF BINDER AND WEARING COURSE. IN ORDER TO SIGN OFF ON STREET CUT PERMIT.

SECTION 112 - TRAFFIC CONTROL SIGNS:

DETAILS REGARDING THE PLACEMENT OF TRAFFIC SIGNS SHALL BE SHOWN ON ALL PLANS SUBMITTED FOR REVIEW. PLACEMENT SPECIFICATIONS SHALL COINCIDE WITH THE ENGINEERING AND TRAFFIC STUDY DATA, TITLE 67 OF THE PADOT RULES AND REGULATIONS, AND THE MUTCD.

1. ALL TRAFFIC CONTROL SIGNS INSTALLED SHALL BE .080 ALUMINUM WITH HIGH RETRO-REFLECTIVE TYPE 3, OR PRISMATIC REFLECTIVE SHEETING, UNLESS OTHERWISE NOTED. ALL SIGNS SHALL BE INSTALLED ON GALVANIZED BREAK-AWAY POST AT 2 LB. PER FOOT. ALL SIGNS SHALL BE INSTALLED BY THE TOWNSHIP AND COST OF MATERIAL AND LABOR INVOICED TO THE DEVELOPER, WHICH IS PAYABLE WITHIN 30 DAYS OF RECEIPT. ALL MATERIALS TO BE PURCHASED THROUGH THE TOWNSHIP SUPPLIER.
 - A) STOP SIGN (HIGH RETRO REFLECTIVE, TYPE 3) 30 X 30 R1-1
 - B) SPEED LIMIT 24 X 30 R2-1
 - C) NO OUTLET 30 X 30 W14-2
 - D) SCHOOL CROSSING (HIGH RETRO REFLECTIVE, TYPE 3) 30 X 30 S2-1
 - E) NO PARKING 24 X 24 S7-1
 - F) LEFT TURN 30 X 30 W1-1L
 - G) RIGHT TURN 30 X 30 W1-1R
 - H) LEFT CURVE 30 X 30 W1-2L
 - I) RIGHT CURVE 30 X 30 W1-2R
2. INSTALLATION OF SIGNS.
 - A) THE HEIGHT REQUIREMENTS FOR SIGNS IN BUSINESS, COMMERCIAL AND RESIDENTIAL DISTRICTS WHEN PARKING OR PEDESTRIAN MOVEMENT IS LIKELY TO OCCUR OR WHEN THERE ARE OTHER OBSTRUCTIONS TO VIEW, THE CLEARANCE TO THE BOTTOM OF THE SIGN SHALL BE AT LEAST SEVEN FEET (7').
 - B) TEMPORARY STOP SIGNS ARE REQUIRED AT ALL LOCATIONS WHERE PERMANENT STOP SIGNS ARE REQUIRED. THE TEMPORARY STOP SIGNS MUST BE INSTALLED BY THE DEVELOPER IMMEDIATELY FOLLOWING INITIAL ROAD CUT. THIS WILL PROVIDE AWARENESS OF TRAFFIC PATTERNING TO ANY PERSON WORKING OR DELIVERING WITHIN DEVELOPMENT.
 - C) LATERAL CLEARANCE
 - A) A CLEARANCE OF TWO (2) FEET FROM THE BACK HOUSE (SIDE) FACE CURB AND ONE (1) FOOT FROM THE EDGE OF SIDEWALK.
 - B) ERECTION OF SIGNS SHOULD BE MOUNTED APPROXIMATELY AT RIGHT ANGLES TO THE DIRECTION OF, AND FACING TRAFFIC THAT THEY ARE INTENDED TO SERVE. AT CURVED ALIGNMENTS, THE ANGLE OR PLACEMENT SHOULD BE DETERMINED BY THE COURSE OF APPROACHING TRAFFIC RATHER THAN BY ROADWAY EDGE AT THE POINT WHERE THE SIGN IS LOCATED. SIGN FACES NORMALLY ARE VERTICAL, BUT ON GRADES IT MAY BE DESIRABLE TO TILT A SIGN FORWARD OR BACK FROM THE VERTICAL TO IMPROVE THE VIEWING ANGLE.
 - C) REQUIREMENTS FOR POSTS AND MOUNTING SIGN POSTS AND THEIR FOUNDATIONS AND SIGN MOUNTING SHALL BE SO CONSTRUCTED AS TO HOLD SIGNS IN PROPER AND PERMANENT POSITION TO RESIST SWAYING BY THE WIND OR DISPLACEMENT BY VANDALISM. SIGN SUPPORTS SHOULD BE OF A BREAK-AWAY TYPE. CONCRETE BASIS FOR SIGN SUPPORTS SHOULD FLUSH WITH GROUND LEVEL.
 - D) STREET SIGNS
 - A) STREET SIGNS SHALL BE WHITE LETTERS ON GREEN BACKGROUND, DOUBLE BLADE, SINGLE SIDED PRINTING ON 0.080" RETRO-REFLECTIVE ALUMINUM. LETTER SIZE SHALL BE MINIMUM SIX INCHES (6") HIGH, BLANK TO BE EIGHT INCHES (8"). POST SHALL BE 2-1/2 INCH SQUARE BREAK-AWAY STYLE POSTS GALVANIZED, TEN FOOT (10') LONG.
 - B) MOUNTING HARDWARE FOR SIGNS SHALL BE:
 1. NUTS, BOLTS, RIVETS, AND SPACERS TO MOUNT TWO BLADES OR FOUR BLADES TO A SQUARE POST.
 2. STREET SIGNS MUST BE LOCATED AT ALL INTERSECTIONS WITH ALL STREET NAMES.
 3. SIZE OF STREET SIGNS CAN RANGE FROM 8" X 18" TO 8" X 48" AND REQUIRES APPROVAL FROM ROAD FOREMAN PRIOR TO INSTALLATION.
 4. DEVELOPER MUST SUPPLY TOWNSHIP WITH ONE (1) INVENTORY SIGN FOR EACH STREET NAME AND ONE (1) SPEED LIMIT AND STOP SIGN.
 - E) AS BUILT DRAWINGS.
 - F) AS BUILT DRAWINGS ARE REQUIRED FOR ALL STREETLIGHTS, WIRING AND DISCONNECT SWITCHES, STORMWATER PIPE, CATCH BASINS, AND ALL APPURTENANCES ASSOCIATED WITH IMPROVEMENTS LOCATED IN THE DEVELOPMENT. THESE DRAWINGS MUST BE IN "DWG" FILE OR AN ELECTRONIC FILE APPROVED BY THE TOWNSHIP.
 3. CONCRETE MONUMENTS.
 4. ALL CONCRETE MONUMENTS MUST BE PLACED AT TOWNSHIP RIGHT-OF-WAY LINE.
 5. STORING OF CONSTRUCTION MATERIALS.
 6. CONTRACTORS MUST KEEP STREETS, DEDICATED AND UNDEDICATED, FREE OF CONSTRUCTION EQUIPMENT, MATERIALS AND DEBRIS. STREETS SHALL NOT BE USED FOR THE STORAGE OF MATERIALS DURING SITE CONSTRUCTION. IF IT IS NECESSARY TO PLACE OR STORE CONSTRUCTION MATERIAL, EQUIPMENT, DUMPSTERS, ETC. IN THE STREET, THIS OBSTACLE MUST BE CLEARLY MARKED WITH WORKING BLINKING BARRICADES (S). IF THE CONTRACTOR FAILS TO DO SO, THERE WILL BE A SEPARATE PENALTY ESTABLISHED BY THE BOARD OF SUPERVISORS. THE BOARD OF SUPERVISORS SHALL BE ABL TO HAVE THE AREA PROPERLY MARKED AND BARRICADED AND TO HAVE THE COSTS AND PENALTY PAID FROM THE BOND POSTED WITH LEBANON COUNTY PLANNING DEPARTMENT (COUNTY COMMISSIONERS) AND OR TOWNSHIP.
 7. DEVIATIONS.
 8. ANY DEVIATIONS FROM THESE REGULATIONS MUST BE REQUESTED BY THE DEVELOPER OR HIS AGENT IN WRITING AND APPROVED BY THE NORTH LEBANON TOWNSHIP BOARD OF SUPERVISORS. ANY DEVIATIONS APPROVED BY THE BOARD OF SUPERVISORS MUST BE LISTED ON THE PRELIMINARY AND FINAL PLAN IF PRIOR TO RECORDING.

TOWN'S EDGE APARTMENTS, LLC

MANAGER: JOSHUA T. WEAVER, P.E.
DESIGN BY: JTW CHECKED BY: RDT
DRAWN BY: RDT CHECKED BY: JTW
SURVEY: M&H PLAN DATE: MARCH 10, 2022
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REVISED FINAL SUBDIVISION & LAND DEVELOPMENT PLAN

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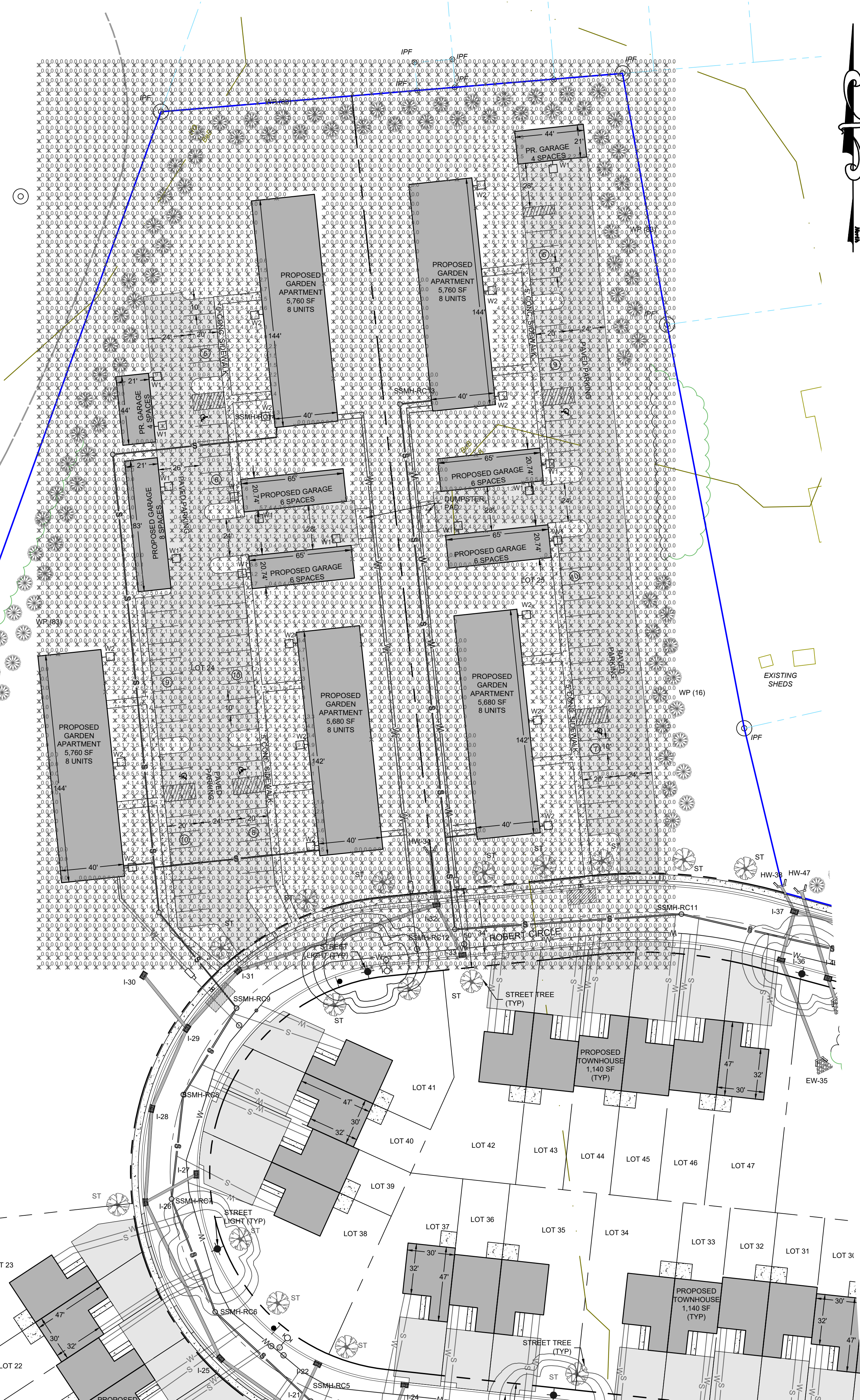
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NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

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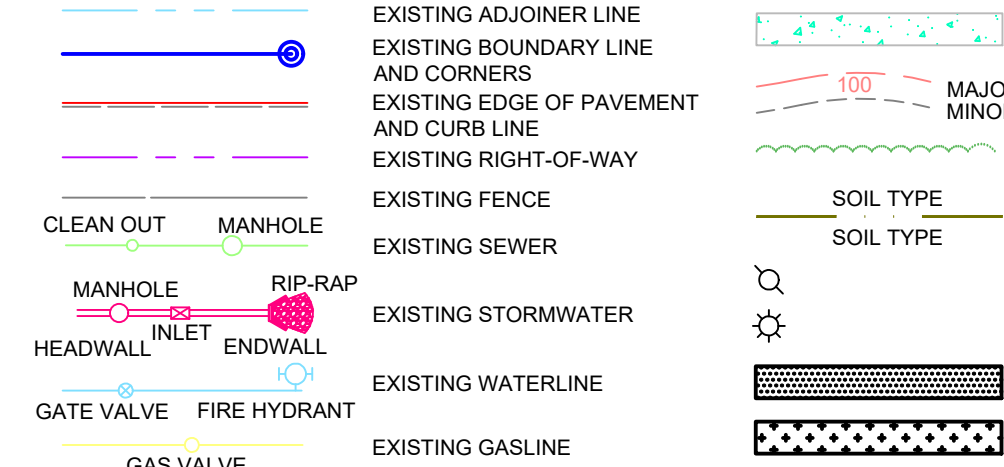
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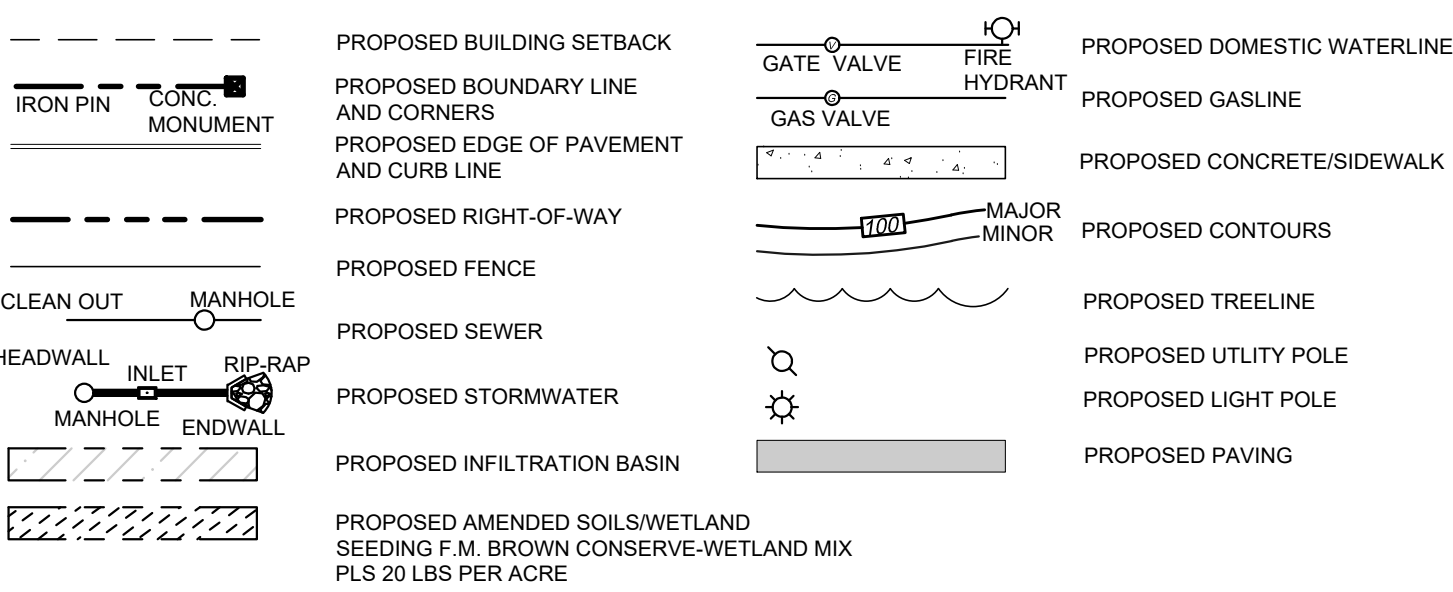


LEGEND

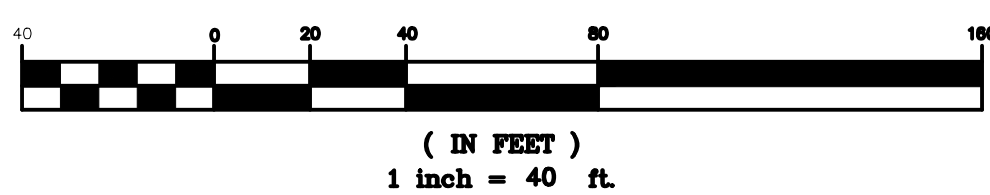
EXISTING FEATURES



PROPOSED FEATURES



GRAPHIC SCALE



TREE PLANTING NOTES:

Street trees shall be required by the Township in accordance with the following standards:

- The trees shall be nursery grown in a climate similar to that of the locality of the project. Varieties of trees shall be subject to the approval of the Township.
- All trees shall have a normal habit of growth and shall be sound, healthy and vigorous, they shall be free from disease, insects, insect eggs, and larvae.
- The caliper of the trunk, measured at a height of six (6) inches above finished grade, shall be a minimum of two (2) inches.
- Trees shall be planted between the street right-of-way line and the building setback line except where the Township has authorized placement of trees within the street right-of-way. The tree growth shall not interfere with the street cartway, sidewalk or utility line.
- All planting shall be performed in conformance with good nursery and landscape practice including proper guying and staking.
- Requirements for the measurements, branching, grading, quality, baling, and burlapping of trees shall follow the code of standards recommended by the American Association of Nurserymen, Inc., in the American Standard for Nursery Stock, ANSI Z60, 1-1973, as amended.

EVERGREEN TREE - SELECTIVELY PRUNE 25% OF CROWN ON SITE AS NEEDED TO REMOVE DEAD, INJURED, OR DISPROPORTIONAL BRANCHES AND PROMOTE ROOT GROWTH AND PROPER CROWN SHAPE. SPRAY WITH ANTI DESICCANT ACCORDING TO MANUFACTURER'S INSTRUCTIONS. AND NEVER CUT THE MAIN LEADER!

GARDEN HOSE
2 GUYS OF 10 GAUGE TWISTED WIRE 180 APART - AROUND TREE
TURNBUCKLE

IF FOLIAGE IS PRESENT, USE DOUBLE STRAND OF 10 GAUGE GALVANIZED TWISTED WIRE AND PROTECT WITH RUBBER HOSE
2" SQUARE - 9' LONG CEDAR STAKE WITH NOTCHED END (6" MIN. EXPOSED) - 2 PER TREE.
WRAP DECIDUOUS TREES WITH "KRINKLE - KRAFT" TREE WRAP
FOLD 1/3 OF BURLAP FROM TOP OF BALL
3" MULCH (MIN.)
STAKE TO EXTEND 18" INTO UNDISTURBED SOIL
RECOMPACT BACK FILL UNDER ROOT BALL
SCARIFY SIDES OF PIT AND LOOSEN SUBSOIL
EQUALS TWICE BALL DIAMETER

NOTES:

- STAKE ALL EVERGREEN TREES UNDER 12"
- GUY TREES 12" AND OVER AS SPECIFIED FOR DECIDUOUS TREES
- TREE SHALL BEAR SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS GRADE
- NEVER CUT LEADERS
- PLASTIC ROOT BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ALONG PAVEMENT, CURBS OR UTILITIES WITHIN 10' OF ROOT BALL. "DEEP ROOT" UG-24-2" OR EQUAL

TYPICAL TREE PLANTING DETAIL

NOT TO SCALE

DECIDUOUS TREES

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	NOTES
SWO	5	Quercus bicolor	Swamp White Oak	2" - 2 1/2" Cal.	B&B	
ST	21	Ulmus americana	American Elm	2" - 2 1/2" Cal.	B&B	
		Tilia americana	American Linden	2" - 2 1/2" Cal.	B&B	
		Gleditsia tricanthos	Honey Locust	2" - 2 1/2" Cal.	B&B	

EVERGREEN TREES

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	NOTES
WP	106	Pinus strobus	Eastern White Pine	2" - 2 1/2" Cal.	B&B	

SHRUBS

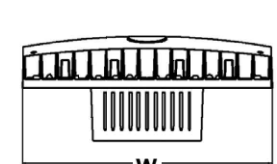
KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	NOTES
WB	15	Ilex verticillata	Winterberry	18"-24" cont.	---	

STREET LIGHT NOTES:

- When required by the Township, all lights will be installed by Met-Ed with the Developer paying for all the material and labor costs. The Developer must use the colonial style post top and pole offered by Met-Ed. Met-Ed still owns and maintains the system. A minimum 90-watt LED light is required. The lights shall be shown on the subdivision plan at intervals of not more than 200-feet and are subject to approval by Met-Ed and the Township.
- It is Met-Ed's policy to energize the lights upon installation in North Lebanon Township. The Developer will be responsible for all costs, including energy costs until such time as the streetlights are dedicated and accepted by the HOA. Street light assessment is based on front foot assessment.
- The Developer is required to provide a locking mechanism at the box that houses the switch for the street lights. The locking mechanism must be approved by the Roadmaster of North Lebanon Township prior to installation.
- As-built drawings are required for all street lights, wiring, and disconnect switches.
- Met-Ed installs a standard style post-top LED streetlight and pole. Currently there is a \$2,000 per streetlight fee for capital costs to install the unit. Met-Ed will invoice the Township and the Township will invoice the developer for reimbursement. Met-Ed owns and maintains the system. A 90-watt, LED colonial streetlight and pole costs approximately \$14.83 a month per light. Under this option, Met-Ed will provide future and photocall maintenance. Any other repair, replacement, or maintenance that is needed (pole, wire, etc.) will be invoiced at the time of completion.
- The developer is responsible for installing 18-inch, black, corrugated, drain pipe to be 4 feet deep. After the wires are installed, the developer must backfill with screenings and the tubing.
- The developer or Homeowner's Association is responsible for digging and backfilling the wire trenches, as well as any repairs to lawns, sidewalks, driveways, etc. The developer is responsible for any streetlight foundation cost whether installed by them or Met-Ed.
- Met-Ed does offer other options; however, North Lebanon Township requires all developers to utilize option #5 as outlined in note #5 above.

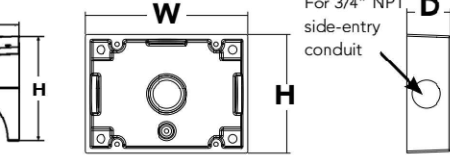
Luminaire

Width: 18-1/2" (47.0 cm)
Depth: 10" (25.4 cm)
Height: 7-5/8" (19.2 cm)



Back Box (BBW)

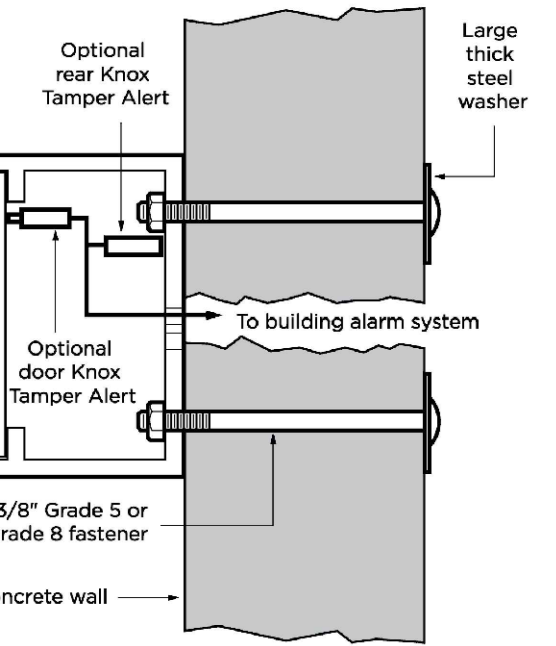
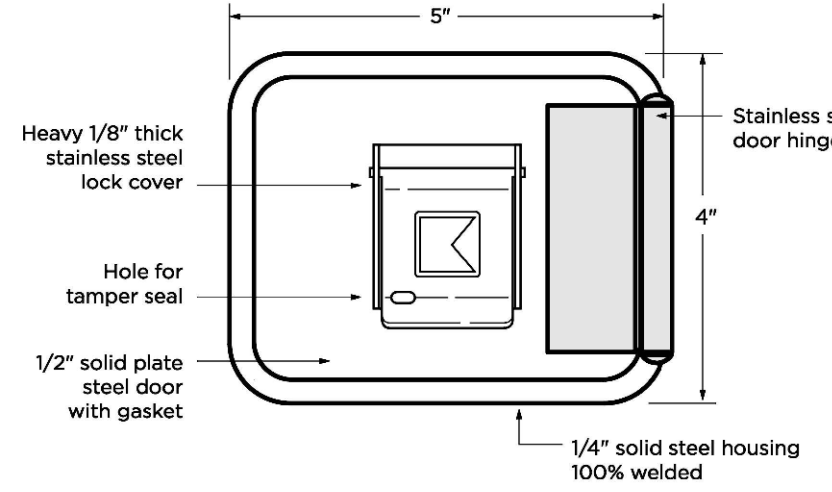
Width: 5-1/2" (14.0 cm)
Depth: 1-1/2" (3.8 cm)
Height: 4" (10.2 cm)



WALL MOUNTED LIGHT DETAIL

NOT TO SCALE

SURFACE MOUNT - FRONT VIEW

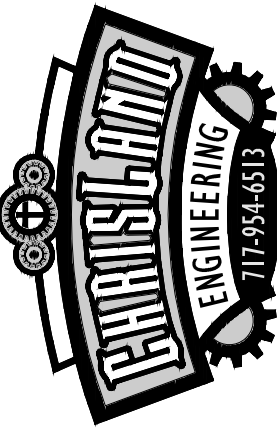


KNOXBOX DETAIL

NOT TO SCALE

TOWN'S EDGE APARTMENTS, LLC

MANAGER: JOSHUA T. WEBER, P.E.
DESIGN BY: JTW
DRAWN BY: RDT
SURVEY: M&H
PLAN DATE: MARCH 10, 2022
PROJECT #: CH2 21.1



REVISED FINAL SUBDIVISION & LAND DEVELOPMENT PLAN

TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)

NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

Landscaping & Lighting Plan


13

OF 23

**TOWN'S EDGE
APARTMENTS, LLC**

MGR: JOSHUA T. WEAVER, P.E.
DESIGN BY: JTW CHECKED BY: RDT
DRAWN BY: RDT CHECKED BY: JTW
SURVEY: M&H PLAN DATE: MARCH 10, 2022
PROJECT #: CH221.1

REVISION	DATE	BY
PERS LETTER DATED 3/22/22	3/26/22	JTW
PERS LETTER DATED 4/15/22	4/20/22	JTW
PER LOD LETTER DATED 4/11/22	4/20/22	JTW



CHRISLAND
ENGINEERING
217-984-4513

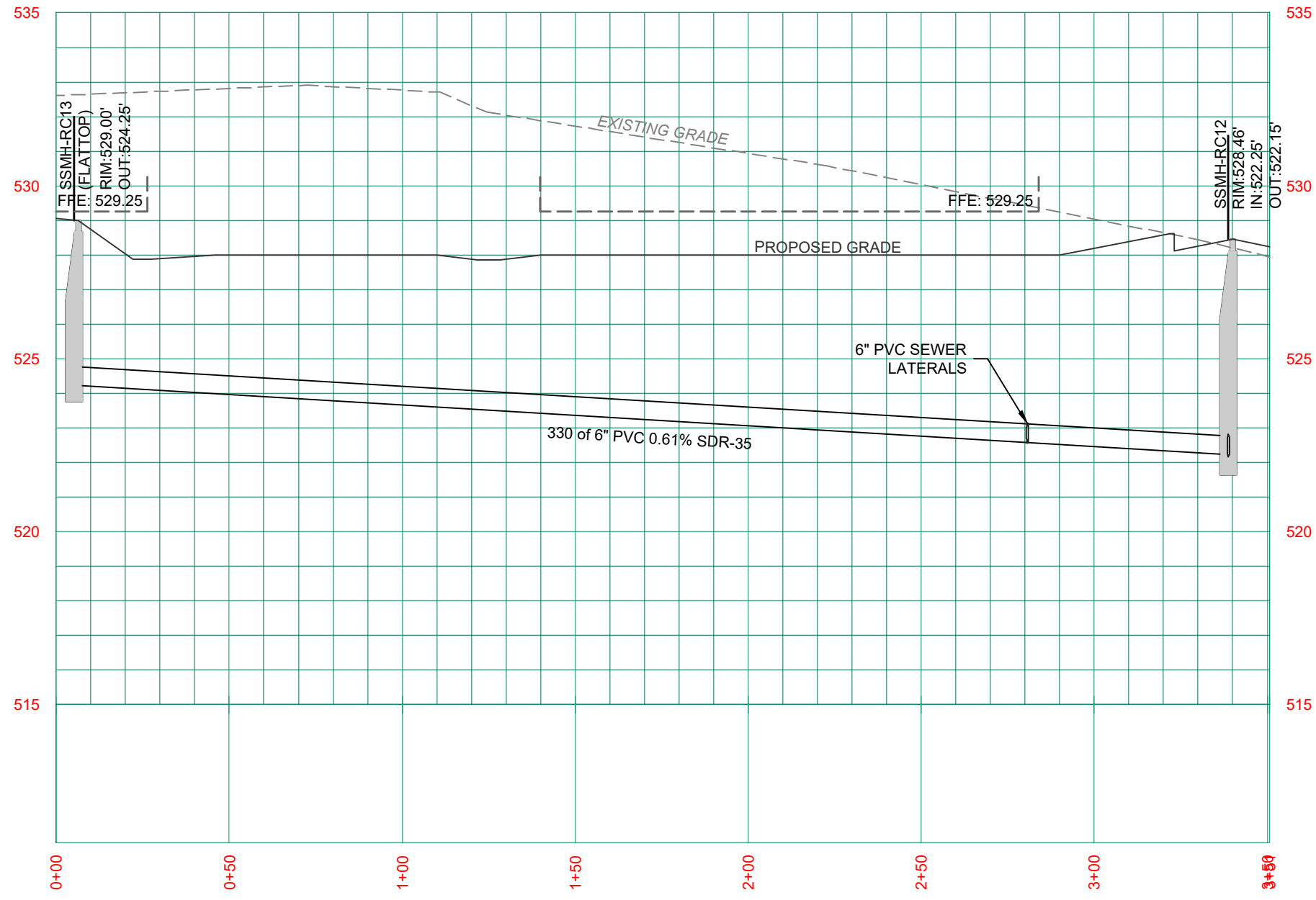
Chrisland Engineering, Inc.
602 Cornwell Road, Lebanon, PA 17042
www.chrislandengineering.com

**REVISED FINAL SUBDIVISION &
LAND DEVELOPMENT PLAN**

FOR

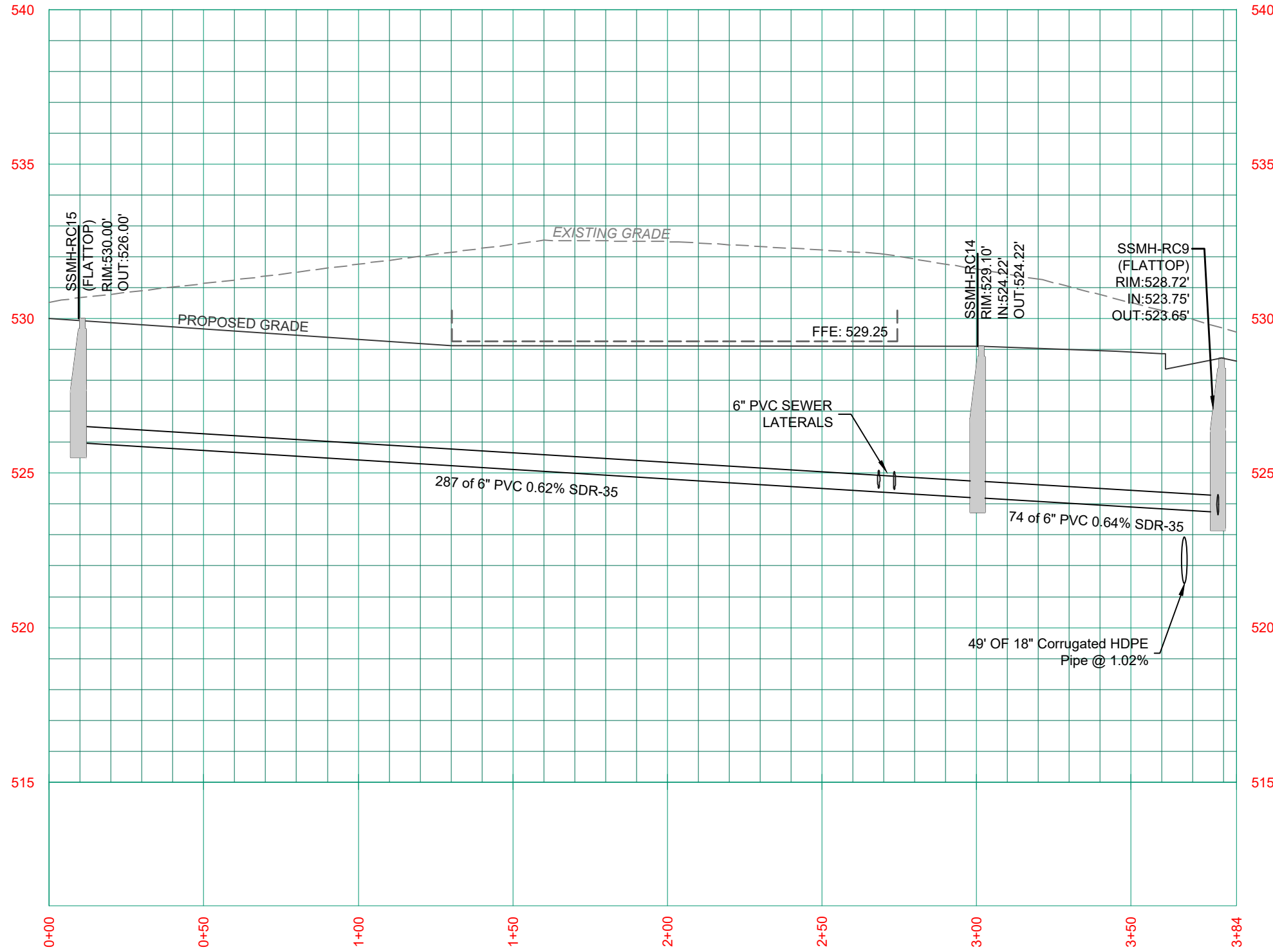
TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)

NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA



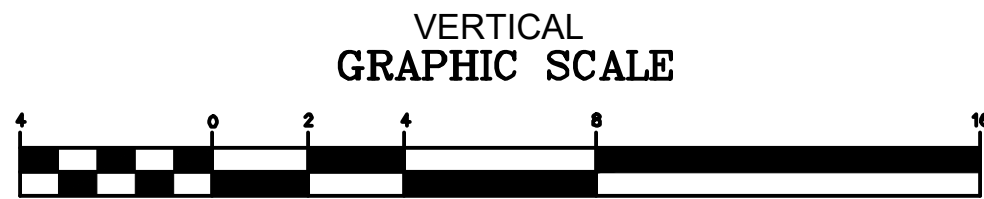
SSMH-RC13 TO SSMH-RC12

HOR: 1" = 40' VERT: 1"=4'



SSMH-RC15 TO SSMH-RC9

HOR: 1" = 40' VERT: 1"=4'



HORIZONTAL GRAPHIC SCALE



PROFILE NOTES:

1. THE CONSTRUCTION OF ALL DRAINAGE STRUCTURES (INCLUDING INLETS, STORM MANHOLES, ENDWALLS, ETC.) PROPOSED FOR DEDICATION OR LOCATED WITHIN A STREET SECTION SHALL BE CAPABLE OF HANDLING AN HS-20 LOADING. IN ADDITION, ALL STORM SEWER PIPES, CULVERTS, MANHOLES, INLETS, ENDWALLS, AND END SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS SET FORTH IN THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION (PENNDOT) PUBLICATION 408, AS AMENDED, AND SHALL CONFORM TO THE REQUIREMENTS OF THE PENNDOT, BUREAU OF DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION (RC), PUBLICATION NO. 72.
2. ALL STORM SEWERS SHALL BE CONSTRUCTED WITH WATER TIGHT JOINTS.
3. ALL HDPE PIPE SHALL BE SMOOTH-LINED, ADS N-12 OR EQUAL.
4. ALL REINFORCED CONCRETE PIPE (RCP) SHALL BE CLASS III AND PROVIDED IN ACCORDANCE WITH PENNDOT PUBLICATION 280, PROVIDE RCP PIPE CONFORMING TO 8D-636M, PENNDOT DESIGN MANUAL PART 4, APPENDIX H, MANUFACTURE AND TEST ACCORDING TO PUBLICATION 280.
5. BACKFILL COMPACTION SHALL BE 95% MINIMUM AT OPTIMUM MOISTURE DENSITY PER ASTM D1557.
6. ALL SANITARY SEWER MANHOLE CENTERLINE OFFSETS SHALL BE 0.00' UNLESS NOTED OTHERWISE.
7. MAXIMUM WATER MAIN PIPE DEFLECTION IS $\frac{1}{4}$ MANUFACTURER'S RECOMMENDATION.
8. WATER SERVICE CONNECTIONS TO BE INSULATED AT STORM SEWER CROSSINGS. WATER MAINS SHALL BE INSULATED AT STORM SEWER WHERE CLEARANCE IS LESS THAN 18".
9. WHERE SANITARY SEWERS ARE PLACED ON FILL, FILL MATERIAL SHALL BE PENNDOT 2A MODIFIED OF 2RC COARSE AGGREGATE PLACED IN 8-INCH LAYERS AND COMPACTED TO 100% OF MAXIMUM DRY DENSITY BASED ON ASTM D698, METHOD C.
10. CONTRACTOR SHALL VERIFY DEPTHS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF WORK.



Chrisland Engineering, Inc.
602 Cornwall Road, Lebanon, PA 17042
www.chrislandengineering.com

**REVISED FINAL SUBDIVISION &
LAND DEVELOPMENT PLAN**
FOR
TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)
NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

**TOWN'S EDGE
APARTMENTS, LLC**
MANAGER: JOSHUA T. WEAVER, P.E.
DESIGN BY: JTW CHECKED BY: RDT
DRAWN BY: RDT CHECKED BY: JTW
SURVEY: M&H PLAN DATE: MARCH 10, 2022
PROJECT #: CH2.21.1

REVISION
DATE
BY
JTW
4/20/22
JTW
4/20/22

Profiles

15

OF 23

Map Symbol	Soil Name	Slope	Hydrologic Group
BeB	Bedford silt loam	3-6%	B
BrA	Brinkerton silt loam	0-3%	D
CnB	Comly silt loam	3-6%	C
Ho	Holly silt loam	0-3%	B/D

MINIMUM FLOOR ELEVATION NOTE:
THE LOWEST FLOOR FOR ALL DWELLINGS ADJACENT TO INFILTRATION BASIN A SHALL BE NO LOWER THAN 513.88.

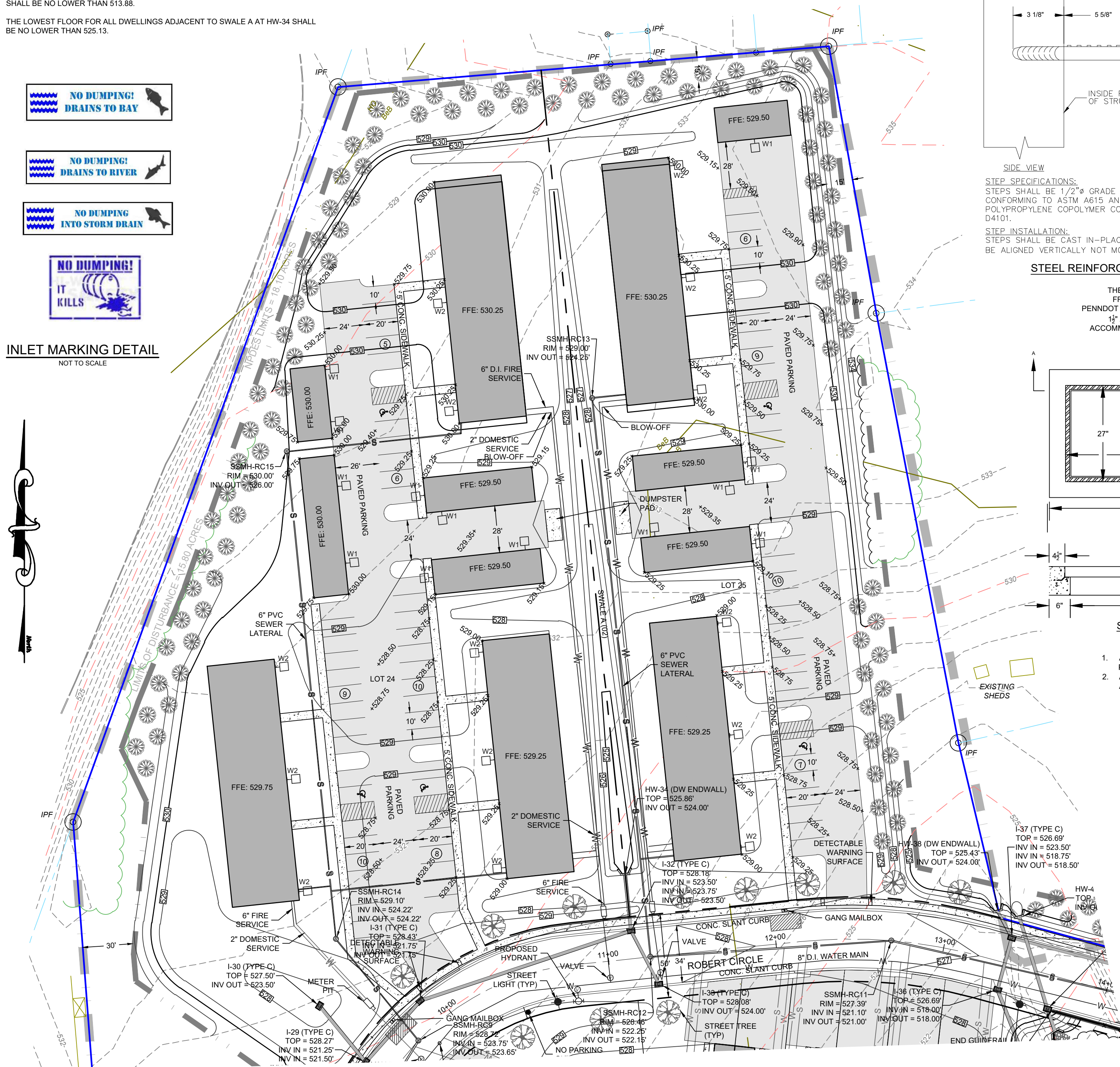
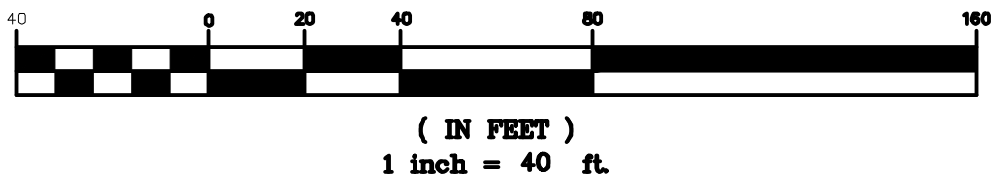
THE LOWEST FLOOR FOR ALL DWELLINGS ADJACENT TO SWALE A AT HW-34 SHALL BE NO LOWER THAN 525.13.



INLET MARKING DETAIL
NOT TO SCALE



GRAPHIC SCALE

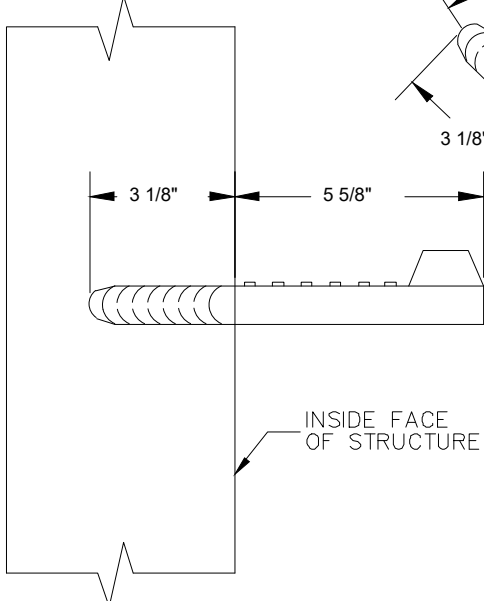


ADDITIONAL IMPERVIOUS NOTE
AN ADDITIONAL 2,000 SF OF IMPERVIOUS AREA, IN ADDITION TO WHAT IS DEPICTED ON THE APPROVED PRELIMINARY/FINAL PLANS FOR TOWN'S EDGE DEVELOPMENT, WAS CONSIDERED FOR EACH APARTMENT LOT (4,000SF TOTAL) AND CONSIDERED IN THE PREVIOUSLY APPROVED STORMWATER MANAGEMENT CALCULATIONS.

THE IMPERVIOUS AREA PROPOSED AS PART OF THE PREVIOUSLY APPROVED PRELIMINARY/FINAL SUBDIVISION AND LAND DEVELOPMENT PLAN FOR LOTS 24 AND 25 WAS APPROXIMATELY 86,359SF (NOT INCLUDED THE ADDITIONAL 2,000SF PER LOT).

THIS REVISED FINAL SUBDIVISION AND LAND DEVELOPMENT PLAN PROPOSES APPROXIMATELY 88,041SF, WHICH IS AN INCREASE OF APPROXIMATELY 1,682SF, WHICH IS LESS THAN THE 4,000SF ADDITIONAL IMPERVIOUS AREA PREVIOUSLY APPROVED. THEREFORE, NO MODIFICATIONS TO THE STORMWATER MANAGEMENT FACILITIES ARE NECESSARY FOR THE CURRENT PROJECT.

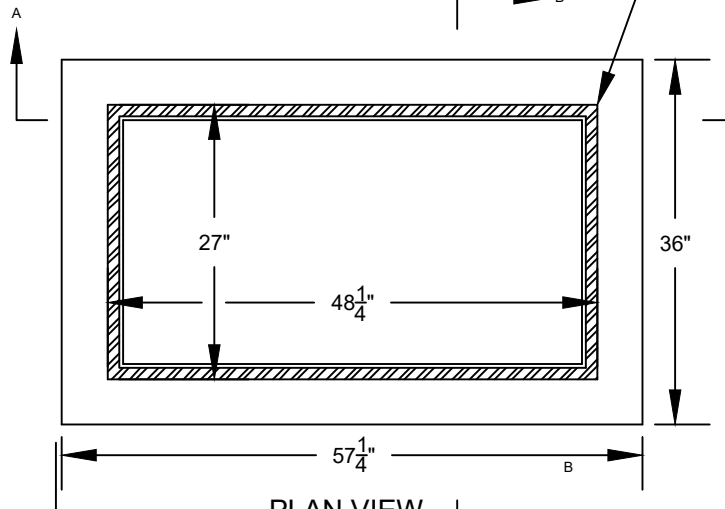
14" STEEL REINFORCED PLASTIC MANHOLE STEP NO. 108.14850 BY PRESS-SEAL GASKET CORPORATION OR EQUAL.



STEP SPECIFICATIONS:
STEPS SHALL BE 1 1/2" GRADE 60 DEFORMED STEEL REINFORCING ROD CONFORMING TO ASTM A615 AND COMPLETING ENCAPSULATED IN POLYPROPYLENE COPOLYMER COMPOUND TYPE II CONFORMING TO ASTM D4101.
STEP INSTALLATION:
STEPS SHALL BE CAST IN-PLACE BY THE MANUFACTURE. STEPS SHALL BE ALIGNED VERTICALLY NOT MORE THAN 12" ON CENTER.

STEEL REINFORCED PLASTIC INLET/MANHOLE STEPS

THE INLET TOP IS CAST AROUND THE FRAME FOR A BICYCLE GRATE (PER PENNDOT PUB 72, RC-45M); LEDGE WIDTH IS 1 1/2" AND DEPTH IS 2 1/2" ALL AROUND TO ACCOMMODATE A FRAME WITH AN ANGLE OF 1 1/2" x 1 1/2" (MIN.)



NOTES:

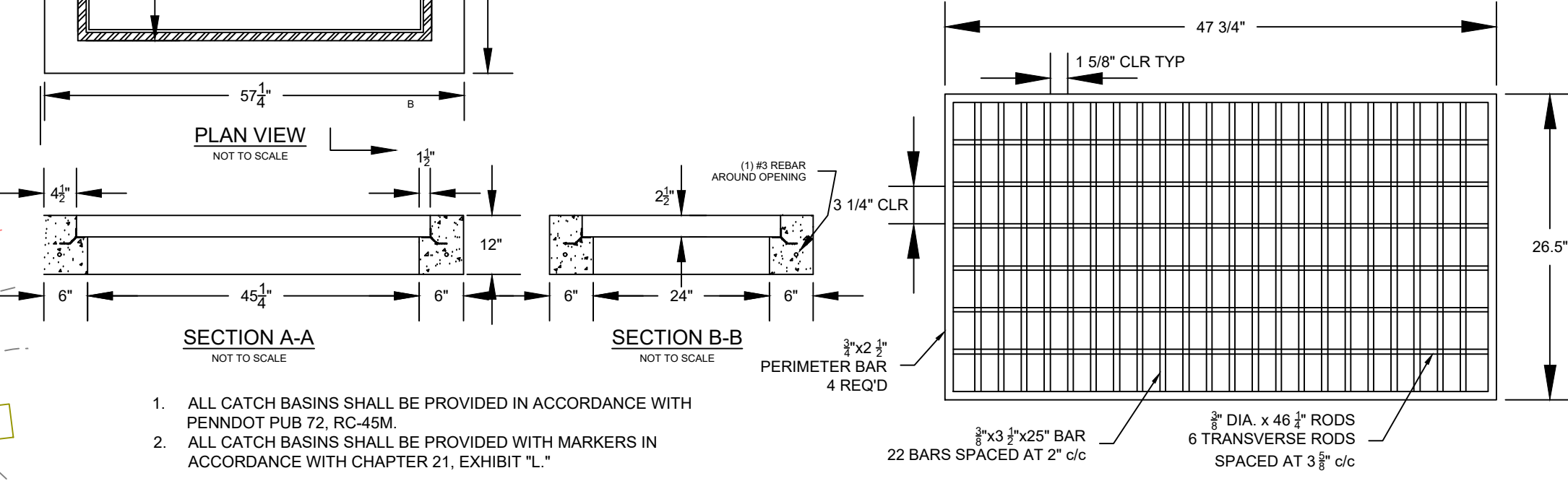
ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.

CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

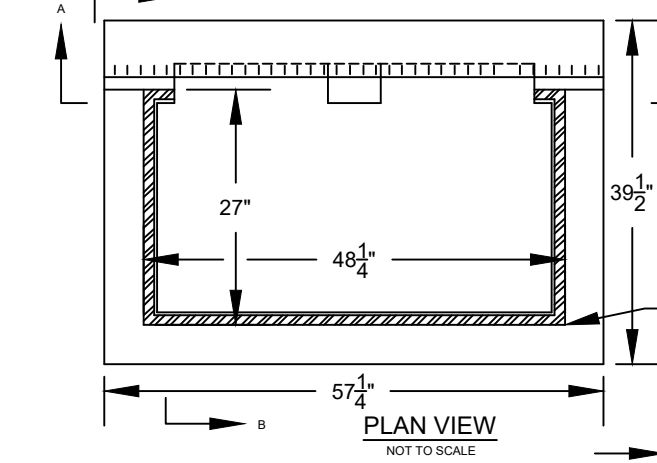
STANDARD CONSTRUCTION DETAIL #6-1
VEGETATED CHANNEL

NOT TO SCALE



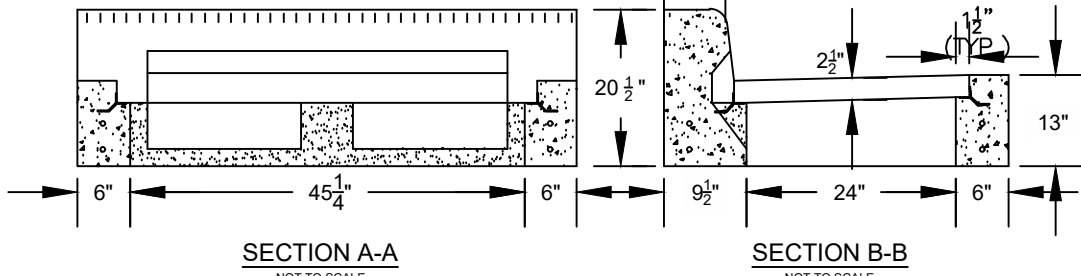
PENNDOT TYPE "M" INLET
NOT TO SCALE

- ALL CATCH BASINS SHALL BE PROVIDED IN ACCORDANCE WITH PENNDOT PUB 72, RC-45M.
- ALL CATCH BASINS SHALL BE PROVIDED WITH MARKERS IN ACCORDANCE WITH CHAPTER 21, EXHIBIT "L".



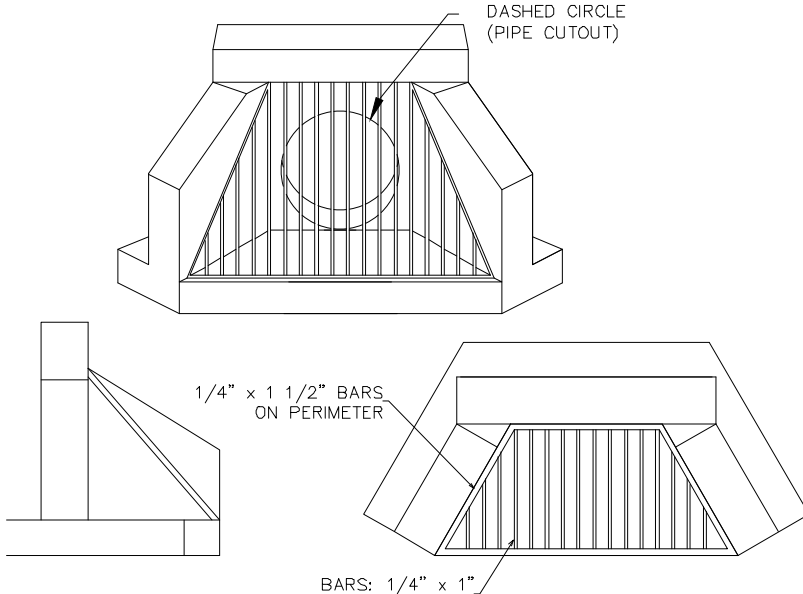
SPECIFICATIONS:
-THE CONCRETE IS DESIGNED TO OBTAIN A STRENGTH OF 4,000 PSI IN 28 DAYS
-THE REINFORCING STEEL HAS A YIELD STRENGTH OF 60,000 PSI
-THE INLET SHALL BE DESIGNED TO MEET PENNDOT SPEC. FORM 408 FOR PRECAST CONCRETE CATCH BASINS (RC-46M).
-CATCH BASIN MARKING SHALL BE PROVIDED FOR INLETS IN THE STREET RIGHT-OF-WAY

THE INLET TOP IS CAST AROUND THE FRAME FOR A BICYCLE GRATE (PER PENNDOT PUB 72, RC-45M); LEDGE WIDTH IS 1 1/2" AND DEPTH IS 2 1/2" ALL AROUND TO ACCOMMODATE A FRAME WITH AN ANGLE OF 1 1/2" x 1 1/2" (MIN.)



- ALL CATCH BASINS SHALL BE PROVIDED IN ACCORDANCE WITH PENNDOT PUB 72, RC-45M.
- ALL CATCH BASINS SHALL BE PROVIDED WITH MARKERS IN ACCORDANCE WITH CHAPTER 21, EXHIBIT "L".

PENNDOT TYPE "C" INLET
NOT TO SCALE

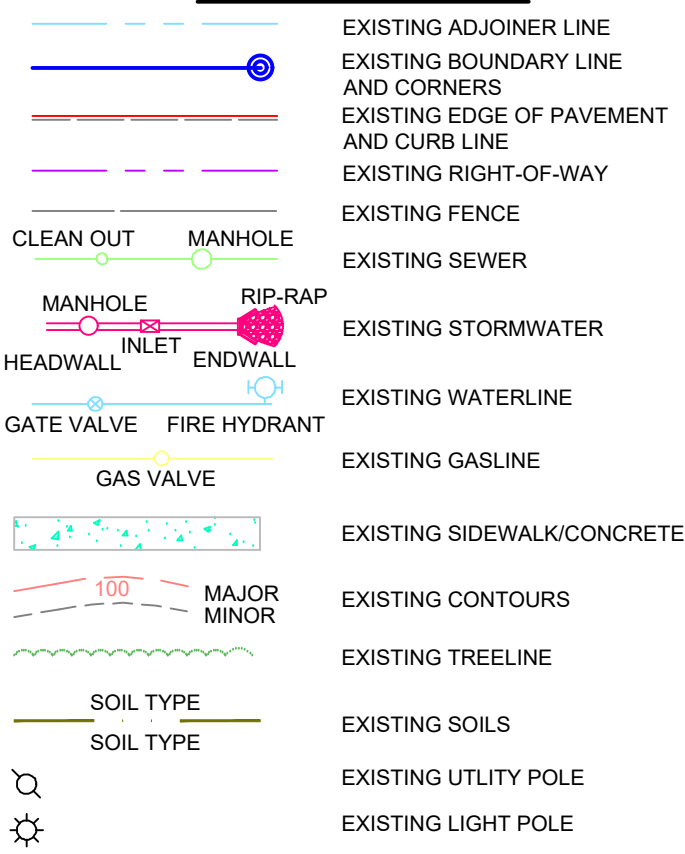


- NOTES:
- MATERIALS TO BE HOT-DIPPED GALVANIZED STEEL OR STAINLESS STEEL.
 - ATTACH TRASH RACK TO HEADWALL WITH 3/8" DIA. S.S. ANCHOR BOLTS.
 - TRASH RACKS SHALL BE HINGED AND LOCKABLE WITH A CHILD SAFETY GRATE.
 - TRASH RACK SHALL BE PROVIDED ON ALL HEADWALLS, ENDWALLS, AND OPEN END HORIZONTAL PIPES OF 12" DIAMETER AND LARGER.
 - ALL TYPE D-W ENDWALLS SHALL CONFORM TO CURRENT PENNDOT RC-31M STANDARDS.

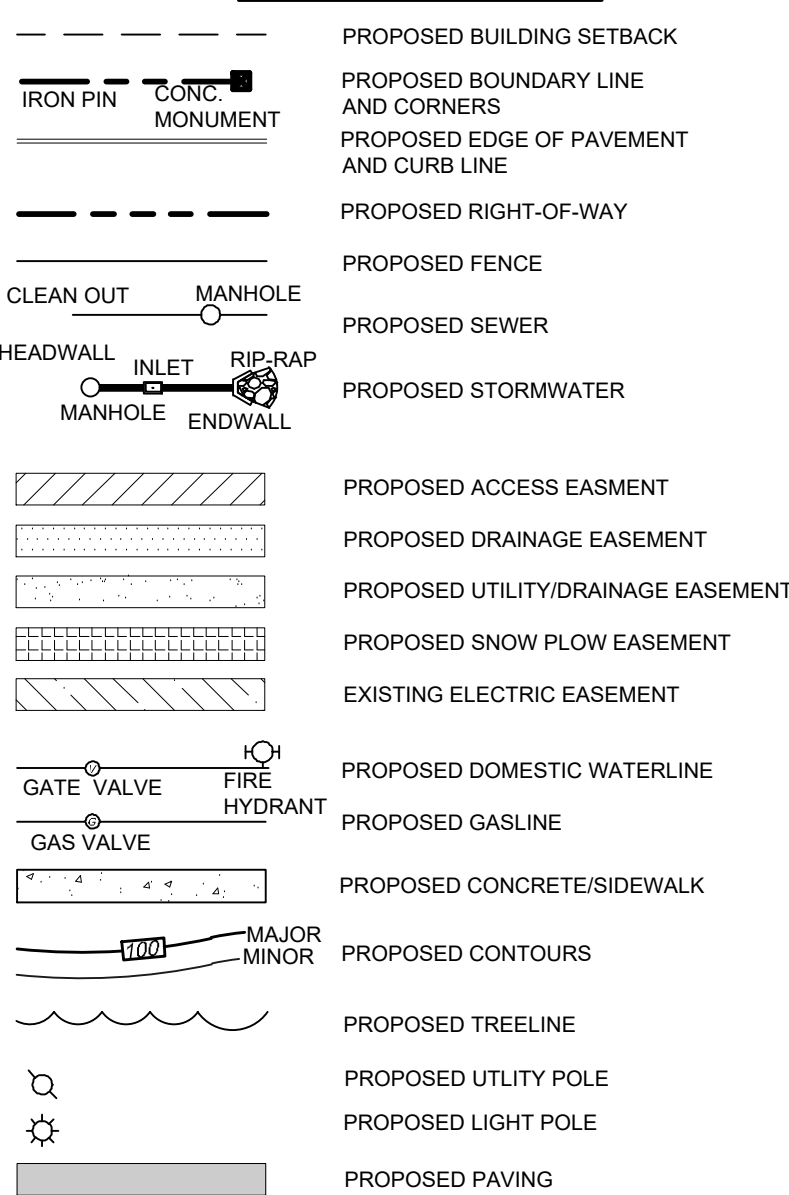
TYPE DW ENDWALL & HEADWALL WITH TRASHRACK DETAIL
NOT TO SCALE

LEGEND

EXISTING FEATURES



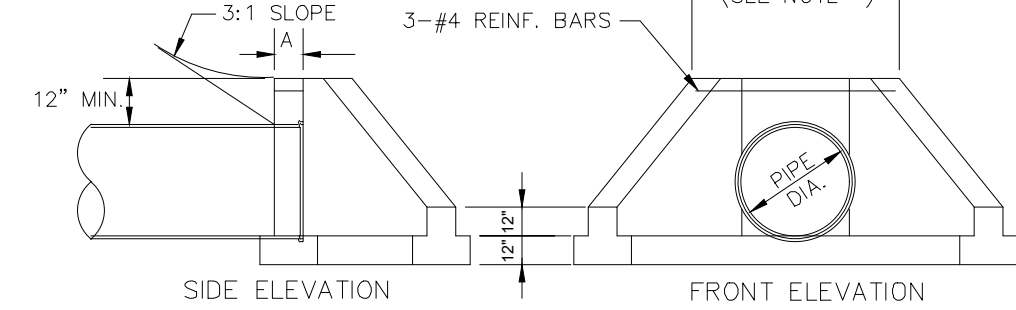
PROPOSED FEATURES



PIPE DIA.	L*	W	A
15"	4.0'	4.0'	12"
18"	4.0'	4.0'	12"
24"	4.6'	4.25'	12"
30"	4.6'	4.6'	12"

NOTES:

- CONCRETE SHALL BE CLASS "A"
- EXPOSED EDGES SHALL BE CHAMFERED ONE (1) INCH.
- ADD 1'-0" TO DIMENSION 'L' WHEN ORRIZE PLATE IS TO BE PLACED ON HEADWALL.
- PROVIDE CONC. APRON WHEN TRASH RACK IS TO BE INSTALLED ON HEADWALL. SEE TRASH RACK DETAIL.
- ALL TYPE D-W ENDWALLS SHALL CONFORM TO CURRENT PENNDOT RC-31M STANDARDS.



STANDARD TYPE DW ENDWALL DETAIL
NOT TO SCALE

APPLICATION	SPECIES	APPLICATION RATE 1 (P.L.S. IN LBS/AC)	FERTILIZER (LBS/ACRE)	LIMING RATE 2 (TONS/ACRE)	FINAL SEEDING DATE
TEMPORARY	ANNUAL RYE	174	50-50-50 N-P-K 0-0-0	AG GRADE	OCTOBER 30
	FINE FESCUE	60	50-50-50 N-P-K 0-0-0	AG GRADE	OCTOBER 30
PERMANENT	KENTUCKY BLUEGRASS	90	100-200-200 N-P-K 0-0-0	6 AG GRADE	AUGUST 30 AND OCTOBER 30
	PERENNIAL RYEGRASS	25	100-200-200 N-P-K 0-0-0	6 AG GRADE	AUGUST 30 AND OCTOBER 30
ATHLETIC FIELDS	KENTUCKY BLUEGRASS	150	100-200-200 N-P-K 0-0-0	6 AG GRADE	AUGUST 30 AND OCTOBER 30
	PERENNIAL RYEGRASS	25	100-200-200 N-P-K 0-0-0	6 AG GRADE	AUGUST 30 AND OCTOBER 30
RIPARIAN BUFFER	ERNST MIX ERNMX-178	20	100-200-200 N-P-K 0-0-0	6 AG GRADE	AUGUST 30 AND OCTOBER 30
STEEP SLOPES					
NURSE CROP	ANNUAL RYE	64	50-50-50 N-P-K 0-0-0	1 TON/AC AG GRADE*	OCT. 15
PERMANENT	BIRDFOOT TREFOIL PLUS	10	100-200-200 N-P-K 0-0-0	1 TON/AC AG GRADE*	MARCH 15 AND OCT. 15
	CROWN VETCH PLUS	20	100-200-200 N-P-K 0-0-0	1 TON/AC AG GRADE*	MARCH 15 AND OCT. 15
	PLUS TALL FESCUE	30	100-200-200 N-P-K 0-0-0	1 TON/AC AG GRADE*	MARCH 15 AND OCT. 15

- PLS IS PURE LIVE SEED. PLS IS THE PRODUCT OF THE PERCENTAGE OF PURE SEED TIMES PERCENTAGE GERMINATION DIVIDED BY 100. TO SECURE THE ACTUAL PLANTING RATE, DIVIDE THE POUNDS PLS BY THE PLS PERCENTAGE SHOWN ON THE SEED TAG OR AS PREVIOUSLY DISCUSSED. THUS, IF THE PLS CONTENT OF FINE FESCUE IS 50%, DIVIDE 7 PLS BY 0.50 TO OBTAIN 140 POUNDS OF SEED PER ACRE.
- LIMING RATE SHALL BE IN ACCORDANCE WITH SOIL TEST RESULTS. APPLY 6 TONS OF AGRICULTURAL GRADE LIMESTONE/AC OF LAND DISTURBED BY DIVERSIONS AND DAMS.
- ALL SEEDED AREAS SHALL BE MULCHED WITH STRAW APPLIED AT A RATE OF 3 TONS/ACRE. MULCH TO BE ANCHORED WITH WOOD CELLULOSE FIBER @ 750 LBS/AC.

BY: JTW
DATE: 3/22/22
REVISED: 4/20/22
PER SSI LETTER DATED 3/22/22
PER SSI LETTER DATED 4/15/22
PER LCPD LETTER DATED 4/11/22

TOWN'S EDGE
APARTMENTS, LLC

MANAGER: JOSHUA T. WEAVER, P.E.
DESIGN BY: JTW CHECKED BY: RDT
DRAWN BY: RDT CHECKED BY: JTW
SURVEY: M&H PLAN DATE: MARCH 10, 2022
PROJECT #: CH2 21.1



REVISED FINAL SUBDIVISION &
LAND DEVELOPMENT PLAN

FOR

TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)

NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

Post Construction
Stormwater Management
Plan

PCSM₁

\\christland\Public\Project Files\CH2 - Mike Charles\CH2-21 - Towns Edge Revised Apartments\DWG\PRELIM-FINAL\PLAN\24\0222-48.AIA

POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) STANDARD NOTES

PCSM REQUIREMENTS

A LICENSED PROFESSIONAL OR A DESIGNEE SHALL BE PRESENT ONSITE AND BE RESPONSIBLE DURING CRITICAL STAGES OF IMPLEMENTATION OF THE APPROVED PCSM PLAN. THE CRITICAL STAGES MAY INCLUDE THE INSTALLATION OF UNDERGROUND TREATMENT OR STORAGE BMPs, STRUCTURALLY ENGINEERED BMPs, OR OTHER BMPs AS DEEMED APPROPRIATE BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

THE PCSM PLAN, INSPECTION REPORTS, AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

PCSM LONG TERM OPERATIONS AND MAINTENANCE REQUIREMENTS

THE PERMITTEE OR CO-PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs.

A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP OR OTHERWISE FAILS TO COMPLY WITH THIS REQUIREMENT SHALL REMAIN JOINTLY AND SEVERALLY RESPONSIBLE WITH THE LANDOWNER FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs LOCATED ON THE PROPERTY.

PERMIT TERMINATION

UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY AND INSTALLATION OF BMPs IN ACCORDANCE WITH AN APPROVED PLAN, THE PERMITTEE OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE DEPARTMENT OR CONSERVATION DISTRICT.

THE NOTICE OF TERMINATION MUST INCLUDE:

- THE FACILITY NAME, ADDRESS AND LOCATION
- THE OPERATOR NAME AND ADDRESS
- THE NPDES PERMIT NUMBER
- THE REASON FOR PERMIT TERMINATION
- IDENTIFICATION OF THE PERSONS WHO HAVE AGREED TO AND WILL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM
- COPY OF LEGAL INSTRUMENT: FOR ANY PROPERTY CONTAINING A PCSM BMP, THE PERMITTEE OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSM BMP AND THE RELATED OBLIGATIONS IN THE ORDINARY COURSE OF A TITLE SEARCH OF THE SUBJECT PROPERTY. THE RECORDED INSTRUMENT MUST IDENTIFY THE PCSM BMP, PROVIDE FOR NECESSARY ACCESS RELATED TO LONG-TERM OPERATION AND MAINTENANCE FOR PCSM BMPs AND PROVIDE NOTICE THAT THE RESPONSIBILITY FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP IS A COVENANT THAT RUNS WITH THE LAND THAT IS BINDING UPON AND ENFORCEABLE BY SUBSEQUENT GRANTEE, AND PROVIDE PROOF OF FILING WITH THE NOTICE OF TERMINATION.
- FINAL CERTIFICATION: THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS:

"I (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 PA. C.S.A. §4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES."

(1) THE PERMITTEE SHALL RETAIN A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN.
(2) THE PERMITTEE SHALL PROVIDE A COPY OF THE RECORD DRAWINGS AS PART OF THE APPROVED PCSM PLAN TO THE PERSON IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs.

INFILTRATION BASINS

INFILTRATION BASINS ARE SHALLOW, IMPOUNDED AREAS DESIGNED TO TEMPORARILY STORE AND INFILTRATE STORMWATER RUNOFF. THE SIZE AND SHAPE CAN VARY FROM ONE LARGE BASIN TO MULTIPLE, SMALLER BASINS THROUGHOUT A SITE. IDEALLY, THE BASIN SHOULD AVOID DISTURBANCE OF EXISTING VEGETATION. IF DISTURBANCE IS UNAVOIDABLE, REPLANTING AND LANDSCAPING MAY BE NECESSARY AND SHOULD INTEGRATE THE EXISTING LANDSCAPE AS SUBTLY AS POSSIBLE AND COMPACTION OF THE SOIL MUST BE PREVENTED. INFILTRATION BASINS USE THE EXISTING SOIL MANTLE TO REDUCE THE VOLUME OF STORMWATER RUNOFF BY INFILTRATION AND EVAPOTRANSPIRATION. THE QUALITY OF THE RUNOFF IS ALSO IMPROVED BY THE NATURAL CLEANSING PROCESSES OF THE EXISTING SOIL MANTLE AND ALSO BY THE VEGETATION PLANTED IN THE BASINS.

CONSTRUCTION SEQUENCE

- PROTECT INFILTRATION BASIN AREA FROM COMPACTION PRIOR TO INSTALLATION.
- IF POSSIBLE, INSTALL INFILTRATION BASIN DURING LATER PHASES OF SITE CONSTRUCTION TO PREVENT SEDIMENTATION AND/OR DAMAGE FROM CONSTRUCTION ACTIVITY. AFTER INSTALLATION, PREVENT SEDIMENT LOADED WATER FROM ENTERING INLETS AND PIPES.
- INSTALL AND MAINTAIN PROPER EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
- IF NECESSARY, EXCAVATE INFILTRATION BASIN BOTTOM TO AN UNCOMPACTED SUBGRADE FREE FROM ROCKS AND DEBRIS. DO NOT COMPACT SUBGRADE.
- INSTALL OUTLET CONTROL STRUCTURES.
- SEED AND STABILIZE TOPSOIL. (VEGETATE IF APPROPRIATE WITH NATIVE PLANTINGS.)
- DO NOT REMOVE INLET PROTECTION OR OTHER EROSION AND SEDIMENT CONTROL MEASURES UNTIL SITE IS FULLY STABILIZED.

MAINTENANCE ISSUES

PROPERLY DESIGNED AND INSTALLED RETENTION AREAS REQUIRE SOME REGULAR MAINTENANCE:

MAINTENANCE ACTIVITIES TO BE DONE ANNUALLY AND WITHIN 48 HOURS AFTER EVERY MAJOR STORM EVENT (> 1 INCH RAINFALL DEPTH):

- INSPECT AND CORRECT EROSION PROBLEMS, DAMAGE TO VEGETATION, AND SEDIMENT AND DEBRIS ACCUMULATION (ADDRESS WHEN > 3 INCHES AT ANY SPOT OR COVERING VEGETATION)
- INSPECT VEGETATION ON SIDE SLOPES FOR EROSION AND FORMATION OF RILLS OR GULLIES, CORRECT AS NEEDED
- MOW AND TRIM VEGETATION TO ENSURE SAFETY, AESTHETICS, PROPER RETENTION BASIN OPERATION, OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION; DISPOSE OF CUTTINGS IN A LOCAL COMPOSTING FACILITY; MOW ONLY WHEN RETENTION BASIN IS DRY TO AVOID RUTTING
- INSPECT FOR LITTER; REMOVE PRIOR TO MOWING
- INSPECT RETENTION BASIN INLET (CURB CUTS, PIPES, ETC.) AND OUTLET FOR SIGNS OF EROSION OR BLOCKAGE, CORRECT AS NEEDED

MAINTENANCE ACTIVITIES TO BE DONE AS NEEDED:

- RE-PLANT SPECIFIED GRASS SPECIES IN THE EVENT OF UNSUCCESSFUL ESTABLISHMENT. INSTALL NAG S75 MATTING IN AREAS WHERE INITIAL GRASS ESTABLISHMENT WAS NOT SUCCESSFUL.
- RESEED BARE AREAS; INSTALL APPROPRIATE EROSION CONTROL MEASURES WHEN NATIVE SOIL IS EXPOSED OR EROSION CHANNELS ARE FORMING.
- ROTOILL AND REPLANT INFILTRATION BASIN/BIORETENTION IF DRAW DOWN TIME IS MORE THAN 72 HOURS.
- WATER DURING DRY PERIODS, FERTILIZE, AND APPLY PESTICIDE ONLY WHEN ABSOLUTELY NECESSARY.

STREET SWEEPING

DAILY USE OF ROADS AND STREETS (AND PARKING LOTS) WITHIN A MUNICIPALITY CAN GENERATE A BUILD-UP OF POLLUTANTS INCLUDING LITTER AND SEDIMENT. REGULAR STREET SWEEPING CAN REDUCE THE AMOUNT OF POLLUTANTS AS WELL AS IMPROVE AESTHETICS OF STREETS. ONE OF SEVERAL MODES OF SWEEPING EQUIPMENT SHALL BE USED (E.G., MECHANICAL, REGENERATIVE AIR, OR VACUUM FILTER SWEEPERS) ON A PROGRAMMED BASIS TO REMOVE LARGER DEBRIS MATERIAL AND SMALLER PARTICULATE POLLUTANTS, PREVENTING THIS MATERIAL FROM CLOGGING THE STORMWATER MANAGEMENT SYSTEM AND WASHING INTO RECEIVING WATERWAYS/WATERBODIES.

EQUIPMENT:
MECHANICAL BROOM: USE OF MECHANICAL BROOMS/BRUSHES WITH CONVEYOR BELTS. DESIGNED TO REMOVE STANDARD ROAD DEBRIS. USING VARIOUS TYPES OF CIRCULATING BRUSHES THAT SWEEP MATERIAL ONTO CONVEYORS AND THEN INTO BINS. SOME MACHINES APPLY WATER TO REDUCE DUST. INCLUDES THE ELGIN PELICAN (3- WHEEL) AND EAGLE (4-WHEEL), ATHEY'S MOBILE (3- AND 4-WHEEL) AND SCHWARZE M-SERIES. STORMWATER REPORTS THAT THE VAST BULK OF SWEEPERS IN USE IN THE US ARE OF THIS TYPE.

REGENERATIVE AIR: COMPRESSED AIR IS DIRECTED ONTO THE ROAD SURFACE, LOOSENING FINE PARTICLES THAT ARE THEN VACUUMED. INCLUDES ELGIN'S CROSSWIND J, MOBILE'S RA730 SERIES, SCHWARZE'S A-SERIES, TYMCO SWEEPERS.

VACUUM FILTER: VACUUM ASSISTED SMALL-MICRON PARTICLE SWEEPERS, EITHER WET OR DRY. DRY VACUUM INCLUDES MECHANICAL BROOM SWEEPING WITH A VACUUM (ELGIN'S GEOVAC AND WHIRLWIND MODELS AND SCHWARZE'S EV-SERIES PARTICULATE MANAGEMENT); THIS TECHNOLOGY WORKS WELL EVEN IN COLD WEATHER CONDITIONS. WET VACUUM USES WATER DUST SUPPRESSION WITH SCRUBBERS THAT APPLY WATER TO PAVEMENT; PARTICLES ARE SUSPENDED, AND THEN VACUUMED.

MAINTENANCE ISSUES

- TOWN'S EDGE DEVELOPMENT AND APARTMENT PARKING LOTS SHALL BE SWEEPED AT LEAST TWO (2) TIMES PER YEAR AND AS NEEDED DUE TO THE ACCUMULATION OF SEDIMENT, ANTI-SKID, OR OTHER DEBRIS. TYPICALLY SWEEPING WILL TAKE PLACE ONCE IN THE SPRING AFTER THE LAST SNOW STORM AND ONCE IN LATE FALL.

OPERATIONAL PROTOCOLS

- CONDUCT SWEEPING DURING DRY WEATHER
- CONSIDER TRAFFIC VOLUMES WHEN SCHEDULING SWEEPING ACTIVITIES
- KEEP ACCURATE LOGS OF STREET SWEEPING ACTIVITIES
- PROPERLY DISPOSE OF COLLECTED DEBRIS IN A LEGAL MANNER.

GENERAL PRACTICES

- MAINTAIN SWEEPERS OR CLEANING EQUIPMENT; REPAIR IF LEAKS ARE OBSERVED
- MAINTAIN A CONSISTENT SWEEPING SCHEDULE
- DO NOT STORE SWEEPINGS ADJACENT TO WATERWAYS OR STORM DRAINS
- DO NOT "PUSH" SWEEPINGS TO STORM DRAINS OR INLETS

VEGETATED SWALE

VEGETATED SWALES ARE BROAD, SHALLOW CHANNELS DESIGNED TO SLOW RUNOFF, PROMOTE INFILTRATION, AND FILTER POLLUTANTS AND SEDIMENTS IN THE PROCESS OF CONVEYING RUNOFF. VEGETATED SWALES PROVIDE AN ENVIRONMENTALLY SUPERIOR ALTERNATIVE TO CONVENTIONAL CURB AND GUTTER CONVEYANCE SYSTEMS, WHILE PROVIDING PARTIALLY TREATED (PRETREAT) AND PARTIALLY DISTRIBUTED STORMWATER FLOWS TO SUBSEQUENT BMPs. SWALES ARE OFTEN HEAVILY VEGETATED WITH A DENSE AND DIVERSE SELECTION OF NATIVE, CLOSE-GROWING, WATER-RESISTANT PLANTS WITH HIGH POLLUTANT REMOVAL POTENTIAL. THE VARIOUS POLLUTANT REMOVAL MECHANISMS OF A SWALE INCLUDE: SEDIMENTARY FILTERING BY THE SWALE VEGETATION (BOTH ON SIDE SLOPES AND ON BOTTOM), FILTERING THROUGH A SUBSOIL MATRIX, AND/OR INFILTRATION INTO THE UNDERLYING SOILS WITH THE FULL ARRAY OF INFILTRATION-ORIENTED POLLUTANT REMOVAL MECHANISMS.

A VEGETATED SWALE TYPICALLY CONSISTS OF A BAND OF DENSE VEGETATION, UNDERLAIN BY AT LEAST 24 INCHES OF PERMEABLE SOIL. SWALES CONSTRUCTED WITH AN UNDERLYING 12 TO 24 INCH AGGREGATE LAYER PROVIDE SIGNIFICANT VOLUME REDUCTION AND REDUCE THE STORMWATER CONVEYANCE RATE. THE PERMEABLE SOIL MEDIA SHOULD HAVE A MINIMUM INFILTRATION RATE OF 0.5 INCHES PER HOUR AND CONTAIN A HIGH LEVEL OF ORGANIC MATERIAL TO ENHANCE POLLUTANT REMOVAL. A NONWOVEN GEOTEXTILE SHOULD COMPLETELY WRAP THE AGGREGATE TRENCH.

CONSTRUCTION SEQUENCE

- BEGIN VEGETATED SWALE CONSTRUCTION ONLY WHEN THE UPGRADE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE. VEGETATED SWALES SHOULD BE CONSTRUCTED AND STABILIZED EARLY IN THE CONSTRUCTION SCHEDULE, PREFERABLY BEFORE MASS EARTHWORK AND PAVING INCREASE THE RATE AND VOLUME OF RUNOFF. (EROSION AND SEDIMENT CONTROL METHODS SHALL ADHERE TO THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL, MARCH 2000 OR LATEST EDITION.)
- ROUGH GRADE THE VEGETATED SWALE. EQUIPMENT SHALL AVOID EXCESSIVE COMPACTION AND/OR LAND DISTURBANCE. EXCAVATING EQUIPMENT SHOULD OPERATE FROM THE SIDE OF THE SWALE AND NEVER ON THE BOTTOM. IF EXCAVATION LEADS TO SUBSTANTIAL COMPACTION OF THE SUBGRADE (WHERE AN INFILTRATION TRENCH IS NOT PROPOSED), 18 INCHES SHALL BE REMOVED AND REPLACED WITH A BLEND OF TOPSOIL AND SAND TO PROMOTE INFILTRATION AND BIOLOGICAL GROWTH. AT THE VERY LEAST, TOPSOIL SHALL BE THOROUGHLY DEEP PLOWED INTO THE SUBGRADE IN ORDER TO PENETRATE THE COMPACTED ZONE AND PROMOTE AERATION AND THE FORMATION OF MACROPORES. FOLLOWING THIS, THE AREA SHOULD BE DISKED PRIOR TO FINAL GRADING OF TOPSOIL.
- CONSTRUCT FILTER SOCK CHECK DAMS, IF REQUIRED. INSTALL IN ACCORDANCE WITH FILTER SOCK DETAIL AT LOCATIONS INDICATED ON THE PLANS.
- FINE GRADE THE VEGETATED SWALE. ACCURATE GRADING IS CRUCIAL FOR SWALES. EVEN THE SMALLEST NONCONFORMITIES MAY COMPROMISE FLOW CONDITIONS.
- SEED, VEGETATE AND INSTALL PROTECTIVE LINING AS PER APPROVED PLANS AND ACCORDING TO FINAL PLANTING LIST. PLANT THE SWALE AT A TIME OF THE YEAR WHEN SUCCESSFUL ESTABLISHMENT WITHOUT IRRIGATION IS MOST LIKELY. HOWEVER, TEMPORARY IRRIGATION MAY BE NEEDED IN PERIODS OF LITTLE RAIN OR DROUGHT. VEGETATION SHOULD BE ESTABLISHED AS SOON AS POSSIBLE TO PREVENT EROSION AND SCOUR.
- ONCE ALL TRIBUTARY AREAS ARE SUFFICIENTLY STABILIZED, REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS. IT IS VERY IMPORTANT THAT THE SWALE BE STABILIZED BEFORE RECEIVING UPLAND STORMWATER FLOW.
- FOLLOW MAINTENANCE GUIDELINES, AS DESCRIBED BELOW.

NOTE: IF A VEGETATED SWALE IS USED FOR CONVEYANCE DURING CONSTRUCTION, IT SHOULD BE REGRADED AND RESEEDED IMMEDIATELY AFTER CONSTRUCTION AND STABILIZATION HAS OCCURRED. ANY DAMAGED AREAS SHOULD BE FULLY RESTORED TO ENSURE FUTURE FUNCTIONALITY OF THE SWALE.

MAINTENANCE ISSUES

COMPARED TO OTHER STORMWATER MANAGEMENT MEASURES, THE REQUIRED UPKEEP OF VEGETATED SWALES IS RELATIVELY LOW. IN GENERAL, MAINTENANCE STRATEGIES FOR SWALES FOCUS ON SUSTAINING THE HYDRAULIC AND POLLUTANT REMOVAL EFFICIENCY OF THE CHANNEL, AS WELL AS MAINTAINING A DENSE VEGETATIVE COVER. EXPERIENCE HAS PROVEN THAT PROPER MAINTENANCE ACTIVITIES ENSURE THE FUNCTIONALITY OF VEGETATED SWALES FOR MANY YEARS. THE FOLLOWING SCHEDULE OF INSPECTION AND MAINTENANCE ACTIVITIES IS RECOMMENDED:

MAINTENANCE ACTIVITIES TO BE DONE ANNUALLY AND WITHIN 48 HOURS AFTER EVERY MAJOR STORM EVENT (> 1 INCH RAINFALL DEPTH):

- INSPECT AND CORRECT EROSION PROBLEMS, DAMAGE TO VEGETATION, AND SEDIMENT AND DEBRIS ACCUMULATION (ADDRESS WHEN > 3 INCHES AT ANY SPOT OR COVERING VEGETATION)
- INSPECT VEGETATION ON SIDE SLOPES FOR EROSION AND FORMATION OF RILLS OR GULLIES, CORRECT AS NEEDED
- INSPECT FOR POOLS OF STANDING WATER; DEWATER AND DISCHARGE TO AN APPROVED LOCATION AND RESTORE TO DESIGN GRADE
- MOW AND TRIM VEGETATION TO ENSURE SAFETY, AESTHETICS, PROPER SWALE OPERATION, OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION; DISPOSE OF CUTTINGS IN A LOCAL COMPOSTING FACILITY; MOW ONLY WHEN SWALE IS DRY TO AVOID RUTTING
- INSPECT FOR LITTER; REMOVE PRIOR TO MOWING
- INSPECT FOR UNIFORMITY IN CROSS-SECTION AND LONGITUDINAL SLOPE, CORRECT AS NEEDED
- INSPECT SWALE INLET (CURB CUTS, PIPES, ETC.) AND OUTLET FOR SIGNS OF EROSION OR BLOCKAGE, CORRECT AS NEEDED

MAINTENANCE ACTIVITIES TO BE DONE AS NEEDED:

- RE-PLANT SPECIFIED GRASS SPECIES IN THE EVENT OF UNSUCCESSFUL ESTABLISHMENT. INSTALL NAG S75 MATTING IN AREAS WHERE INITIAL GRASS ESTABLISHMENT WAS NOT SUCCESSFUL.
- RESEED BARE AREAS; INSTALL APPROPRIATE EROSION CONTROL MEASURES WHEN NATIVE SOIL IS EXPOSED OR EROSION CHANNELS ARE FORMING
- ROTOILL AND REPLANT SWALE IF DRAW DOWN TIME IS MORE THAN 48 HOURS
- INSPECT AND CORRECT CHECK DAMS WHEN SIGNS OF ALTERED WATER FLOW (CHANNELIZATION, OBSTRUCTIONS, EROSION, ETC.) ARE IDENTIFIED
- WATER DURING DRY PERIODS, FERTILIZE, AND APPLY PESTICIDE ONLY WHEN ABSOLUTELY NECESSARY

MOST OF THE ABOVE MAINTENANCE ACTIVITIES ARE REASONABLY WITHIN THE ABILITY OF INDIVIDUAL HOMEOWNERS. MORE INTENSIVE SWALES (I.E. MORE SUBSTANTIAL VEGETATION, CHECK DAMS, ETC.) MAY WARRANT MORE INTENSIVE MAINTENANCE DUTIES AND SHOULD BE VESTED WITH A RESPONSIBLE AGENCY. A LEGALLY BINDING AND ENFORCEABLE MAINTENANCE AGREEMENT BETWEEN THE FACILITY OWNER AND THE LOCAL REVIEW AUTHORITY MIGHT BE WARRANTED TO ENSURE SUSTAINED MAINTENANCE EXECUTION. WINTER CONDITIONS ALSO NECESSITATE ADDITIONAL MAINTENANCE CONCERNS, WHICH INCLUDE THE FOLLOWING:

- INSPECT SWALE IMMEDIATELY AFTER THE SPRING MELT, REMOVE RESIDUALS (E.G. SAND) AND REPLACE DAMAGED VEGETATION WITHOUT DISTURBING REMAINING VEGETATION.
- IF ROADSIDE OR PARKING LOT RUNOFF IS DIRECTED TO THE SWALE, MULCHING AND/OR SOIL AERATION/MANIPULATION MAY BE REQUIRED IN THE SPRING TO RESTORE SOIL STRUCTURE AND MOISTURE CAPACITY AND TO REDUCE HE IMPACTS OF DEICING AGENTS.
- USE NONTOXIC, ORGANIC DEICING AGENTS, APPLIED EITHER AS BLENDED, MAGNESIUM CHLORIDE-BAS LIQUID PRODUCTS OR AS PRETREATED SALT
- USE SALT-TOLERANT VEGETATION IN SWALES.

SPECIFICATIONS

THE FOLLOWING SPECIFICATIONS ARE PROVIDED FOR INFORMATION PURPOSES ONLY. THESE SPECIFICATIONS INCLUDE INFORMATION ON ACCEPTABLE MATERIALS FOR TYPICAL APPLICATIONS, BUT ARE BY NO MEANS EXCLUSIVE OR LIMITING. THE DESIGNER IS RESPONSIBLE FOR DEVELOPING DETAILED SPECIFICATIONS FOR INDIVIDUAL DESIGN PROJECTS IN ACCORDANCE WITH THE PROJECT CONDITIONS.

- SWALE SOIL SHALL BE USCS CLASS ML (INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS WITH SLIGHT PLASTICITY), SM (SILTY SANDS, POORLY GRADED SAND-SILT MIXTURES), SW (WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES) OR SC (CLAYEY SANDS, POORLY GRADED SAN CLAY MIXTURES). THE FIRST THREE OF THESE DESIGNATIONS ARE PREFERRED FOR SWALES IN COLD CLIMATES. IN GENERAL, SOIL WITH A HIGHER PERCENT ORGANIC CONTENT IS PREFERRED.
- SWALE SAND SHALL BE ASTM C-33 FINE AGGREGATE CONCRETE SAND (0.02 IN TO 0.04 IN).
- CHECK DAMS CONSTRUCTED OF NATURAL WOOD SHALL BE 6 IN TO 12 IN DIAMETER AND NOTCHED AS NECESSARY. THE FOLLOWING SPECIES ARE ACCEPTABLE: BLACK LOCUST, RED MULBERRY, CEDARS, CATALPA, WHITE OAK, CHESTNUT OAK, BLACK WALNUT. THE FOLLOWING SPECIES ARE NOT ACCEPTABLE, AS THEY CAN ROT OVER TIME: ASH, BEECH, BIRCH, ELM, HACKBERRY, HEMLOCK, HICKORIES, MAPLES, RED AND BLACK OAK, PINES, POPLAR, SPRUCE, SWEETGUM, AND WILLOW. AN EARTHEN CHECK DAM SHALL BE CONSTRUCTED OF SAND, GRAVEL, AND SANDY LOAM TO ENCOURAGE GRASS COVER (SAND: ASTM C-33 FINE CHECK DAM AGGREGATE CONCRETE SAND 0.02 IN TO 0.04 IN, GRAVEL: AASHTO M-43 0.5 IN TO 1.0 IN). A STONE SHALL BE CONSTRUCTED OF R-4 RIP RAP, OR EQUIVALENT.
- DEVELOP A NATIVE PLANTING MIX.

INFILTRATION BASIN

INFILTRATION BASINS ARE SHALLOW, IMPOUNDED AREAS DESIGNED TO TEMPORARILY STORE AND INFILTRATE STORMWATER RUNOFF. THE SIZE AND SHAPE CAN VARY FROM ONE LARGE BASIN TO MULTIPLE, SMALLER BASINS THROUGHOUT A SITE. IDEALLY, THE BASIN SHOULD AVOID DISTURBANCE OF EXISTING VEGETATION. IF DISTURBANCE IS UNAVOIDABLE, REPLANTING AND LANDSCAPING MAY BE NECESSARY AND SHOULD INTEGRATE THE EXISTING LANDSCAPE AS SUBTLY AS POSSIBLE AND COMPACTION OF THE SOIL MUST BE PREVENTED. INFILTRATION BASINS USE THE EXISTING SOIL MANTLE TO REDUCE THE VOLUME OF STORMWATER RUNOFF BY INFILTRATION AND EVAPOTRANSPIRATION. THE QUALITY OF THE RUNOFF IS ALSO IMPROVED BY THE NATURAL CLEANSING PROCESSES OF THE EXISTING SOIL MANTLE AND ALSO BY THE VEGETATION PLANTED IN THE BASINS.

CONSTRUCTION SEQUENCE

- PROTECT INFILTRATION BASIN AREA FROM COMPACTION PRIOR TO INSTALLATION.
- IF POSSIBLE, INSTALL INFILTRATION BASIN DURING LATER PHASES OF SITE CONSTRUCTION TO PREVENT SEDIMENTATION AND/OR DAMAGE FROM CONSTRUCTION ACTIVITY. AFTER INSTALLATION, PREVENT SEDIMENT LOADED WATER FROM ENTERING INLETS AND PIPES.
- INSTALL AND MAINTAIN PROPER EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
- IF NECESSARY, EXCAVATE INFILTRATION BASIN BOTTOM TO AN UNCOMPACTED SUBGRADE FREE FROM ROCKS AND DEBRIS. DO NOT COMPACT SUBGRADE.
- INSTALL OUTLET CONTROL STRUCTURES. 6. SEED AND STABILIZE TOPSOIL. (VEGETATE IF APPROPRIATE WITH NATIVE PLANTINGS.)
- DO NOT REMOVE INLET PROTECTION OR OTHER EROSION AND SEDIMENT CONTROL MEASURES UNTIL SITE IS FULLY STABILIZED.

MAINTENANCE ISSUES

PROPERLY DESIGNED AND INSTALLED RETENTION AREAS REQUIRE SOME REGULAR MAINTENANCE:

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- WATER DURING DRY PERIODS, FERTILIZE, AND APPLY PESTICIDE ONLY WHEN ABSOLUTELY NECESSARY.



REVISED FINAL SUBDIVISION & LAND DEVELOPMENT PLAN

FOR

TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)

NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

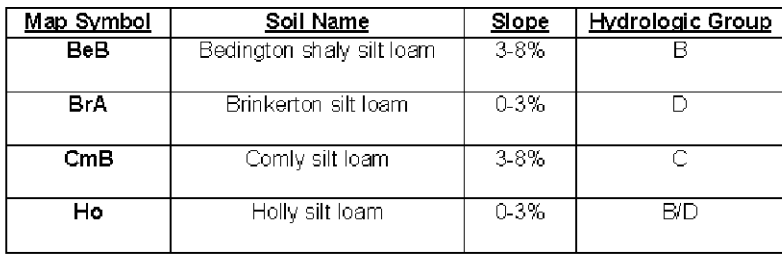
Post-Construction Stormwater Management Details

PCSM₂

DATE: 4/16/22
BY: JTW
PERMITS LETTER DATED: 4/15/22
PER LCDD LETTER DATED: 4/11/22


























TOWN'S EDGE APARTMENTS, LLC

MANAGER: JOSHUA T. WEABER, P.E.
DESIGN BY: JTW CHECKED BY: ROT
DRAWN BY: ROT CHECKED BY: JTW
SURVEY: M&H PLAN DATE: MARCH 10, 2022
PROJECT #: CH2.21.1












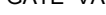
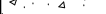











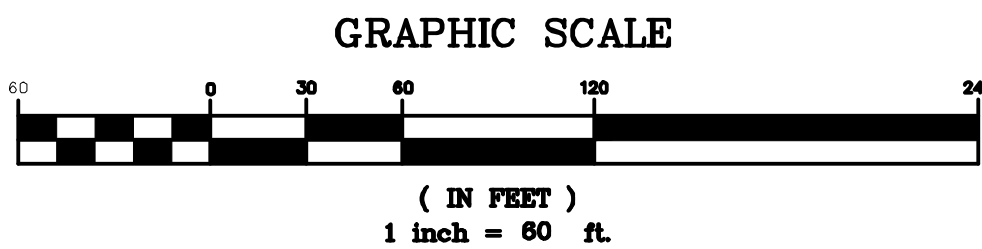
LEGEND

EXISTING FEATURES

	EXISTING ADJOINER LINE
	EXISTING BOUNDARY LINE AND CORNERS
	EXISTING EDGE OF PAVEMENT AND CURB LINE
	EXISTING RIGHT-OF-WAY
	EXISTING FENCE
	EXISTING SEWER
	
	
	
	
	
	
	
	
	
	
	
	
	
	
	
	
	
	
	

PROPOSED FEATURES

	PROPOSED BUILDING SETBACK
	PROPOSED BOUNDARY LINE AND CORNERS
	PROPOSED EDGE OF PAVEMENT AND CURB LINE
	PROPOSED RIGHT-OF-WAY
	PROPOSED FENCE
	PROPOSED SEWER
	PROPOSED STORMWATER
	PROPOSED ACCESS EASEMENT
	PROPOSED DRAINAGE EASEMENT
	PROPOSED UTILITY/DRAINAGE EASEMENT
	PROPOSED SNOW PLOW EASEMENT
	EXISTING ELECTRIC EASEMENT
	PROPOSED DOMESTIC WATERLINE
	PROPOSED GASLINE
	PROPOSED CONCRETE/SIDEWALK
	PROPOSED CONTOURS
	PROPOSED TREELINE
	PROPOSED UTILITY POLE
	PROPOSED LIGHT POLE
	PROPOSED PAVING
	INFILTRATION TEST LOCATION
	PROPOSED AMENDED SOILS AND WETLANDS SEEDING



REVISION	DATE	BY
PER SESI LETTER DATED 3/22/22	4/6/22	JTW
PER SESI LETTER DATED 4/15/22	4/20/22	JTW
PER CPD LETTER DATED 4/11/22	4/20/22	JTW

**TOWN'S EDGE
APARTMENTS, LLC**

MANAGER: JOSHUA T. WEABER, P.E.
 DESIGN BY: JTW CHECKED BY: RDT
 DRAWN BY: RDT CHECKED BY: JTW
 SURVEY: M&H PLAN DATE: MARCH 10, 2022
 PROJECT #: CH2 21-1



**REVISED FINAL SUBDIVISION &
LAND DEVELOPMENT PLAN**

FOR

TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)

NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

Pre-Development
Drainage Plan

PCSM₃



Map Symbol	Soil Name	Slope	Hydrologic Group
Beb	Bedington silty silt loam	3-5%	B
BrA	Brinkerton silt loam	0-3%	D
OmB	Comly silt loam	3-5%	C
Ho	Holly silt loam	0-3%	B/D

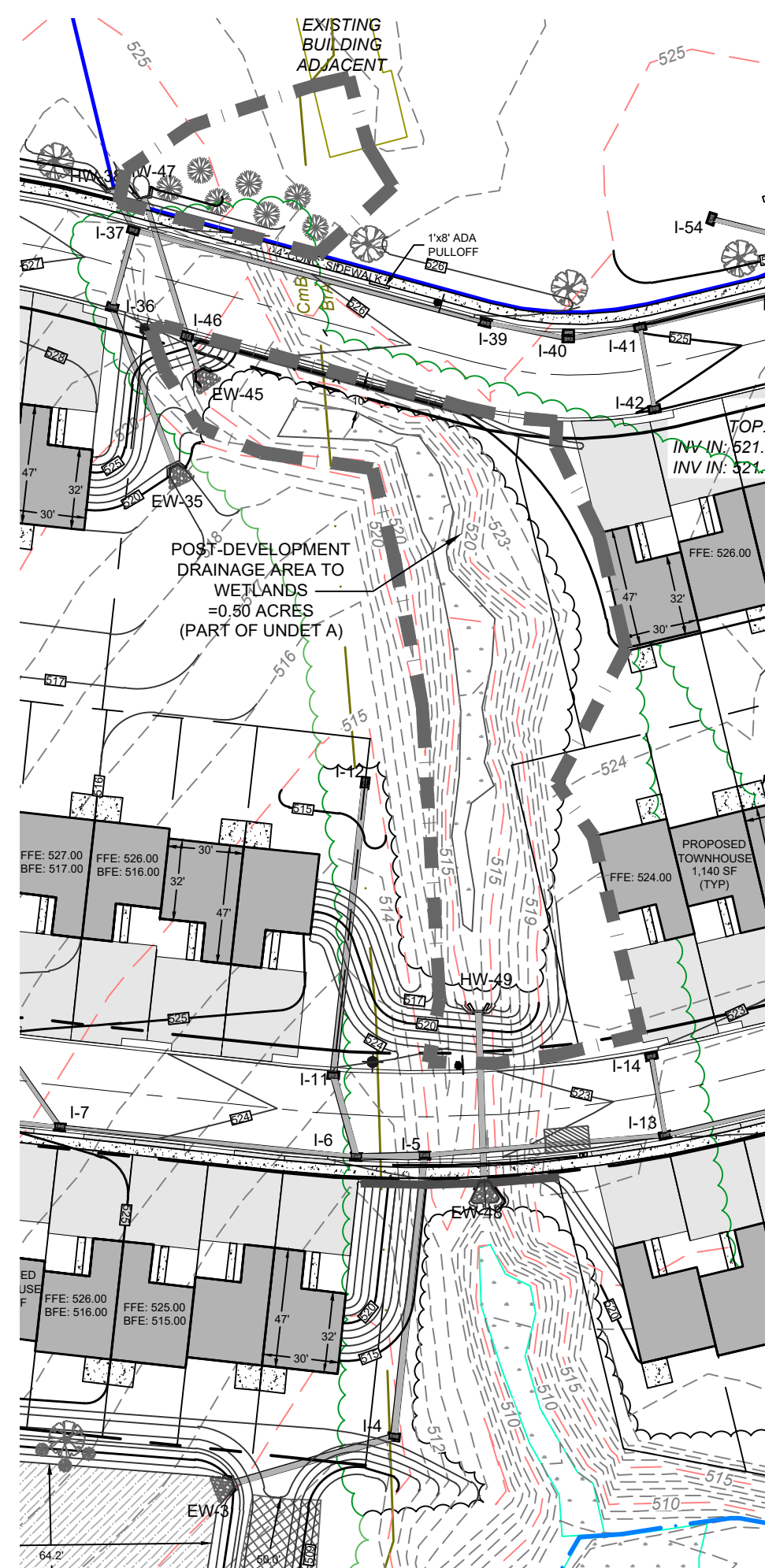
LEGEND

EXISTING FEATURES

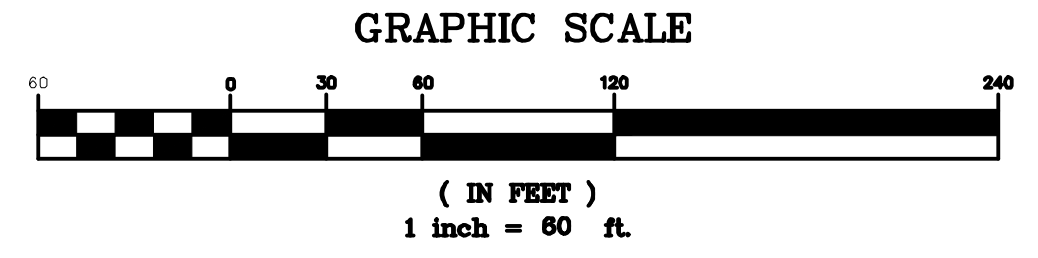
- EXISTING ADJOINER LINE
- EXISTING BOUNDARY LINE AND CORNERS
- EXISTING EDGE OF PAVEMENT AND CURB LINE
- EXISTING RIGHT-OF-WAY
- EXISTING FENCE
- EXISTING SEWER
- EXISTING STORMWATER
- EXISTING WATERLINE
- EXISTING GASLINE
- EXISTING SIDEWALK/CONCRETE
- EXISTING CONTOURS
- EXISTING TREELINE
- EXISTING SOILS
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING WETLANDS
- EXISTING FLOODPLAIN

PROPOSED FEATURES

- PROPOSED BUILDING SETBACK
- PROPOSED BOUNDARY LINE AND CORNERS
- PROPOSED EDGE OF PAVEMENT AND CURB LINE
- PROPOSED RIGHT-OF-WAY
- PROPOSED FENCE
- PROPOSED SEWER
- PROPOSED STORMWATER
- PROPOSED ACCESS EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED UTILITY/DRAINAGE EASEMENT
- PROPOSED SNOW PLOW EASEMENT
- EXISTING ELECTRIC EASEMENT
- PROPOSED DOMESTIC WATERLINE
- PROPOSED GASLINE
- PROPOSED CONCRETE/SIDEWALK
- PROPOSED CONTOURS
- PROPOSED TREELINE
- PROPOSED UTILITY POLE
- PROPOSED LIGHT POLE
- PROPOSED PAVING
- INFILTRATION TEST LOCATION
- PROPOSED AMENDED SOILS AND WETLANDS SEEDING



ADDITIONAL IMPERVIOUS NOTE
AN ADDITIONAL 2,000 SF OF IMPERVIOUS AREA WAS ADDED TO EACH APARTMENT LOT (4,000SF TOTAL) AND WAS ADDED TO THE STORMWATER MANAGEMENT CALCULATIONS IN ADDITION TO WHAT IS DEPICTED ON THE APPROVED PRELIMINARY/FINAL PLANS FOR TOWN'S EDGE DEVELOPMENT.
THE IMPERVIOUS AREA PROPOSED AS PART OF THE PREVIOUSLY APPROVED PRELIMINARY/FINAL SUBDIVISION AND LAND DEVELOPMENT PLAN FOR LOTS 24 AND 25 WAS APPROXIMATELY 86,359SF (NOT INCLUDED THE ADDITIONAL 2,000SF PER LOT). THE REVISED FINAL SUBDIVISION AND LAND DEVELOPMENT PLAN PROPOSES APPROXIMATELY 88,041SF, WHICH IS AN INCREASE OF APPROXIMATELY 1,682SF. THEREFORE, NO MODIFICATIONS TO THE STORMWATER MANAGEMENT FACILITIES ARE NECESSARY FOR THE CURRENT PROJECT.



DATE: 3/22/22
BY: JTW
4/20/22
4/20/22

TOWN'S EDGE APARTMENTS, LLC
MANAGER: JOSHUA T. WEBER, P.E.
DESIGN BY: JTW CHECKED BY: RDT
DRAWN BY: RDT CHECKED BY: JTW
SURVEY: M&H PLAN DATE: MARCH 10, 2022
PROJECT #: CH2.21.1



REVISED FINAL SUBDIVISION & LAND DEVELOPMENT PLAN
FOR
TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)
NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

Post-Development
Drainage Plan
PCSM4
OF 23

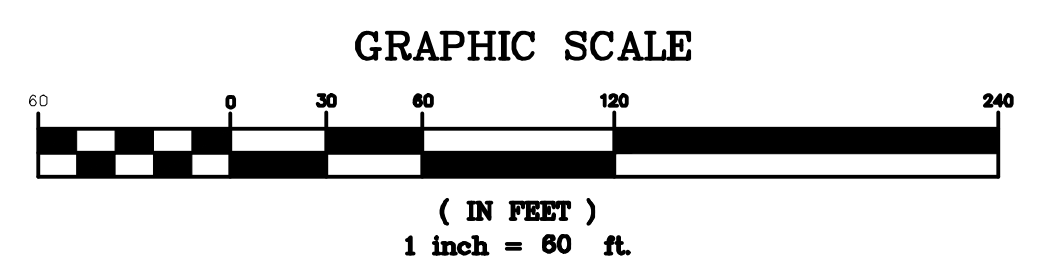
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Map Symbol	Soil Name	Slope	Hydrologic Group
Beb	Bedington shaly silt loam	3-5%	B
BrA	Brinkerton silt loam	0-3%	D
CmB	Comly silt loam	3-8%	C
Ho	Holly silt loam	0-3%	B/D

- LEGEND**
- EXISTING FEATURES**
- EXISTING ADJOINER LINE
 - EXISTING BOUNDARY LINE AND CORNERS
 - EXISTING EDGE OF PAVEMENT AND CURB LINE
 - EXISTING RIGHT-OF-WAY
 - EXISTING FENCE
 - EXISTING SEWER
 - EXISTING STORMWATER
 - EXISTING WATERLINE
 - EXISTING GASLINE
 - EXISTING SIDEWALK/CONCRETE
 - EXISTING CONTOURS
 - EXISTING TREELINE
 - EXISTING SOILS
 - EXISTING UTILITY POLE
 - EXISTING LIGHT POLE
 - EXISTING WETLANDS
 - EXISTING FLOODPLAIN

- PROPOSED FEATURES**
- PROPOSED BUILDING SETBACK
 - PROPOSED BOUNDARY LINE AND CORNERS
 - PROPOSED EDGE OF PAVEMENT AND CURB LINE
 - PROPOSED RIGHT-OF-WAY
 - PROPOSED FENCE
 - PROPOSED SEWER
 - PROPOSED STORMWATER
 - PROPOSED ACCESS EASEMENT
 - PROPOSED DRAINAGE EASEMENT
 - PROPOSED UTILITY/DRAINAGE EASEMENT
 - PROPOSED SNOW PLOW EASEMENT
 - EXISTING ELECTRIC EASEMENT
 - PROPOSED DOMESTIC WATERLINE
 - PROPOSED GASLINE
 - PROPOSED CONCRETE/SIDEWALK
 - PROPOSED CONTOURS
 - PROPOSED TREELINE
 - PROPOSED UTILITY POLE
 - PROPOSED LIGHT POLE
 - PROPOSED PAVING
 - INFILTRATION TEST LOCATION
 - PROPOSED AMENDED SOILS AND WETLANDS SEEDING



REVISION
DATE
BY
4/20/22
JTW
4/20/22
JTW

PER VISIT LETTER DATED 3/22/22
PER VISIT LETTER DATED 4/15/22
PER LCPD LETTER DATED 4/11/22

TOWN'S EDGE APARTMENTS, LLC

MANAGER: JOSHUA T. WEBER, P.E.
DESIGN BY: JTW CHECKED BY: RDT
DRAWN BY: RDT CHECKED BY: JTW
SURVEY: M&H PLAN DATE: MARCH 10, 2022
PROJECT #: CH2 21.1



REVISED FINAL SUBDIVISION & LAND DEVELOPMENT PLAN

FOR

TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)

NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

Post-Development Inlet Plan

PCSM5

OF 23

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TOWN'S EDGE APARTMENTS, LLC

MANAGER: JOSHUA T. WEBER, P.E.
DESIGN BY: JTW
DRAWN BY: RDT
SURVEY: M&H
PROJECT #: CH2.21.1



REVISED FINAL SUBDIVISION & LAND DEVELOPMENT PLAN

FOR

TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)

NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

Erosion and Sediment Pollution Control Plan

ES1

OF 23

EROSION AND SEDIMENT POLLUTION CONTROL NARRATIVE

Town's Edge Development

A.SITE LOCATION

The site is located at 777 N. 8th Avenue, Lebanon, PA 17046 (See USGS Map).

B.PROJECT DESCRIPTION

The project consists of the construction of a townhouse and garden apartment development with driveways, parking areas, access drives, sidewalks, and associated stormwater management facilities (See Site Plan).

C.EXISTING SITE CONDITIONS & DOWNSTREAM DRAINAGE PATH

The 19.6673ac property (18.1ac NPDES area) currently is being used for agricultural row crops and single-family homes. The use of the site will be residential with the construction of a townhouse development with driveways, parking areas, access drives, sidewalks, and associated stormwater management facilities. This site has been used for agriculture and research on the Penn Plots Website shows this land had been planted in agricultural row crops since 1937. The site slopes south and continues southwest toward the UNT of the Quittapahilla Creek then towards Quittapahilla Creek in the Quittapahilla Creek Watershed. The UNT of the Quittapahilla Creek's Chapter 93 designation is Trout Stocking (TSF).

IR 2014 Aquatic Life
Assessed Use: Aquatic Life
Status: Impaired
Impairment Source: Urban Runoff/Storm Sewers
Impairment Cause: Flow Alterations

IR 2014 Aquatic Life
Assessed Use: Aquatic Life
Status: Impaired
Impairment Source: Urban Runoff/Storm Sewers
Impairment Cause: Flow Alterations

IR 2014 Recreational
Assessed Use: Recreational
Status: Impaired
Impairment Source: Source Unknown
Impairment Cause: Pathogens

Non Attaining Streams Assessments
Assessed Use: Aquatic Life
Attain Use: Impaired
Source Cause: Urban Runoff/Storm Sewers - Dewatering; Stream Bank Modifications/Destabilization - Habitat Alterations

Non Attaining Streams Assessments
Assessed Use: Recreational
Attain Use: Impaired
Source Cause: Source Unknown - Pathogens

TMDL Streams
TMDL Name: Quittapahilla Creek Watershed
Cause: Nutrients; Organic Enrichment; Siltation; Total Suspended Solids (TSS)

D.SOIL LIMITATIONS AND RESOLUTIONS

The following soils are found within or adjacent to the area disturbed by earth moving activities.

Map Symbol	Map Name	Acres	HGS	% of Disturbed Area	Depth	Hydric
BuB	Bedington shaly silt loam	9.4	B	20.1	60"-90"	
BrA	Brinkerton silt loam	3.9	D	20.8	15'-34'	X
CmB	Comly silt loam	5.3	C	28.5	60"-96"	X
Ho	Holly silt loam	0.05	B/D	0.8	80"+	X

Few soil limitations existing for the proposed project. The Web Soil Survey indicates lawns and landscaping establishment limitations classified as somewhat limited to very limited. This potential limitation should not be a problem since the project site is farmland. In addition, the site will be stabilized with building, pavement, and grass cover over newly graded topsoil.

The soil is not limited to very limited for dwellings with basements. It is not expected to be an issue as pre-construction probe tests were performed to observe the soils for suitability of basements.

The Soil Rutting Hazard limitation is classified as slight to severe. Standard construction practices will be utilized to avoid excessive rutting and erosion associated with rutting will be controlled with standard erosion and sediment pollution controls.

E.CALCULATIONS

Temporary and permanent erosion control facilities were designed in accordance with the standards established in the Erosion and Sediment Pollution Control Manual (PA DEP Bureau of Soil and Water Conservation, March 2012).

Runoff calculations were performed using the NRCS TR-55 Method in accordance with PaDEP NPDES requirements. The proposed condition peak rates of runoff will be reduced compared to pre-development conditions. The proposed volume of runoff for the 2-year storm event will remain consistent with pre-development conditions.

F.STAGING OF EARTHMOVING

All earth disturbance activities shall proceed in accordance with the sequence provided on the plan drawings. **Deviation from that sequence must be approved by the Lebanon County Conservation District or by the Department prior to implementation. Each step of the sequence shall be completed before proceeding to the next step, except where noted.**

Construction of the site improvements is expected to begin summer of 2020. Construction will proceed in a timely manner in order to limit the potential for accelerated erosion and sedimentation. If the controls shown on the plan are incapable of addressing the erosion and sediment control problems on the lot, the owner/developer shall be responsible for adapting adequate alternative measures.

The construction sequence for development of the project shall be as follows:

- At least 7 days prior to starting any earth disturbance activities (including clearing and grubbing), the owner and/or operator shall invite all contractors, the landowner, appropriate municipal officials, the E&S plan preparer, the PCSM plan preparer, and a representative from the Lebanon County Conservation District (717-277-5275) to an on-site preconstruction meeting.

Also, at least 3 days prior to starting any earth disturbance activities, or expanding into an area previously unmarked, the Pennsylvania One Call System Inc. shall be notified at 1-800-242-1776 for the location of existing underground utilities.

- Install stabilized construction entrance(s). The base course shall be AASHTO #1 installed at a minimum of 20-ft wide and 50-ft long.

- Stake out limits of existing wetlands within 25-feet of proposed earth disturbance. Install orange construction fence at limits of wetlands as depicted on the plans and in areas within 25-feet of earth disturbance.

- Install filter sock at topsoil stockpile and other areas as indicated on the attached plan. Filter sock is to be installed along the contour at a level grade.

Upon installation or stabilization of all perimeter sediment control BMPs, and at least 3 days prior to proceeding with the bulk earth disturbance activities, the permittee or co-permittee shall provide notification to the Department or authorized conservation district.

- Strip areas to install retaining walls as necessary for crossings. Care shall be taken to avoid wetland areas. Install bottom course of retaining wall and backfill. Continue constructing retaining wall while avoiding any wetlands disturbance and impacts. Complete retaining walls and backfilling and prepare crossing for construction.

- Strip areas as necessary to construct improvements. Excess topsoil shall be placed on the "Topsoil/Spoil Stockpile" shown hereon. Immediately stabilize topsoil stockpile.

- Rough grade site for installation of roadways and utilities, and stormwater management facility facilities. Take care to avoid unnecessary compaction of the infiltration basin bottom. Excavation shall take place from outside the limits of the infiltration basin. If compaction occurs, the infiltration basin bottoms shall be scarified to loosen the soils prior to placement of the amended soils.

- Backfill and bring site to necessary grade for installation of roadway, buildings, driveways, and parking lots. Place stone base for roadway as soon as practicable.

- Construct infiltration basin and install basin berm, outlet pipe, outlet structure, riprap outlet protection, and filter sock check dams.

- Take care to avoid unnecessary compaction of the infiltration area bottoms. Excavation shall take place from outside the limits of the infiltration basin. If compaction occurs, the infiltration basin bottoms shall be scarified to loosen the soils prior to placement of the amended soils.

- Install storm sewer, sanitary sewer, water, and other utilities within the roadway. Stub utilities to each lot as necessary.

- Install curbing and pave roadway base course.

- Construct townhouses and townhouse driveways, connect utilities.

- Rough grade apartment lots and install parking lot stone base. Construct apartment buildings and pave parking lot.

- Final grade any remaining areas as shown on the grading plan, install swales, and install erosion matting as depicted on the plans. Spread 6-in of topsoil on freshly graded areas. Final passes during fine grading shall be made at right angles to the slopes. Prepare the remainder of the disturbed area for permanent stabilization.

- Install trees, shrubs and landscaping areas.

- Remove any sediment from basin and install amended soils and basin seeding.

- Install slope matting as indicated on the plan. Seedbed shall be prepared in accordance with accepted practices. Seed mixture shall be applied in accordance with the manufacturer's rates and instructions.

- Mulch all remaining disturbed areas and seeded areas with hay or straw at a minimum rate of three (3) tons per acre (or mulch as a part of hydroseeding).

- Remove all temporary erosion and sediment controls once the site is completely stabilized (defined as a minimum uniform 70% perennial vegetative cover, with a density capable of resisting accelerated erosion and sedimentation in all areas tributary to the controls). All areas disturbed during this process shall be stabilized immediately through seeding and mulching.

- The operator shall remove from the site, recycle or dispose of all building materials and wastes in accordance with the Department's Solid Waste Management Regulations at 25 PA Code 260.1 et seq., 271.1 et seq., and 287.1 et seq. The contractor shall not illegally bury dump or discharge any building material or wastes on or off the site.

G.TEMPORARY CONTROL MEASURES

1. Topsoil Stockpile

- A stockpile shall be used to contain all stripped topsoil in a limited area in order to keep disturbance to a minimum.
- Stockpiles shall be stabilized immediately in accordance with the temporary seeding specification contained hereon.
- Stockpiles shall be located so that all swales can function as designed.
- Stockpile heights must not exceed 35' in height. Side slopes shall be 2:1 or flatter.

2. Filter Sock

- Filter sock shall be used to intercept sediment-laden runoff from small watersheds.
- Filter sock must be installed at level grade.
- Sediment must be removed when accumulations reach 1/2 the above ground height of sock.
- All areas of concentrated flow and at all areas where the filter sock has been undercut due to excessive flows, rock filters shall be installed (see Temporary Control Measures, Item 3.)

3. Rock Filter Outlets (Filter Sock Locations)

- A gravel berm shall be provided where shown on the plan and at all locations of concentrated flows or where failures in the silt fence occur due to excessive sedimentation or concentrated flows.
- Rock filters shall be constructed of AASHTO #67 and R-4 stone in accordance with the specified dimensions on the detail.
- Rock filters will be removed when clogged with sediment. The stone shall be washed free of all sediment or new stone shall be used to rebuild the filter.

4. Interim Stabilization

- Temporary seeding and mulching shall be applied where indicated to provide interim stabilization to exposed areas.
- Temporary seeding/mulching shall be as applied as specified on the Seeding Schedule contained on the E&SPC Plan.
- Any disturbed area on which activity has ceased and which will remain exposed must be stabilized immediately. During non-germinating periods, mulch must be applied at the recommended rates. Disturbed areas that are not at finished grade and will be re-disturbed within 1 year may be stabilized in accordance with the temporary seeding specification contained hereon. Disturbed areas that are at finished grade or will not be re-disturbed within 1 year must be stabilized in accordance with the permanent seeding specifications contained hereon.

5. Rock Construction Entrance

- A stabilized pad of crushed stone (AASHTO #1) shall be located where construction traffic will be entering and leaving the site. The rock construction entrance is used to eliminate the tracking of flowing of sediment onto the existing carway.
- Public street sweeping with a vacuum sweeper and rolling of dirt and gravel roads shall be completed at the end of each work day (or more frequently as needed).
- C Inspect area to be swept for materials that may be hazardous prior to beginning sweeping operations.
- Manual cleaning of tires with a broom shall be completed prior to site egress.

6. Sediment Basin with Perforated Riser

- A stabilized pad of crushed stone (AASHTO #1) shall be located where construction traffic will be entering and leaving the site. The rock construction entrance is used to eliminate the tracking of flowing of sediment onto the existing carway.
- All sediment basins shall be inspected on at least a weekly basis and after each runoff event. Access for sediment removal and other required maintenance activities shall be provided.
- A clean out stake shall be placed near the center of each basin. Accumulated sediment shall be removed when it has reached the clean out elevation on the stake and the basin restored to its original dimensions.
- Basin embankments, spillways, and outlets shall be checked for erosion, piping, and settlement. Necessary repairs shall be made immediately.
- Prior to converting the sediment basin to a permanent basin, the sediment storage zone should be dewatered. Dewatering facility shall be installed immediately upon completion of sediment basin.
- Prior to initiating operation of dewatering facility, all accumulated sediment shall be cleaned from the inside of the barrel.
- Dewatering facility shall be continuously monitored during operation. If for any reason the dewatering facility ceases to function properly, it shall immediately shut down and not restarted until the problem has been corrected.

H.PERMANENT CONTROL MEASURES

1. Permanent Grass or Legume Cover

- All disturbed areas that are not paved shall be permanently stabilized with grass to minimize erosion. All swales shall be permanently seeded as required in accordance with the seeding specification shown on the attached E&SPC Plan.
- Permanent grass cover shall be applied as specified in accordance with the Seeding Schedule and Notes contained on the attached E&SPC Plan.

2. Mulch

- Mulch shall be applied to all seeded areas to help establish a permanent grass cover and to prevent erosion on all areas permanently stabilized with seed.
- Mulch shall be applied at a rate of 3 tons per acre. Mulch shall be anchored with wood cellulose fiber at 750 lbs/acre.

3. Sod

- Sod shall be installed in areas where permanent stabilization with seed alone is difficult.
- Sod materials and installation shall meet the approval of the Lebanon County Conservation District.
- All permanent and temporary spillways are to be sodded to provide immediate erosion protection. Sod shall extend from the spillway to the top of the slope of the trap embankment.

4. Rip-Rap Outlet Protection

- Rip-rap shall be used at all pipe outlets to reduce the outflow velocity and minimize erosion potential at the outlet pipe.
- Rip-rap shall be installed in accordance with the dimensions and materials shown on the attached plan.

I. MAINTENANCE

- The Applicant/His Designee shall be responsible for maintaining all facilities shown on this plan.
- Until the site is stabilized, all erosion and sedimentation must be maintained properly. Maintenance must include inspections of all erosion and sedimentation control after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including clean-out, repair, replacement, regrading, reseeded, re-mulching, and re-netting, must be performed immediately.
- Stockpiles must be stabilized immediately.
- All sediment removed from sediment trapping devices shall be disposed within the site in a manner that will not cause erosion or sedimentation. All areas disturbed during this process will be mulched and permanently stabilized with seed.
- Any permanently seeded area that becomes eroded or disturbed shall have the topsoil replaced, the grass re-sown and mulch reapplied, or, at the discretion of the owner, sod installed.
- Filter sock must be installed at level grade. Sediment must be removed when accumulations reach 1/2 the above ground height of the sock.
- Any sock section that has been undermined or topped must be immediately replaced with a rock filter outlet. See rock filter outlet detail.
- Stockpile heights must not exceed 35 feet. Stockpile slopes must be 2:1 or flatter.
- Any disturbed area on which activity has ceased and which will remain exposed must be stabilized immediately. During non-germinating periods, mulch must be applied at the recommended rates. Disturbed areas which are not at finished grade and which will be re-disturbed within one (1) year may be stabilized in accordance with temporary seeding specifications. Disturbed areas which are either at finished grade or will not be re-disturbed within one (1) year must be stabilized in accordance with permanent seeding specifications.
- After final site stabilization has been achieved (defined as a minimum uniform 70% perennial vegetative cover, with a density capable of resisting accelerated erosion and sedimentation in all areas tributary to the controls), temporary erosion and sedimentation controls must be removed. Areas disturbed during removal of the controls must be stabilized immediately.

J. FILL MATERIALS

If the site will need to have fill imported from an off-site location, the responsibility for performing environmental due diligence and the determination of clean fill will in most cases reside with the Operator. If the site will have excess fill that will need to be exported to an off-site location, the responsibility of clean fill determination and environmental due diligence rests on the applicant.

K.CLEAN FILL

Uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block, or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the Commonwealth unless otherwise authorized.

L.CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE

Fill materials affected by a spill or release of a regulated substance still qualifies as a clean fill provided the testing reveals that the fill material contains concentrations of regulated substances that are below the residential limits in Tables FP-1a and FP-1b found in the Department's policy "Management of Fill."

M. ENVIRONMENTAL DUE DILIGENCE

Investigative techniques, including, but not limited to, visual property inspections, electronic data base searches, review of property ownership, history of property use, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits.

N.POTENTIAL POLLUTANT CAUSING MATERIALS

The site consists of Bedington, Brinkerton, Comly, and Holly soils which have the potential to erode when disturbed. Standard erosion controls such as rock construction entrances, filter socks, rock filters, and temporary and final seeding will be utilized to minimize the potential for erosion.

O.MINIMIZE THE EXTEND AND DURATION OF EARTH DISTURBANCE

The construction sequence addresses the anticipated sequence of construction and provides provisions for interim stabilization and a periodic stabilization schedule to minimize the duration and extent of disturbance at any one time.

P.E&S PLAN MINIMIZES SOIL COMPACTION

The project will compact fill only as needed to provide the necessary structural stability. It is not anticipated there will be any unnecessary compaction by construction equipment since the project is limited in size and construction equipment will generally be concentrated in areas of proposed driveways immediately adjacent to the proposed structures. Topsoil will be placed in accordance with industry standards and will not be overly compacted. The topsoil placement and stabilization will be the last steps of the project with limited potential for unwanted compaction.

Q.E&S PLAN UTILIZES OTHER MEASURES OR CONTROLS THAT PREVENT OF MINIMIZE GENERATION OF INCREASED STORMWATER RUNOFF

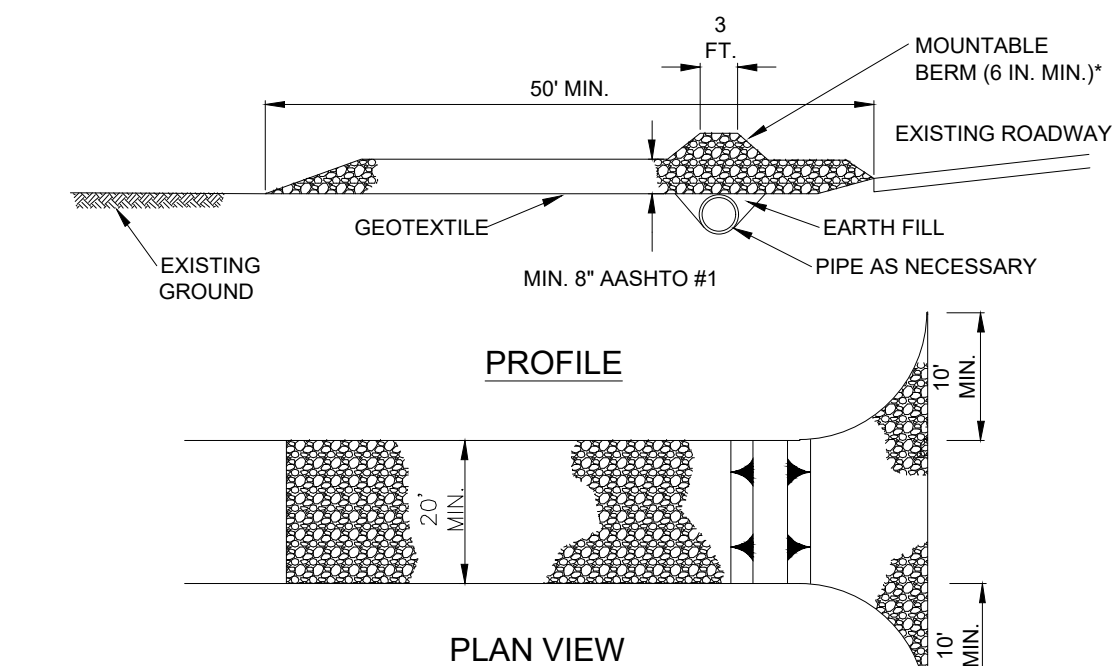
A stormwater management system is proposed to reduce peak rates of runoff and the volume of runoff. Disturbed areas will be restored to meadow/grass conditions similar to pre-development conditions.

R.ANALYSIS OF DOWNSTREAM CHANNEL

The site discharges on-site to the existing stream located in the southeastern portion of the site. The runoff follows existing drainage paths. The existing drainage path is currently stable. No adverse impacts are expected as part of this development. The proposed stormwater management system proposes to reduce the peak flow rates for all storms and reduces the 2-year runoff volume to less than pre-development conditions. Therefore, the conveyance capacity of the downstream drainage path will be improved. The current drainage path is stable and expected to continue to be so in post-development conditions.

S.THERMAL IMPACTS ANALYSIS

No thermal impacts are expected from this project. The runoff is collected and conveyed to the infiltration basin via vegetated swales which will retain the runoff and allow it to cool prior to discharging. Furthermore, street trees and basin plantings are proposed to help shade and cool the runoff prior to discharge.



* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RUCK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-1 ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE

APPLICATION	SPECIES	APPLICATION RATE 1 (P.L.S. IN LBS/AC)	FERTILIZER (LBS/ACRE)	LIMING RATE 2 (TONS/ACRE)	FINAL SEEDING DATE
TEMPORARY	ANNUAL RYE	174	50-50-50 N-P-K	AG GRADE	OCTOBER 30
	FINE FESCUES	60			
PERMANENT	KENTUCKY BLUEGRASS	90	100-200-200 N-P-K	6 AG GRADE	AUGUST 30 AND OCTOBER 30
	PERENNIAL RYEGRASS	25			
ATHLETIC FIELDS	KENTUCKY BLUEGRASS	150	100-200-200 N-P-K	6 AG GRADE	AUGUST 30 AND OCTOBER 30
	PERENNIAL RYEGRASS	25			
RIPARIAN BUFFER	ERNST MIX ERNM-X-178	20	100-200-200 N-P-K	6 AG GRADE	AUGUST 30 AND OCTOBER 30
STEEP SLOPES					
NURSE CROP	ANNUAL RYE	64	50-50-50 N-P-K	1 TON/AC AG GRADE*	OCT. 15
	BIRDSFOOT TREFOIL	10			
PERMANENT	CROWN VETCH PLUS TALL FESCUE	20	100-200-200 N-P-K	1 TON/AC AG GRADE*	MARCH 15 AND OCT. 15

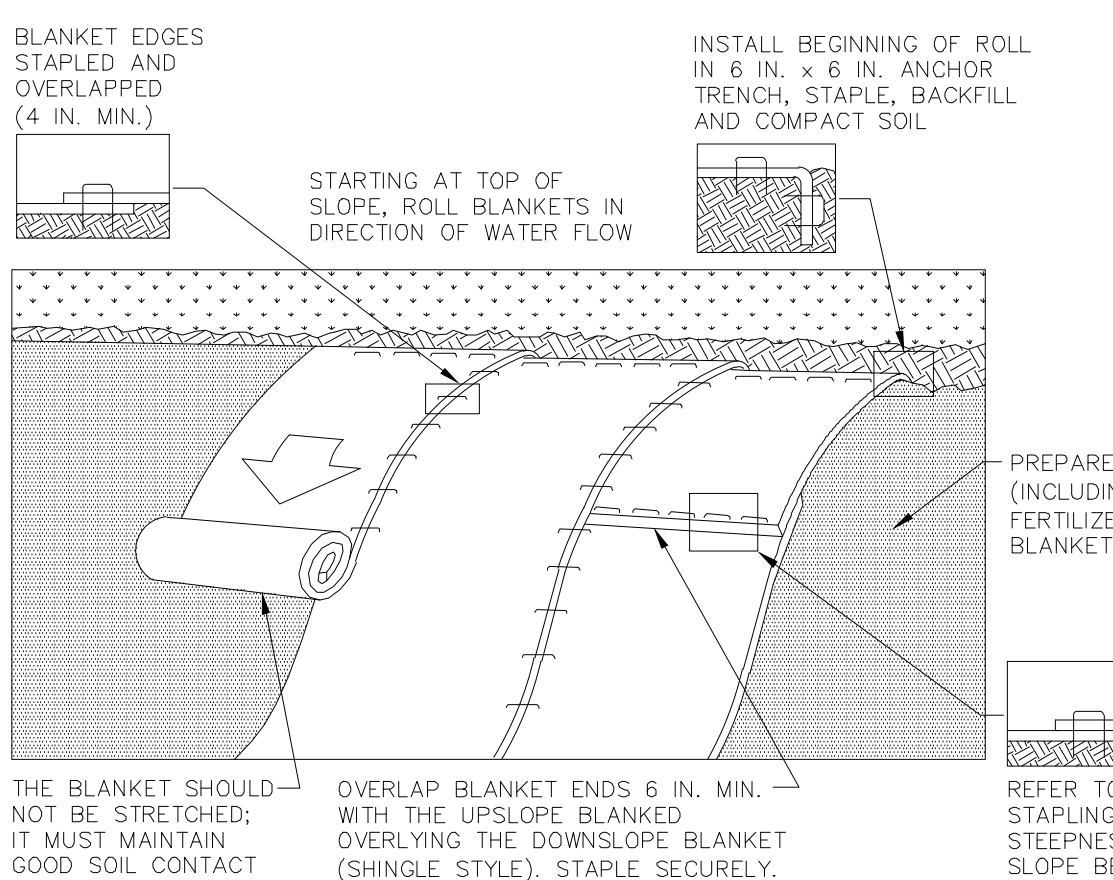
* ALL SEED AREAS SHALL BE MULCHED WITH STRAW APPLIED AT A RATE OF 3 TONS/ACRE. MULCH IS TO BE ANCHORED WITH WOOD CELLULOSE FIBER @ 750 LBS/AC.

* ALL DIVERSIONS, CHANNELS, SED TRAPS AND STOCKPILES MUST BE STABILIZED IMMEDIATELY.

SEEDING & FERTILIZER SPECIFICATIONS

NOT TO SCALE

- PLS IS PURE LIVE SEED. PLS IS THE PRODUCT OF THE PERCENTAGE OF PURE SEED TIMES PERCENTAGE GERMINATION DIVIDED BY 100. TO SECURE THE ACTUAL PLANTING RATE, DIVIDE THE POUNDS PLS BY THE PLS PERCENTAGE SHOWN ON THE SEED TAG OR AS PREVIOUSLY DISCUSSED. THUS, IF THE PLS CONTENT OF FINE FESCUES IS 50%, DIVIDE 7 PLS BY 0.50 TO OBTAIN 140 POUNDS OF SEED PER ACRE.
- LIMING RATE SHALL BE IN ACCORDANCE WITH SOIL TEST RESULTS. APPLY 6 TONS OF AGRICULTURAL GRADE LIMESTONE/AC OF LAND DISTURBED BY DIVERSIONS AND DAMS.



NOTES:

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

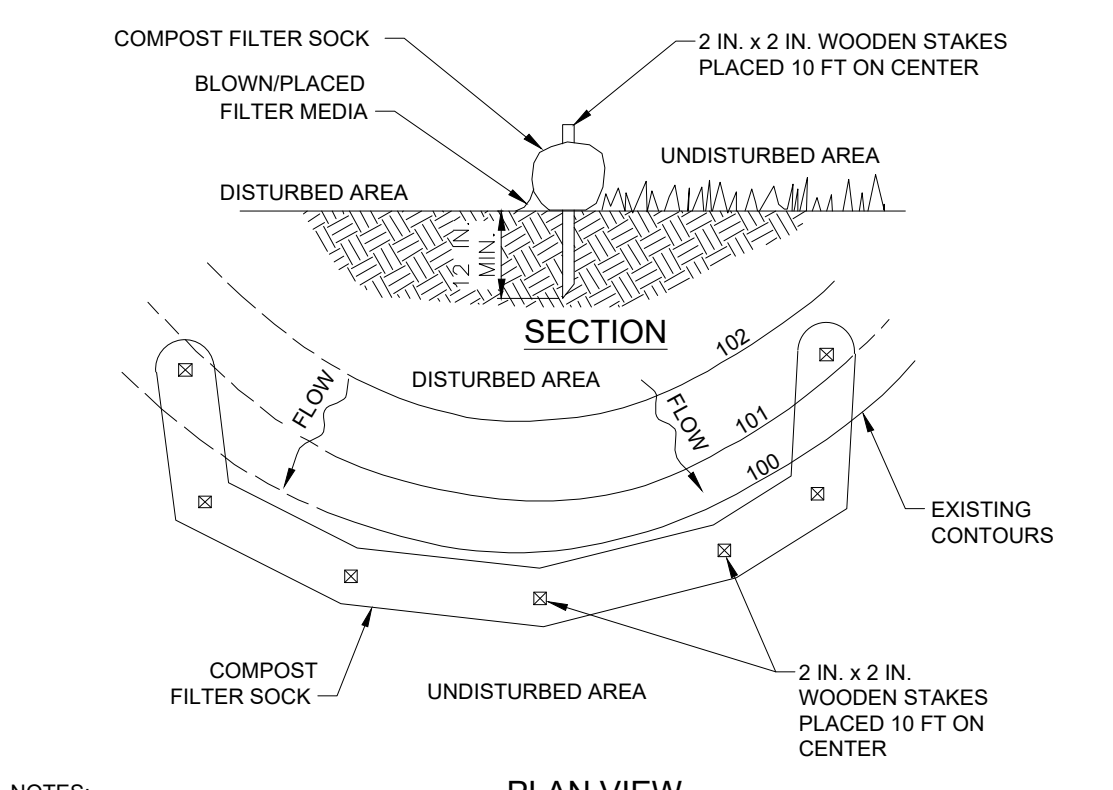
BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

STANDARD CONSTRUCTION DETAIL #11-1 EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE



NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

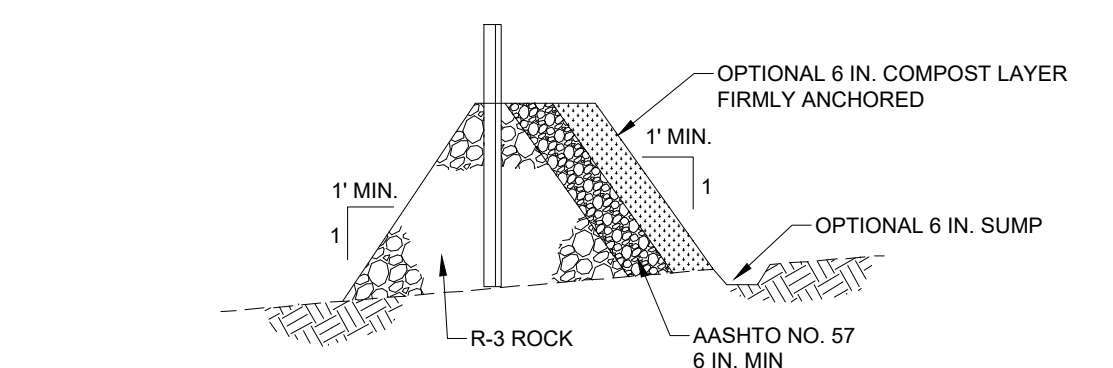
COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

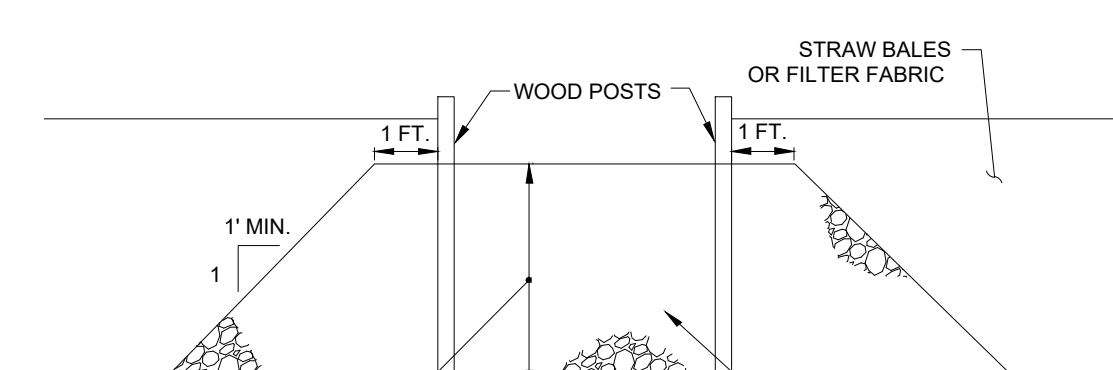
UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

STANDARD CONSTRUCTION DETAIL #4-1 COMPOST FILTER SOCK

NOT TO SCALE



STANDARD CONSTRUCTION DETAIL #4-2 ROCK CONSTRUCTION ENTRANCE



STANDARD CONSTRUCTION DETAIL #4-3 ROCK CONSTRUCTION ENTRANCE



NOTES:

A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

STANDARD CONSTRUCTION DETAIL #4-6 ROCK FILTER OUTLET

NOT TO SCALE



PROPER	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

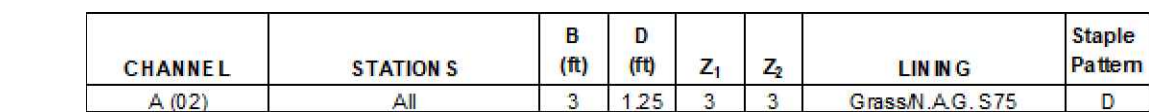
FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

NOT TO SCALE



DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

NOT TO SCALE



NOTES:

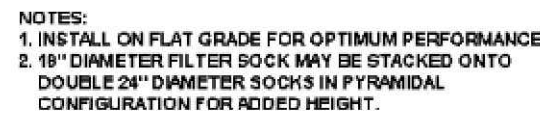
NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

NOT TO SCALE



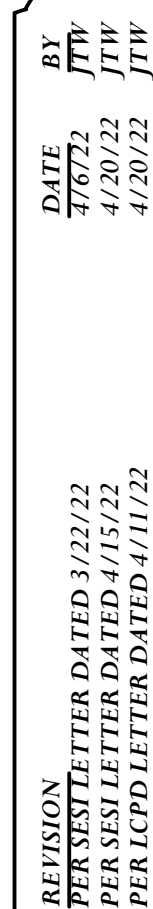
- 1) A STOCKPILE SHALL BE USED TO CONTAIN ALL STRIPPED TOPSOIL IN A LIMITED AREA IN ORDER TO KEEP DISTURBANCE TO A MINIMUM.
- 2) STOCKPILES ARE TO BE STABILIZED IMMEDIATELY.
- 3) STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET.
- 4) STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.
- 5) STOCKPILES SHALL BE LOCATED SO THAT ALL SWALES CAN FUNCTION AS DESIGNED.

NO SCALE



1. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS.
2. PROVIDE 10" MINIMUM INSIDE DIAMETER.
3. PROVIDE AT LEAST ONE WASHOUT PER GROUPING OF TOWNHOUSES AND EACH APARTMENT BUILDING.

NOT TO SCALE



**TOWN'S EDGE
APARTMENTS, LLC**

MANAGER: JOSHUA T. WEABER, P.E.
DESIGN BY: JTW CHECKED BY: RDT
DRAWN BY: RDT CHECKED BY: JTW
SURVEY: M&H PLAN DATE: MARCH 10, 2022
PROJECT #: CH2.21.1



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**REVISED FINAL SUBDIVISION &
LAND DEVELOPMENT PLAN**

TOWN'S EDGE DEVELOPMENT (LOTS 24 & 25)

NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PA

Erosion and Sediment Pollution Control Details

$$ES_3$$

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