CITY OF NEWTON, MASSACHUSETTS

BURR ELEMENTARY SCHOOL
FIELD IMPROVEMENTS

NEWTON
Parks, Recreation & Culture

MAYOR

RUTHANNE FULLER
CITY OF NEWTON, MASSACHUSETTS

COMMISSIONER

NICOLE BANKS
PARKS, RECREATION AND CULTURE DEPARTMENT

DIRECTOR OF PARKS & OPEN SPACE

LUIS PEREZ DEMORIZI
PARKS, RECREATION AND CULTURE DEPARTMENT

LOCATION PLAN
NTS

SHEET INDEX

MASSACHUSETTS
MICHAEL A. DODSON
NO. 1607
REGISTERED LANDSCAPE ARCHITECT
5/1/2024

ISSUED FOR BID

MAY 2024

CDM Smith
BOSTON, MASSACHUSETTS

Water *Environment* *Transportation* *Energy* *Facilities*

0865-272529

SURVEY NOTES

1. SURVEY WAS PREPARED BY DAWOOD, 325 WOOD ROAD, SUITE 109, BRAINTREE, MA 02184, ON MAY 6, 2022.

2. COORDINATES, IN U.S. SURVEY FEET, ARE REFERENCED TO THE NORTH AMERICAN DATUM OF 1983, (2011), Epoch 2010.00, BASED ON THE KeyNet GPS VIRTUAL REFERENCE SYSTEM (VRS).

3. ELEVATIONS, IN U.S. SURVEY FEET, ARE REFERENCED TO THE ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) BASED ON THE KeyNet GPS VIRTUAL REFERENCE SYSTEM (VRS) NETWORK.

4. SUBSURFACE UTILITY LINES AND FEATURES, AS SHOWN HEREON, WERE COMPILED FROM FIELD EVIDENCE AND/OR AVAILABLE RECORD INFORMATION (SEE REFERENCES), AND THEIR LOCATIONS ARE ONLY APPROXIMATE. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD.

DAWOOD ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN.

BEFORE DESIGNING FUTURE CONNECTIONS, THE APPROPRIATE UTILITIES MUST BE CONSULTED.

BEFORE CONSTRUCTION, ALL UTILITIES, PUBLIC AND PRIVATE, MUST BE NOTIFIED (SEE MASSACHUSETTS GENERAL LAWS, CHAPTER 82 SECTION 40).
CALL "DIG SAFE" 1-888-DIG-SAFE. (888-344-7233).

5. PROPERTY LINES SHOWN ARE FROM THE CITY OF NEWTON ASSESSOR'S GIS DATA AND ARE APPROXIMATE ONLY.

SURVEY SYMBOLS

	BUSH		LIGHTPOLE
CB	CATCHBASIN		LIGHTPOLE WITH CONCRETE BASE
	DRAIN MANHOLE	S	SEWER MANHOLE
	DECIDUOUS TREE		SIGN
TREE_SIZE	EVERGREEN TREE	×101.00	SPOT ELEVATION
	FOUND MONUMENT (TYPE)		TRAFFIC SIGNAL
GG	GAS GATE		TRAVERSE POINT
GP	GUARD POST		UTILITY POLE
	HANDICAPPED PARKING	WG	WATER GATE
	HYDRANT		

SURVEY LINEWORK

	CHAIN LINK FENCE
	VINYL FENCE
101.17 ×101.75	CURB WITH TOP AND BOTTOM ELEVATIONS
—100—	MAJOR CONTOUR
—101—	MINOR CONTOUR
	OVERHEAD STRUCTURE
	RETAINING WALL
	ROW FROM GIS
	TREELINE

SURVEY ABBREVIATIONS

BIT.	BITUMINOUS	HH	HANDHOLE
CB	CATCHBASIN	MAG.	MAGNETIC
CC	CONCRETE CURB	MH	MANHOLE
CLF	CHAIN LINK FENCE	N	NORTHING
CRW	CONCRETE RETAINING WALL	N/F	NOW OR FORMERLY
DMH	DRAIN MANHOLE	PID	PARCEL IDENTIFICATION NUMBER
DWS	DETECTABLE WARNING SURFACE	PL	PLANTER
E	EASTING	R	RIM
ELEC.	ELECTRIC	SB	STONE BOUND
ELEV	ELEVATION	SMH	SEWER MANHOLE
EOP	EDGE OF PAVEMENT	STK	STOCKADE
EPLP	ESCUTCHEON PIN LEAD PLUG	SWLL	SINGLE WHITE LANE LINE
FND	FOUND	TRCAN	TRASH CAN
GC	GRANITE CURB	UP	UTILITY POLE
GP	GUARD POST	VNF	VINYL FENCE
HCP	HANDICAP	W/	WITH
		WG	WATER GATE

SITE/CIVIL ABBREVIATIONS:

SYMBOL	DESCRIPTION
TC	TOP OF CURB
BC	BOTTOM OF CURB
BW	BOTTOM OF WALL
TW	TOP OF WALL
CB	CATCH BASIN
CLF	CHAIN LINK FENCE
CS	CRUSHED STONE
D-PVC	POLYVINYL CHLORIDE DRAIN
DMH	DRAIN MANHOLE
FES	FLARED END SECTION
MH	MANHOLE
TS	TOP OF STEP/SLAB
BS	BOTTOM OF STEP
RCP	REINFORCED CONCRETE PIPE
MJ	MECHANICAL JOINT
DI	DUCTILE IRON
FFE	FINISHED FLOOR ELEVATION
DN	DOWN
VGC	VERTICAL GRANITE CURB
UP	UTILITY POLE
PVC	POLYVINYL CHLORIDE
INV. EL.	INVERT ELEVATION
S	SLOPE
GV	GATE VALVE
EFF	EFFLUENT
PT	PRESSURE TREATED

GENERAL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY THROUGHOUT THE DURATION OF THE CONTRACT AS DIRECTED BY THE ENGINEER OR OWNER TO CONTROL VEHICLE AND PEDESTRIAN ACCESS.
2. CONTRACTOR SHALL COORDINATE WORK AND SITE ACCESS TIMES TO MINIMIZE CONFLICTS WITH SCHOOL. SEE SPECIFICATIONS.
3. CONTRACTOR SHALL COMPLY WITH ALL ASPECTS OF 220 CMR 99.00 (DIG SAFE LAW) AND MASSACHUSETTS CHAPTER 82 SECTION 40. CONTRACTOR SHALL NOTIFY ALL UTILITY OWNERS IN WRITING AND CALL DIGSAFE AT "811", 72 HOURS PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
4. WATER, SEWER AND DRAINS ARE TO BE COORDINATED WITH DPW UTILITIES.
5. CONTRACTOR SHALL INSTALL ALL REQUIRED EROSION AND SEDIMENTATION CONTROL MEASURES, PRIOR TO UNDERTAKING SITE DEMOLITION AND REMOVALS.
6. CONTRACTOR SHALL IDENTIFY AND PROTECT ALL ON-SITE STRUCTURES IDENTIFIED ON THE DRAWINGS TO BE RETAINED AND PROTECTED THROUGHOUT THE DURATION OF THE CONTRACT.
7. NO WORK SHALL OCCUR OUTSIDE THE LIMIT OF WORK WITHOUT PRIOR APPROVAL BY THE ENGINEER OR OWNER. DAMAGE TO ANY SITE FEATURES TO BE RETAINED SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER IN A MANNER APPROVED BY THE ENGINEER AND OWNER.
8. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL HAND EXCAVATE TEST PIT TO CONFIRM LOCATIONS OF ALL SUBSURFACE UTILITIES TO BE MAINTAINED IN AREA OF WORK. DAMAGE CAUSED BY CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER.
9. CONTRACTOR SHALL INSTALL AND MAINTAIN A TEMPORARY 6-FT HIGH CHAIN LINK FENCE TO SECURE HIS/HER WORK FOR THE DURATION OF THE PROJECT. AT NO POINT DURING CONSTRUCTION OF THE PROJECT SHALL THE SITE BE LEFT ACCESSIBLE TO THE PUBLIC. KEYS/ COMBINATION FOR THE LOCK USED AT CONSTRUCTION GATES SHALL BE PROVIDED TO THE OWNER AND THE ENGINEER FOR EMERGENCY ACCESS AND PUBLIC SAFETY OFFICIALS IF REQUESTED.
10. ALL AREAS WITHIN LIMIT OF WORK BUT OUTSIDE OF AREAS SPECIFICALLY CALLED OUT FOR REMOVAL AND DISPOSAL, SHALL BE COORDINATED WITH OTHER SHEETS FOR LIMITS OF DISTURBANCE REMOVE AND DISPOSE OF SOIL AND OTHER EXISTING FEATURES TO DEPTHS AS REQUIRED FOR CONSTRUCTION. REMOVE AND DISPOSE OF SOIL AND OTHER EXISTING FEATURES TO DEPTHS AS REQUIRED FOR CONSTRUCTION.
11. THE CONTRACTOR SHALL PREPARE AN EROSION AND SEDIMENT CONTROL PLAN AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AS SPECIFIED TO PROTECT THE SITES FROM EROSION AND PREVENT THE MOVEMENT OF SEDIMENT AND DEBRIS.
12. STRIP EXISTING VEGETATION AND 6" LAYER TOPSOIL UNLESS OTHERWISE SHOWN TO BE PROTECTED WITHIN LIMIT OF DISTURBANCE. GRIND ANY STUMPS TO A MINIMUM OF ONE FOOT BELOW FINISH GRADE AND BACKFILL IN COMPACTED LAYERS AS SPECIFIED.
13. FOR LAYOUT PURPOSES AND TO ESTABLISH THE COORDINATE SYSTEM SEE SURVEY NOTES.
14. CONTRACTOR SHALL VERIFY ALL SURVEY INFORMATION.
15. CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY AND PROTECT ALL ON-SITE STRUCTURES AND VEGETATION TO BE RETAINED ON THE SITE THROUGHOUT THE CONSTRUCTION PROJECT.
16. CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS AND ALL UTILITY SERVICES TO THE EXISTING TREATMENT PLANT AND ASSOCIATED FACILITIES THROUGHOUT THE DURATION OF THE CONTRACT, UNLESS OTHERWISE SPECIFIED.
17. LOCATIONS OF BURIED UTILITIES, VAULTS AND CONCRETE PADS ARE APPROXIMATE ONLY. FINAL LOCATIONS SHALL BE DETERMINED IN THE FIELD AFTER STAKING BY THE CONTRACTOR BASED ON ACTUAL SITE CONDITIONS AS APPROVED BY THE ENGINEER.
18. ALL DISTURBED AREAS NOT COVERED WITH PAVEMENT, PADS, CURB, MULCH, RIPRAP, PLANTINGS, CRUSHED STONE OR STRUCTURES SHALL RECEIVE 6" LAYER OF LOAM AND SEED AS SPECIFIED, UNLESS NOTED OTHERWISE.
19. BUILDING DIMENSIONS ARE TO COLUMN LINE INTERSECTION OR OUTSIDE FACE OF WALL AS SHOWN ON THE DRAWINGS. DIMENSIONS TO CONCRETE PADS ARE TO EDGE OF PAD.
20. ALL ITEMS TO BE REMOVED, UNLESS OTHERWISE INDICATED ON THE DRAWINGS, SHALL BE DISPOSED OFF SITE IN A LEGAL MANNER.
21. ITEMS SLATED FOR RE-USE SHALL BE STORED IN A CLEAN, DRY PLACE, PRIOR TO RELOCATION ON SITE.

GRADING NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING GRADES AND LOCATION OF UTILITIES. MAJOR DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
2. TO ESTABLISH PROPER GRADES, CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF GRADE STAKES. THE NUMBER AND LOCATION SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE ENGINEER.
3. ALL AREAS DISTURBED BY CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE IN A MANNER APPROVED BY THE ENGINEER.
4. PATHWAY'S MAXIMUM LONGITUDINAL SLOPE SHALL BE 5% AND MAXIMUM CROSS SLOPE SHALL BE 2%.

EROSION AND SEDIMENTATION CONTROL NOTES:

1. THE CONTRACTOR SHALL PROVIDE SEDIMENTATION AND EROSION CONTROL SYSTEMS AS SHOWN ON THE DRAWINGS IN ADDITION TO WHATEVER OTHER MEASURES MAY BE NECESSARY TO PREVENT SEDIMENTATION DUE TO THEIR OPERATIONS FROM BEING TRANSPORTED TO DOWNSTREAM PIPES, CHANNELS, WETLANDS AND WATER COURSES.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING THE SEDIMENTATION AND EROSION CONTROL SYSTEMS FOR THE DURATION OF THE CONTRACT. THIS MAINTENANCE INCLUDES CLEANING AND/OR REPLACING SYSTEMS THAT HAVE BECOME CLOGGED AND ARE NO LONGER FUNCTIONAL AS DETERMINED BY THE ENGINEER.
3. ALL WORK SHALL CONFORM TO MASSACHUSETTS D.E.P. GUIDELINES FOR EROSION AND SEDIMENTATION CONTROL, LATEST EDITION.
4. SCHEDULES FOR GRADING, LOAMING AND SEEDING SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO START OF WORK.
5. THE LOCATION OF STOCKPILED MATERIALS SHALL BE IN AREAS APPROVED BY THE ENGINEER. VERIFICATION OF THE PROPER LOCATION AND INSTALLATION OF THE SILTATION CONTROL DEVICES MUST BE MADE BY THE ENGINEER PRIOR TO COMMENCEMENT OF ANY SITE WORK.
6. CONTRACTOR SHALL INSPECT AFTER EACH STORM EVENT AND REPAIR AS NECESSARY ALL EROSION CONTROL MEASURES TO INSURE INTEGRITY OF EROSION CONTROL PROGRAM. MAINTENANCE SHALL INCLUDE CLEANING AND/OR REPLACEMENT OF SYSTEMS THAT ARE NO LONGER FUNCTIONAL AS DETERMINED BY THE ENGINEER.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND SATISFACTORY DISPOSAL OF ALL TEMPORARY EROSION CONTROL STRUCTURES UPON COMPLETION OF ALL WORK AND SOIL STABILIZATION AS DIRECTED BY THE ENGINEER.
8. DUE TO CONSTRUCTION ACTIVITIES, CONTRACTOR MAY BE REQUIRED TO ADJUST LOCATIONS AND ELEVATIONS OF EROSION AND SEDIMENTATION CONTROLS AS APPROVED BY THE ENGINEER.
9. PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS.
10. TEMPORARY WATER DIVERSIONS (SWALES, BASINS, ETC) MUST BE USED AS NECESSARY UNTIL AREAS ARE STABILIZED.
11. DRAINAGE SWALES SHALL BE INSTALLED EARLY ON IN THE CONSTRUCTION SEQUENCE (BEFORE ROUGH GRADING THE SITE).
12. ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
13. ALL PAVED AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINAL GRADE.
14. ALL CUT AND FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
15. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY HALF-INCH OF RAINFALL.
16. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.
17. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
    - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
    - A MINIMUM OF 85 PERCENT VEGETATED GROWTH HAS BEEN ESTABLISHED;
    - A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED;
    - OR EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
18. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
19. CONTRACTOR SHALL PROVIDE TEMPORARY SEEDING AS SPECIFIED.
20. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN AND EQUAL TO 3H (HORIZONTAL) : 1V (VERTICAL), AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
21. ALL SWALES THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATED GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
22. CATCH BASIN FILTER TO BE APPLIED TO ALL NEW CATCH BASINS UNTIL THE COMPLETION OF CONSTRUCTION.

PLANTING NOTES:

1. TRANSPLANTED TREES MAY BE PERFORMED BY ROOT BALL, CONTAINER, OR BAREROOT PER THE DIRECTION FROM THE NEWTON TREE WARDEN.

MASSACHUSETTS
MICHAEL A. DODSON
REGISTERED LANDSCAPE ARCHITECT
NO. 1607
5/7/2024

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. DODSON
DRAWN BY: M. CARLSON
SHEET CHK'D BY: S. LANDGREN
CROSS CHK'D BY: M. DODSON
APPROVED BY: M. DODSON
DATE: MAY 2024

CDM Smith
75 State Street
Boston, MA 02109
Tel: (617) 452-6000

CITY OF NEWTON, MASSACHUSETTS

BURR ELEMENTARY SCHOOL
FIELD IMPROVEMENTS

LEGEND, ABBREVIATIONS, AND NOTES

PROJECT NO. 0865-272529
FILE NAME: C000001GN

SHEET NO.
G-1

ISSUED FOR BID

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. DODSON
DRAWN BY: M. CARLSON
SHEET CHK'D BY: S. LANDGREN
CROSS CHK'D BY: M. DODSON
APPROVED BY: M. DODSON
DATE: MAY 2024

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CITY OF NEWTON, MASSACHUSETTS

BURR ELEMENTARY SCHOOL
FIELD IMPROVEMENTS

EXISTING CONDITIONS PLAN

PROJECT NO. 0865-272529
FILE NAME: C0001EXPL

SHEET NO.
EX-1

ISSUED FOR BID

TEMPORARY CATCH BASIN FILTER 3/LD-1

ALL AREAS DISTURBED WITHIN EXISTING LAWN AREA SHALL RECEIVE A 6 INCH LAYER OF LOAM AND LAWN AREA SEED MIX

SEDIMENT FENCE

TEMPORARY CONSTRUCTION FENCE

LIMIT OF WORK

PROTECT EXISTING CATCH BASIN

REMOVE AND DISPOSE OF BACKSTOP AND FENCE

REMOVE AND DISPOSE OF VOLLEYBALL NET AND POSTS. COORDINATE WITH OWNER.

TEMPORARY CATCH BASIN FILTER 3/LD-1

REMOVE AND DISPOSE OF EXISTING BENCH

TEMPORARY CATCH BASIN FILTER 3/LD-1

LIMIT OF TEMPORARY CONSTRUCTION FENCE AT EXISTING FENCE

TEMPORARY CATCH BASIN FILTER 3/LD-1

1 inch = 30 feet (15 0 30)

3/LD-1 TEMPORARY CATCH BASIN FILTER

1/LD-1 SEDIMENT FENCE

LIMIT OF TEMPORARY CONSTRUCTION FENCE AT EXISTING FENCE

LIMIT OF SEDIMENT FENCE

TEMPORARY CONSTRUCTION FENCE GATE

PROTECT EXISTING MANHOLE

LIMIT OF SEDIMENT FENCE

LIMIT OF TEMPORARY CONSTRUCTION FENCE AT EXISTING FENCE

REMOVE AND STOCKPILE EXISTING TREE FOR REPLANTING (TYP OF 16)

REMOVE AND DISPOSE OF BACKSTOP

APPROXIMATE LOCATION OF STOCKPILED SOIL – RELOCATE TO LOCATION SHOWN ON GRADING AND DRAINAGE PLAN. TOP ELEVATION OF STOCKPILED SOIL MUST BE MINIMUM 2-FT BELOW FINISHED GRADE

LIMIT OF SEDIMENT FENCE

REMOVE AND STOCKPILE EXISTING TREES FOR REPLANTING

RESET EXISTING TREES BY TREE SPADE IN CURRENT LOCATIONS AT PROPOSED ELEVATIONS

PROTECT EXISTING WOOD BOLLARDS, TYP.

TEMPORARY CONSTRUCTION ENTRANCE 4/LD-1

LIMIT OF SEDIMENT FENCE

TEMPORARY CONSTRUCTION FENCE GATE

REMOVE 6 WOODEN BOLLARDS AND FOOTINGS

LIMIT OF SEDIMENT FENCE

11/LD-1 PROTECT EXISTING TREE (TYP. OF 15)

REMOVE AND STOCKPILE EXISTING TREE FOR REPLANTING

TEMPORARY CONSTRUCTION FENCE

LIMIT OF WORK

REMOVE AND DISPOSE OF EXISTING BITUMINOUS CONCRETE PAVEMENT

TEMPORARY CONSTRUCTION FENCE AND GATE BETWEEN EXISTING FENCE

LEGEND

- LIMIT OF WORK (LOW)
- SEDIMENT FENCE
- TEMPORARY CONSTRUCTION FENCE
- REMOVE AND DISPOSE OF EXISTING BITUMINOUS CONCRETE PAVEMENT
- PROTECT EXISTING TREE
- REMOVE AND STOCKPILE EXISTING TREE FOR REPLANTING
- STABILIZED CONSTRUCTION ENTRANCE
- CLEARING AND GRUBBING TO DEPTH REQUIRED FOR NEW WORK
- TEMPORARY CATCH BASIN FILTER

MASSACHUSETTS MICHAEL A. DODSON NO. 1607 REGISTERED LANDSCAPE ARCHITECT 5/1/2024

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. DODSON
DRAWN BY: M. CARLSON
SHEET CHK'D BY: S. LANDGREN
CROSS CHK'D BY: M. DODSON
APPROVED BY: M. DODSON
DATE: MAY 2024

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75 State Street
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Tel: (617) 452-6000

CITY OF NEWTON, MASSACHUSETTS

BURR ELEMENTARY SCHOOL
FIELD IMPROVEMENTS

DEMOLITION AND REMOVALS AND SEDIMENTATION CONTROLS PLAN

PROJECT NO. 0865-272529
FILE NAME: C0001DMPL

SHEET NO.
L-1

ISSUED FOR BID

RAIN GARDEN 13 LD-1

PARK BENCH SURFACE MOUNTED TO CONCRETE PAD WITH COMPANION PAD 2 LD-1

12" RCP PIPE, SEE GRADING AND DRAINAGE PLAN

DRAIN BASIN, SEE GRADING AND DRAINAGE PLAN

IRRIGATION CONTROL BOX, SEE SHEET L-3

R 59'

R 71'

N=2953835.19
E=725334.92

N=2953585.32
E=725566.46

N=2953726.52
E=725432.89

N=2953732.39
E=725427.92

N=2953754.25
E=725410.92

N=2953748.40
E=725415.85

R 54'

R 76'

PARK BENCH SURFACE MOUNTED TO CONCRETE PAD 2 LD-1

N=2953583.82
E=725643.64

150-FT X 330-FT FIELD WITH 10-FT SAFE ZONES

150-FT X 330-FT FIELD WITH 10-FT SAFE ZONES

210-FT X 330-FT FIELD WITH 10-FT SAFE ZONES

N=2953944.76
E=725340.57

PARK BENCH SURFACE MOUNTED TO CONCRETE PAD 5 LD-1

PIPE CULVERT, SEE GRADING AND DRAINAGE PLAN

TWO (2) ADA PICNIC TABLES SURFACE MOUNTED TO 26'L X 10'W CONCRETE PAD. COORDINATE FINAL LOCATIONS IN THE FIELD WITH THE OWNER (TYP) 5 LD-1

8.0'

N=2953991.33
E=725389.81

R 79'

R 2'

N=2954064.85
E=725416.25

N=2954190.10
E=725299.38

N=2954174.38
E=725339.36

PARK BENCH SURFACE MOUNTED TO CONCRETE PAD WITH COMPANION PAD 2 LD-1

200-FT X 330-FT FIELD WITH 10-FT SAFE ZONES

N=2954035.80
E=725436.82

N=2954085.37
E=725405.51

R 50'

R 504'

R 50'

R 5'

R 59'

8.0'

6.0'

R 5'

R 5'

R 34'

8.0'

N=2954048.57
E=725457.70

N=2954055.92
E=725469.74

N=2954175.33
E=725352.96

N=2954115.95
E=725389.49

R 34'

TWO (2) BIKE RACKS SURFACE MOUNTED TO 18'L X 9'W CONCRETE PAD. COORDINATE FINAL LOCATIONS IN THE FIELD WITH THE OWNER 9 LD-1

8.0'

ADA PICNIC TABLE SURFACE MOUNTED TO 13'L X 9'W CONCRETE PAD. COORDINATE FINAL LOCATION IN THE FIELD WITH THE OWNER 5 LD-1

10.0'

N=2954175.50
E=725355.37

R 35'

N=2954215.21
E=725323.17

N=2953770.95
E=725835.49

N=2953771.65
E=725834.78

R 10'

10.0'

BITUMINOUS CONCRETE PATH 7 LD-1

8.00'

10.0'

15'L X 8'W CONCRETE PAD 6 LD-1

PICNIC TABLE SURFACE MOUNTED TO 9'L X 7'W CONCRETE PAD. COORDINATE FINAL LOCATION IN THE FIELD WITH THE OWNER 5 LD-1

DRAIN BASIN, SEE GRADING AND DRAINAGE PLAN

RAIN GARDEN 13 LD-1

N=2953833.32
E=725898.94

R 30'

R 10'

N=2954188.04
E=725535.76

R 110'

10.0'

R 35'

R 50'

N=2954029.42
E=725789.68

R 300'

N=2954175.07
E=725595.70

VEHICULAR CONTROL GATE, APPROXIMATE LOCATION TO BE DETERMINED IN FIELD 1 LD-3

N=2954010.45
E=725798.88

R 50'

N=2953903.34
E=725900.21

R 30'

4.6'

R 10'

N=2954072.58
E=725747.42

N=2954119.67
E=725687.86

1" = 30'
15 0 30

MASSACHUSETTS
MICHAEL A. DODSON
NO. 1607
REGISTERED LANDSCAPE ARCHITECT
5/2/2024

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. DODSON
DRAWN BY: M. CARLSON
SHEET CHK'D BY: S. LANDGREN
CROSS CHK'D BY: M. DODSON
APPROVED BY: M. DODSON
DATE: MAY 2024

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CITY OF NEWTON, MASSACHUSETTS

BURR ELEMENTARY SCHOOL FIELD IMPROVEMENTS

LAYOUT AND MATERIALS PLAN

PROJECT NO. 0865-272529
FILE NAME: C0003LMPL

SHEET NO.
L-2

ISSUED FOR BID

APPROXIMATE LOCATION OF WATER SERVICE CONNECTION

2-IN PVC WATER SERVICE LINE FOR IRRIGATION

APPROXIMATE LIMITS OF IRRIGATION SEE SPECIFICATION SECTION 328400

APPROXIMATE LOCATION OF WATER SUPPLY CABINET FOR IRRIGATION, FINAL LOCATION AS SHOWN ON CERTIFIED IRRIGATION DESIGN DRAWINGS AND APPROVED BY OWNER

APPROXIMATE LOCATION OF IRRIGATION CONTROL BOX FOR IRRIGATION, SEE ELECTRICAL DRAWINGS, FINAL LOCATION AS SHOWN ON CERTIFIED IRRIGATION DESIGN DRAWINGS AND APPROVED BY OWNER. CONTRACTOR SHALL PROVIDE ALL BENDS, FITTINGS AND ADAPTERS PER IRRIGATION DESIGN PROVIDED BY CERTIFIED IRRIGATION DESIGNER, SEE SPECIFICATION 328400 "PLANTING IRRIGATION".

FLARED END SECTION
OUTLET = 45.0

RIPRAP (2H:1V SLOPE)

12" PVC

1 / LD-2 DRAIN BASIN
RIM = 49.0
INV. = 45.2

55.5 RIDGE HIGH POINT

APPROXIMATE LIMITS OF CITY-OWNED FILL, SEE FILL NOTES ON THIS SHEET

5 / LD-2 12" DUCTILE IRON PIPE CULVERT
INLET = 46.1
OUTLET = 45.9

1 / LD-2 DRAIN BASIN
RIM: 50.0
INV: 49.0

49.5 ELEVATION

12" DUCTILE IRON PIPE

3 / LD-2 FLARED END SECTION
OUTLET = 48.8

1" = 30'

IRRIGATION NOTES:

THE IRRIGATION LIMITS ON THIS DRAWING ARE PROVIDED TO SHOW DESIGN INTENT FOR BIDDING PURPOSES ONLY, SEE SPECIFICATION 328400.

1. THE CONTRACTOR SHALL PROVIDE COMPLETE SEALED DESIGN PLANS AND DETAILS INCLUDING ALL MANUFACTURERS PRODUCT INFORMATION FOR THE AUTOMATIC IRRIGATION SYSTEM.
2. IRRIGATION SYSTEM DESIGN SHALL BE PERFORMED BY CERTIFIED IRRIGATION DESIGNER (CID) AS CERTIFIED BY THE IRRIGATION ASSOCIATION (WWW.IRRIGATION.ORG)
3. SYSTEM SHALL INCLUDE ONE RAIN GAUGE AND ONE QUICK COUPLER VALVE.
4. BACKFLOW PREVENTER STYLE AND MODEL TO BE COORDINATED WITH THE CITY OF NEWTON DEPARTMENT OF PUBLIC WORKS.

FILL NOTES:

1. THE CITY OF NEWTON HAS TWO SOURCES OF CITY-OWNED FILL THAT SHALL BE UTILIZED AS FILL TO MEET FINISHED GRADES. THE TWO SOURCES INCLUDE:

a. EXISTING SOIL STOCKPILE LOCATED AT THE BURR ELEMENTARY SCHOOL FIELD AND SHOWN ON SHEET L-1; AND

b. EXISTING SOIL STOCKPILE LOCATED AT THE NEWTON DEPARTMENT OF PUBLIC WORKS YARD AT 70 CRESCENT STREET, NEWTON MA.

2. CONTRACTOR IS RESPONSIBLE FOR SCREENING AND OBTAINING FILL FROM EXISTING SOIL STOCKPILE AT THE NEWTON DEPARTMENT OF PUBLIC WORKS YARD. THIS CITY-OWNED FILL SHALL ONLY BE UTILIZED IN APPROXIMATE LOCATION SHOWN ON SHEET L-3.
3. ADDITIONAL CLEAN COMMON FILL WILL BE REQUIRED TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR TO MEET FINISHED GRADES. A MINIMUM OF TWO FEET OF THIS ADDITIONAL FILL AND LOAM MUST BE INSTALLED ABOVE THE CITY-OWNED FILL, SEE DETAIL 2 TYPICAL FIELD SECTION ON SHEET LD-3. FOR BIDDING PURPOSES, CONTRACTOR SHALL ASSUME THAT 2,000 CUBIC YARDS OF CITY-OWNED FILL MAY BE UTILIZED AS FILL.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. DODSON
DRAWN BY: M. CARLSON
SHEET CHK'D BY: S. LANDGREN
CROSS CHK'D BY: M. DODSON
APPROVED BY: M. DODSON
DATE: MAY 2024

CDM Smith
75 State Street
Boston, MA 02109
Tel: (617) 452-6000

CITY OF NEWTON, MASSACHUSETTS

BURR ELEMENTARY SCHOOL
FIELD IMPROVEMENTS

GRADING, DRAINAGE AND IRRIGATION PLAN

PROJECT NO. 0865-272529
FILE NAME: C0004GDPL

SHEET NO.
L-3

MASSACHUSETTS
MICHAEL A. DODSON
REGISTERED LANDSCAPE ARCHITECT
NO. 1607
5/3/2024

ISSUED FOR BID

LIMIT OF RAIN GARDEN 13 LD-1

WET AREA SEED MIX

LOAM AND SEED DISTURBED AREA WITH LAWN AREA SEED MIX

NATURAL AREA SEED MIX

REPLANTED TREES TO BE STAKED AND APPROVED BY OWNER PRIOR TO INSTALLATION

FIELD LOAM AND SEED

NATURAL AREA SEED MIX

LAWN AREA SEED MIX

LIMIT OF RAIN GARDEN 13 LD-1

49.5 ELEVATION

NATURAL AREA SEED MIX

WET AREA SEED MIX

RESET EXISTING TREES, SEE L-1

N

1" = 30'

15 0 30

LEGEND

- FIELD SEED MIX
- LAWN AREA SEED MIX
- NATURAL AREA SEED MIX
- WET AREA SEED MIX
- REPLANTED TREE
- TREE TO BE RESET IN CURRENT LOCATION

PLANTING NOTE:

1. UPON COMPLETION OF INSTALLATION OF THE RAIN GARDEN SEED MIXTURE AND FIELD AREA SEED MIXTURE, CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY CONSTRUCTION FENCE ALONG INSIDE PERIMETER OF BITUMINOUS CONCRETE PATHWAY TO PROTECT SEEDED AREAS AND RAIN GARDENS. A MINIMUM OF 2 GATES SHALL BE PROVIDED IN LOCATIONS APPROVED BY OWNER. REMOVE TEMPORARY CONSTRUCTION FENCE AT END OF TURF MAINTENANCE PERIOD.

MASSACHUSETTS
MICHAEL A. DODSON
NO. 1607
REGISTERED LANDSCAPE ARCHITECT
5/7/2024

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. DODSON
DRAWN BY: M. CARLSON
SHEET CHK'D BY: S. LANDGREN
CROSS CHK'D BY: M. DODSON
APPROVED BY: M. DODSON
DATE: MAY 2024

CDM Smith
75 State Street
Boston, MA 02109
Tel: (617) 452-6000

CITY OF NEWTON, MASSACHUSETTS

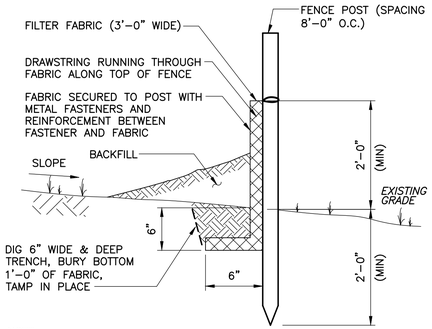
BURR ELEMENTARY SCHOOL
FIELD IMPROVEMENTS

PLANTING PLAN

PROJECT NO. 0865-272529
FILE NAME: C0005PLPL

SHEET NO.
L-4

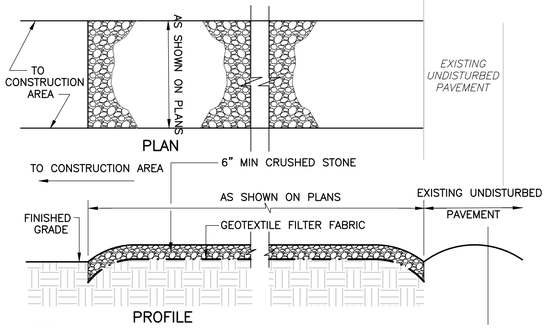
ISSUED FOR BID



NOTE:
1. ALL SILT FENCES SHALL BE INSPECTED AND REMEDIAL MAINTENANCE PERFORMED BY THE CONTRACTOR WITHIN 24 HOURS AFTER EACH RAIN.

SEDIMENT FENCE

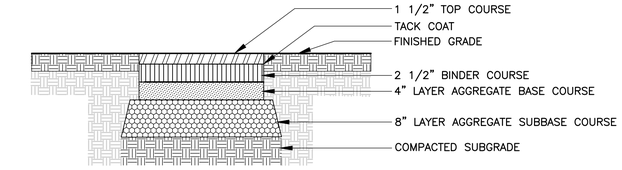
DETAIL 1 — NOT TO SCALE — LD-1



NOTES:
1. PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND UNDISTURBED PAVEMENT.
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO UNDISTURBED PAVEMENT.
3. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDING STONE TO THE LENGTH OF THE ENTRANCE.
4. REPAIR AND CLEANOUT MEASURES USED TO TRAP SEDIMENT.
5. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO UNDISTURBED PAVEMENT SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.

STABILIZED CONSTRUCTION ENTRANCE

DETAIL 4 — NOT TO SCALE — LD-1

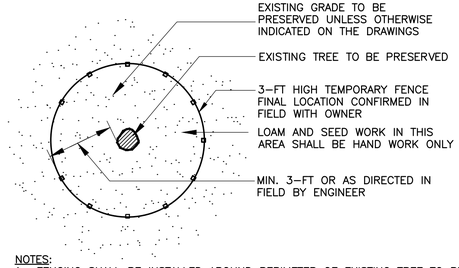


BITUMINOUS CONCRETE PAVEMENT

DETAIL 7 — NOT TO SCALE — LD-1

1.) BASE COURSE SHALL EXTEND 3" MIN. BEYOND EDGE OF PAVEMENT

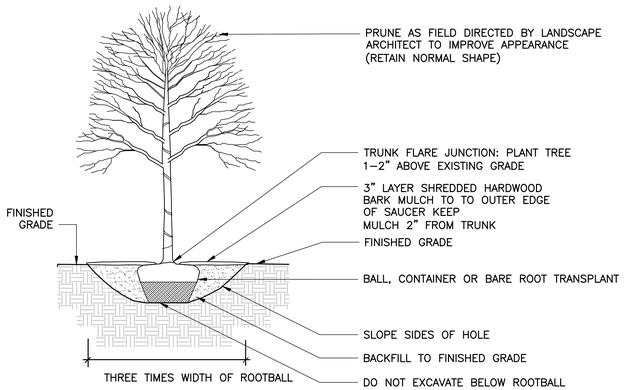
2.) DETAIL APPLIES TO ALL BITUMINOUS CONCRETE PAVEMENT SURFACES AND WALKS



NOTES:
1. FENCING SHALL BE INSTALLED AROUND PERIMETER OF EXISTING TREE TO BE PROTECTED AS SHOWN ON PLANS.
2. FENCING SHALL REMAIN IN PLACE AND BE MAINTAINED THROUGHOUT CONSTRUCTION AND THEN REMOVED COMPLETELY AS DIRECTED BY OWNER TO COMPLETE LOAMING AND SEEDING ACTIVITIES.

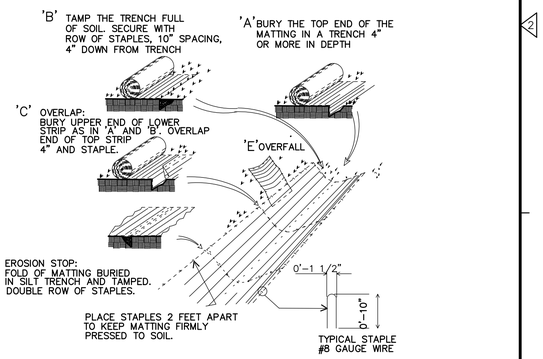
TREE PROTECTION

DETAIL 11 — NOT TO SCALE — LD-1



REPLANTED DECIDUOUS TREE PLANTING

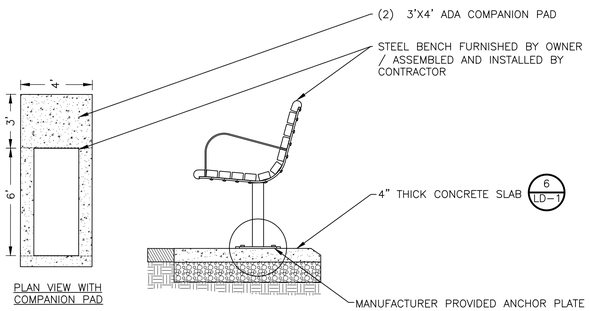
DETAIL 8 — NOT TO SCALE — LD-1



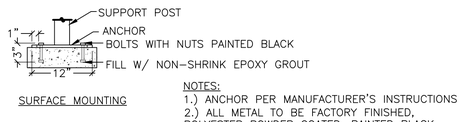
EROSION CONTROL BLANKET

DETAIL 12 — NOT TO SCALE — LD-1

NOTE:
1.) APPLY ON ALL NEW SLOPES 3(H):1(V) OR GREATER



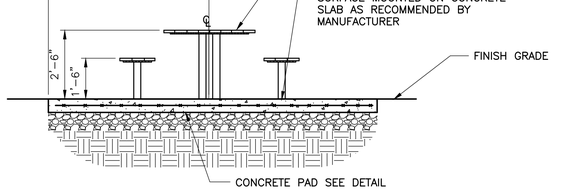
PLAN VIEW WITH COMPANION PAD



NOTES:
1.) ANCHOR PER MANUFACTURER'S INSTRUCTIONS
2.) ALL METAL TO BE FACTORY FINISHED, POLYESTER POWDER COATED, PAINTED BLACK.

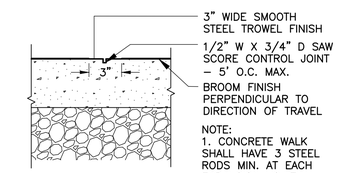
PARK BENCH AND CONCRETE PAD

DETAIL 2 — NOT TO SCALE — LD-1



PICNIC TABLE ON CONCRETE PAD

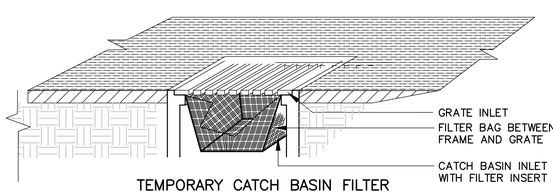
DETAIL 5 — NOT TO SCALE — LD-1



NOTE:
1. CONCRETE WALK SHALL HAVE 3 STEEL RODS MIN. AT EACH EXPANSION JOINT
2. EXPANSION JOINTS SHALL BE LOCATED 30 FT. O.C. OR LESS AND AT THE END OF EACH DAYS POUR.

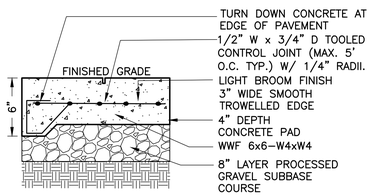
CONTROL JOINT

DETAIL 9 — NOT TO SCALE — LD-1



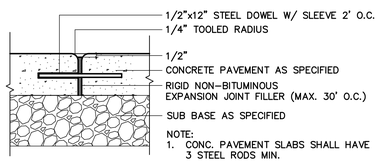
TEMPORARY CATCH BASIN FILTER

DETAIL 3 — NOT TO SCALE — LD-1



CONCRETE PAD

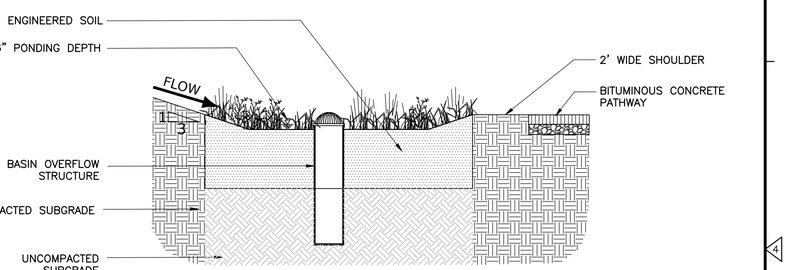
DETAIL 6 — NOT TO SCALE — LD-1



NOTE:
1. CONC. PAVEMENT SLABS SHALL HAVE 3 STEEL RODS MIN.
2. EXPANSION JOINTS SHALL BE LOCATED 30 FT. MAX. O.C. AND AT THE END OF EACH DAYS POUR.
3. LOCATE DOWELS MIN. 3-FT. O.C. WHERE CONC. IS PLACED UNDER DOORWAY THRESHOLDS.

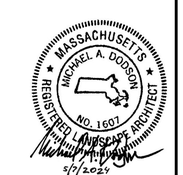
EXPANSION JOINT

DETAIL 10 — NOT TO SCALE — LD-1



RAIN GARDEN

DETAIL 13 — NOT TO SCALE — LD-1



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APPROVED BY: M. DODSON
DATE: MAY 2024

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75 State Street
Boston, MA 02109
Tel: (617) 452-6000

CITY OF NEWTON, MASSACHUSETTS

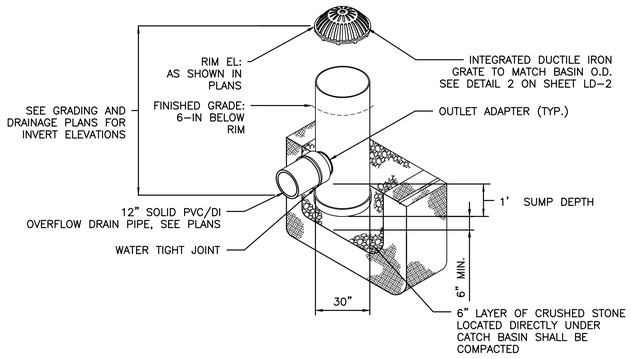
BURR ELEMENTARY SCHOOL
FIELD IMPROVEMENTS

CIVIL DETAILS I

PROJECT NO. 0865-272529
FILE NAME: C000D!

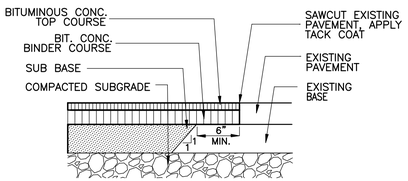
SHEET NO.
LD-1

ISSUED FOR BID



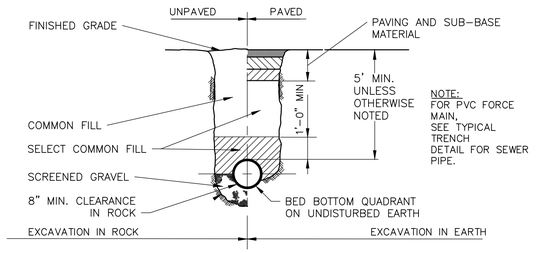
DRAIN BASIN WITH DOME GRATE

DETAIL 1 — 1/4"=1'-0" — LD-2



PAVEMENT MATCH

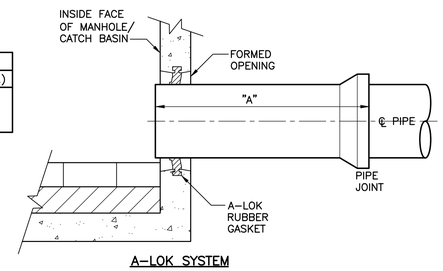
DETAIL 4 — NOT TO SCALE — LD-2



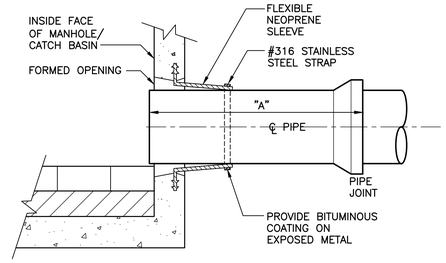
TYPICAL TRENCH DETAILS

DETAIL 7 — NOT TO SCALE — LD-2

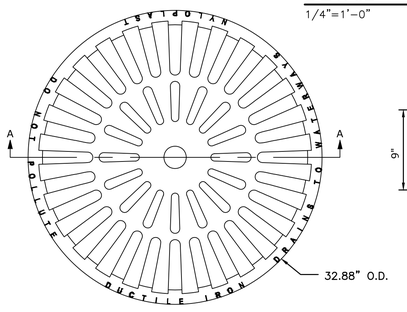
MAXIMUM STUB LENGTH	
PIPE MATERIAL	"A" (MAX.)
RC	4'-0"
PVC	3'-3"
DI	4'-6"

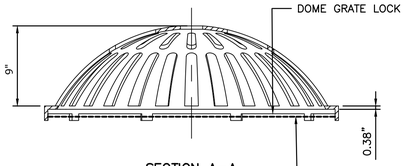


A-LOK SYSTEM



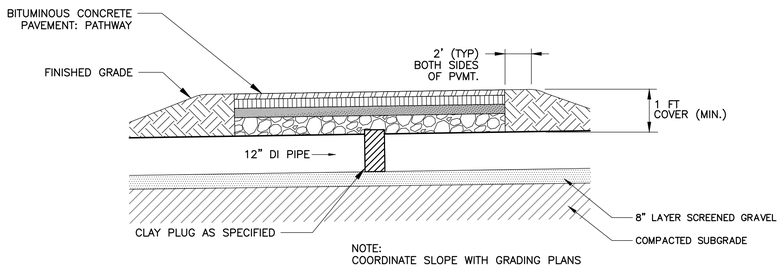
FLEXIBLE SLEEVE





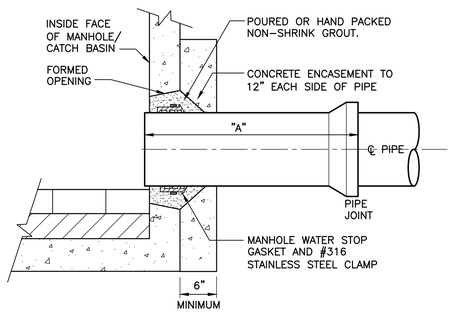
DUCTILE IRON DOME GRATE

DETAIL 2 — 1/4"=1'-0" — LD-2

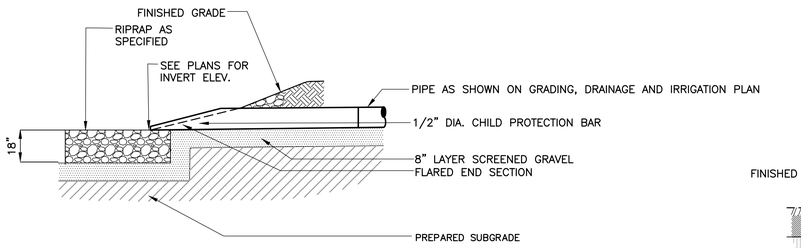


DUCTILE IRON PIPE CULVERT

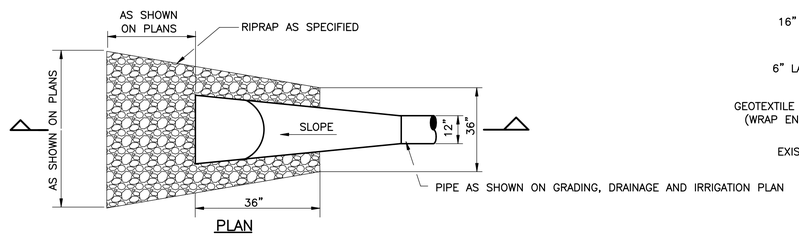
DETAIL 5 — NOT TO SCALE — LD-2



CONCRETE ENCASEMENT



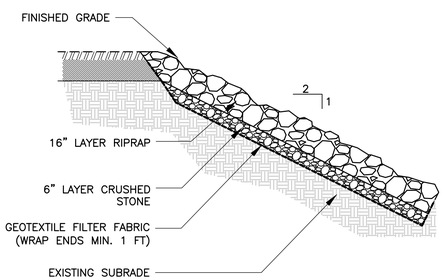
SECTION



PLAN

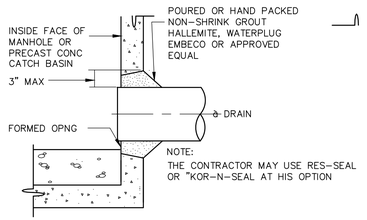
FLARED END SECTION & RIPRAP APRON

DETAIL 3 — NOT TO SCALE — LD-2



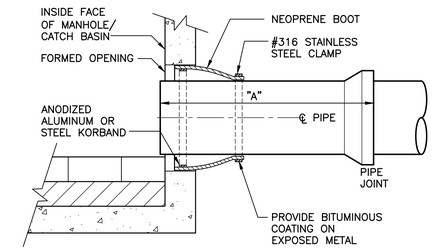
RIPRAP SLOPE

DETAIL 6 — NOT TO SCALE — LD-2



TYPICAL PIPE CONNECTION

DETAIL 8 — NOT TO SCALE — LD-2



KOR-N-SEAL BOOT

OTHER PIPE CONNECTIONS

DETAIL 9 — NOT TO SCALE — LD-2

MASSACHUSETTS
MICHAEL A. DODSON
NO. 1607
REGISTERED LANDSCAPE ARCHITECT
5/7/2024

REV. NO.	DATE	DRWN	CHKD	REMARKS
				M. DODSON

DESIGNED BY: M. DODSON
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CITY OF NEWTON, MASSACHUSETTS

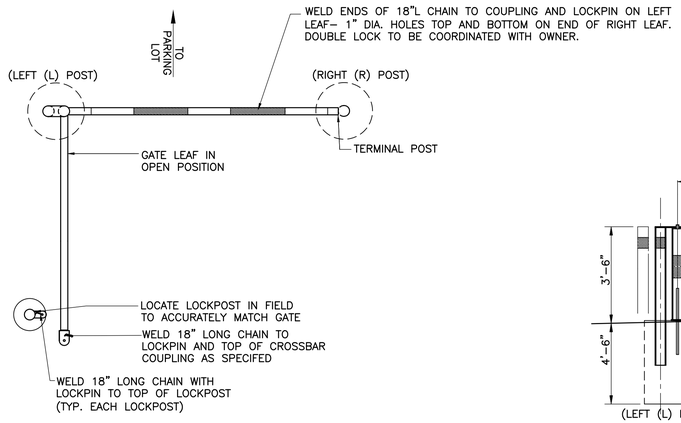
BURR ELEMENTARY SCHOOL
FIELD IMPROVEMENTS

CIVIL DETAILS II

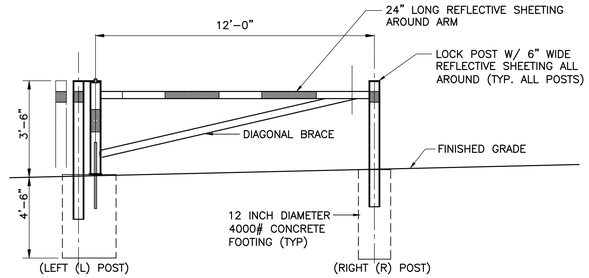
PROJECT NO. 0865-272529
FILE NAME: C000DI

SHEET NO.
LD-2

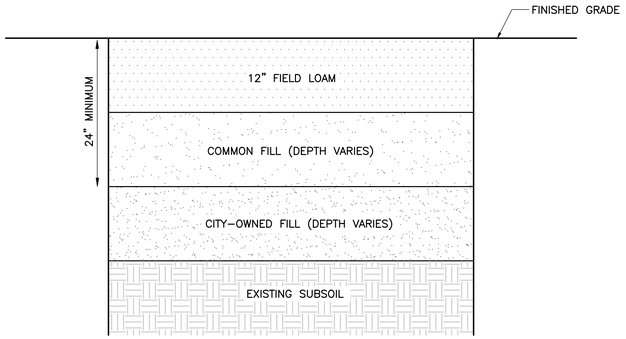
ISSUED FOR BID



PLAN



ELEVATION

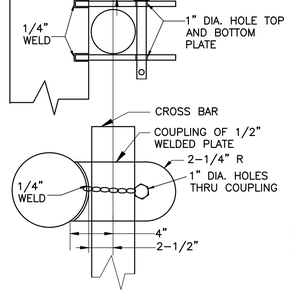


TYPICAL FIELD SECTION

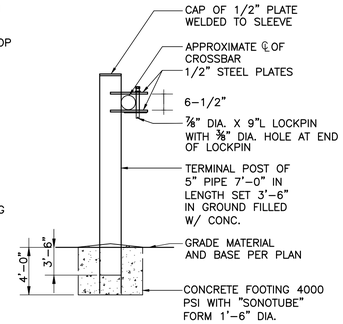
DETAIL 2 / LD–3

NOT TO SCALE

TERMINAL POSTS



COUPLING AND LOCK

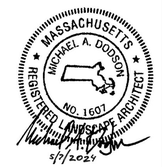


LOCK POST

VEHICLE CONTROL GATE

DETAIL 1 / LD–3

NOT TO SCALE



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DRAWN BY: M. CARLSON
SHEET CHK'D BY: S. LANDGREN
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DATE: MAY 2024

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CITY OF NEWTON, MASSACHUSETTS

BURR ELEMENTARY SCHOOL
FIELD IMPROVEMENTS

CIVIL DETAILS III

PROJECT NO. 0865–272529
FILE NAME: C000DIII

SHEET NO.
LD-3

ISSUED FOR BID

ELECTRICAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AUX	AUXILIARY
BKR	BREAKER
CKT	CIRCUIT
COMP	COMPRESSOR
CONT	CONTROL
CP	CONTROL PANEL
DISC	DISCONNECT
DN	DOWN
DWG	DRAWING
ELEC.	ELECTRIC
ELEV	ELEVATION
EM	EMERGENCY
EXIST	EXISTING
EQUIP	EQUIPMENT
FIN. FL.	FINISHED FLOOR
GFEP	GROUND FAULT EQUIPMENT PROTECTION
G. OR GRD.	GROUND
GRND	GROUNDING
H.O.A.	HAND–OFF–AUTO
J–J/B	JUNCTION BOX
LTG	LIGHTING
LTS	LIGHTS
MP	MAIN PANEL
MS	MOTOR STARTER
MTD	MOUNT–MOUNTED
MTG	MOUNTING
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
NO.	NUMBER
NEC	NATIONAL ELECTRIC CODE
OL	OVER LOAD
REC	RECEPTACLE
RM	ROOM
SW	SWITCH
T/B	TERMINAL BOX
TRANSF	TRANSFORMER
TEL.	TELEPHONE
TEMP.	TEMPERATURE
U.G.	UNDER GROUND
UON	UNLESS OTHERWISE NOTED
V	VOLT
WP	WEATHER PROOF

GENERAL REQUIREMENTS

1.1 THE WORK TO BE DONE UNDER THIS PROJECT INCLUDES PROVIDING ALL EQUIPMENT, MATERIALS, LABOR AND SERVICES, AND PERFORMING ALL OPERATIONS FOR COMPLETE AND OPERATING SYSTEMS. ANY WORK NOT SPECIFICALLY COVERED BUT NECESSARY TO COMPLETE THIS INSTALLATION, SHALL BE PROVIDED. ALL EQUIPMENT AND WIRING TO BE NEW AND PROVIDED UNDER THIS CONTRACT UNLESS OTHERWISE NOTED.

1.2 ENTIRE INSTALLATION, INCLUDING MATERIALS, EQUIPMENT AND WORKMANSHIP, SHALL CONFORM TO THE 2023 EDITION OF THE NATIONAL ELECTRIC CODE (NFPA 70 AND 527 CMR) AS WELL AS ALL APPLICABLE LAWS AND REGULATIONS AND REGULATORY BODIES HAVING JURISDICTION OVER THIS WORK:

1.3 THE TERM "FURNISH" SHALL MEAN TO OBTAIN AND SUPPLY TO THE JOB SITE. THE TERM "INSTALL" SHALL MEAN TO FIX IN POSITION AND CONNECT FOR USE. THE TERM "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL.

1.5 ALL NEW ELECTRICAL MATERIAL AND EQUIPMENT SHALL BE LISTED BY UNDERWRITERS' LABORATORIES, INC. (UL) AND BEAR THE UL LABEL.

1.6 PROVIDE ALL SCAFFOLDING, LADDERS, RIGGING, HOISTING, ETC., FOR THIS WORK.

1.7 PROVIDE TECHNICAL MANUALS, PER SPECIFICATIONS, AND GIVE INSTRUCTIONS TO USER FOR ALL EQUIPMENT AND SYSTEMS PROVIDED UNDER THIS CONTRACT AFTER ALL ARE CLEANED AND OPERATING.

1.8 THE DRAWINGS ARE DIAGRAMMATIC AND ALL SPECIALTIES AND APPURTENANCES ARE NOT SHOWN, BUT SHALL BE PROVIDED AS REQUIRED.

1.9 CONTRACTOR SHALL FIELD VERIFY DIMENSIONS OF FINISHED CONSTRUCTION PRIOR TO FABRICATION AND INSTALLATION OF FIXTURES AND EQUIPMENT.

1.10 THE WORK SHALL INCLUDE ALL PANELS, DEVICES, FEEDERS AND BRANCH CIRCUIT WIRING AS REQUIRED FOR THE DISTRIBUTION SYSTEM INDICATED AND CALLED FOR ON THE DRAWINGS, REQUIRED BY SPECIFICATIONS AND AS NECESSARY FOR COMPLETE FUNCTIONAL SYSTEMS PRESENTED AND INTENDED.

1.11 CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR, TOOLS, EQUIPMENT, CONSUMABLES AND SERVICES REQUIRED FOR OBTAINING, DELIVERY, INSTALLATION, CONNECTION, DISCONNECTION, REMOVAL, RELOCATION, REPAIR, REPLACEMENT, TESTING AND COMMISSIONING OF ALL EQUIPMENT AND DEVICES INCLUDED IN OR NECESSARY FOR THE WORK, AS APPLICABLE.

1.12 ELECTRICAL WORK SHALL INCLUDE ALL REQUIRED CUTTING, PATCHING AND THE FULL RESTORATION OF WALL AND FLOOR STRUCTURE AND SURFACES.

1.13 EXACT ROUTING OF CONDUITS SHALL BE DETERMINED IN THE FIELD.

1.14 CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL CONDITIONS AND SYSTEMS THAT EFFECT HIS BIDDING AND WORK, AND SHALL PROVIDE VALUE FOR SAME IN HIS BID.

1.15 UPON COMPLETION OF THE ELECTRICAL WORK, CONTRACTOR SHALL TEST THE COMPLETE ELECTRICAL SYSTEM FOR SHORTS, GROUNDS, AND PROPER OPERATION, IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE.

1.16 UPON COMPLETION OF WORK, THE CONTRACTOR SHALL CLEAN AND ADJUST ALL EQUIPMENT AND LIGHTING AND TEST SYSTEMS TO THE SATISFACTION OF OWNER AND ENGINEER. RESULTS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

1.17 ALL WORK SHALL BE PERFORMED BY THOSE SKILLED IN THEIR PARTICULAR TRADE IN A NEAT AND WORKMANLIKE MANNER.

1.18 ELECTRICAL WORK SHALL BE DONE AT SUCH A TIME, AND IN SUCH MANNER, AS WILL LEAST INTERFERE WITH THE MAINTENANCE AND OPERATION OF THE SITE'S AND/OR BUILDING'S ACTIVITIES. PROVISIONS SHALL BE MADE TO PERMIT THE USE OF ALL EXISTING ELECTRICAL SYSTEMS AT ALL TIMES. PROVIDE TEMPORARY FACILITIES TO SECURE THESE CONDITIONS AND REMOVE SUCH TEMPORARY FACILITIES WHEN NO LONGER REQUIRED.

1.19 SHUTDOWN WORK SHALL BE SCHEDULED AT SUCH TIME AND IN SUCH MANNER AS DIRECTED BY THE OWNER AND ENGINEER. PROVIDE A MINIMUM ONE WEEK NOTICE.

WHERE ALLOWABLE SHUTDOWN PERIODS CANNOT BE OF DURATION TO ACCOMMODATE ALL OF THE REQUIRED WORK, THE CONTRACTOR SHALL PERFORM THE WORK IN A SERIES OF PREPLANNED STAGES DURING ALLOWABLE SHUTDOWN PERIODS. PROVIDE TEMPORARY FACILITIES TO ALLOW RE–ENERGIZING OF SERVICES BETWEEN WORKING STAGES.

PROJECT COORDINATION

2.1 VERIFY FIELD CONDITIONS AT THE SITE AND NOTIFY THE OWNER OF ANY DISCREPANCIES, PRIOR TO COMMENCING WITH THE WORK.

PROTECTION OF WORK

3.1 EFFECTIVELY PROTECT ALL MATERIALS AND EQUIPMENT FROM ENVIRONMENTAL AND PHYSICAL DAMAGE UNTIL FINAL ACCEPTANCE. CLOSE AND PROTECT ALL OPENINGS DURING CONSTRUCTION. PROVIDE NEW MATERIALS AND EQUIPMENT TO REPLACE ITEMS DAMAGED.

RACEWAYS

4.1 ALL EXPOSED AND CONCEALED CONDUIT SHALL BE HOT DIP GALVANIZED RIGID STEEL UNLESS OTHERWISE NOTED.

4.2 CONDUIT SHALL BE RUN AT RIGHT ANGLES AND PARALLEL TO BUILDING LINES, SHALL BE NEATLY RACKED, AND SECURELY FASTENED. JUNCTION BOXES SHALL BE PROVIDED WHERE REQUIRED TO FACILITATE INSTALLATION OF WIRES.

4.3 ALL CONDUIT AND ELECTRICAL EQUIPMENT SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN AN APPROVED MANNER.

4.4 ARRANGEMENT OF CONDUIT AND EQUIPMENT SHALL BE AS REQUIRED TO AVOID INTERFERENCES.

4.5 FOR CONDUITS CROSSING EXPANSION JOINTS, PROVIDE EXPANSION FITTINGS FOR SIZE 1–1/4", AND LARGER. PROVIDE SECTIONS OF FLEXIBLE CONDUIT WITH GROUNDING JUMPERS FOR SIZES 1" AND SMALLER.

4.6 UNDERGROUND CONDUITS SHALL BE MINIMUM 1".

4.7 INSTALL DETECTABLE UNDERGROUND TAPES FOR THE PROTECTION, LOCATION, AND IDENTIFICATION OF UNDERGROUND CONDUIT INSTALLATIONS.

4.8 CONDUITS WITHOUT DESIGNATED SIZE SHALL BE 3/4".

4.9 CONDUITS TERMINATING IN NEMA 4 OR NEMA 4X ENCLOSURES SHALL BE TERMINATED WITH MYERS TYPE HUBS.

4.10 LIQUID TIGHT FLEXIBLE CONDUIT SHALL BE USED FOR ALL MOTOR TERMINATIONS AND EQUIPMENT WHERE VIBRATION MAY BE PRESENT.

4.11 ALL CONDUIT WHICH MAY UNDER ANY CIRCUMSTANCE CONTAIN LIQUIDS SUCH AS WATER, CONDENSATION, LIQUID CHEMICALS, ETC., SHALL BE ARRANGED TO DRAIN AWAY FROM THE EQUIPMENT SERVED. IF CONDUIT DRAINAGE IS NOT POSSIBLE, CONDUIT SEALS SHALL BE USED TO PLUG THE CONDUITS.

4.12 CONDUIT HANGERS AND SUPPORTS SHALL BE THE SAME MATERIAL AS CONDUIT, ATTACHED TO STRUCTURAL STEEL BY MEANS OF BEAM OR CHANNEL CLAMPS. WHERE ATTACHED TO CONCRETE SURFACES, CONCRETE INSERTS OF THE SPOT TYPE SHALL BE PROVIDED.

4.13 MISCELLANEOUS STEEL FOR THE SUPPORT OF FIXTURES, BOXES, TRANSFORMERS, STARTERS, CONTACTORS, PANELS AND CONDUIT SHALL BE FURNISHED AND INSTALLED.

4.14 STEEL CHANNELS, FLAT IRON AND CHANNEL IRON SHALL BE FURNISHED AND INSTALLED FOR THE SUPPORT OF ALL ELECTRICAL EQUIPMENT AND DEVICES, WHERE REQUIRED, INCLUDING ALL ANCHORS, INSERTS, BOLTS, NUTS, WASHERS, ETC. FOR A RIGID INSTALLATION.

BOXES AND ENCLOSURES

5.1 THE ELECTRICAL PANELBOARD SHALL BE NEMA 3R. ALL OTHER ELECTRICAL BOXES AND ENCLOSURES SHALL BE NEMA 4.

5.2 MOUNTING HEIGHTS OF EQUIPMENT AND DEVICES SHALL BE AS INDICATED ON THE DRAWINGS. WHERE MOUNTING HEIGHTS ARE NOT GIVEN ON THE DRAWINGS, UTILIZE THE FOLLOWING MOUNTING HEIGHTS (ALL DIMENSIONS TO CENTERLINE OF BOX):

A. LIGHTING SWITCHES AND CONTROLS – 48" A.F.F.
B. PANELBOARDS AND CABINETS – 78" TO TOP OF ENCLOSURE

5.3 WHERE MULTIPLE SWITCHES AND RECEPTACLES ARE INDICATED AT THE SAME LOCATION, THEY SHALL BE MOUNTED BEHIND A COMMON FACEPLATE.

5.4 PROVIDE WHILE IN USE METALLIC COVERS FOR ALL OUTDOOR AND ALL GROUND FAULT CIRCUIT INTERRUPTER (GFCI) RECEPTACLES.

WIRING

6.1 INSTALL EACH THREE PHASE CIRCUIT IN A SEPARATE CONDUIT.

6.2 WHERE EQUIPMENT, LIGHTING FIXTURES AND WIRING DEVICES ARE SHOWN WITH CIRCUIT NUMBERS ONLY, THE MINIMUM BRANCH CIRCUITING REQUIREMENTS SHALL BE AS FOLLOWS:

A. LIGHTING FIXTURES – (2)#12 & #12 GND.
B. RECEPTACLES – (2)#12 & #12 GND.
C. HOMERUNS TO PANEL BOARDS SHALL CONTAIN NO MORE THAN THREE CIRCUITS.

6.3 WIRE SHALL BE XHHW–2 TYPE. WIRE SIZES SHALL BE INCREASED TO COMPENSATE FOR VOLTAGE DROP. INCREASE WIRE SIZE TO COMPENSATE FOR VOLTAGE DROP FOR 20 AMP CIRCUITS AS FOLLOWS:

A. 120V CIRCUITS LONGER THAN 80' SHALL UTILIZE MIN. #10 AWG.

B. 208V CIRCUITS LONGER THAN 150' SHALL UTILIZE MIN. #10 AWG.

GROUNDING

7.1 PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN ALL RACEWAYS AND WIREWAYS, SIZED PER NFPA 70.

PANELBOARDS

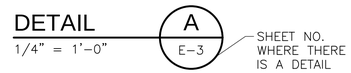
8.1 PROVIDE A NEW TYPEWRITTEN CIRCUIT DIRECTORY FOR EACH PANEL AFFECTED BY THE ELECTRICAL WORK.

8.2 NOT USED

8.3 CIRCUIT NUMBERS SHOWN SHALL BE ADHERED TO IN GENERAL , EXCEPT WHEN FIELD CONDITIONS, SHOP DRAWINGS OF CONNECTED EQUIPMENT, OR APPROVED FIELD CHANGES REQUIRE CHANGE IN CIRCUITING.

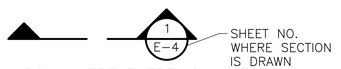
8.4 ALL CIRCUIT NUMBERS SHALL BE INDICATED ON RESPECTIVE PLANS AND PANEL CIRCUIT SCHEDULES PREPARED FOR RECORD DRAWINGS.

SYMBOL WHERE THERE IS A DETAIL

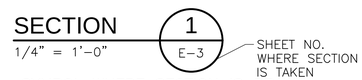


SYMBOL WHERE DETAIL IS DRAWN

DETAIL SYMBOL



SYMBOL WHERE THERE IS A SECTION



SYMBOL WHERE SECTION IS DRAWN

SECTION SYMBOL

PLAN	DESCRIPTION
	POWER PANELBOARD (PP–#) OR DISTRIBUTION PANELBOARD (DP–#) SHOWN ON PLAN PER ACTUAL PANEL DIMENSIONS
CP	CONTROL PANEL
	CONDUIT CONCEALED IN WALL, IN SLAB ABOVE, OR ABOVE CEILING.
	CONDUIT CONCEALED IN OR BELOW FLOOR OR UNDERGROUND.
(2) 3"C., 3#3/0, 1#2G	DENOTES A QUANTITY OF TWO (2) 3–INCH CONDUITS EACH CONTAINING THREE NO. 3/0 AWG CONDUCTORS AND 1 NO. 2 AWG GROUND CONDUCTOR.
(3) 4"C.	THREE 4–INCH CONDUITS
J OR J	JUNCTION BOX
	GROUND SYSTEM GRID OR LOOP, 36" BELOW FINISHED GRADE UNLESS OTHERWISE NOTED.
	EXOTHERMIC WELD CONNECTION
	3/4" x 10'–0" GROUND ROD. UNLESS SPECIFIED OTHERWISE.
P	ABOVE GROUND PULLBOX

EXISTING, NEW OR FUTURE CONDITION DESIGNATION

COMMONWEALTH OF MASSACHUSETTS
JUPASIT CHONGSUTTANAMANEE
ELECTRICAL
No. 48969
REGISTERED PROFESSIONAL ENGINEER

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: N. DILUISO
DRAWN BY: N. DILUISO
SHEET CHK'D BY: S. JONG
CROSS CHK'D BY: M. DODSON
APPROVED BY: S. JONG
DATE: MAY 2024

CDM Smith
75 State Street
Boston, MA 02109
Tel: (617) 452-6000

CITY OF NEWTON, MASSACHUSETTS

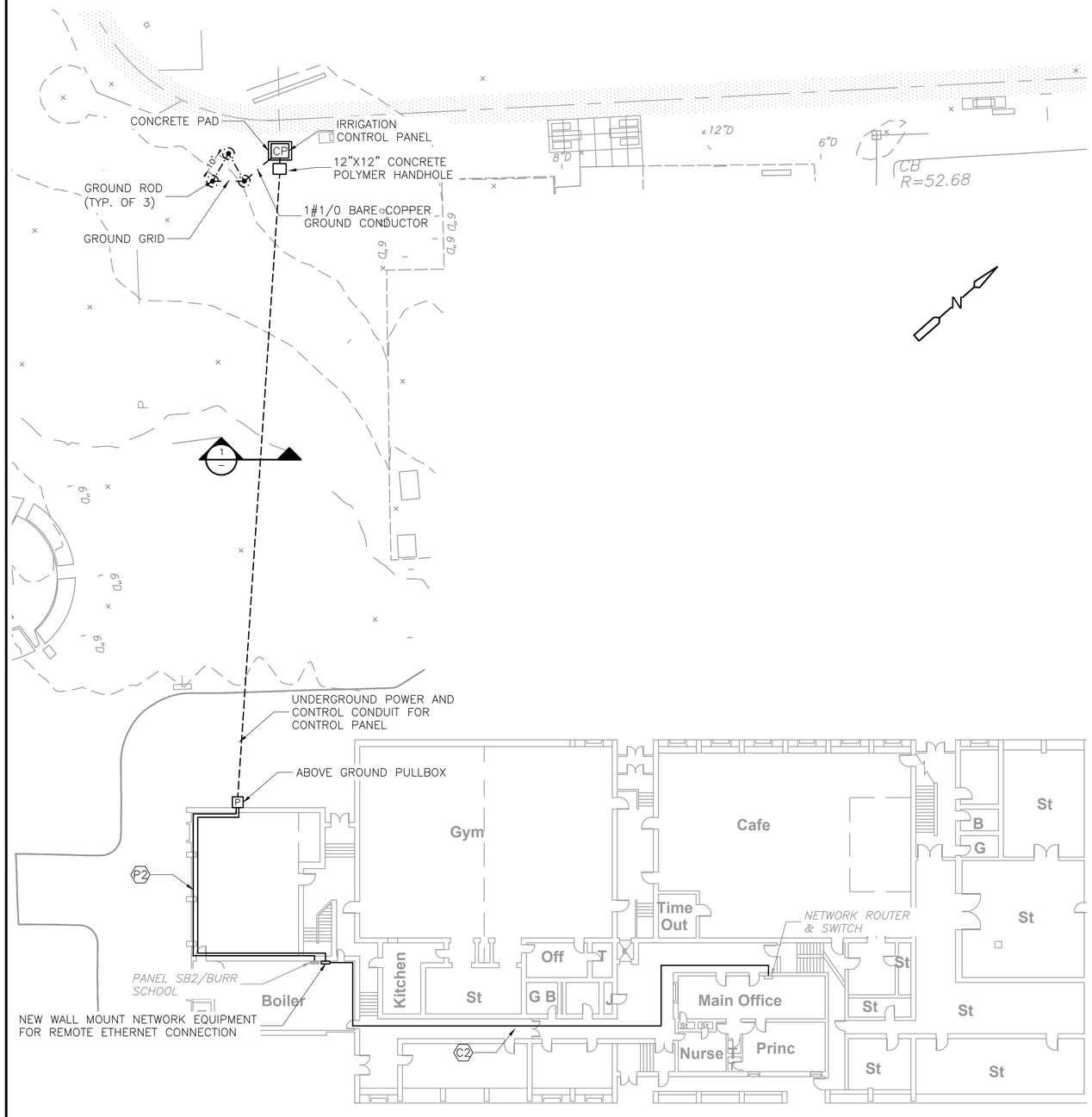
BURR ELEMENTARY SCHOOL
FIELD IMPROVEMENTS

ELECTRICAL LEGEND

PROJECT NO. 0865–272529
FILE NAME: E001NFLG

SHEET NO.
E-1

ISSUED FOR BID



ELECTRICAL SITE PLAN

PLAN

3/4" = 1'

CONDUIT AND WIRE LEGEND

(NUMBERS REFERENCE THIS SHEET ONLY)

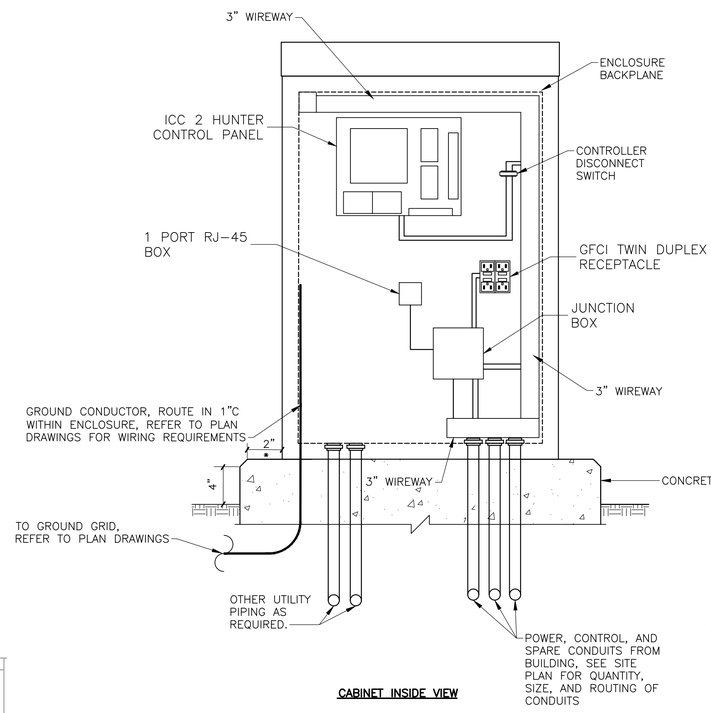
NO.	DESCRIPTION
P1	2"C., 2#10, 1#10G
P2	3/4"C., 2#10, 1#10G
C1	2"C., 1 CAT 7 CABLE
C2	1"C., 1 CAT 7 CABLE
S	2"C., SPARE

P1 C1 S

UNDERGROUND CONDUIT SCHEDULE

SECTION 1

NTS

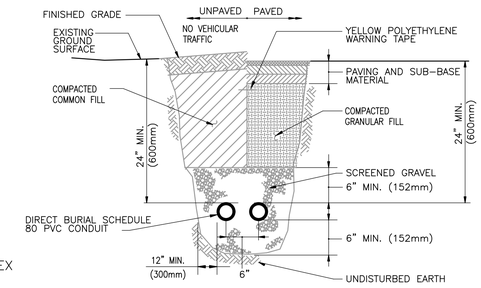


CABINET INSIDE VIEW

ELECTRICAL CABINET

DETAIL A

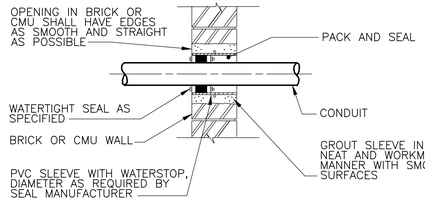
N.T.S.



TYPICAL DIRECT BURIAL CONDUIT INSTALLATION

DETAIL C

NTS



CONDUIT PENETRATION

DETAIL B

NTS

BURR SCHOOL SB-2

125 AMP MAIN BREAKER — 125 AMP BUS RATING — 208/120 VOLTS — 3 PHASE — 4 WIRE — 60 Hz. — 30 POLES — 22 KA SHORT CIRCUIT RATING — ELECTRONIC GRADE: NO

LOCATION: BURR SCHOOL BOILER ROOM — ENCLOSURE RATING: NEMA 1 — MOUNTING: SURFACE

CIRCUIT NO.	DESCRIPTION	LOAD KVA PHASE A	LOAD KVA PHASE B	LOAD KVA PHASE C	BREAKER AMPS/ POLES	NOTES
1	GENERATOR DAMPERS				20 /1	
3	BOILER FANS				15 /2	
5						
7						
9	BOILER #1				30 /3	
11						
13	UNKNOWN				20 /1	
15	SPARE				/1	
17	SPARE				/1	
19	SPARE				/1	
21	SPARE				/1	
23	SPARE				/1	
25	SPARE				/1	
27	SPARE				/1	
29	SPARE				/1	
	TOTAL PHASE KVA THIS SIDE	0.33	0.33	0.33		

CIRCUIT NO.	DESCRIPTION	LOAD KVA PHASE A	LOAD KVA PHASE B	LOAD KVA PHASE C	BREAKER AMPS/ POLES	NOTES
2	UNKNOWN				20 /1	
4						
6	VFD #1 FOR PUMP				60 /3	
8						
10	FIRE ALARM				20 /1	
12	UNKNOWN				20 /1	
14	IRRIGATION CONTROL PANEL				20 /1	7
16	SPARE				/1	
18	SPARE				/1	
20	SPARE				/1	
22	SPARE				/1	
24	SPARE				/1	
26	SPARE				/1	
28	SPARE				/1	
30	SPARE				/1	
	TOTAL PHASE KVA THIS SIDE	0	0	0		
	TOTAL KVA PER PHASE	0.33	0.33	0.33		
	TOTAL THREE PHASE KVA		0.99			

NOTES:
1. PROVIDE LOCKING HARDWARE
3. 30 ma GFI CIRCUIT BREAKER FOR EQUIPMENT PROTECTION ONLY (HEAT TRACE)
5. BRANCH CIRCUIT WIRING: 3/4"C, 3#12 & 1#12G
7. REFER TO CONDUIT AND WIRE LEGEND

NOTES CONT.:
2. 5 ma GROUND FAULT INTERRUPTER (GFI) CIRCUIT BREAKER
4. PROVIDE LOCKING HARDWARE & PAINT BREAKER HANDLE RED (FACP)
6. BRANCH CIRCUIT WIRING: 3/4"C, 3#10 & 1#10G

COMMONWEALTH OF MASSACHUSETTS — SUPASIT CHONGSUTTANAMANEE — ELECTRICAL — No. 48969 — REGISTERED PROFESSIONAL ENGINEER

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BURR ELEMENTARY SCHOOL
FIELD IMPROVEMENTS

ELECTRICAL SITE PLAN AND DETAILS

PROJECT NO. 0865-272529
FILE NAME: E002PEPL

SHEET NO.
E-2

ISSUED FOR BID