

100% Construction Documents

SOUTH COMMON: Phase II

Lowell, Massachusetts

May 27, 2022

OWNER:



LIST OF DRAWINGS:

Ex1 EXISTING CONDITIONS PLAN

SP-1 SITE PREPARATION PLAN

L-1 LAYOUT & MATERIALS PLAN

L-2 GRADING, DRAINAGE & UTILITY PLAN

L-3 LANDSCAPE & PLANTING PLAN

L-4 SITE ENLARGEMENTS

L-5 ENTRY SIGNAGE DETAILS

L-6 SITE ENLARGEMENTS

L-7 CONSTRUCTION DETAILS

L-8 CONSTRUCTION DETAILS

IR-1 IRRIGATION SYSTEM LAYOUT PLAN

IR-2 IRRIGATION SYSTEM CONSTRUCTION DETAILS

IR-3 IRRIGATION SYSTEM CONSTRUCTION DETAILS

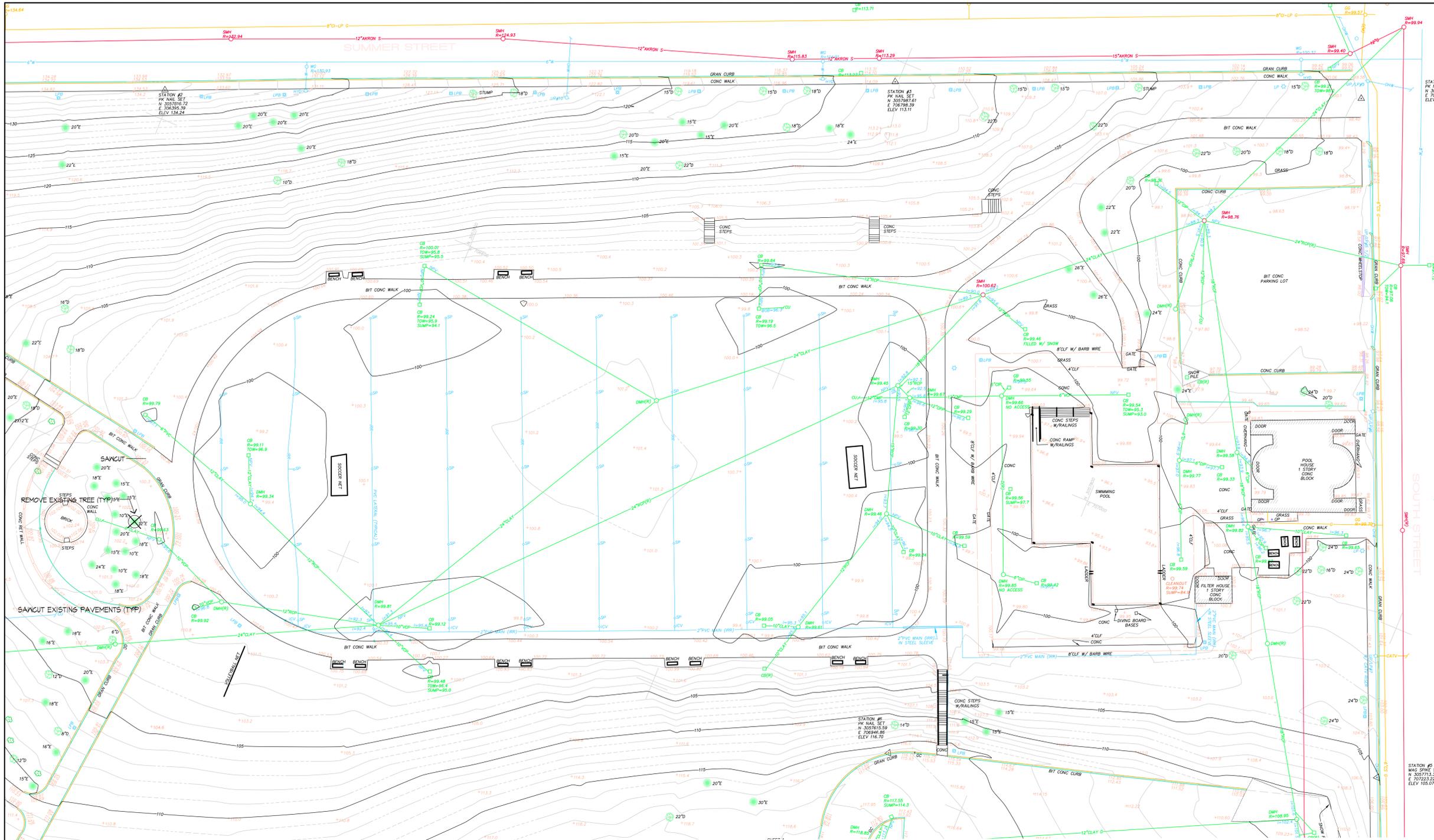
LANDSCAPE ARCHITECT:

Huntress Associates, Inc.

17 Tewksbury Street
Andover, Massachusetts 01810

978.470.8882





NOTE: EXISTING CONDITIONS INFORMATION PROVIDED BY THE CITY OF LOWELL

H
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 Landscape Architecture & Land Planning
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 978 470 8882 FAX 978 470 8890

CITY of LOWELL

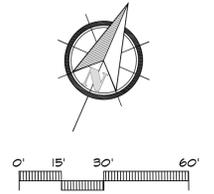
Project:
**SOUTH COMMON
 Phase II**
 Lowell, Massachusetts
 Drawing Title:
Existing Conditions

325 WOOD ROAD
 SUITE 109
 BRAintree MA 02184
 (781)380-7766
 FAX (781)380-7757

SMC SURVEYING AND MAPPING CONSULTANTS

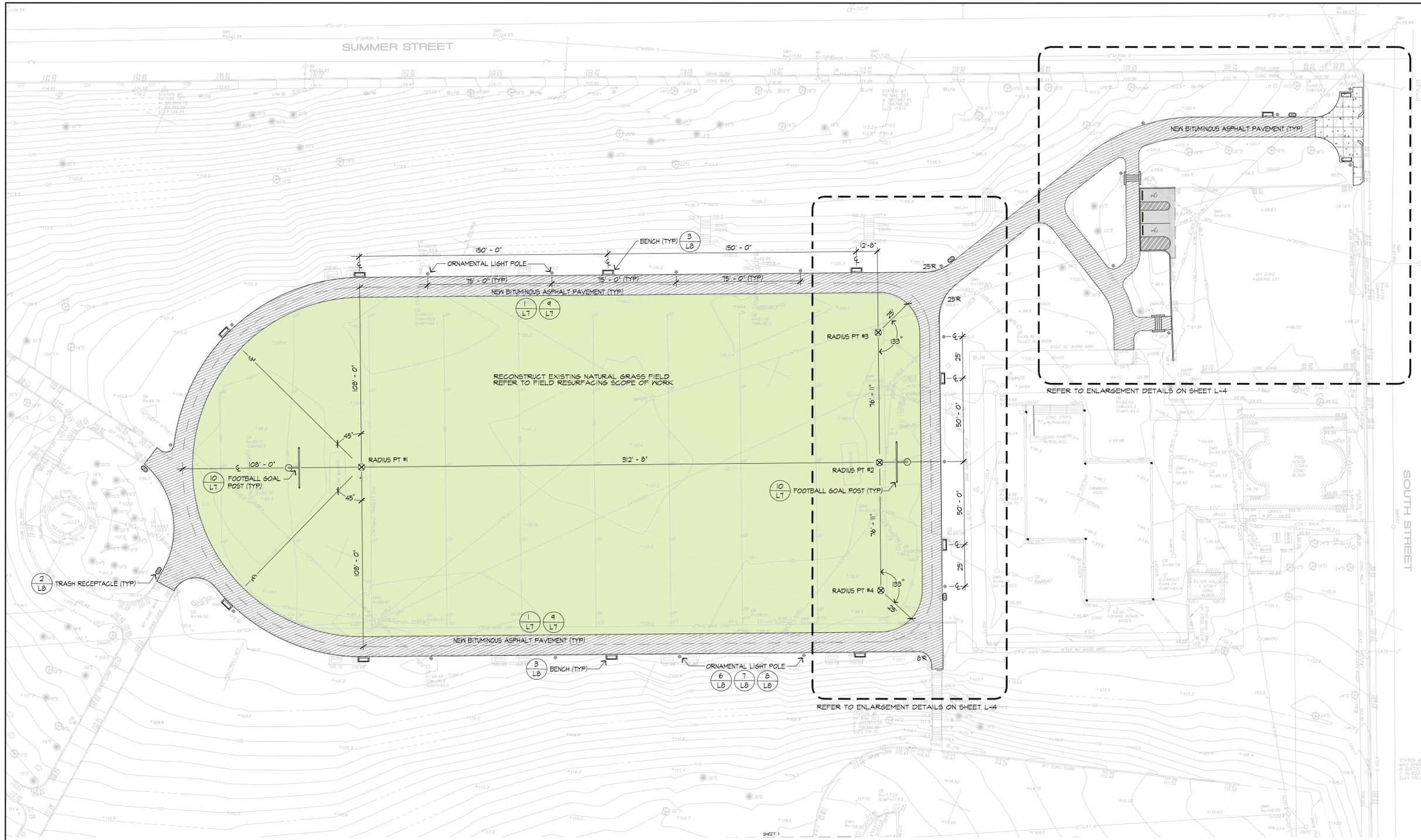
TOPOGRAPHIC SURVEY
 SOUTH COMMON
 THORNDIKE STREET
 LOWELL, MA
 (MIDDLESEX COUNTY)

PREPARED FOR: FAY, SPOFFORD & THORNDIKE, LLC
 SCALE: 1"=20' DATE: FEBRUARY 14, 2011



Revision	Date

Scale:	1" = 30'	Drawing No.	Ex-1
Date:	5.27.22		
Job:	00-107		
File:	SC-DD		
Drawn:	CCH	of	
Checked:	--		1



LAYOUT AND MATERIAL NOTES

- EXISTING CONDITIONS PLAN ENTITLED "TOPOGRAPHIC SURVEY" PREPARED BY SURVEY & MAPPING CONSULTANTS - OF BRAintree, MA DATED FEBRUARY 14, 2011.
- PRIOR TO THE START OF ANY EXCAVATION FOR THE PROJECT BOTH ON AND OFF SITE, THE CONTRACTOR SHALL NOTIFY DISSEMINATE AND BE PROVIDED WITH A DISSEMINATE NUMBER INDICATING THAT ALL EXISTING UTILITIES HAVE BEEN LOCATED AND MARKED
- CONTRACTOR(S) SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL CONSTRUCTION DOCUMENTS, SPECIFICATIONS, AND SITE CONDITIONS PRIOR TO BIDDING AND PRIOR TO CONSTRUCTION.
- ANY DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS, AND SITE CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION AND RESOLUTION PRIOR TO BIDDING OR CONSTRUCTION.
- ALL DIMENSIONS ARE TAKEN TO THE FIELD CENTERLINE, EXCEPT WHERE OTHERWISE NOTED.
- SCREENED IMAGES SHOW EXISTING CONDITIONS. WHERE EXISTING CONDITIONS LIE UNDER OR ARE IMPINGED UPON BY PROPOSED BUILDINGS AND/OR SITE ELEMENTS, THE EXISTING CONDITION WILL BE REMOVED, ABANDONED AND/OR CAPPED OR DEMOLISHED AS REQUIRED.
- NEW RUNNING TRACK TO BE STRIPED FOR THREE (3) RUNNING LANES AROUND THE ENTIRE OVAL SURFACE. PROVIDE FOUR (4) SETS OF PAINTED LANE NUMBERS AS SHOWN ON DETAIL 4, SHEET L8.

FIELD RESURFACING SCOPE OF WORK

- STRIP, SCREEN & STOCKPILE EXISTING TOPSOIL WITHIN FIELD LIMITS.
- CARRY OUT FIELD SUB BASE GRADING TO REQUIRED SLOPE OF 1.5%, AS NOTED.
- ADJUST EXISTING CB RIMS AS NOTED. RE-INSTALL SCREENED TOPSOIL. PROVIDE ADDITIONAL TOPSOIL AS REQUIRED TO MEET PROPOSED GRADES.
- CARRY OUT ROTOTILLING OPERATION TO A DEPTH OF AT LEAST 6" TO BREAK UP AND DE-COMPACT SOIL. REMOVING ANY FURTHER VEGETATION OR ROOT BULK.
- CARRY OUT STONE PICKING/RAKING OPERATION TO REMOVE ANY STONE GREATER THAN 1/8" (3MM) IN AVERAGE DIAMETER. REMOVE THE STONE THROUGHOUT THE TOP 4" OF SOIL DEPTH.
- APPLY NECESSARY FERTILIZATION, MINERAL SUPPORT AND SOIL AMENDMENTS AS REQUIRED BY THE PROJECT SPECIFICATIONS.
- APPLY TO THE SURFACE A MINIMUM OF 300 TON OF SAND SUITABLE FOR USE IN AN ATHLETIC FIELD TOPSOIL. REFER TO SPECIFICATIONS FOR DETAILS.
- CARRY OUT A BLENDING AND MIXING OPERATION INTO THE TOP 4" DEPTH OF SOIL.
- THE FIELD SHOULD THEN BE CONSOLIDATED TO A DEPTH OF 3" TO A MINIMUM OF 175 PSI TESTED OVER A MINIMUM OF 10 LOCATIONS ON THE FIELD USING A PENETROMETER.
- SOIL IMPACT HARDNESS (SMAX) LEVELS ARE TO BE TESTED AND NOT EXCEED NINETY (90) GRAVITIES OVER A MINIMUM OF TEN (10) LOCATIONS THROUGHOUT THE FIELD.
- SOD ALL DISTURBED AREAS WITHIN THE TRACK WITH A SUITABLE QUALITY ATHLETIC FIELD KENTUCKY BLUE GRASS SOD BLEND. REFER TO SPECS FOR DETAILS.

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CITY of LOWELL

Project:
SOUTH COMMON
Phase II
 Lowell, Massachusetts

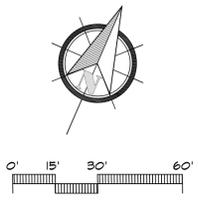
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Layout & Materials Plan

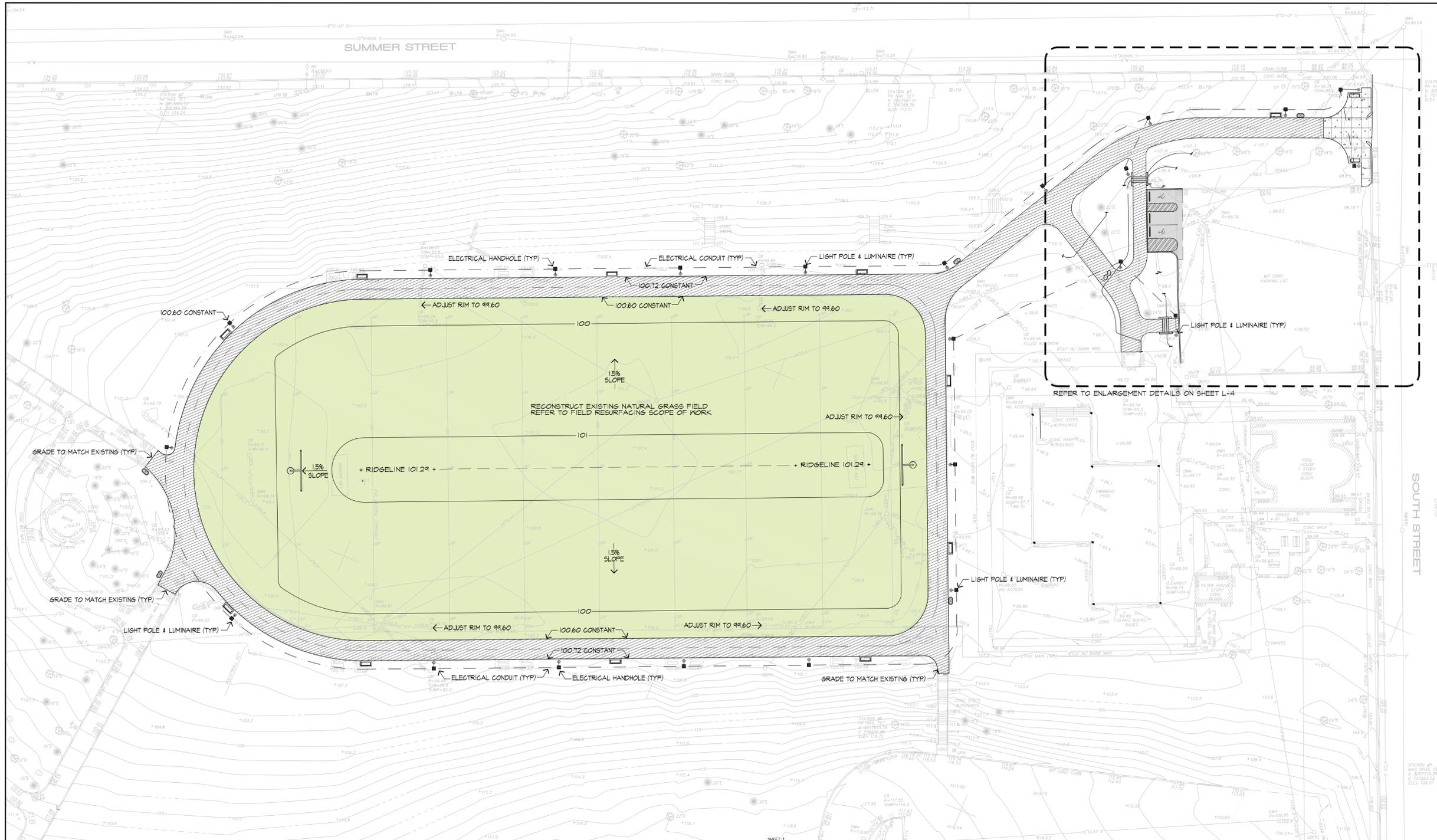


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Scale: 1" = 30'
 Date: 5.27.22
 Job: 00-107
 File: SC-DD
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Drawing No.
L-1
 8





GRADING & UTILITY NOTES

- EXISTING CONDITIONS PLAN ENTITLED "TOPOGRAPHIC SURVEY" PREPARED BY SURVEY & MAPPING CONSULTANTS - OF BRAINTREE, MA DATED FEBRUARY 14, 2011.
- PRIOR TO THE START OF ANY EXCAVATION FOR THE PROJECT BOTH ON AND OFF THE SITE, THE CONTRACTOR SHALL NOTIFY DIGSAFE AND BE PROVIDED WITH A DIGSAFE NUMBER INDICATING THAT ALL EXISTING UTILITIES HAVE BEEN LOCATED AND MARKED.
- WHERE PROPOSED GRADES MEET EXISTING GRADES, CONTRACTOR SHALL BLEND GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK. PONDING AT TRANSITION AREAS WILL NOT BE ALLOWED.
- CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL ATHLETIC FIELDS
- MAXIMUM SLOPE IN DISTURBED AREAS SHALL NOT EXCEED 3:1, UNLESS OTHERWISE NOTED.
- ENSURE ALL EXISTING (TO REMAIN), AND PROPOSED MANHOLE COVERS PROPERLY IDENTIFY UTILITY SERVICED.
- CONTRACTOR SHALL VERIFY EXISTING GRADES AND NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.

UTILITY & ELECTRICAL NOTES

- ROUTING OF CONDUIT AND ELECTRICAL SERVICE IS SCHEMATIC ONLY. COORDINATE FINAL LOCATIONS IN THE FIELD PRIOR TO INSTALLATION.
- CONNECTION TO THE ELECTRICAL SERVICE IS NOT INCLUDED IN THIS SCOPE OF WORK. GC TO PROVIDE AND INSTALL ALL ORNAMENTAL LIGHT POLES, LUMINAIRES, CONDUITS, PULL ROPES & HANDHOLES AS SHOWN ON THE RECORD DRAWINGS. GC RESPONSIBLE FOR COMPLIANCE WITH BUILDING CODE REQUIREMENTS.
- PROVIDE & INSTALL ONE (1) HANDHOLES AT EACH LIGHT POLE. HANDHOLES TO BE QUARTZITE (#93224DAS6) OPEN BOTTOM W/ HEAVY DUTY GASKETED LOCKING COVER (#63224H400) WITH CONDUIT SIZES PER PLAN. COVER ID SHALL READ 'ELECTRIC'.
- ALL CONDUIT TO BE 2" SCHEDULE 40 PVC, UNLESS OTHERWISE NOTED. PROVIDE PULL ROPES IN ALL SPARE/EMPTY CONDUITS.

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CITY of LOWELL

Project:
SOUTH COMMON
Phase II
 Lowell, Massachusetts

Drawing Title:
Grading, Drainage & Utility Plan



Revision	Date

Scale: 1" = 30'
 Date: 5.27.22
 Job: 00-107
 File: SC-DD
 Drawn: CCH of
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Drawing No.
L-2
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8



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Project:
**SOUTH COMMON
 Phase II**
 Lowell, Massachusetts

Drawing Title:
**Landscape &
 Planting Plan**



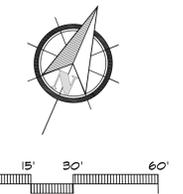
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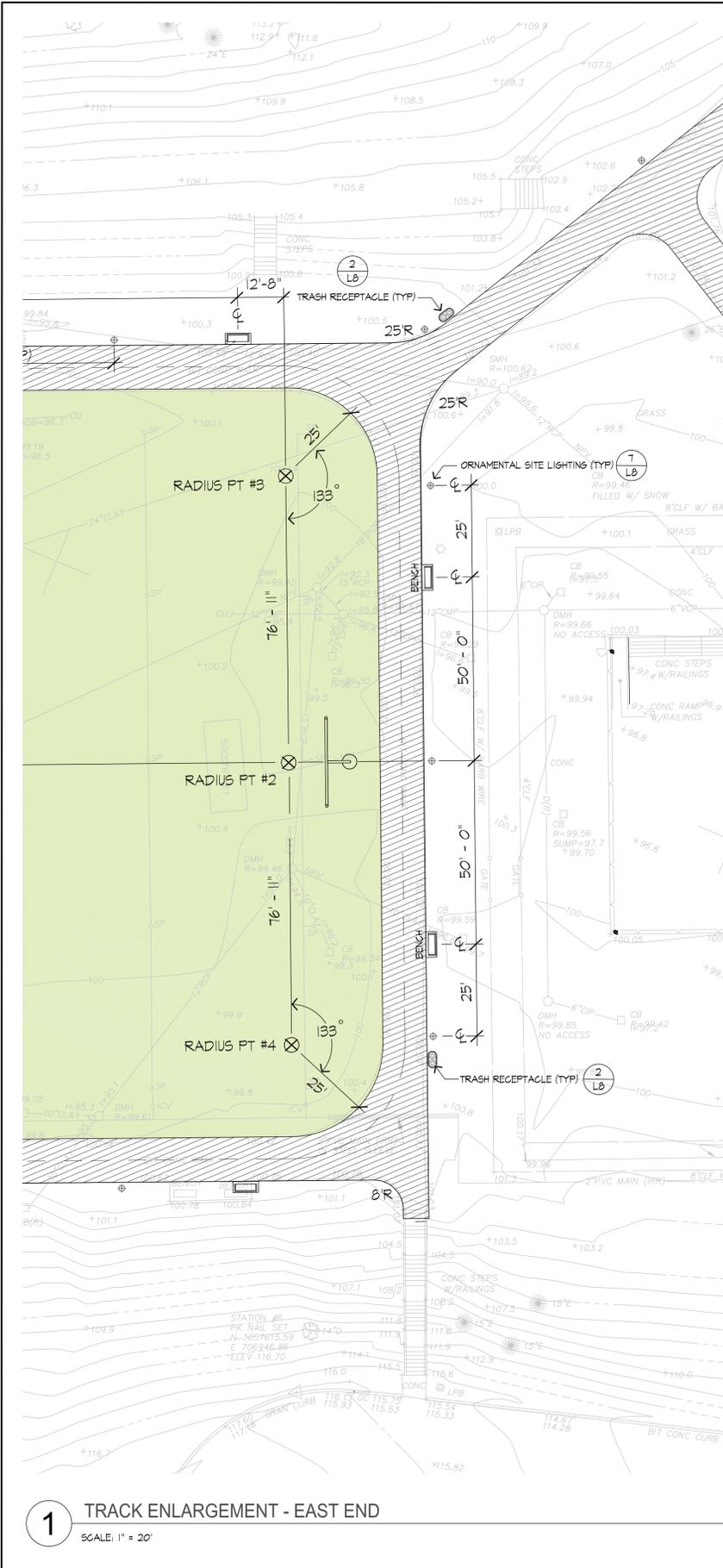
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Date:	5.27.22		
Job:	00-107		
File:	SC-DD		
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- PLANTING NOTES**
- CONTRACTOR SHALL BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING AND WILL CONTINUE UNTIL FINAL ACCEPTANCE.
 - CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS, STRUCTURES, AND PLANTING BEDS.
 - MAXIMUM SLOPE WITHIN DISTURBED AREAS SHALL NOT EXCEED 3:1, UNLESS OTHERWISE NOTED.
 - ALL AREAS OF THE SITE WHICH HAVE BEEN DISTURBED AND NOT OTHERWISE DEVELOPED SHALL BE LOAMED AND SEEDED WITH A MINIMUM DEPTH OF 6" DEPTH TOPSOIL.
 - ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISH GRADE AS TO ORIGINAL GRADES BEFORE DIGGING.
 - MULCH FOR PLANTED AREAS TO BE ASH PINE BARK, PARTIALLY DECOMPOSED, DARK BROWN IN COLOR AND FREE OF WOOD CHIPS THICKER THAN 1/4 INCH. (INSTALL TO 3" DEPTH IN ALL PLANT BEDS)
 - PLANTING SOIL MIX: LOAM THOROUGHLY INCORPORATED WITH ROTTED MANURE PROPORTIONED 5 C.Y. TO 1 C.Y. OR EQUIVALENT. PEAT MOSS WITH FERTILIZER ADDED PER MANUFACTURER'S RECOMMENDED RATES.
 - THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR ONE (1) FULL YEAR FROM DATE OF ACCEPTANCE.

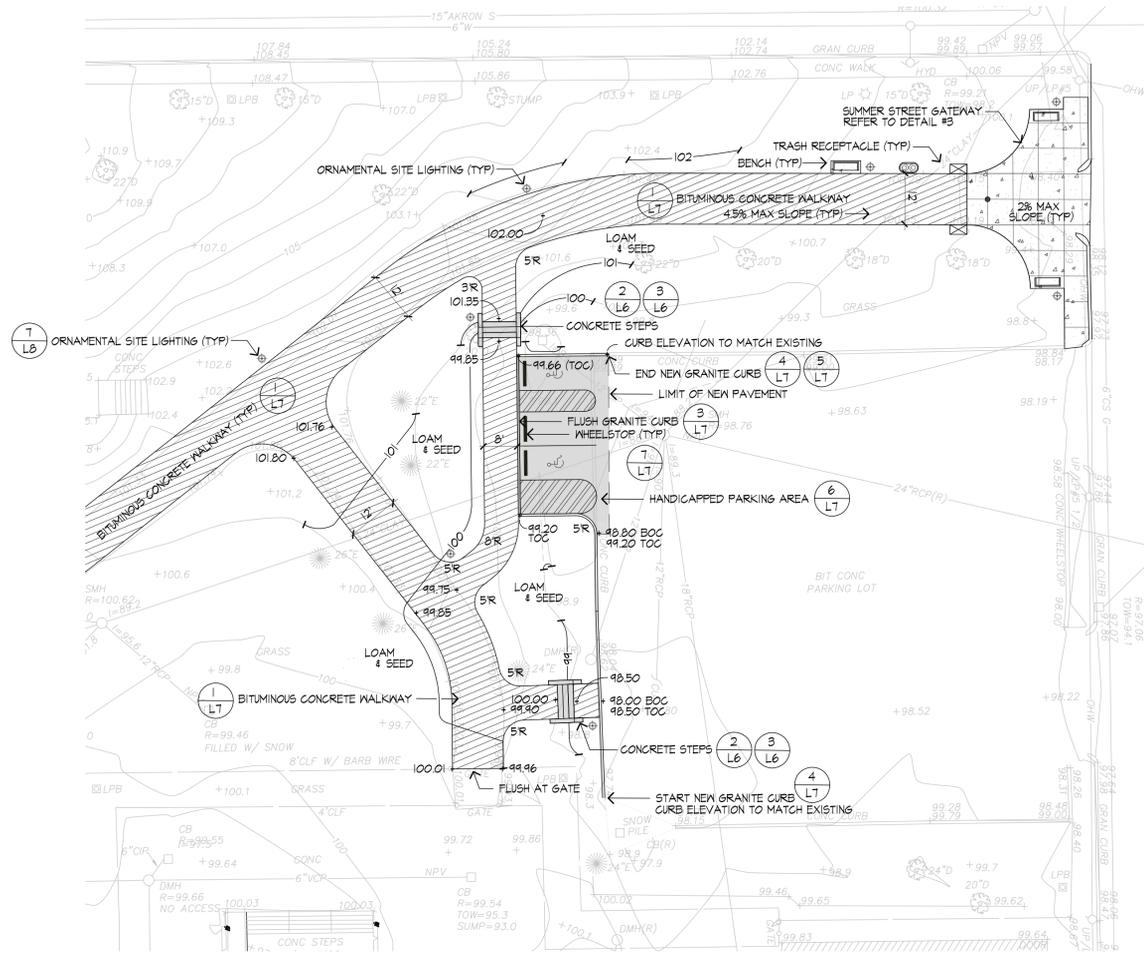
PLANT LIST

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY	SIZE
SHADE TREES				
AS	ACER SACCHARUM	SUGAR MAPLE	3	25-35" CAL.
UA	ULMUS AMERICANA 'FRINCETON'	FRINCETON ELM	13	2.5-3.5" CAL.
ORNAMENTAL TREES				
CC	CERSIS CANDENSIS	EASTERN REDBUD	9	7-8' HT.

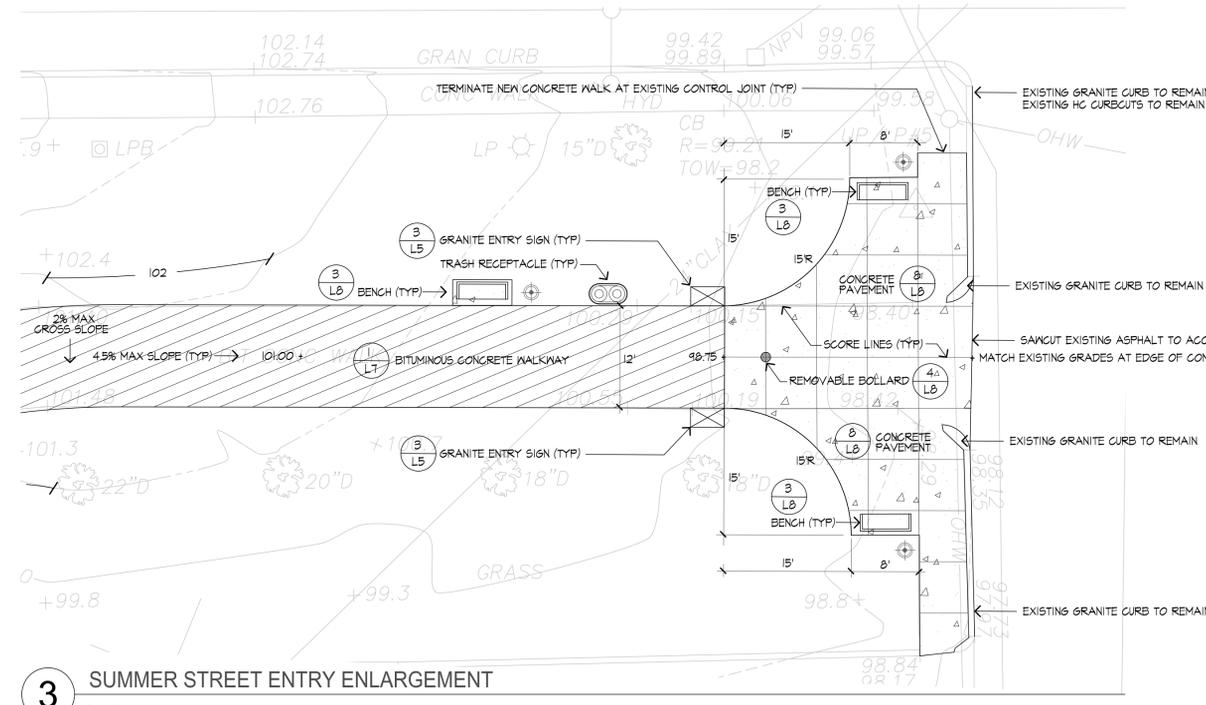




1 TRACK ENLARGEMENT - EAST END
SCALE: 1" = 20'



2 POOL ACCESS ACCESSIBLE ROUTE ENLARGEMENT
SCALE: 1" = 20'



3 SUMMER STREET ENTRY ENLARGEMENT
SCALE: 1" = 10'

Project:
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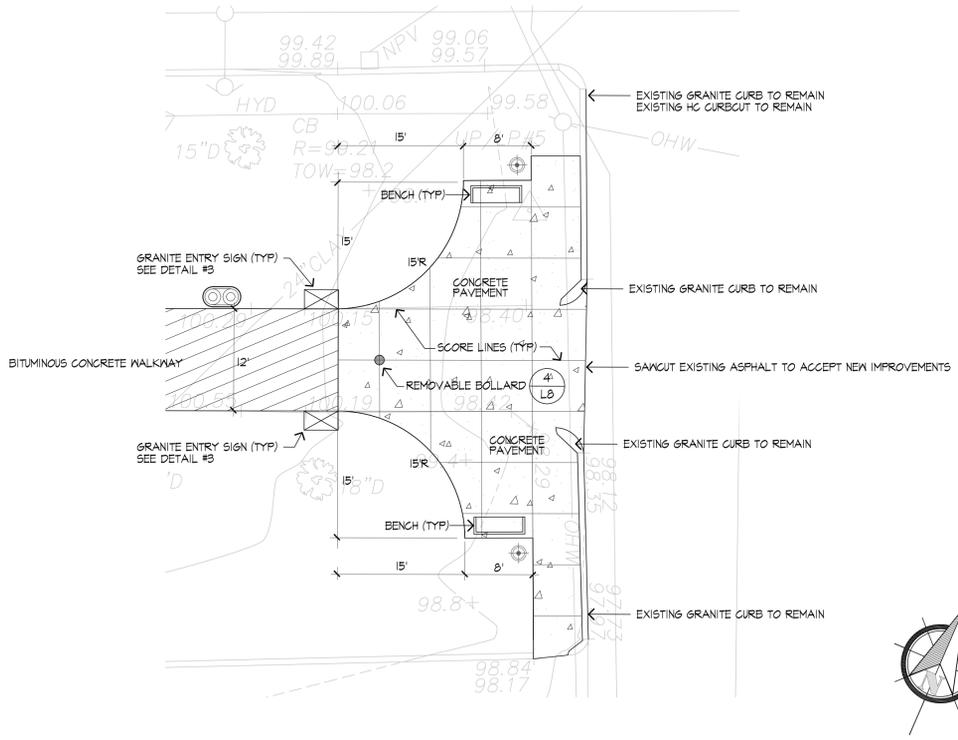
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Site Enlargements



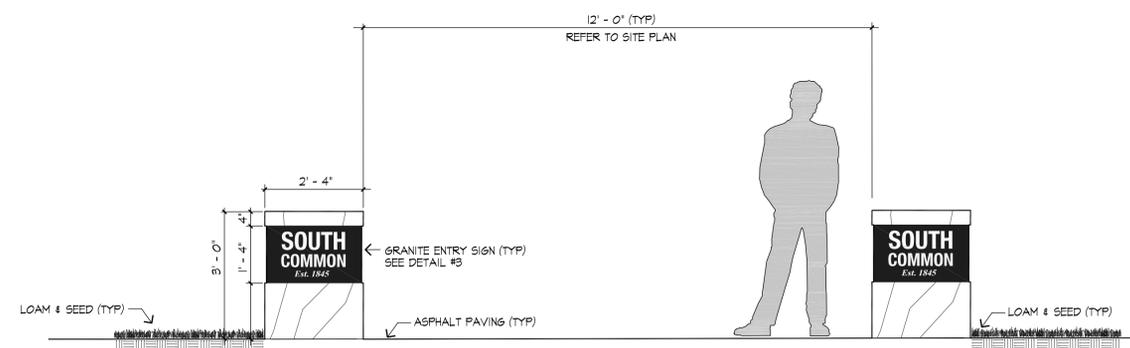
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Scale: AS NOTED Drawing No. **L-4**
Date: 5.27.22
Job: 00-107
File: SC-DD
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Checked: -- **8**





1 SUMMER STREET ENTRY SIGN ENLARGEMENT
SCALE: 1" = 10'

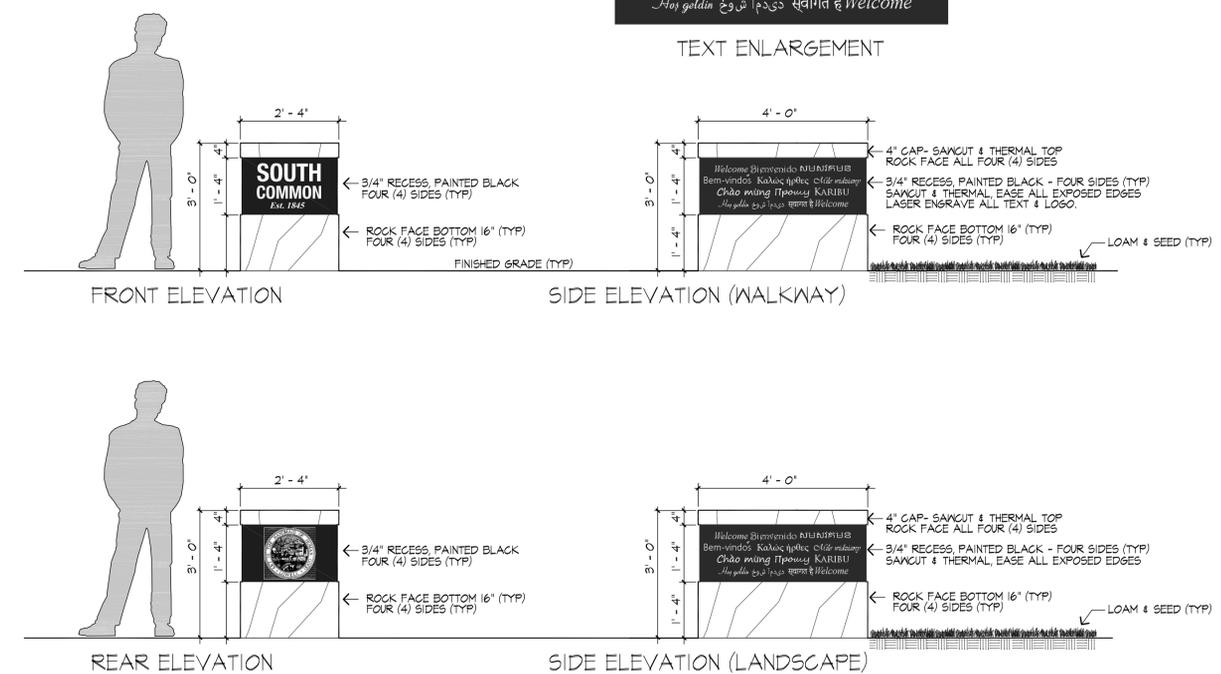


2 SOUTH COMMON - MAIN ENTRY GATEWAY ELEVATION (TYP)
SCALE: 1/2" = 1'

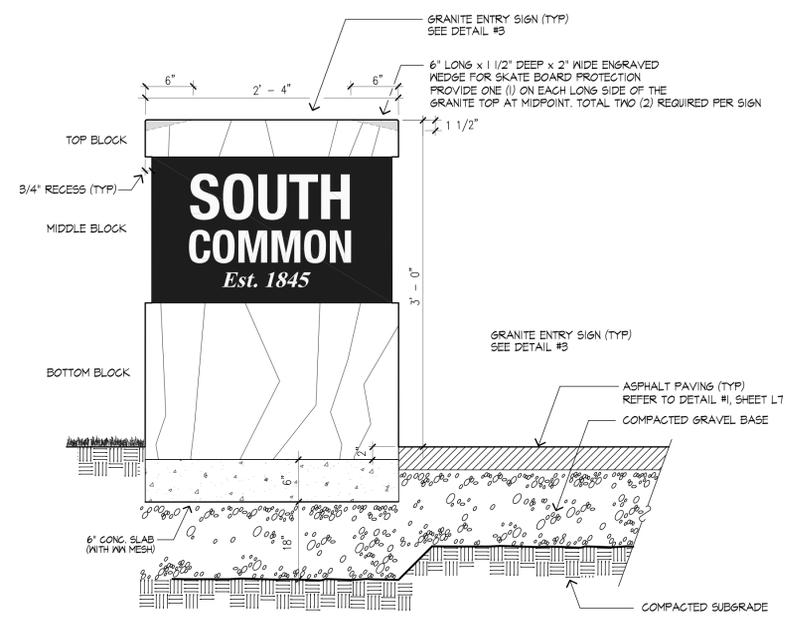
NOTE:
OWNER TO REVIEW & APPROVE 'WELCOME' TEXT PRIOR TO FABRICATION

Welcome Βienvenido ԲԻՅՆՎԵՆԻԴՈՒ
Bem-vindos Καλως ήρθες Мило вітання
Chào mừng Προσκληση KARIBU
Hay galdin خوش آمدید स्वागत है Welcome

TEXT ENLARGEMENT



3 SOUTH COMMON ENTRY SIGN ELEVATIONS
SCALE: 1/2" = 1'



NOTE:
1. EXTEND COMPACTED GRAVEL BASE A MINIMUM OF 12" BEYOND LIMITS OF CONCRETE SLAB ON ALL FOUR SIDES.
2. SECURE TOP, MIDDLE & BOTTOM BLOCKS EACH WITH FOUR (4) STAINLESS STEEL PINS AND MORTAR (TYP)

4 MONOLITHIC GRANITE ENTRY SIGN DETAIL
SCALE: NTS



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Lowell, Massachusetts

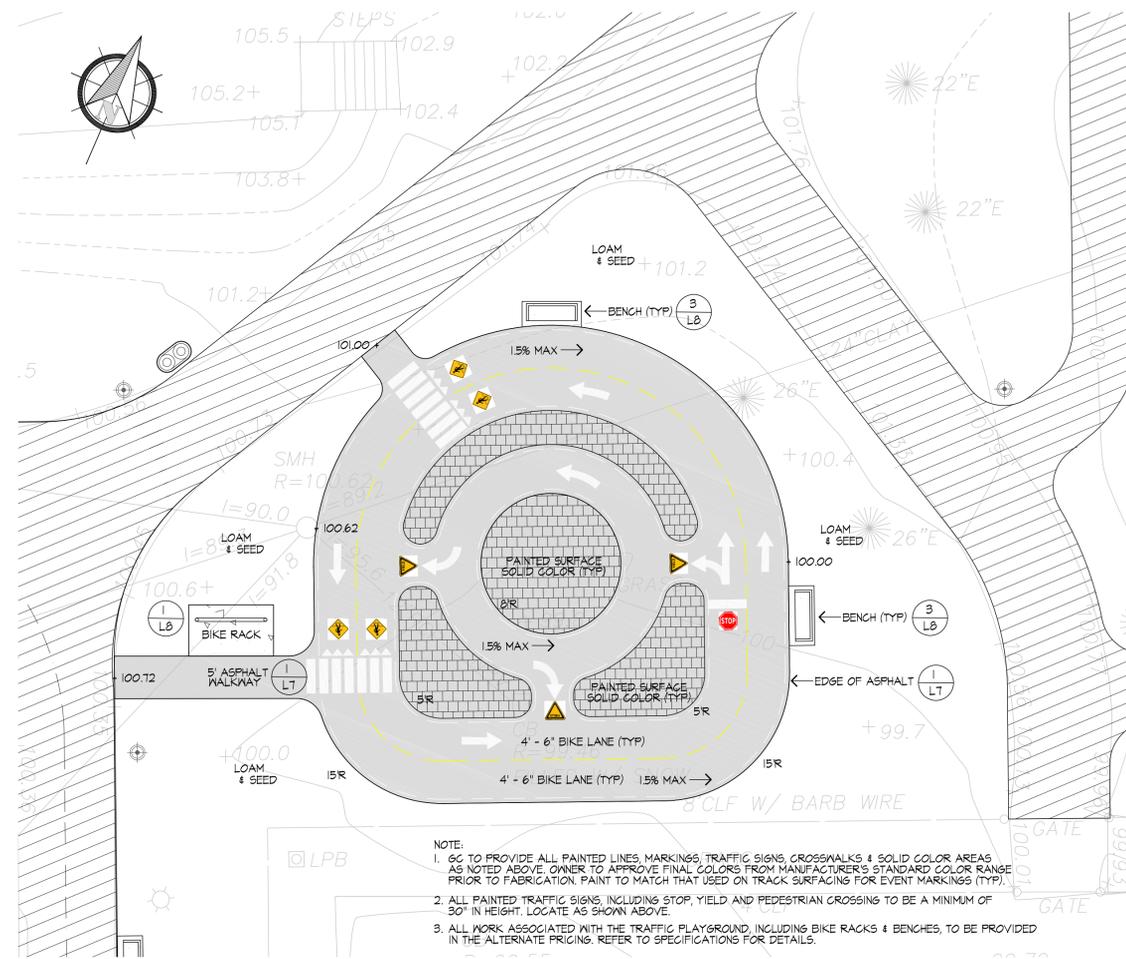
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Entry Sign Details



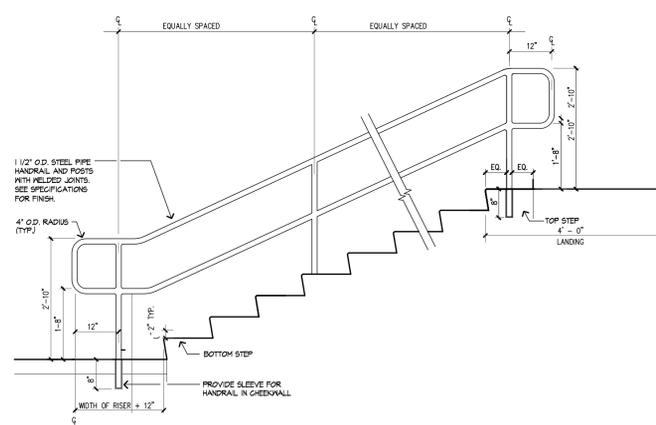
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Job:	00-107		
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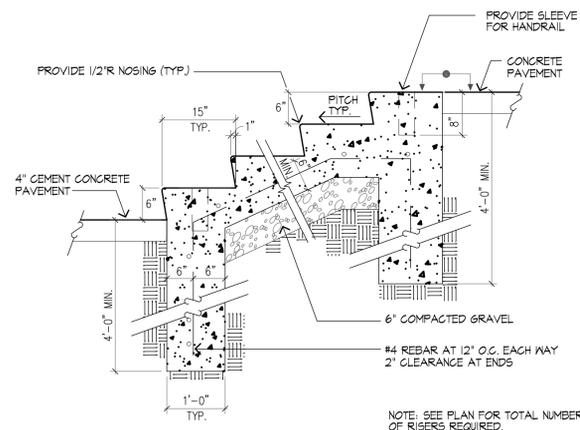
8/01 @ 1/2" = 1'



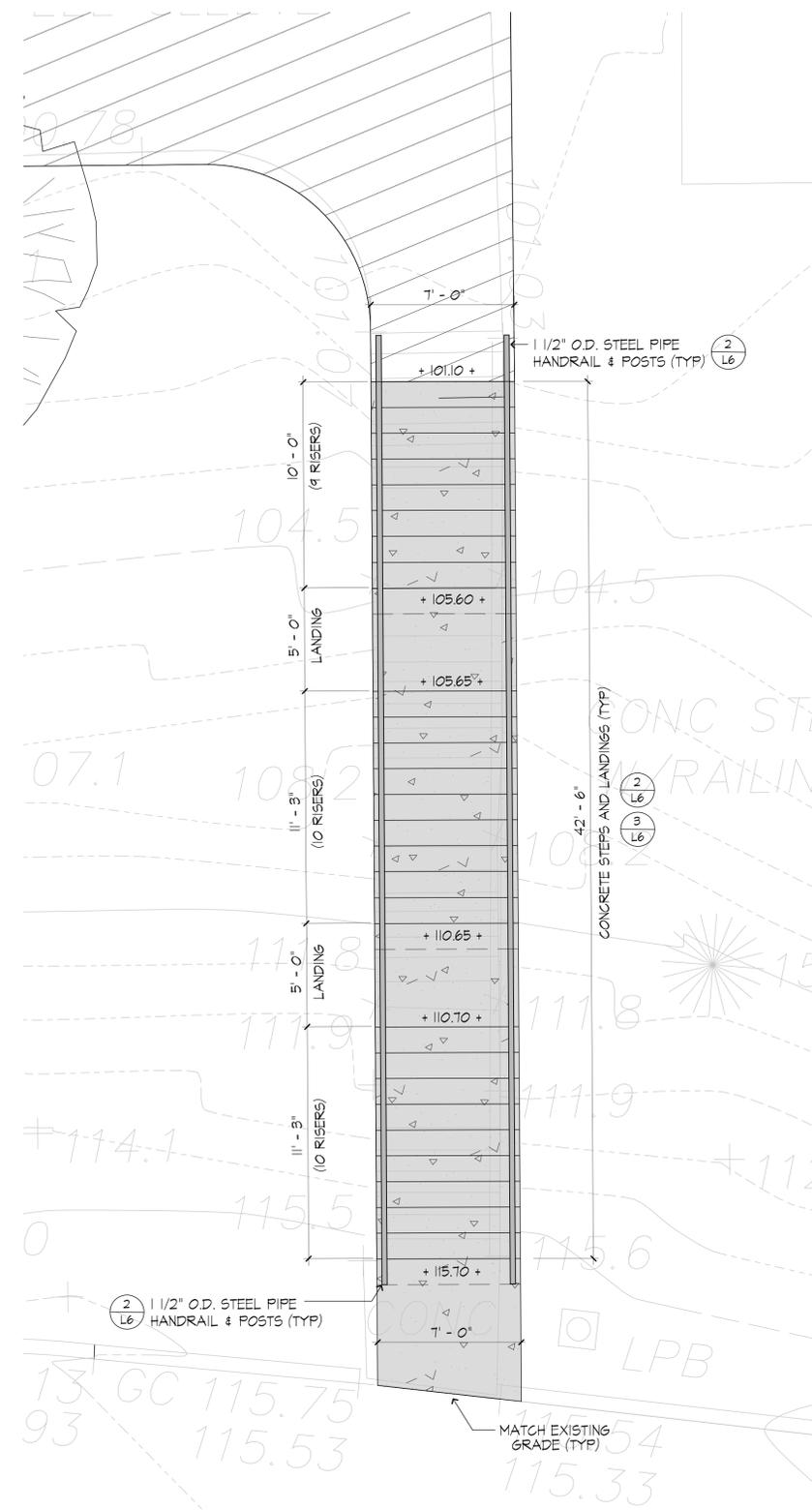
1 TRAFFIC PLAYGROUND ENLARGEMENT
SCALE: 1" = 10'



2 HANDRAIL FOR NEW CONCRETE STEPS
SCALE: NTS



3 CONCRETE STEPS
SCALE: NTS



4 STAIR RECONSTRUCTION ENLARGEMENT
SCALE: 1" = 5'



Revision	Date

Scale:	1" = 30'	Drawing No.	L-6
Date:	5.27.22		
Job:	00-107		
File:	SC-DD		
Drawn:	CCH	of	
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CITY of
LOWELL

Project:

SOUTH COMMON Phase II

Lowell, Massachusetts

Drawing Title:

Construction Details



Revision _____ Date _____

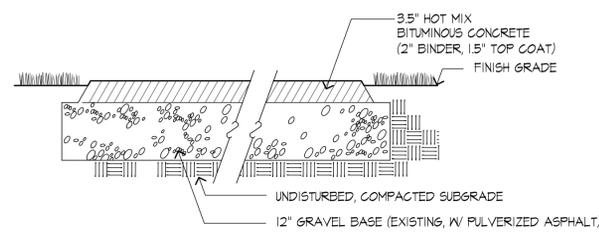
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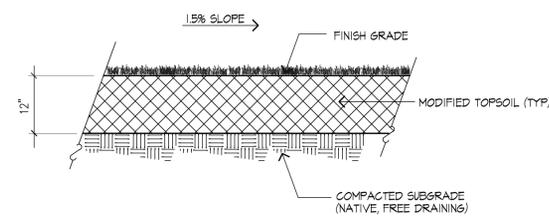
L-7

of

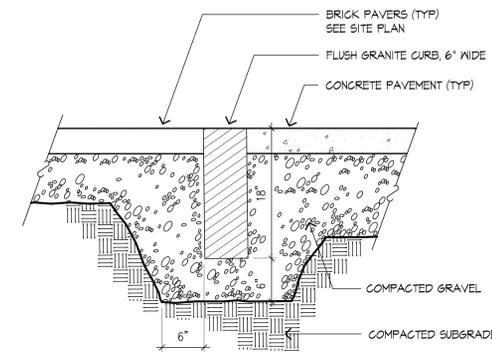
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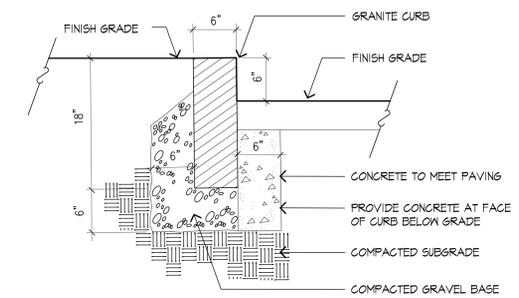
1 ASPHALT PAVEMENT DETAILS
SCALE: NTS



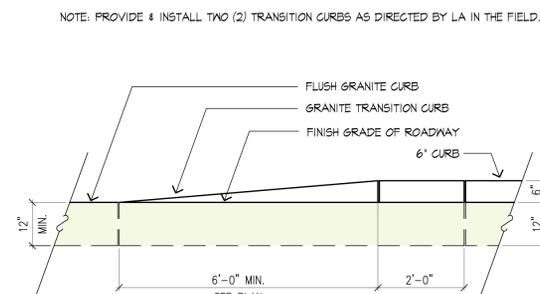
2 ATHLETIC FIELD CROSS-SECTION
SCALE: 1" = 1'



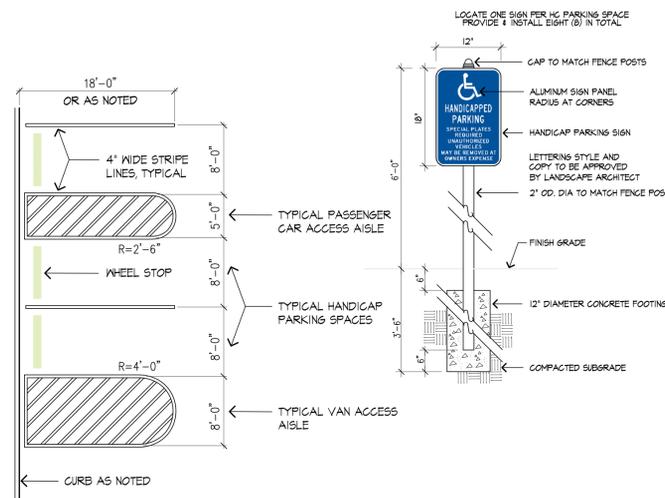
3 FLUSH GRANITE CURB
SCALE: 1" = 1'-0"



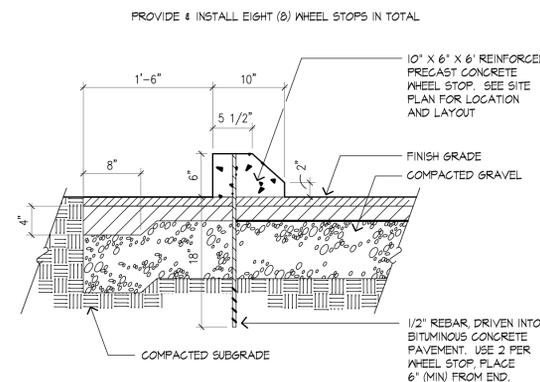
4 VERTICAL GRANITE CURB
SCALE: 1" = 1'-0"



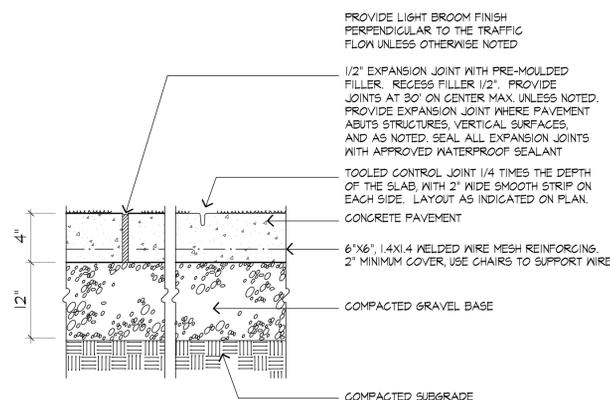
5 TRANSITION CURB
SCALE: 1/2" = 1'-0"



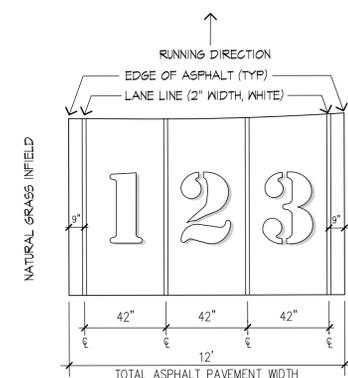
6 HANDICAP PARKING SPACE AND SIGN DETAIL
SCALE: 1" = 10'-0"



7 PRECAST CONCRETE WHEEL STOP
SCALE: N.T.S.

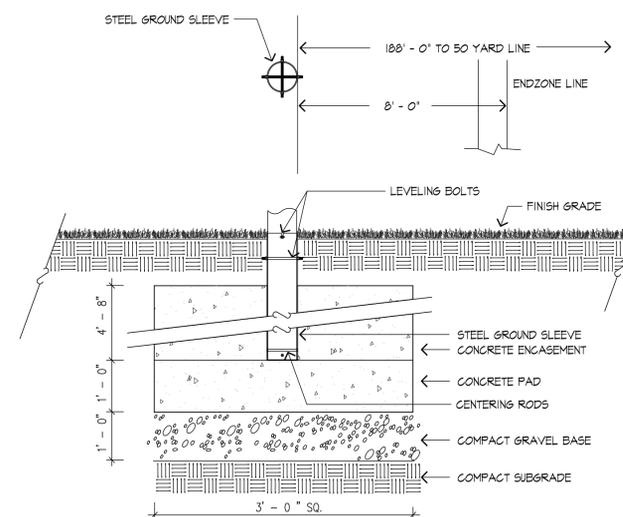


8 CONCRETE PAVEMENT
SCALE: NTS



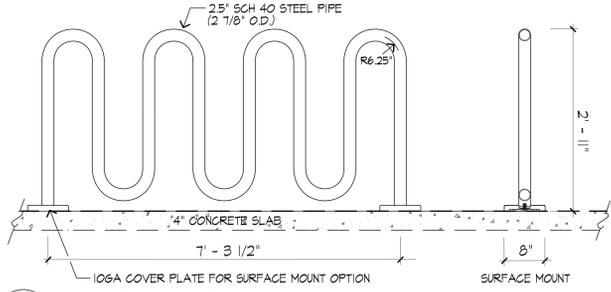
- TRACK EVENT MARKINGS:
- 100M
 - 200M
 - 400M
 - 800M
 - 1600M
 - 1 MILE
- PROVIDE A COMMON FINISH LINE AND ALL EVENT MARKINGS FOR THE ABOVE LISTED RUNNING EVENTS. COORDINATE LOCATION OF COMMON FINISH LINE WITH OWNER PRIOR TO INSTALLATION.

9 RUNNING TRACK: SURFACE MARKINGS
SCALE: NTS



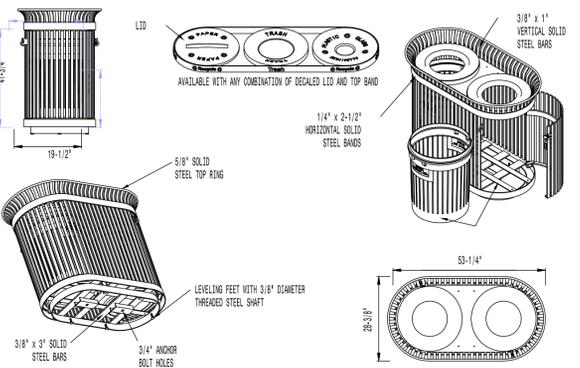
10 REMOVABLE FOOTBALL GOAL POST AND FOOTING DETAIL
SCALE: NTS

- NOTES:
1. ALL STEEL TO BE POWDERCOAT FINISH, COLOR BLACK.
 2. ALL STEEL TO BE HOT DIPPED GALVANIZED PRIOR TO APPLICATION OF POWDERCOAT FINISH.
 3. PROVIDE AND INSTALL ONE (1) BIKE RACK, AS SHOWN.
 4. INSTALL ON 6"x4" CONCRETE SLAB, AS SHOWN.
 5. DUMOR BIKE RACK 130-40, OR APPROVED EQUAL.



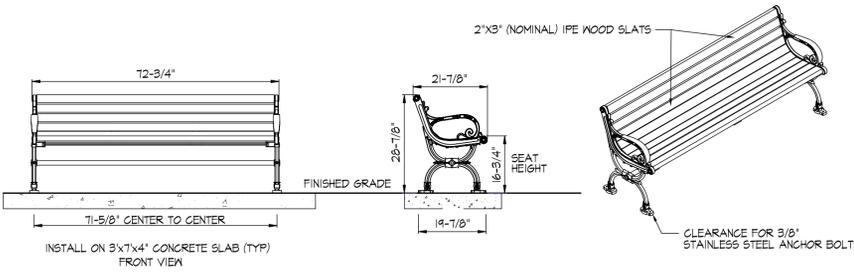
1 BIKE RACK DETAIL
SCALE: NTS

- NOTES:
1. ALL STEEL TO BE POWDERCOAT FINISH, COLOR BLACK.
 2. ALL STEEL TO BE HOT DIPPED GALVANIZED PRIOR TO APPLICATION OF POWDERCOAT FINISH.
 3. REFER TO SPECIFICATIONS FOR DETAIL.
 4. PROVIDE AND INSTALL FIVE (5) RECEPTACLES, AS SHOWN.
 5. INSTALL ON 5"x3"x4" CONCRETE PAD.

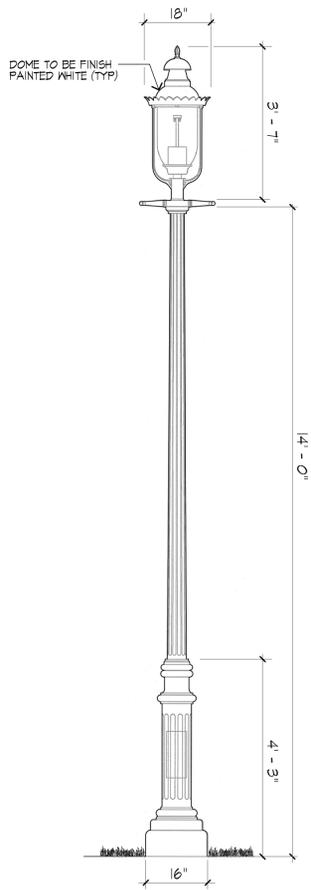


2 TRASH RECEPTACLE - 32 GAL. CAPACITY
SCALE: NTS

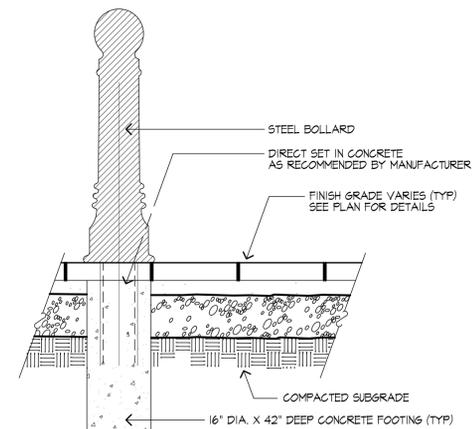
- NOTES:
1. PROVIDE AND INSTALL THIRTEEN (13) BENCHES, AS SHOWN.
 2. INSTALL ON 3"x4" CONCRETE SLAB, AS SHOWN.
 3. ALL ANCHOR BOLTS TO BE A191 TYPE 304 STAINLESS STEEL.
 4. VICTOR STANLEY C-10 BENCH, OR APPROVED EQUAL.
 5. ALL FABRICATED COMPONENTS SHALL BE STEEL SHOT-BLASTED ETCHED, PHOSPHATIZED AND ELECTROSTATICALLY POWDER COATED WITH T61C POLYESTER POWDER COATINGS, BLACK FINISH.



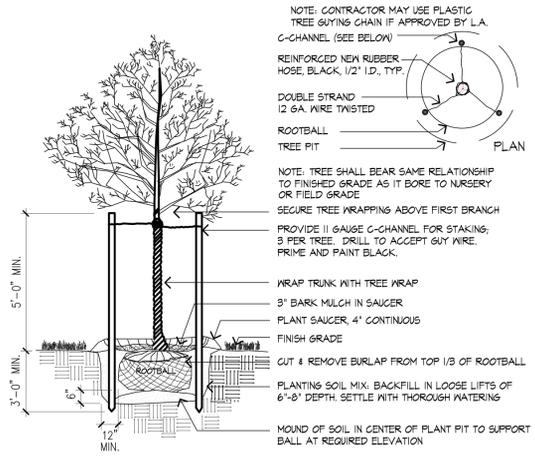
3 6' ORNAMENTAL BENCH
SCALE: NTS



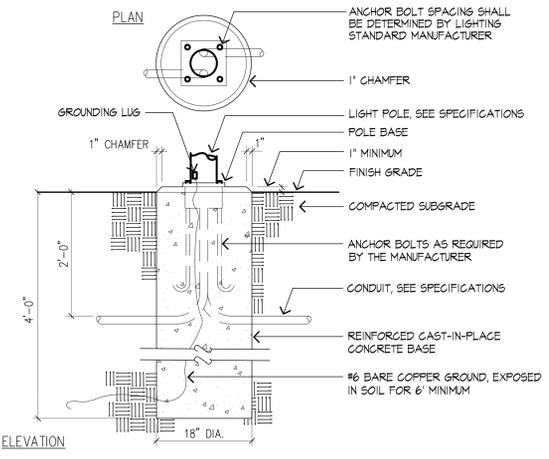
7 ORNAMENTAL SITE LIGHT POLE & FIXTURE
SCALE: NTS



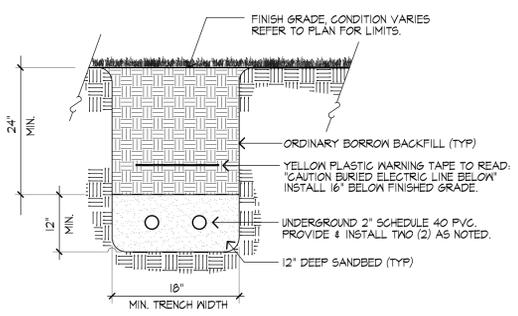
4 REMOVABLE STEEL BOLLARD
SCALE: NTS



5 DECIDUOUS TREE PLANTING AND STAKING
SCALE: NTS

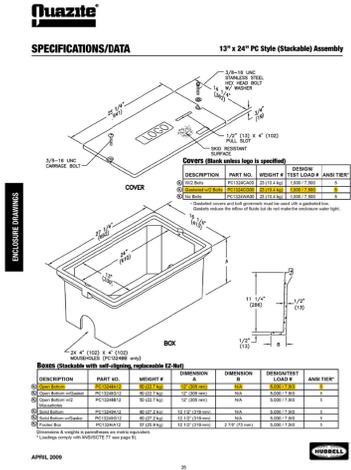


6 PRECAST LIGHT POLE BASE
SCALE: NTS



- NOTES:
1. EXCAVATION, SAND BED, AND CLEAN BACKFILL BY GENERAL CONTRACTOR
 2. EXACT ROUTING OF THE SITE LIGHTING RACEWAY SHALL BE COORDINATED IN THE FIELD BY THE ELECTRICAL CONTRACTOR PRIOR TO ROUGHING.
 3. ALL SPARE CONDUITS BE INSTALLED WITH FULL ROPES (TYP)
 4. PROVIDE & INSTALL 6" MIN DEPTH TOPSOIL WHEN IN LAWN AREA CONDITIONS.

8 ELECTRICAL SERVICE RACEWAY DETAIL
SCALE: NTS



9 QUAZITE HANDHOLE
SCALE: NTS



Revision	Date

Scale: AS NOTED Drawing No. **L-8**

Date: 5.27.22

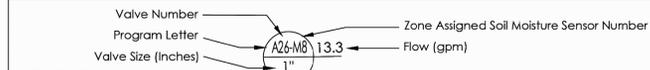
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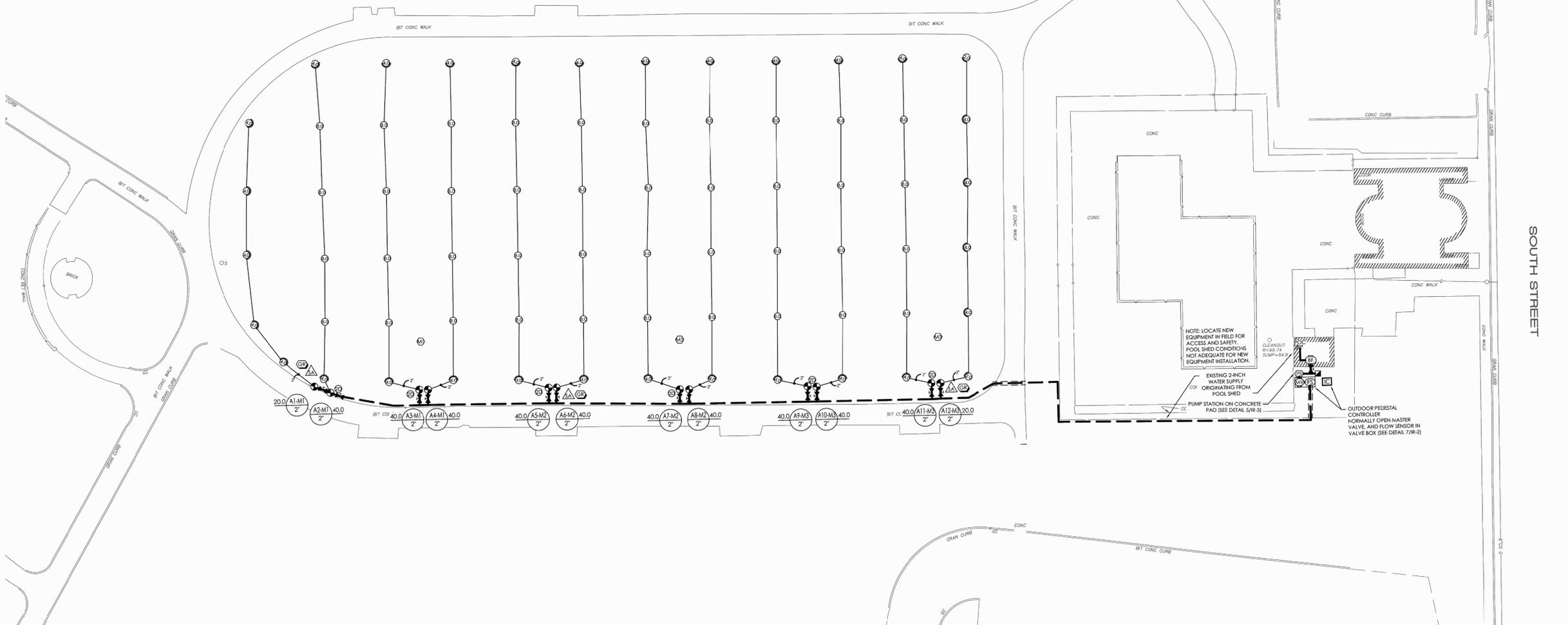
GENERAL IRRIGATION STRATEGY



Athletic Field
6-inch Pop-Up Sprinklers with Head-to-Head Coverage. Use turf rotors, and lay out in grid pattern.

Soil Moisture Sensors
Calibrate soil moisture sensors in field as per manufacturer instructions. Program irrigation controller to irrigate on high limit (wetter) settings during the first year of establishment/guarantee period. Switch to lower limit (minimum allowable) settings after guarantee period at turnkey. Provide soil moisture sensors for each combination of plant species, sun exposure, and soil type.

Cycle-Soak
Program irrigation controller to apply daily water use in soak cycles as to split up application and allow for proper horizontal and vertical movement of water through soils.



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Project:
**SOUTH COMMON
Phase II**
Lowell, Massachusetts

Drawing Title:
**Irrigation System
Layout Plan**



IRRIGATION NOTES

- SEE IRRIGATION DETAILS AND SPECIFICATIONS SECTION 328400 FOR ADDITIONAL REQUIRED INFORMATION. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION.
- COORDINATE FINAL LOCATION OF IRRIGATION AND VALVE BOXES WITH FINAL APPROVED LANDSCAPE. IN GENERAL, PLACE ALL VALVE BOXES WITHIN PLANTER BEDS TO MAXIMUM EXTENT PRACTICABLE FOR AT-GRADE LANDSCAPE.
- ALL PIPE AND VALVE LOCATIONS ARE DIAGRAMMATIC FOR CLARITY; CONTRACTOR SHALL FIELD VERIFY.
- SPECIFIED VALVE BOX LOCATIONS AND COLORS SHALL BE APPROVED BY LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE.
- ALL CONTROL WIRE SHALL BE 14/2 AWG TWO-WIRE INSTALLED PARALLEL TO MAINLINE DIRECT BURIAL WITH DBY/R-6 WIRE SPLICE KITS.
- IRRIGATION SYSTEM IS DESIGNED FOR DOMESTIC SUPPLY AT 40 GPM MAXIMUM. SYSTEM TO PRODUCE 70-PSI DYNAMIC PRESSURE MINIMUM AT EACH AT-GRADE IRRIGATION POINT OF CONNECTION. CONTRACTOR SHALL TEST DYNAMIC PRESSURE BEFORE STARTING WORK AND REPORT ANY DEVIATION TO THE OWNER'S REPRESENTATIVE BEFORE CONTINUING.
- INSTALL NEW CONTROLLER ON OUTDOOR PEDESTAL AS LOCATED APPROXIMATELY ON PLANS, AS DIRECTED BY OWNER'S REPRESENTATIVE. HARD WIRE TO 120 VOLT, DEDICATED 20-AMP CIRCUIT, POWER SUPPLY USING LICENSED ELECTRICIAN. COORDINATE WITH SITE COMMUNICATIONS CONTRACTOR TO PROVIDE CAT/5 ETHERNET CABLE TO IRRIGATION CONTROLLER FROM LOCAL AREA NETWORK (INTERNET).
- ALL ABOVE GROUND WIRING SHALL BE INSTALLED IN RIGID, METALLIC CONDUIT FOR VANDALISM PROTECTION.
- GROUND IRRIGATION CONTROLLER TO APPROVED BUILDING EARTH GROUND. COORDINATE WITH SITE ELECTRICAL CONTRACTOR.
- GROUND ALL DECODERS IN THE FIELD BY CONNECTING SURGE ARRESTORS TO BARE COPPER 6AWG WIRE BACK TO BUILDING EARTH. USE GROUNDING RODS AS REQUIRED BY MANUFACTURER.
- COORDINATE LOCATION OF ALL EXISTING AND FUTURE UTILITIES ON SITE. CONTACT PROPER AUTHORITIES AND UTILITY COMPANIES BEFORE THE START OF WORK.
- FLUSH ALL LATERAL LINES BEFORE INSTALLING SPRINKLER AND DRIP IRRIGATION.
- CONTRACTOR MUST SUBMIT PRODUCT CUT SHEETS AS PER THE WRITTEN SPECIFICATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING MATERIAL AND BEGINNING WORK.
- MATERIAL SUBSTITUTIONS WHICH VARY FROM THE SPECIFIED PRODUCTS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL AS PART OF THE SUBMITTAL PROCESS.
- ONCE APPROVED SUBMITTALS HAVE BEEN RETURNED TO THE CONTRACTOR, WORK MAY BEGIN. OWNER'S REPRESENTATIVE MUST BE NOTIFIED 7 DAYS IN ADVANCE OF THE START OF WORK TO COORDINATE ON-SITE SUPERVISION AND ADMINISTRATION.

IRRIGATION DESIGN BY:
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IRRIGATION MATERIAL LIST

SYMBOL	MANUFACTURER/MODEL	DETAIL # (IR-2)	SYMBOL	MANUFACTURER/MODEL	DETAIL # (IR-3)
□	Baseline BaseStation1000 with BaseManager 2.0	8	⊘	2-inch Isolation Gate Valve with Cross Handle	1
Ⓜ	Soil Moisture Sensor with Number	2	---	Irrigation Lateral Line: PVC Schedule 40 Size as Noted, Unlabeled Pipe = 2-inch	2
⚡	Surge Arrestor	3	---	Irrigation Mainline: 2-inch PVC Schedule 40	
Ⓜ	Decoder Grounding Rod	4	---	Pipe Sleeve: PVC SDR 35 Solvent Weld (with Size)	3
Ⓜ	2-Inch Brass Master Valve	1, 5, 8	Ⓜ	6" Pop-Up Turf Rotor With Nozzle Flow Rates	4
Ⓜ	2-Inch Brass Flow Sensor		Ⓜ	Optional 3-HP (Max.), 208V or 240V 1-Phase Input Booster Pump Station; Determine After Pressure Testing/Information by City	5
Ⓜ	Quick Coupler Valve	7	Ⓜ	Existing Backflow Device	6
Ⓜ	Commercial Electric Zone Valve w/Sentry/Scrubber	10			
Ⓜ	1-Station Decoder	1, 10			
Ⓜ	2-Station Decoder				
Ⓜ	4-Station Decoder				

Revision	Date

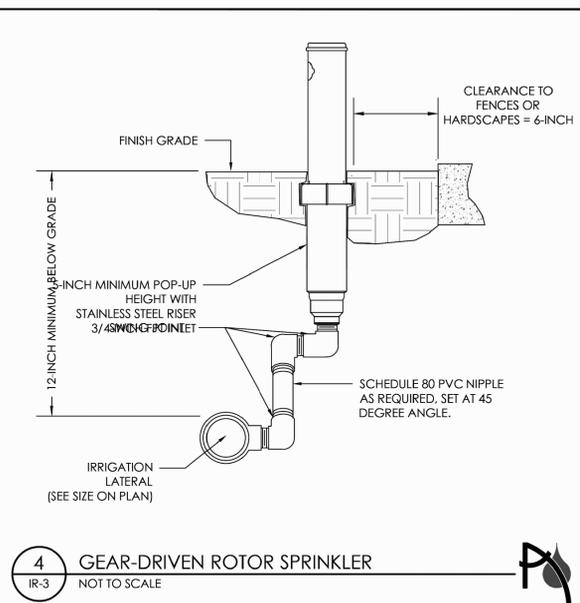
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Checked: MI

Drawing No. **IR-1**
of **3**

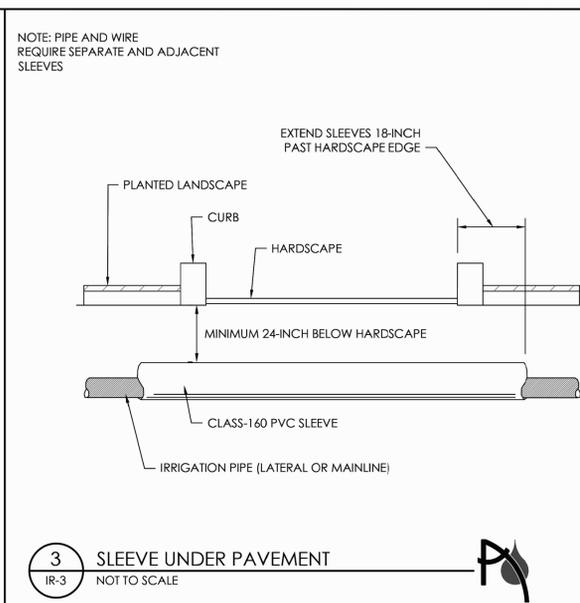


Revision _____ Date _____

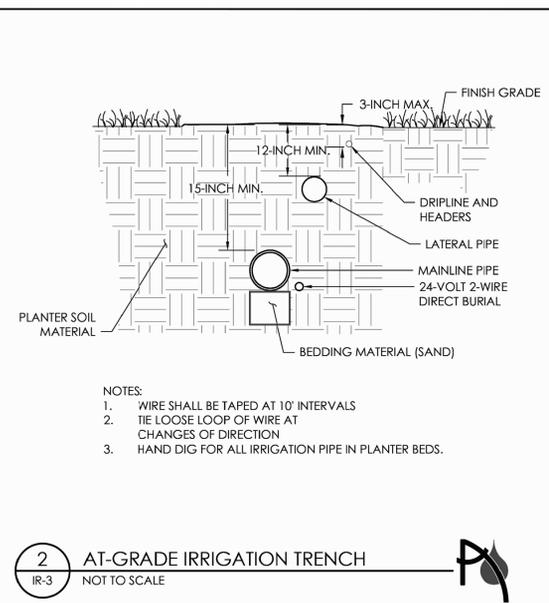
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4 GEAR-DRIVEN ROTOR SPRINKLER
 IR-3 NOT TO SCALE



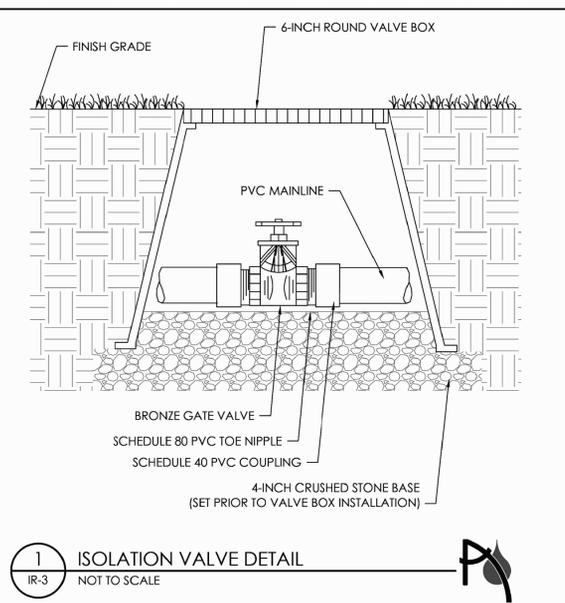
3 SLEEVE UNDER PAVEMENT
 IR-3 NOT TO SCALE



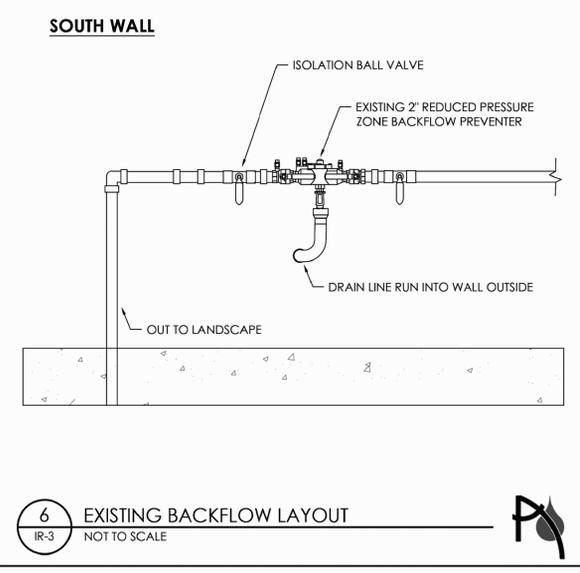
2 AT-GRADE IRRIGATION TRENCH
 IR-3 NOT TO SCALE

- NOTES:
 1. WIRE SHALL BE TAPED AT 10' INTERVALS
 2. TIE LOOSE LOOP OF WIRE AT CHANGES OF DIRECTION
 3. HAND DIG FOR ALL IRRIGATION PIPE IN PLANTER BEDS.

NOTE: PIPE AND WIRE REQUIRE SEPARATE AND ADJACENT SLEEVES

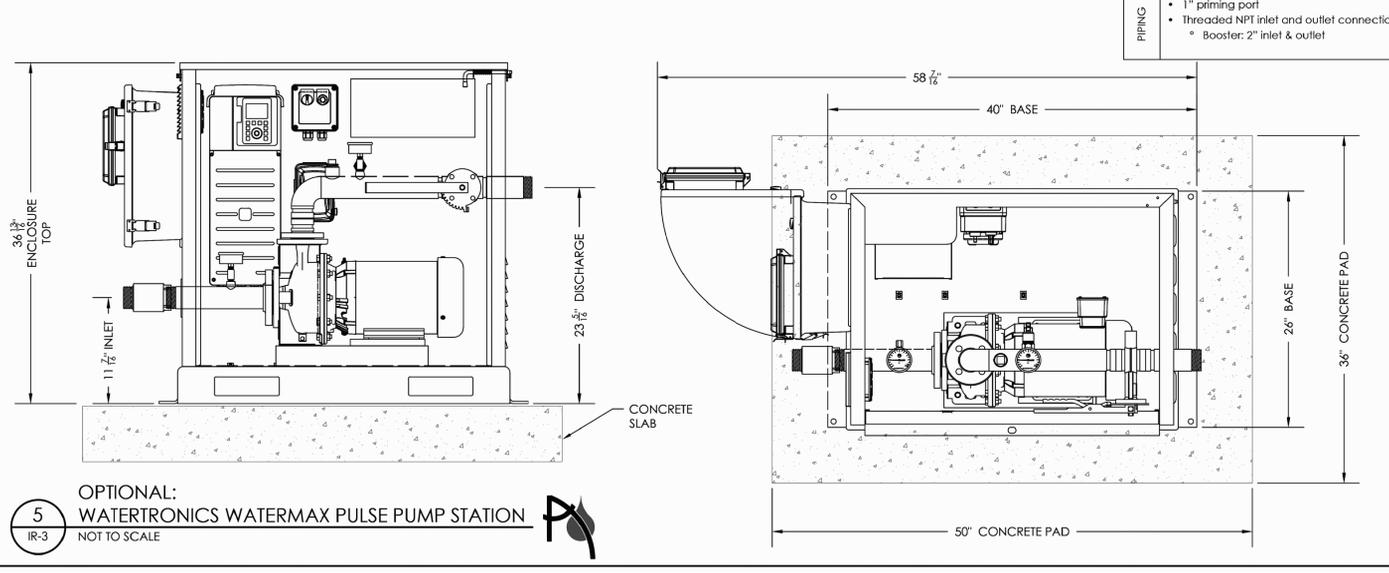


1 ISOLATION VALVE DETAIL
 IR-3 NOT TO SCALE



6 EXISTING BACKFLOW LAYOUT
 IR-3 NOT TO SCALE

STANDARD FEATURES	
PIPING	<ul style="list-style-type: none"> 304 stainless steel piping 1" priming part Threaded NPT inlet and outlet connections Booster: 2" inlet & outlet
PUMP CONTROL & OPERATION	<ul style="list-style-type: none"> Energy efficient Variable Frequency Drive (VFD) maintains constant pressure at varying flow demand Pump control: <ul style="list-style-type: none"> Pressure drop 24 VAC remote start relay Flow based (Booster) Surge-free starting allows for slow pipe fill at pump start up HOA switch for manual and automatic operation Manual pump speed control dial External green system run indicator light External red system fault indicator light Pump thermal protection sensor Stainless steel flow switch Stainless steel pressure transducer
ENCLOSURE & BASE	<ul style="list-style-type: none"> Marine grade aluminum station enclosure and base Pac-lockable station and power enclosure
ALARMS	<ul style="list-style-type: none"> System fault protection alerts: <ul style="list-style-type: none"> VFD fault shutdown High pump temperature shutdown Motor overload shutdown Transducer failure shutdown Low pressure shut down and pipe break protection High pressure shutdown Phase loss (3 phase only) Loss of prime Pump deadhead shutdown
STATION DESIGN	<ul style="list-style-type: none"> UL Type 3R, UL508A listed composite power enclosure with 60 AMP fused disconnect 120 VAC/4 AMP power outlet Stainless steel Horizontal Centrifugal Pump (Booster)/ Self-Priming Horizontal Centrifugal Pump (Suction Lift) both with mechanical seal Horizontal premium efficient TEFC motor Station enclosure ventilation fan Station inlet and discharge pressure gauges Discharge isolation valve 2" stainless steel check valve (Booster)



5 OPTIONAL: WATERTRONICS WATERMAX PULSE PUMP STATION
 IR-3 NOT TO SCALE