CORE STATES GROUP

August 11, 2020

Portsmouth Planning Board
Portsmouth City Hall
1 Junkins Avenue
Portsmouth, NH 03801

Re: Proposed Chase Bank – 1574 Woodbury Avenue - Site Plan Review

Dear Members of the Board,

We are in receipt of comments provided by the Technical Advisory Committee (TAC) that were discussed during the TAC meeting held on August 4, 2020. We have addressed these comments and provide this response letter. For simplicity, we have copied the comment herein and provided a response immediately following the item in blue italicized text.

1. Move notes 1-3 on Cover Sheet to sheet C-2 – these are required to be included on the site plan sheet that will be recorded.
   Relocated as requested.
2. Move notes 4-6 on Cover Sheet to LP-1
   Relocated as requested.
3. Applicant should be prepared to address the requirements stated in section 10.835.40 of the Zoning Ordinance related to traffic capacity and safety for Planning Board approval of the conditional use permit. In addition, the Drive-Through Facilities requirements for the Site Plan review regulations require that a Traffic Impact Study must be completed (see Section 3.6.3). If you do not intend to submit a Traffic Impact Study, please submit a waiver request explaining why the traffic generation memo should suffice.
   ITE Traffic Generation rates were used to compare the existing restaurant use with the proposed bank. Significant reductions in Total Weekday, Saturday trip counts were reduced as well as in am and pm peak hour estimates. A waiver request accompanies this comment response for consideration by the Board.
4. Your drive-through ATM does not provide stacking lanes and spaces as required by Section 3.6.2. If you do not intend to provide these, please submit a waiver request explaining why this is not necessary.
   Stacking Spaces have been added at 10'X20' each to signify a stacking length for 7 cars including the lead vehicle at the ATM.
5. On Sheet C-2, please add a note that a separate sign permit will be required for any proposed signage listed in the "Signage Table"

Added as requested.

6. Please provide a detail of the dumpster screening consistent with the requirements of Section 10.1132 of the Zoning Ordinance
   Added as requested. Please refer to drawing sheet CD-5.
7. Your proposed dumpster location is required to be a minimum of 10' from the abutting lot line per the zoning ordinance and a minimum of 20' from the abutting lot line per the site plan review regulations. If it is less than 10', it will require a variance from the Zoning Board of Adjustment, if it is less than 20', it will require a waiver from the Planning Board.
   The requested dimensions have been provided as requested. The trash enclosure is more than 10-ft. from the property line, but less than 20-ft. A Waiver Request accompanies this response letter for the proposed relief.
8. What are the dimensions of the proposed bike rack pad and how far is it from the building?
   Dimensions shown on the updated plan. Please refer to Sheet C-4.
9. Bike rack detail on CD-1 for a wave rack is not consistent with the City's preferred standard – see http://planportsmouth.com/citybikerackguidelines.pdf.
   Added to CD-1.
10. Penalty sign not needed under handicap parking sign.
    Eliminated as requested (Sheet CD-1).
11. Directional signs at driveways should be placed no closer than 15 feet to plaza drive aisle, to avoid blocking sight lines for drivers exiting bank driveways into plaza drive aisle.
    Revised as requested.
12. Proposed CDS Stormwater Unit needs to be a separate stand-alone unit that is not located over the existing drainage pipe.
    Configuration is revised on the current drawings to be in-line and connected to the existing drain via a "Dog-House" style Manhole.
13. Provide site specific details in the plan set (Sht. CD-2) for the CDS unit including site specific data requirements, model #, dimensions. Also, the plans should indicate the responsible party for maintenance and maintenance requirements.
    Details are shown on Drawing Sheet CD-2 including specifications and Model No. O & M responsibility shall be JPM Chase (or their property manager).
14. Indicate where the "doghouse manhole" is intended to be located.
    With the current revision, this structure will be required to facilitate a drainage connection for the drain network for this redevelopment. This manhole is located within the landscaped area between the access driveway and the exit lane from the Drive-Thru.
15. Indicate where "pipe connection to existing manhole detail" shown on Sht. CD-2 is proposed.
    No longer needed, so this reference is removed.
16. Building sewer lateral should be 6 inch diameter pipe.
    Corrected as requested.
17. General Comment: It appears that the proposed building sewer lateral could be installed with fewer cleanouts (i.e.: changes in direction). Request engineer to review with DPW.
    Direction changes are required to provide sewer service from the proposed building to the existing service lateral on-site. This shall be accomplished with as few bends as possible (45-degree bends with Clean-Outs).

I trust these comments have been adequately addressed, and if further comments remain, these items could be addressed as a condition as part of your Decision. If any questions or comments remain, please feel free to contact me directly @ 857-262-0191.

Respectfully Submitted,
CORE STATES GROUP

Alan D. Roscoe, P.E.

engineering
architecture
program management
development services
construction services

CORE STATES GROUP

August 12, 2020

Portsmouth Planning Board
Portsmouth City Hall
1 Junkins Avenue
Portsmouth, NH 03801

RE: Waiver Requests for Site Plan Review – 1574 Woodbury Avenue
Proposed Chase Bank (at former Ruby Tuesday's)

Dear Members of the Board,

As allowed under Portsmouth Planning Board regulations, we hereby request a waiver from portions of the Land Use Code. Specifically, we request a waiver from Section 3.6.3 of the regulations, for relief from providing a full Traffic Impact Study as the proposed use is a less traffic intensive than the existing. We have prepared and submitted a Traffic Generation Estimate based on Institute of Traffic Engineering (ITE) databases and formulas to compare the proposed bank with drive-through use with the restaurant use. The result of this comparison concludes that the proposed bank will generate significantly fewer traffic trips to this location than the existing restaurant. This is true across Total Weekday; Saturday; and on Weekday am and pm peak hours. In our opinion, a full traffic impact study would reach the same conclusion, and therefore may not be necessary to evaluate this aspect of this project. The intent of this requirement is satisfied with the submittal of the Traffic Generation Memorandum.

Additionally, we request a waiver from site plan regulations pertaining to the proposed location of our trash enclosure. We comply with the Zoning Ordinance standard of 10-ft. (min.) to abutting property lines, but desire a waiver from site plan regulations to be located less than 20-ft. from the property line. The proposed trash enclosure is to be located 12.89-ft. from the northerly property boundary. Given other site plan regulations for other elements of the proposed use (drive-through and ATMs), we have placed the trash receptacle in an accessible location for ease of access by trash removal contractors and complying with the intent of the requirement.

The intent of the requirements is met with these positive attributes described above and will improve overall conditions on and off-site. Granting the requested relief will not substantially derogate from these standards.

We appreciate your consideration of this request.

Respectfully Submitted,
CORE STATES GROUP

Alan D. Roscoe
Project Manager

SITE PLAN APPROVAL FOR

CHASE

PROPOSED CHASE BANK

1574 WOODBURY AVENUE
CITY OF PORTSMOUTH
ACCESSORS MAP 238, LOT 17
ROCKINGHAM COUNTY, NEW HAMPSHIRE 03801

DESIGN AND DEVELOPMENT CONTACTS:

APPLICANT	J.P. MORGAN CHASE BANK 1450 BRICKELL AVENUE 3RD FLOOR MIAMI, FL 33131 CONTACT: CHRIS FOIT (786) 473-1769
OWNER	RICHARD FUSEGNI 201 KEARSARGE WAY PORTSMOUTH, NH 03801 CONTACT: SCOTT MITCHELL (603) 475-377
CIVIL ENGINEER	CORE STATES INC. 9 GALEN STREET, SUITE 117 WATERTOWN, MA 02472 CONTACT: ALAN D. ROSCOE, P.E. (857) 500-4702
ARCHITECT	CORE STATES INC. 201 S. MAPLE AVE AMBLER, PA 19002 CONTACT: KEN MACKENZIE (267) 464-8048
SURVEYOR	ALLEN & MAJOR ASSOCIATES, INC. 400 HARVEY ROAD MANCHESTER, NH 03103 CONTACT: JAMES P. SMITH NH LLS (603) 627-5500

GOVERNING AGENCIES CONTACTS:

PLANNING	PLANNING DEPARTMENT 1 JUNKINS AVENUE, 3RD FLOOR PORTSMOUTH, NH 03801 CONTACT: JULIET WALKER, PLANNING DIRECTOR (603) 610-7216
BUILDING	INSPECTION DEPARTMENT 1 JUNKINS AVENUE PORTSMOUTH, NH 03801 CONTACT: ROBERT MARSILIA, CHIEF BUILDING INSPECTOR (603) 610-7243
FIRE AUTHORITY	FIRE DEPARTMENT 170 COURT STREET PORTSMOUTH, NH 03801 CONTACT: TODD GERMAIN, INTERIM FIRE CHIEF (603) 427-1515

UTILITY CONTACTS:

GAS	UNITIL 6 LIBERTY LANE WEST HAMPTON, NH 03842 (866) 933-3820
ELECTRIC AND FIRE ALARM	EVERSOURCE 55 BEARFOOT ROAD NORTHBOROUGH, MA 01532 (800) 322-3223
WATER	PORTSMOUTH PUBLIC WORKS DEPARTMENT 680 PEVERLY HILL ROAD PORTSMOUTH, NH 03801 (603) 427-1530
SEWER	PORTSMOUTH PUBLIC WORKS DEPARTMENT 680 PEVERLY HILL ROAD PORTSMOUTH, NH 03801 (603) 427-1530
TELEPHONE	VERIZON 185 FRANKLIN STREET BOSTON, MA 02107 (800) 870-9999
CABLE	COMCAST 179 W MAIN STREET AYER, MA 01432 (800) 266-2278

SHEET INDEX

PAGE NUMBER	DESCRIPTION	PREPARED BY	REVISION NUMBER									
	CIVIL PLANS		△	△	△	△	△	△	△	△	△	△
CV-1	COVER SHEET	CORE STATES	△									
CV-2	GENERAL NOTES	CORE STATES										
C-1	DEMOLITION PLAN	CORE STATES										
C-2	SITE PLAN	CORE STATES	△									
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C-4	UTILITY PLAN	CORE STATES	△									
C-5	SOIL EROSION & SEDIMENT CONTROL PLAN	CORE STATES										
C-6	DRAINAGE AREA MAPS	CORE STATES										
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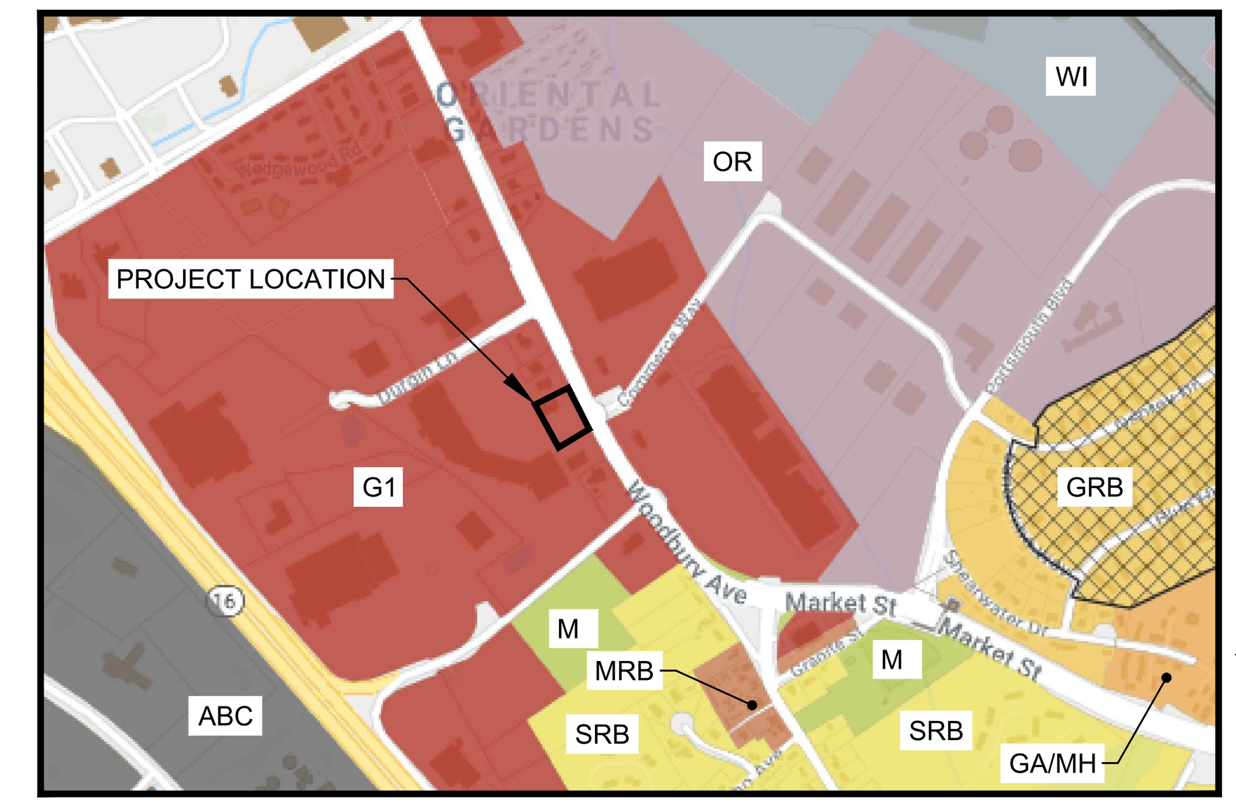
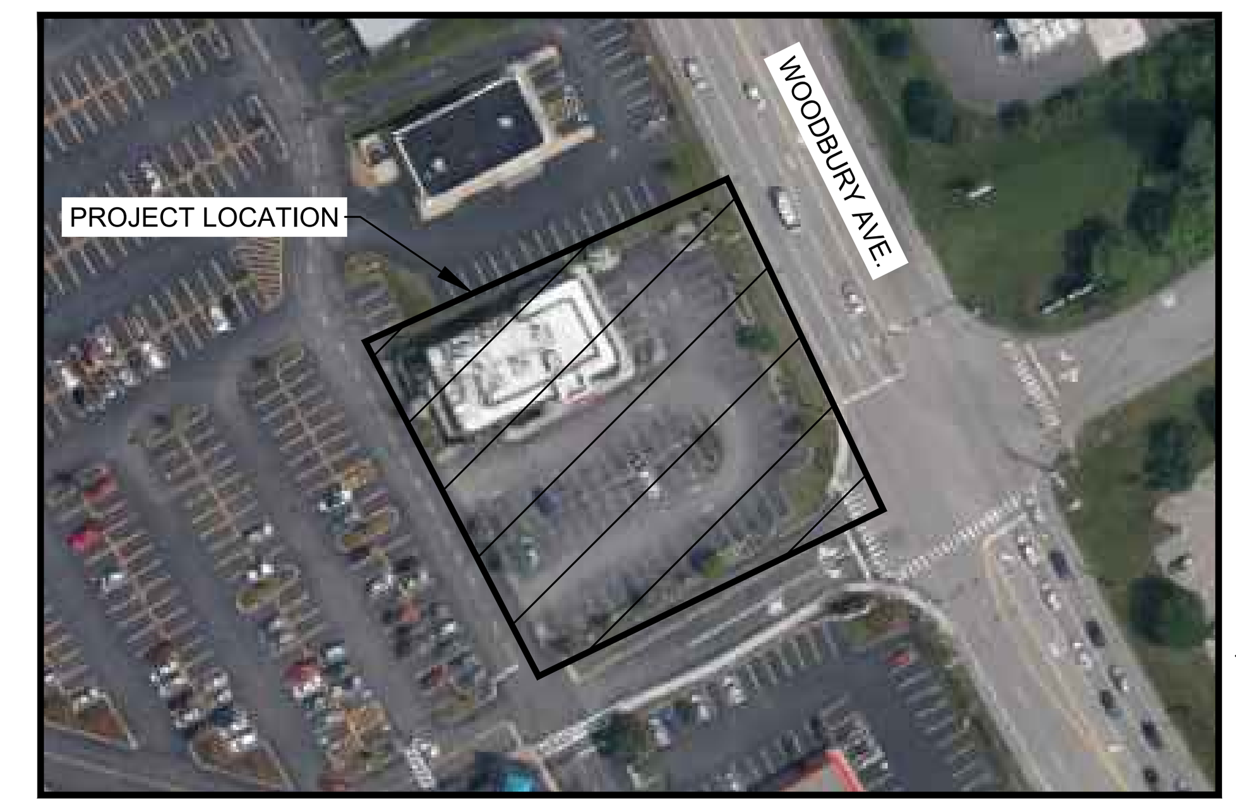
C-9	SOIL EROSION & SEDIMENT CONTROL DETAILS	CORE STATES										
CD-1 - CD-5	CONSTRUCTION DETAILS	CORE STATES	△									
LP-1	LANDSCAPE PLANTING	EVERGREEN DESIGN GROUP	△									
LP-2	PLANTING DETAILS & SPECIFICATIONS	EVERGREEN DESIGN GROUP										
1 OF 1	EXISTING CONDITIONS SURVEY	ALLEN & MAJOR ASSOCIATES, INC.										



ZONING MAP

1" = 1,000'

G1 - GATEWAY CORRIDOR DISTRICT
M - MUNICIPAL
SRB - SINGLE RESIDENCE B
GRB - GENERAL RESIDENCE B
MRB - MIXED RESIDENTIAL BUSINESS
OR - OFFICE RESEARCH
ABC - AIRPORT BUSINESS COMMERCIAL
GA/MH - GARDEN APARTMENT/ MOBILE HOME PARK
WI- WATERFRONT INDUSTRIAL



VICINITY MAP

1" = 100'

CORE STATES INC.
12700 HILLCREST ROAD
Suite 192
DALLAS, TX 75230
(214) 377-5060
www.core-eng.com

CLIENT

CHASE

811 Know what's below. Call before you dig.

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON DESIGN DRAWINGS, RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. CORE STATES, INC. DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES.

REV	DATE	COMMENT	BY
1	8/10/2020	PER TAC COMMENTS	MAL

DOCUMENT

SITE PLAN APPROVAL FOR CHASE BANK

SITE LOCATION

1574 WOODBURY AVENUE, PORTSMOUTH, NH 03801

ENGINEER SEAL

STATE OF NEW HAMPSHIRE
THOMAS C. PICKERING
No. 10218
LICENSED
PROFESSIONAL ENGINEER
08/11/2020

SHEET TITLE

COVER SHEET

JOB #:	JPM.27086
DATE:	07/01/2020
SCALE:	AS NOTED
DRAWN BY:	MAL
CHECKED BY:	KGF

SHEET NO.

CV-1

STANDARD ABBREVIATIONS

AC	ACRES
ADA	AMERICANS WITH DISABILITY ACT
ARCH	ARCHITECTURAL
BC	BOTTOM OF CURB
BF	BASEMENT FLOOR
BK	BLOCK
BL	BASELINE
BLD	BUILDING
BOL	BOLLARD
BM	BENCH MARK
BRL	BUILDING RESTRICTION LINE
CF	CUBIC FEET
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CONN	CONNECTION
CONC	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CY	CUBIC YARDS
DEC	DECORATIVE
DEP	DEPRESSED
DIP	DUCTILE IRON PIPE
DOM	DOMESTIC
ELEC	ELECTRIC
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
ES	EDGE OF SHOULDER
EW	END OF WALL
EX	EXISTING
FES	FLARED END SECTION
FF	FINISH FLOOR ELEVATION
FH	FIRE HYDRANT
FG	FINISHED GRADE
G	GRADE
GF	GARAGE FLOOR
GH	GRADE HIGH SIDE OF WALL
GL	GRADE LOW SIDE OF WALL
GRT	GRATE
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH POINT
HOR	HORIZONTAL
HW	HEADWALL
INT	INTERSECTION
INV	INVERT
LF	LINEAR FOOT
LOC	LIMITS OF CLEARING
LOD	LIMITS OF DISTURBANCE
LOS	LINE OF SIGHT
LP	LOW POINT
LS	LANDSCAPE
MAX	MAXIMUM
ME	MATCH EXISTING
MIN	MINIMUM
MH	MANHOLE
MJ	MECHANICAL JOINT
OC	ON CENTER
PC	POINT OF CURVATURE
PCCR	POINT OF COMPOUND CURVATURE, CURB RETURN
PI	POINT OF INTERSECTION
POG	POINT OF GRADE
POI	POINT OF INTEREST
PROP	PROPOSED
PT	POINT OF TANGANCY
PTCR	POINT OF TANGENCY, CURB RETURN
PVC	POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RCPR	REINFORCED CONCRETE WITH RUBBER GASKET
RET-WALL	RETAINING WALL
R/W	RIGHT OF WAY
S	SLOPE
SAN	SANITARY SEWER
SF	SQUARE FEET
STA	STATION
STM	STORM
TBR	TO BE REMOVED
TBRL	TO BE RELOCATED
TC	TOP OF CURB
TEL	TELEPHONE
TP	TREE PROTECTION
TW	TOP OF WALL
TYP	TYPICAL
UG	UNDERGROUND
UP	UTILITY POLE
W/L	WATER LINE
W/M	WATER METER
±	PLUS OR MINUS
°	DEGREE
Ø	DIAMETER
#	NUMBER

GENERAL SITE NOTES:

1. ALL CONSTRUCTION MATERIALS AND TECHNIQUES OF INSTALLATION SHALL MEET PERFORMANCE VALUES OF THE MATERIALS SPECIFIED AND COMPLY WITH ALL AUTHORITY HAVING JURISDICTION REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
2. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THIS PROJECT IS CONSTRUCTED IN ACCORDANCE WITH THESE DOCUMENTS AND IN COMPLIANCE WITH CODES INDICATED HEREIN. THE QUALITY OF WORKMANSHIP AND INSTALLATION OF MATERIALS SPECIFIED BY THE ARCHITECT/ENGINEER ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE ARCHITECT/ENGINEER WILL NOT BE HELD RESPONSIBLE FOR ANY SUBSTANDARD OR INSUFFICIENT WORKMANSHIP, MATERIALS, OR SERVICES PROVIDED IN THE EXECUTION OF ANY PHASE OF CONSTRUCTION OF THIS PROJECT.
3. ALL MATERIALS ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. THE GENERAL CONTRACTOR SHALL ENSURE THAT ALL MANUFACTURER'S WARRANTIES WILL BE HONORED.
4. ALL CONDITIONS SHOWN TO BE "EXISTING" SHALL BE VERIFIED IN THE FIELD BY THE GENERAL CONTRACTOR PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE NOTED AND SUBMITTED TO THE OWNER AND THE ARCHITECT/ENGINEER FOR REVIEW. CHANGES TO THE ORIGINAL DESIGN OF THE PROJECT DUE TO EXISTING SITE CONDITIONS MUST BE APPROVED BY BOTH THE OWNER AND THE ARCHITECT/ENGINEER PRIOR TO MAKING ANY CHANGES.
5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING A THOROUGH KNOWLEDGE OF EXISTING FIELD CONDITIONS AND OF ALL DRAWINGS AND SPECIFICATIONS RELATED TO THEIR FIELD. THE FAILURE TO ACQUAINT THEMSELVES WITH THIS PROJECT AND ONES FIELD OF SERVICE SHALL NOT RELIEVE THEM OF ANY RESPONSIBILITY FOR PERFORMING THEIR WORK PROPERLY. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED DUE TO THE GENERAL CONTRACTOR'S FAILURE TO CONVEY THE NECESSARY KNOWLEDGE TO FAMILIARIZE WORKERS AND SUBCONTRACTORS WITH THIS PROJECT.
6. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THE SAFETY OF ALL PERSONS ON THE JOB SITE AT ALL TIMES INCLUDING (BUT NOT LIMITED TO) SUBCONTRACTORS, FACILITY EMPLOYEES, VENDORS, DESIGN STAFF PROFESSIONALS AND INSPECTION PERSONNEL.
7. THE GENERAL CONTRACTOR SHALL PROVIDE DUMPSTERS, PORTABLE TOILETS AND TEMPORARY POWER FOR UNRESTRICTED PROJECT RELATED USE BY OTHERS FOR THE DURATION OF THE PROJECT.
8. THE GENERAL CONTRACTOR SHALL COORDINATE PROJECT PHASING AND STORAGE OF MATERIALS WITH THE OWNER AND EROSION AND SEDIMENT CONTROL AUTHORITY.
9. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE RECEIVING, UNLOADING, STORING AND PROTECTION OF MATERIALS AND EQUIPMENT SUPPLIED BY THE OWNER UNTIL IT HAS BEEN INSTALLED AND ACCEPTED BY THE OWNER.
10. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE AREA CLEAN AND FREE OF DEBRIS AT ALL TIMES DURING CONSTRUCTION. THE GENERAL CONTRACTOR SHALL POWER WASH THE ENTIRE CONSTRUCTION AREA PRIOR TO TURNOVER TO THE OWNER.
11. THE GENERAL CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES, INCLUDING IRRIGATION, SPECIFIC TO THIS PROJECT PRIOR TO THE START OF ANY DEMOLITION OR CONSTRUCTION. SHOULD ANY UTILITY REQUIRE RELOCATION, CONTRACTOR SHALL COORDINATE WITH THE OWNER AND THE ARCHITECT/ENGINEER.
12. SAWCUT AND REMOVE PORTIONS OF EXISTING PAVING ONLY AS REQUIRED TO INSTALL NEW UTILITIES OR TO CONSTRUCT PROPOSED FACILITIES PER THIS PLAN. REPLACE PORTIONS REMOVED TO MATCH EXISTING FLUSH AND SMOOTH.
13. IF REQUESTED BY THE OWNER OR AUTHORITY HAVING JURISDICTION, CONTRACTOR TO PROVIDE TEMPORARY CONSTRUCTION FENCING, PER AUTHORITY HAVING JURISDICTION REQUIREMENTS OR A MINIMUM 6 FOOT HIGH, AROUND ENTIRE AREA OF CONSTRUCTION OR PER THE CLIENTS STANDARDS. FIELD VERIFY EXACT LOCATION AND SPECIFICATIONS OF FENCE WITH THE OWNER PRIOR TO START OF CONSTRUCTION. REMOVE FENCING AT COMPLETION OF PROJECT AND PATCH PAVING AS REQUIRED AT FENCE POST HOLES.
14. ALL DIMENSIONS ARE TO GROUND LEVEL IMPROVEMENTS (FACE OF CURB, CONCRETE SLAB, ETC UNLESS NOTED OTHERWISE).
15. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL PROPERTY CORNERS.
16. CONTRACTOR SHALL MATCH PROPOSED CURB AND GUTTER, CONCRETE, AND PAVEMENT TO EXISTING IN GRADE AND ALIGNMENT.
17. CONSTRUCTION SHALL COMPLY WITH ALL AUTHORITY HAVING JURISDICTION CODES AND BE CONSTRUCTED TO SAME.
18. CONTRACTOR IS RESPONSIBLE FOR REPAIRING THE DAMAGE DONE TO ANY EXISTING ITEM TO REMAIN DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. REPAIRS SHALL BE EQUAL TO, OR BETTER THAN, EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND NOTIFY OWNER PRIOR TO CONSTRUCTION START. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE INCURRED TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
19. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF BUILDING APPURTENANCES, STAIRS, RAMPS, SLOPE PAVING, SIDEWALKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
20. ALL DISTURBED AREAS ARE TO RECEIVE A MINIMUM OF FOUR INCHES OF TOPSOIL, UNLESS OTHERWISE NOTED IN THESE PLANS, SEED OR SOD, MULCH AND WATER UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED.
21. EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE MAINTAINED, ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.
22. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, (UNLESS OTHERWISE NOTED ON PLANS) INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH AUTHORITY HAVING JURISDICTION REQUIREMENTS AND PROJECT SITE WORK SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.
23. THE SITE WORK FOR THIS PROJECT SHALL MEET OR EXCEED THE SPECIFICATIONS IN THE CONTRACT DOCUMENTS AND THE OWNER/ DEVELOPER SITE WORK SPECIFICATIONS.
24. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER OF RECORD BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL.
25. IN THE EVENT THE CONSTRUCTION IS ABANDONED PRIOR TO THE COMPLETION OF THE PROJECT, ALL CONSTRUCTION AND STOCKPILED VEGETATIVE DEBRIS AND FILL SHALL BE REMOVED FROM THE SITE AND THE SITE SHALL BE STABILIZED PER THE PERMIT FOR STORM WATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (NPDES).
26. THESE PLANS ARE INTENDED TO AND SHALL COMPLY WITH AMERICANS WITH DISABILITIES ACT.
27. CONTRACTOR IS RESPONSIBLE FOR PERMITTING, INSTALLATION AND MAINTENANCE OF ALL MAINTENANCE OF TRAFFIC OPERATIONS DURING CONSTRUCTION. MAINTENANCE OF TRAFFIC SHALL CONFORM TO AUTHORITY HAVING JURISDICTION STANDARDS.
28. ALL DESIGN AND CONSTRUCTION MUST CONFORM TO THE MINIMUM STANDARDS SET DOWN IN THE AUTHORITY HAVING JURISDICTION DEVELOPMENT CODE, ZONING, AND/OR RELATED ORDINANCES, AND MINIMUM TESTING FREQUENCY REQUIREMENTS.
29. PREVIOUS SITE PLAN REMAINS IN EFFECT EXCEPT AS MODIFIED BY THE PROPOSED REVISIONS.
30. SAFETY NOTICE TO CONTRACTOR: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES ON OR NEAR THE CONSTRUCTION SITE.

SOIL EROSION AND SEDIMENT CONTROL NOTES:

1. ALL APPLICABLE EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN PLACE PRIOR TO ANY GRADING OPERATION AND/OR INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES.
2. SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ALL AUTHORITY HAVING JURISDICTION STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL.
3. APPLICABLE EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE LEFT IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND/OR THE AREA IS STABILIZED.
4. THE CONTRACTOR SHALL PERFORM ALL WORK, FURNISH ALL MATERIALS AND INSTALL ALL MEASURES REQUIRED TO REASONABLY CONTROL SOIL EROSION RESULTING FROM CONSTRUCTION OPERATIONS AND PREVENT EXCESSIVE FLOW OF SEDIMENT FROM THE CONSTRUCTION SITE.
5. ANY DISTURBED AREA THAT IS TO BE LEFT EXPOSED FOR MORE THAN 14 DAYS, UNLESS OTHERWISE NOTED IN THE PLANS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING AND FERTILIZATION IN ACCORDANCE WITH ALL AUTHORITY HAVING JURISDICTION STANDARDS. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREAS WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND ANCHORED.
6. ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS AND AFTER EVERY STORM EVENT.
7. A CRUSHED STONE TIRE CLEANING PAD WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS EXISTS. THE STABILIZED PAD WILL BE INSTALLED ACCORDING TO THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS.
8. ALL CATCH BASIN INLETS WILL BE PROTECTED ACCORDING TO THE CERTIFIED PLAN.
9. ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
10. OFFSITE SEDIMENT DISTURBANCE MAY REQUIRE ADDITIONAL CONTROL MEASURES TO BE DETERMINED BY THE EROSION CONTROL INSPECTOR.
11. A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE MAINTAINED ON THE PROJECT SITE DURING CONSTRUCTION.
12. THE AUTHORITY HAVING JURISDICTION SHALL BE NOTIFIED PER AUTHORITY HAVING JURISDICTION REQUIREMENTS PRIOR TO ANY LAND DISTURBANCE.
13. ANY CONVEYANCE OF THIS PROJECT PRIOR TO ITS COMPLETION WILL TRANSFER FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CERTIFIED PLAN TO ANY SUBSEQUENT OWNERS.
14. MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT BE CONSTRUCTED STEEPER THAN 3:1 UNLESS OTHERWISE APPROVED BY THE AUTHORITY HAVING JURISDICTION.
15. ADJOINING PROPERTIES SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS ON THE PROPOSED SITE.
16. USE STAGED CONSTRUCTION METHODS TO MINIMIZE EXPOSED SURFACES, WHERE APPLICABLE.
17. ALL VEGETATIVE MATERIAL SHALL BE SELECTED IN ACCORDANCE WITH AMERICAN STANDARDS FOR NURSERY STOCK OF THE AMERICAN ASSOCIATION OF THE NURSERYMAN.
18. NATURAL VEGETATION AND SPECIES SHALL BE RETAINED WHERE SPECIFIED ON THE LANDSCAPING PLAN.
19. THE SOIL EROSION INSPECTOR MAY REQUIRE ADDITIONAL SOIL EROSION MEASURES TO BE INSTALLED, AS DIRECTED BY THE INSPECTOR.

DEMOLITION NOTES:

1. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS AND CODES AND OBTAIN ALL REQUIRED PERMITS FOR ANY CONSTRUCTION ACTIVITY.
2. THE CONTRACTOR SHALL CONTACT 811 DIG SAFELY BEFORE PERFORMING ANY EXCAVATION WORK.
3. THE CONTRACTOR SHALL INSTALL ALL CONSTRUCTION FENCING AND EROSION AND SEDIMENT CONTROL DEVICES PRIOR TO THE START OF ANY DEMOLITION OR CONSTRUCTION ACTIVITY.
4. ALL STRUCTURES, UTILITIES, SITE IMPROVEMENTS AND TREES DESIGNATED ON THE DRAWINGS OR DIRECTED BY THE ENGINEER TO REMAIN SHALL BE PROTECTED FROM DAMAGE BY ALL CONSTRUCTION OPERATIONS. THIS SHALL BE ACCOMPLISHED BY ERECTING BARRIERS, GUARDS AND ENCLOSURES AS SHOWN ON THE DRAWINGS OR OTHER APPROVED MEANS. PROTECTION SHALL BE MAINTAINED UNTIL ALL WORK IN THE VICINITY OF THE WORK BEING PROTECTED HAS BEEN COMPLETED.
5. THE CONTRACTOR SHALL COMPLY WITH ALL DEMOLITION AND NEW CONSTRUCTION INSPECTIONS AS REQUIRED BY FEDERAL, STATE AND AUTHORITY HAVING JURISDICTION LAWS, REGULATIONS AND BUILDING CODES.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY ALL AUTHORITIES HAVING JURISDICTION) ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE, STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY, UNLESS OTHERWISE NOTED.
7. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE CONTRACT DOCUMENTS.
8. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH, VEGETATION FROM CLEARING AND GRUBBING, AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING FOR ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
9. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
10. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
11. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES.
12. ALL EXISTING SEWERS, PIPING AND UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK. UTILITIES DETERMINED TO BE ABANDONED AND LEFT IN PLACE SHALL BE GROUTED IF UNDER BUILDING.
13. ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC CABLE AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY AND REMOVED TO THE PROPERTY LINE. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. CONTRACTOR SHALL PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN ANY ROAD RIGHT OF WAY DURING CONSTRUCTION.
14. CONTRACTOR TO REPLACE ALL DEAD AND/OR DAMAGED SHRUBS IN KIND.

GENERAL UTILITY NOTES:

1. CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS.
2. ALL ELECTRIC, TELEPHONE AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE DESIGNATED UTILITY COMPANIES.
3. CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED BY THE ENGINEER FROM THE APPROPRIATE AUTHORITY HAVING JURISDICTION AND CONTRACTOR HAS BEEN NOTIFIED BY SAID ENGINEER.
4. PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY DRY UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM THE ENGINEER AND THE OWNER/DEVELOPER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION, UNLESS OTHERWISE SPECIFIED IN PLANS. THE ENGINEER AND ITS OWNER SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.
5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SCHEDULE FOR INSTALLATION WITH THE UTILITY COMPANIES AND THE OWNER. ANY EXISTING UTILITIES DISRUPTED DURING PLACEMENT OF NEW UTILITIES SHALL BE REPAIRED AND OPERATING NORMALLY THE SAME DAY OF DISRUPTION. THE GENERAL CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION OF ALL EXISTING ITEMS THAT WILL BE DISRUPTED DURING THE PLACEMENT OF NEW UTILITIES AND PROVIDE THE OWNER A DETAILED PHASING SCHEDULE OUTLINING THE TIMELINE FOR INSTALLATION OF NEW UTILITIES INCLUDING THE PROPOSED TIMES THAT EXISTING ITEMS WILL BE DISRUPTED. THE NEW UTILITIES TRENCH WIDTH AND DEPTH SHALL MEET ALL LOCAL AND STATE REQUIREMENTS FOR THE DISPLACEMENT OF ALL UTILITIES. IF DIRECTIONAL BORING IS USED FOR INSTALLATION, THE ABOVE LISTED ITEMS ARE STILL REQUIRED TO BE SUBMITTED TO THE OWNER.
6. ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
7. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES' INSPECTORS PER AUTHORITY HAVING JURISDICTION REQUIREMENTS BEFORE CONNECTING TO ANY EXISTING LINE AND FOLLOW ALL REQUIREMENTS AND SPECIFICATIONS.
8. UNDERGROUND UTILITY LINES SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
9. ALL CONCRETE FOR ENCASEMENTS SHALL MEET THE AUTHORITY HAVING JURISDICTION REQUIREMENTS FOR ENCASEMENT.
10. DRAWINGS DO NOT PURPORT TO SHOW ALL EXISTING UTILITIES. CONTRACTOR TO VERIFY ALL UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
11. THE CONTRACTOR SHALL CONSTRUCT GRAVITY SEWER LATERALS, MANHOLES, GRAVITY SEWER LINES AND DOMESTIC WATER AND FIRE PROTECTION SYSTEM AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS, EQUIPMENT, MACHINERY, TOOLS, MEANS OF TRANSPORTATION AND LABOR NECESSARY TO COMPLETE THE WORK IN FULL AND COMPLETE IN ACCORDANCE WITH THE SHOWN, DESCRIBED AND REASONABLY INTENDED REQUIREMENTS OF THE CONTRACT DOCUMENTS AND JURISDICTIONAL AGENCY REQUIREMENTS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
12. THE CONTRACTOR SHALL RESTORE ALL DISTURBED VEGETATION IN KIND, UNLESS SHOWN OTHERWISE.
13. DEFLECTION OF PIPE JOINTS AND CURVATURE OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS. SECURELY CLOSE ALL OPEN ENDS OF PIPE AND FITTINGS WITH A WATERTIGHT PLUG WHEN WORK IS NOT IN PROGRESS. THE INTERIOR OF ALL PIPES SHALL BE CLEAN AND JOINT SURFACES WIPED CLEAN AND DRY AFTER THE PIPE HAS BEEN LOWERED INTO THE TRENCH. VALVES SHALL BE PLUMB AND LOCATED ACCORDING TO THE PLANS.
14. ALL UTILITY AND STORM DRAIN TRENCHES LOCATED UNDER AREAS TO RECEIVE PAVING SHALL BE COMPLETELY BACKFILLED AND COMPACTED IN ACCORDANCE WITH SPECIFICATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
15. SHOP DRAWINGS FOR ALL MATERIALS AND APPURTENANCE SHALL BE SUBMITTED TO AND APPROVED BY THE AUTHORITY HAVING JURISDICTION UTILITY DEPARTMENT. CONTRACTOR TO COPY THE ENGINEER OF RECORD WITH APPROVED DRAWINGS AS REQUIRED. NO WORK IS TO BEGIN UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED, APPROVED AND RETURNED TO THE CONTRACTOR.
16. PER AUTHORITY HAVING JURISDICTION TIMING REQUIREMENTS, PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE AUTHORITY HAVING JURISDICTION AND THE UTILITY COMPANY AND SUPPLY THEM WITH ALL REQUIRED SHOP DRAWINGS, THE CONTRACTOR'S NAME, STARTING DATE, PROJECTED SCHEDULE AND OTHER INFORMATION AS REQUIRED. THE AUTHORITY HAVING JURISDICTION ENGINEERING INSPECTION OFFICE SHOULD ALSO BE CONTACTED PER TIMING REQUIREMENTS PRIOR TO CONSTRUCTION TO ENSURE AVAILABILITY OF INSPECTION PERSONNEL. ANY WORK PREFORMED PRIOR TO NOTIFYING THE AUTHORITY HAVING JURISDICTION ENGINEERING INSPECTION OFFICE OR WITHOUT A DEPARTMENT INSPECTOR PRESENT MAY BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE SOLE EXPENSE OF THE CONTRACTOR.
17. SANITARY SEWER, FORCE MAINS, SEWER LATERALS, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS AND/OR WATER SERVICES WHENEVER POSSIBLE. SANITARY SEWERS, FORCE MAINS, SEWER LATERALS, AND STORM SEWERS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE TOP OF THE LOWER PIPE, UNLESS OTHERWISE SPECIFIED IN THE PLANS.
18. A MINIMUM HORIZONTAL DISTANCE OF 10 FEET SHOULD BE MAINTAINED BETWEEN WATER LINES AND ANY TYPE OF SEWER LINES OR OTHER SOURCES OF CONTAMINATION, UNLESS OTHERWISE NOTED IN THE PLANS. WATER LINES AND SEWERS SHALL NOT BE LAID IN THE SAME TRENCH EXCEPT ON THE WRITTEN APPROVAL OF THE AUTHORITY HAVING JURISDICTION. WATER MAINS NECESSARILY IN CLOSE PROXIMITY TO SEWERS MUST BE PLACED SO THAT THE BOTTOM OF THE WATER LINE WILL BE AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER LINE AT ITS HIGHEST POINT, UNLESS OTHERWISE NOTED IN THE PLANS. IF THIS DISTANCE MUST UNAVOIDABLY BE REDUCED, THE WATER LINE OR THE SEWER LINE MUST BE ENCASED IN WATERTIGHT PIPE WITH SEALED WATERTIGHT ENDS EXTENDING AT LEAST 10 FEET EITHER SIDE OF THE CROSSING, UNLESS OTHERWISE NOTED IN THE PLANS. ANY JOINT IN THE ENCASEMENT PIPE IS TO BE MECHANICALLY RESTRAINED. THE ENCASEMENT PIPE MAY BE VENTED TO THE SURFACE IF CARRYING WATER OR SEWER UNDER PRESSURE. WHERE A WATER LINE MUST UNAVOIDABLY PASS BENEATH THE SEWER LINE, AT LEAST 18 INCHES OF SEPARATION MUST BE MAINTAINED BETWEEN THE OUTSIDE OF THE TWO PIPES IN ADDITION TO THE PRECEDING ENCASEMENT REQUIREMENT, UNLESS OTHERWISE NOTED IN THE PLANS. EXCEPTIONS TO THIS MUST BE APPROVED IN WRITING BY THE AUTHORITY HAVING JURISDICTION.
19. A MINIMUM HORIZONTAL DISTANCE OF 3 FEET, UNLESS OTHERWISE NOTED IN THE PLANS, SHALL BE MAINTAINED BETWEEN WATER LINES AND OTHER UNDERGROUND OF A NONSANITARY NATURE (GAS, ELECTRIC, ETC.) EXCEPTIONS TO THIS MUST BE APPROVED IN WRITING BY THE AUTHORITY HAVING JURISDICTION.
20. ALL DIP SHALL BE CLASS 50 OR HIGHER, DUCTILE IRON FITTINGS SHALL BE CLASS 350, UNLESS OTHERWISE NOTED IN THE PLANS. ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED.
21. TREES SHALL BE PLACED SO AS TO AVOID BURIED UTILITIES.
22. ALL UTILITY MAIN LENGTHS SHOWN ARE APPROXIMATE. ALL MANHOLE TOP ELEVATIONS ARE APPROXIMATE. CONTRACTOR SHALL SET MANHOLE COVER LEVEL WITH FINISH PAVEMENT GRADES.
23. PRESSURE PIPE TESTING SPECIFICATIONS SHALL REFERENCE THE AUTHORITY HAVING JURISDICTION AND/OR FIRE DEPARTMENT.
24. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES. THIS AND THE FINAL CONNECTIONS OF THE SERVICE SHALL BE COMPLETED 30 DAYS PRIOR TO POSSESSION.
25. REFER TO BUILDING PLANS FOR SITE ELECTRICAL PLAN.
26. ALL REINFORCED CONCRETE PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED AND INSTALLED IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES LATEST REQUIREMENTS AND SPECIFICATIONS OR AUTHORITY HAVING JURISDICTION SPECIFICATIONS, WHICHEVER IS MORE STRINGENT.

GENERAL PAVING AND GRADING NOTES:

1. ALL PAVING AND GRADING CONSTRUCTION MATERIALS AND METHODS SHALL MEET THE STANDARD SPECIFICATIONS AND REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES, UNLESS OTHERWISE NOTED IN THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
3. ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
4. PRECAST STRUCTURES MAY BE USED AT CONTRACTOR'S OPTION AND SHALL MEET ALL AUTHORITY HAVING JURISDICTION REQUIREMENTS/SPECIFICATIONS AT A MINIMUM.
5. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE EPA OR APPLICABLE STATE GENERAL NPDES PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
6. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
7. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
8. TOPOGRAPHIC INFORMATION IS TAKEN FROM A TOPOGRAPHIC SURVEY BY A LICENSED PROFESSIONAL SURVEYOR AND MAPPER. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
9. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE A MINIMUM OF 4 INCHES OF TOPSOIL, UNLESS OTHERWISE NOTED IN THE PLANS. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH AUTHORITY HAVING JURISDICTION SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
10. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE AUTHORITY HAVING JURISDICTION CODES AND BE CONSTRUCTED TO SAME.
11. ALL PAVING, CONSTRUCTION MATERIALS, AND WORKMANSHIP WITHIN RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION SPECIFICATIONS AND STANDARDS (LATEST EDITION) RESPECTIVELY.
12. ALL CONCRETE USED ON THE SITE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI IN 28 DAYS, UNLESS OTHERWISE NOTED IN THE PLANS. ALL CONCRETE SIDEWALKS SHALL HAVE CONTROL JOINTS CUT ON 5-FOOT CENTERS AND EXPANSION JOINTS PLACED ON 60-FOOT CENTERS, CHANGES IN DIRECTION, AND ABUTTING SEPARATE POURS. CONTRACTION JOINT SPACING SHALL MATCH WIDTH OF SIDEWALK AND EXPANSION JOINTS ARE REQUIRED AT A MAXIMUM OF 25 FEET, UNLESS OTHERWISE NOTED IN THE PLANS. THIS WOULD MEAN 24 FEET FOR A 6 INCH CURB. PAVEMENT JOINTS SHALL BE SPACED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND/OR DETAILS.
13. THE CONTRACTOR SHALL ENSURE THAT ALL PLANTING AREAS (INTERIOR ISLANDS, FOUNDATION PLANTING AREAS, ETC.) ARE NOT COMPACTED AND DO NOT CONTAIN LIMEROCK OR OTHER MATERIAL (CLAY, SUBGRADE MATERIAL, MARL, ETC.) WHICH MAY ADVERSELY AFFECT DRAINAGE OF GREEN AREAS. THE CONTRACTOR SHALL ALSO EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO BE PLANTED AND BACKFILL WITH CLEAN, FREE DRAINING TOPSOIL.
14. CONTRACTOR IS SPECIFICALLY CAUTIONED, DEPENDING ON THE TIME OF YEAR AND PROJECT LOCATION, AS DEWATERING MAY BY REQUIRED.
15. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER AND ARCHITECT/ENGINEER PRIOR TO EXCAVATION.
16. STRIP TOPSOIL AND ORGANIC MATTER AND PAVING MATERIAL FROM ALL AREAS TO BE IMPERVIOUS. TOPSOIL SHALL BE STOCKPILED ON SITE FOR REPLACEMENT ON SLOPES AND ALL OTHER GREEN AND LANDSCAPE AREAS.
17. FIELD DENSITY TESTS SHALL BE TAKEN AT FREQUENCY AS REQUIRED IN THE SPECIFICATIONS OR AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION REGULATORY AGENCY, WHICHEVER IS MORE STRINGENT.
18. CONTRACTOR SHALL ENSURE POSITIVE FLOW TO ALL INLETS WITHIN DRAINAGE BASINS TO PRECLUDE PONDED WATER.
19. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO CONTROL SEDIMENT, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED.

CORE STATES INC.

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REV	DATE	COMMENT	BY
1	8/10/2020	PER TAC COMMENTS	MAL

DOCUMENT

SITE PLAN
APPROVAL FOR
CHASE BANK

SITE LOCATION

1574 WOODBURY
AVENUE,
PORTSMOUTH, NH
03801

ENGINEER SEAL

STATE OF NEW HAMPSHIRE
THOMAS
C.
PICKERING
No. 10218
LICENSED
PROFESSIONAL ENGINEER
08/11/2020

SHEET TITLE

GENERAL
NOTES

JOB #:	JPM.27086
DATE:	07/01/2020
SCALE:	NO SCALE
DRAWN BY:	MAL
CHECKED BY:	KGF

SHEET NO.

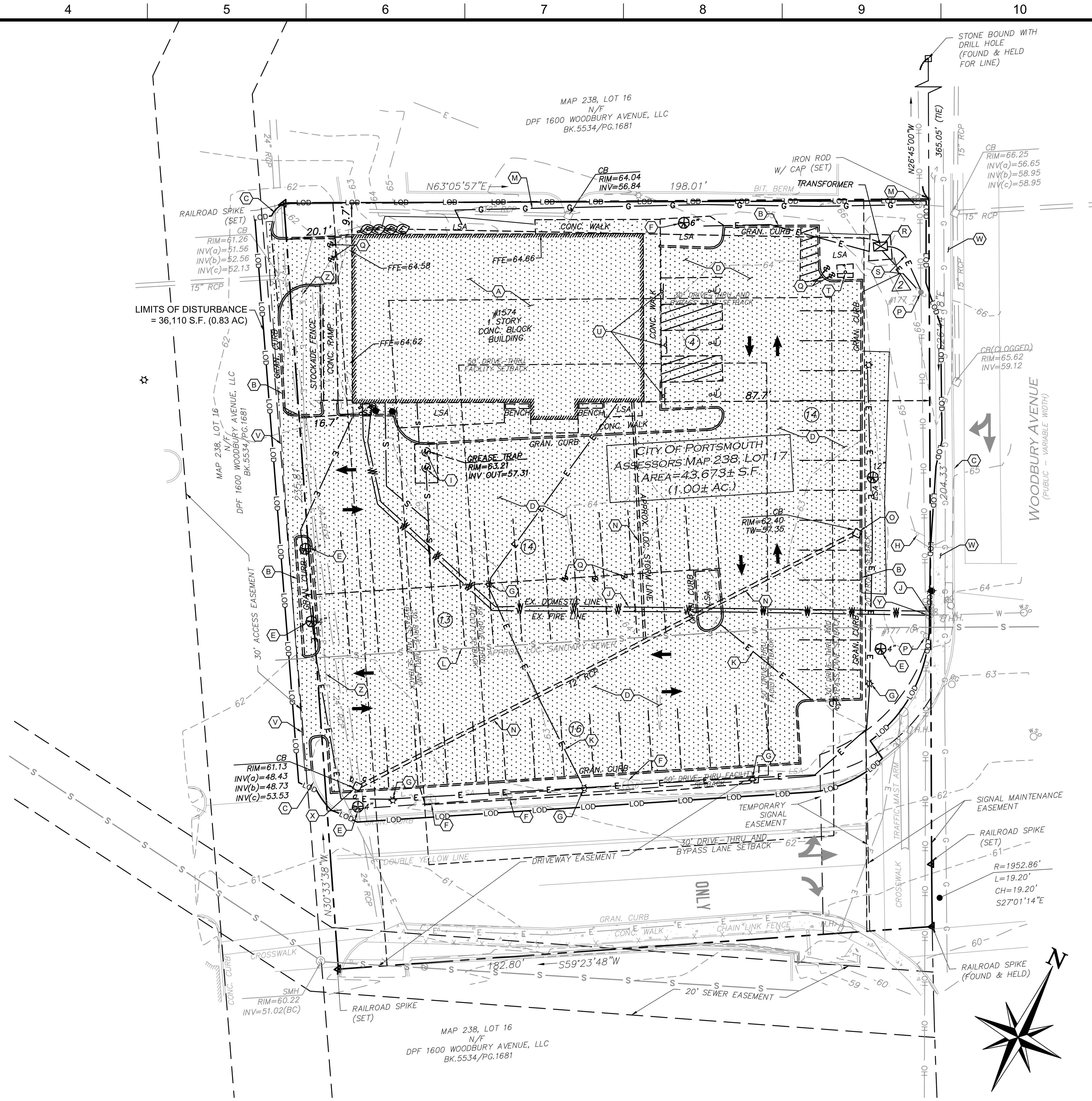
CV-2

DEMOLITION LEGEND

- PROPERTY BOUNDARY LINE
- CENTER LINE OF EXISTING ROADWAY
- ADJOINING PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- BLOCK 101 — EXISTING BLOCK NUMBER
- LOT 7 — EXISTING LOT NUMBER
- 165 — EXISTING 5' INTERVAL CONTOUR LINE
- 166 — EXISTING 1' INTERVAL CONTOUR LINE
- EXISTING TREE
- EXISTING TREE LINE
- EXISTING GAS MAIN
- EXISTING UTILITY POLE
- EXISTING STORM STRUCTURES
- EXISTING SANITARY STRUCTURES
- EXISTING WATER MAIN
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING UNDERGROUND ELECTRIC
- EXISTING TELEPHONE
- EXISTING OVERHEAD WIRES
- EXISTING SANITARY
- EXISTING STORM
- EXISTING BUILDING
- DEMO CURB
- DEMO STRIPING
- DEMO TREE
- DEMO UTILITY POLE
- DEMO HARDSCAPE
- PROPOSED SAWCUT LINE
- LOD — LIMITS OF DISTURBANCE

E & S LEGEND

- SOX — PROPOSED SILT SOXX
- IP — PROPOSED INLET PROTECTION



DEMO PLAN
SCALE 1" = 20'

GRAPHIC SCALE
20 10 5 0 20
1" = 20'

DEMOLITION KEY NOTES:

A. EXISTING BUILDING AND FOUNDATIONS TO BE REMOVED. CONTRACTOR TO BACKFILL AS NECESSARY AND PROVIDE COMPACTION PER GEO-TECHNICAL REPORT RECOMMENDATIONS.
B. EXISTING CURB TO BE REMOVED.
C. EXISTING CURB TO REMAIN. CONTRACTOR TO PROTECT IN PLACE.
D. EXISTING HARDSCAPE TO BE REMOVED.
E. EXISTING TREE TO BE REMOVED.
F. EXISTING TREE TO REMAIN. CONTRACTOR TO PROTECT IN PLACE.
G. EXISTING LIGHT POLE TO BE REMOVED.
H. EXISTING SIGN TO REMAIN. CONTRACTOR TO PROTECT IN PLACE.
I. EXISTING GREASE TRAP TO REMOVED.
J. EXISTING DOMESTIC WATER LINE TO BE REMOVED AND CAPPED AT EXISTING WATER VALVE TO BE REUSED FOR PROPOSED WATER SERVICE. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY AND LOCAL JURISDICTION PRIOR TO COMMENCING WORK.
K. DE-ENERGIZE LIGHTING PRIOR TO COMMENCING WORK OF EXISTING LIGHT POLE ELECTRICAL LINES. LINES TO BE CUT, CAPPED AND ABANDONED IN PLACE. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY PRIOR TO COMMENCING WORK.
L. EXISTING SEWER TO BE CUT AND CAPPED AT EXISTING TAP. CONTRACTOR TO PROVIDE LOCATION, SIZE AND INVERT TO THE ENGINEER OF RECORD PRIOR TO COMMENCING OF PROPOSED WORK.
M. EXISTING GAS SERVICE LINE TO BE CUT AND CAPPED AT EXISTING GAS VALVE. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY PRIOR TO BEGINNING OF ANY WORK.
N. EXISTING STORM LINE TO BE REMOVED.
O. EXISTING CATCH BASIN TO BE REMOVED.
P. EXISTING UTILITY POLE TO REMAIN AND TO BE PROTECTED IN PLACE.
Q. EXISTING BOLLARDS TO BE REMOVED.
R. EXISTING TRANSFORMER AND CONCRETE PAD TO BE RELOCATED, REFER TO SITE PLANS FOR PROPOSED LOCATION. CONTRACTOR TO VERIFY IF THE EXISTING TRANSFORMER IS REQUIRED FROM THE UTILITY COMPANY AND ARCHITECTURAL DRAWINGS. IF A NEW SERVICE IS REQUIRED, CONTRACTOR TO COORDINATE WITH UTILITY COMPANY TO OBTAIN PROPER SERVICE.
S. EXISTING ELECTRICAL CONDUITS AND METERS TO BE REMOVED AS NECESSARY.
T. EXISTING PYLON SIGN AND FOOTINGS TO BE REMOVED.
U. EXISTING HANDICAP SIGNS TO BE REMOVED.
V. PROPOSED SAWCUT LINE.
W. EXISTING PUBLIC RIGHT-OF-WAY SIDEWALK TO REMAIN. CONTRACTOR TO PROTECT IN PLACE.
X. EXISTING 24" RCP TO BE REMOVED FOR PROPOSED WATER QUALITY CDS UNIT BY CONTECH PER PROPOSED UTILITY DESIGN. CONTRACTOR TO REMOVE/REPLACE EXISTING PIPE AS NECESSARY TO INSTALL UNIT. ANY DAMAGED TO EXISTING STRUCTURES OR PIPES ARE TO BE REPLACED.
Y. EXISTING FIRE LINE TO BE REMOVED AT EXISTING WATER VALVE FOR THE INSTALLATION OF PROPOSED FIRE HYDRANT. CONTRACTOR TO COORDINATE WITH AUTHORITATIVE JURISDICTION AND UTILITY COMPANY PRIOR TO COMMENCING WORK.
Z. EXISTING ELECTRICAL CONDUIT TO REMAIN AND PROTECTED IN PLACE. CONTRACTOR TO VERIFY FINAL TERMINATION OF ELECTRICAL BEFORE BEGINNING OF WORK.

DEMOLITION NOTES:

1. THE TOTAL LIMITS OF DISTURBANCE FOR THIS PROJECT IS 36,110 S.F. (0.83 AC).
2. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION AND FOR CALLING THE APPROPRIATE ONE-CALL CENTER AT LEAST 72 HOURS IN ADVANCE OF ANY EXCAVATION.

MAINTENANCE NOTES:

ALL MEASURES STATED ON THIS PLAN SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION SHALL BE REPAIRED TO THEIR ORIGINAL CONDITION IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE INLET PROTECTION WHEN CLOGGING BECOMES APPARENT.
2. SILT SOXX SHALL BE REPAIRED OR REPLACED TO THEIR ORIGINAL CONDITION IF DAMAGED.

ALERT TO CONTRACTOR:

PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OF THE DRY UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM ENGINEER AND THE OWNER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. ENGINEER AND OWNER SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.

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REVISIONS

REV	DATE	COMMENT	BY
1	8/10/2020	PER TAC COMMENTS	MAL

DOCUMENT

SITE PLAN APPROVAL FOR CHASE BANK

SITE LOCATION

1574 WOODBURY AVENUE, PORTSMOUTH, NH 03801

ENGINEER SEAL

STATE OF NEW HAMPSHIRE
THOMAS C. PICKERING
No. 10218
LICENSED
PROFESSIONAL ENGINEER
08/11/2020

SHEET TITLE

DEMOLITION PLAN

JOB #:	JPM.27086
DATE:	07/01/2020
SCALE:	AS NOTED
DRAWN BY:	MAL
CHECKED BY:	KGF

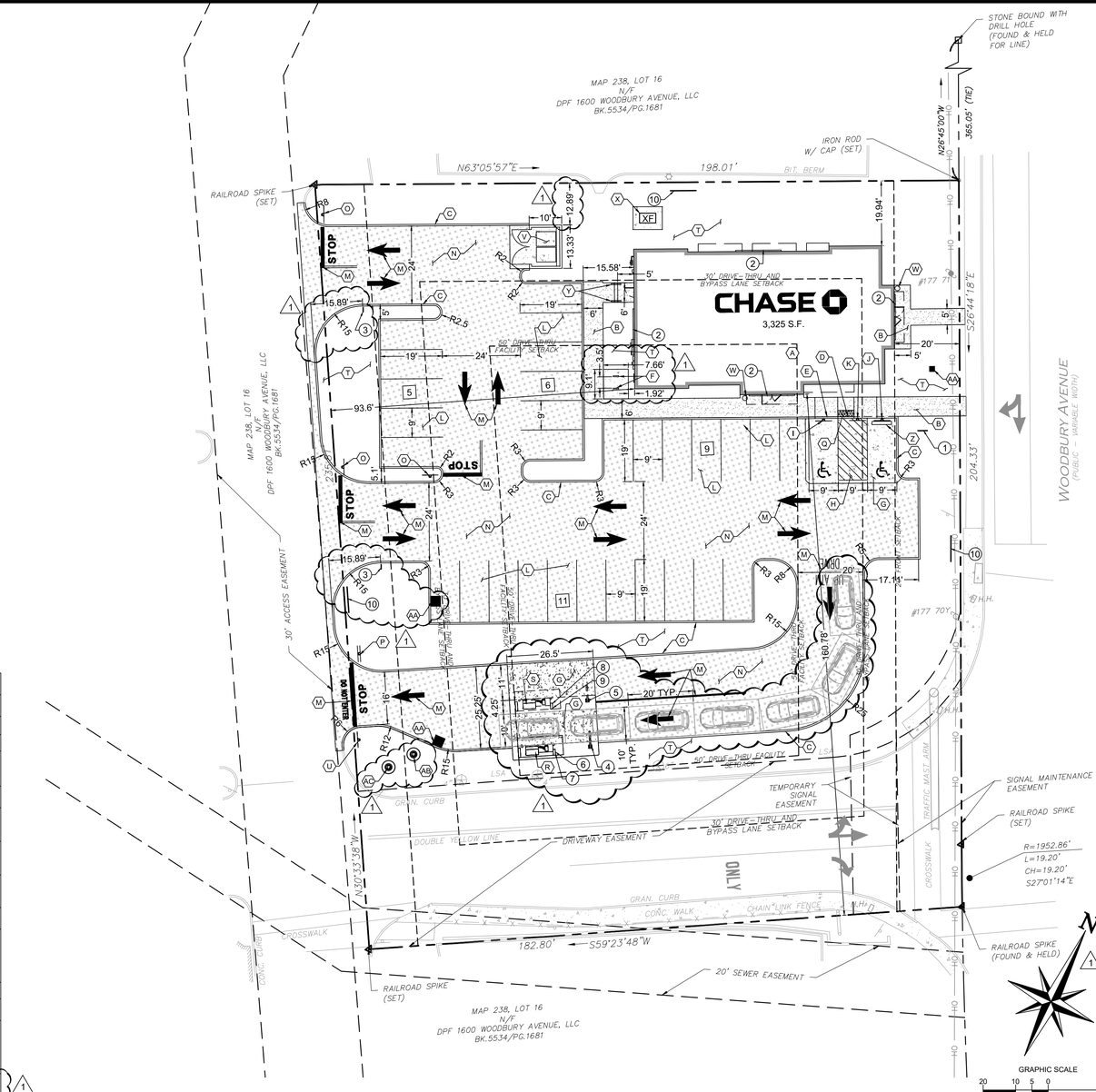
SHEET NO.

C-1

User: MLEWIS Plot Date/Time: Aug. 11, 20 - 12:38:49 Drawing: C:\Users\mlewis\appdata\local\temp\AcPublish_2864\JPM.27086-P-SITE.dwg :C1-DEMO

SIGNAGE TABLE (SIGN DISTRICT 5)			
TEMPORARY SIGNS			
PROVISION	REQUIRED	PROPOSED	COMMENT
MAXIMUM SIGN AREA	64 SF	60 SF	COMPLIANT
MAXIMUM SIGN HEIGHT	12 FEET	<12 FT (MOUNTED ON CONSTRUCTION FENCE)	COMPLIANT
FREESTANDING SIGN			
MAXIMUM ALLOWED PER LOT	1	1 MONUMENT SIGN 1 ATM SIGN 1 FUTURE ATM SIGN	COMPLIANT VARIANCE VARIANCE
MAXIMUM SIGN AREA	100 SF	56.2 SF 9.5 SF 9.5 SF	COMPLIANT
MAXIMUM SETBACK FRONT LOT LINE	10 FT	10 FT	COMPLIANT
WALL SIGN			
MAXIMUM ALLOWED	ONE PER STREET FRONTAGE AND/OR AT MAIN ENTRANCE	1 EAST ELEVATION (WOODBURY AVE) 1 SOUTH ELEVATION 1 NORTH ELEVATION 1 WEST ELEVATION	COMPLIANT - COMPLIANT VARIANCE VARIANCE
MAXIMUM SIGN AREA	100 SF	36.9 SF	COMPLIANT
TOTAL AGGREGATE SIGNS			
MAXIMUM AGGREGATE SIGN AREA	1.5 SF PER LINEAR FEET OF BUILDING FRONTAGE = 1.5 x 42.5 LF = 63.75 SF	147.6 SF	VARIANCE

NOTE: A SEPARATE SIGN PERMIT WILL BE REQUIRED FOR ANY PROPOSED SIGNAGE LISTED IN THE SIGNAGE TABLE.



SITE PLAN
SCALE 1" = 20'

GRAPHIC SCALE
20 10 5 0 20
1" = 20'

SIGN KEY NOTES:

1. PROPOSED CHASE PROTOTYPICAL PYLON SIGN (56.2 S.F.).
2. PROPOSED WHITE W/BLUE OCTAGON ILLUMINATED CHANNEL "CHASE" LOGO SIGN WALL SIGN (36.9 S.F.).
3. PROPOSED DOUBLE FACED NON-ILLUMINATED DIRECTIONAL SIGN (2.3 S.F.).
4. PROPOSED CLEARANCE SIGN AND HEADACHE BAR.
5. PROPOSED CLEARANCE SIGN AND HEADACHE BAR FOR FUTURE DRIVE-UP ATM.
6. PROPOSED SIGNATURE DRIVE-UP "CHASE" LOGO LETTERS (5.6 S.F.).
7. PROPOSED SIGNATURE DRIVE-UP OCTAGON (3.9 S.F.).
8. FUTURE SIGNATURE DRIVE-UP "CHASE" LOGO LETTERS (5.6 S.F.).
9. FUTURE SIGNATURE DRIVE-UP OCTAGON (3.9 S.F.).
10. TEMPORARY "COMING SOON" SIGN MOUNTED ON CONSTRUCTION FENCE (60S.F.).

SITE KEY NOTES:

A. PROPOSED 3,325 S.F. JPMORGAN CHASE BANK BUILDING. REFER TO ARCHITECTURAL PLANS FOR DETAILS.
B. PROPOSED CONCRETE SIDEWALK. REFER TO CONSTRUCTION DETAILS SHEET CD-1.
C. PROPOSED CONCRETE CURB. REFER TO CONSTRUCTION DETAILS SHEET CD-1.
D. PROPOSED DEPRESSED CONCRETE CURB. REFER TO CONSTRUCTION DETAILS SHEET CD-1.
E. PROPOSED TRANSITION CURB SECTION. REFER TO CONSTRUCTION DETAILS SHEET.
F. PROPOSED BIKE RACK ON CONCRETE PAD. REFER TO CONSTRUCTION DETAILS SHEET CD-1.
G. PROPOSED CONCRETE PAD. REFER TO CONSTRUCTION DETAILS SHEET CD-1.
H. PROPOSED 9' X 19' ACCESSIBLE PARKING SPACE AND AISLE WITH SYMBOLS OF ACCESSIBILITY. REFER TO CONSTRUCTION DETAILS SHEET CD-1.
I. PROPOSED VAN ACCESSIBLE PARKING SIGN. REFER TO CONSTRUCTION DETAILS SHEET CD-1.
J. PROPOSED ACCESSIBLE PARKING SIGN. REFER TO CONSTRUCTION DETAILS SHEET CD-1.
K. PROPOSED NO PARKING ANYTIME SIGN. REFER TO CONSTRUCTION DETAILS SHEET CD-1.
L. PROPOSED 9' X 19' STANDARD PARKING SPACE.
M. PROPOSED SITE MARKINGS. REFER TO CONSTRUCTION DETAILS SHEET CD-1.
N. PROPOSED ASPHALT PAVEMENT. REFER TO CONSTRUCTION DETAILS SHEET CD-1.
O. PROPOSED STOP SIGN. REFER TO CONSTRUCTION DETAILS SHEET CD-1.
P. PROPOSED STOP & DO NOT ENTER SIGN. REFER TO CONSTRUCTION DETAILS SHEET CD-1.
Q. PROPOSED DETECTABLE WARNING SURFACE. REFER TO CONSTRUCTION DETAILS SHEET CD-2.
R. PROPOSED DRIVE-UP SIGNATURE ATM CANOPY. REFER TO ARCHITECTURAL PLANS FOR DETAILS.
S. PROPOSED "FUTURE" DRIVE-UP SIGNATURE ATM CANOPY. REFER TO ARCHITECTURAL PLANS FOR DETAILS.
T. PROPOSED LANDSCAPE AREA. REFER TO LANDSCAPE PLAN FOR DETAILS.
U. PROPOSED DO NOT ENTER SIGN. REFER TO CONSTRUCTION DETAILS SHEET CD-1.
V. PROPOSED TRASH ENCLOSURE. REFER TO CONSTRUCTION DETAILS SHEET CD-5.
W. PROPOSED TRASH BIN. REFER TO ARCHITECT PLANS FOR DETAIL.
X. RELOCATED ELECTRIC TRANSFORMER AND CONCRETE PAD. REFER TO LIGHTING PLANS FOR DETAIL.
Y. PROPOSED HANDRAIL. REFER TO CONSTRUCTION DETAILS SHEET CD-1.
Z. PROPOSED WHEEL STOP. REFER TO CONSTRUCTION DETAILS SHEET CD-1.
AA. PROPOSED STORM DRAIN INLET. REFER TO CONSTRUCTION DETAILS SHEET CD-3.
AB. PROPOSED WATER QUALITY CDS UNIT BY CONTECH. REFER TO CONSTRUCTION DETAILS SHEET CD-2.
AC. PROPOSED STORM DOGHOUSE MANHOLE. REFER TO CONSTRUCTION DETAILS SHEET CD-2.

SITE LEGEND

- EXISTING PROPERTY BOUNDARY LINE
- EXISTING ADJOINING PROPERTY LINE
- EXISTING ROAD CENTERLINE
- PROPOSED ROAD CENTERLINE
- PROPOSED DITCH CENTERLINE
- PROPOSED LIMITS OF BMP / DETENTION
- PROPOSED SAWCUT LINE
- EXISTING CURB
- PROPOSED CURB
- PROPOSED DEPRESSED CURB
- PROPOSED BUILDING
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- EXISTING SANITARY STRUCTURES
- EXISTING WATER STRUCTURES
- EXISTING OVERHEAD WIRES
- PROPOSED PARKING COUNT

ALERT TO CONTRACTOR:

PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OF THE DRY UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM ENGINEER AND THE OWNER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. ENGINEER AND OWNER SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.

GENERAL NOTES:

THIS DRAWING REFERENCES: 1574 WOODBURY AVENUE
PORTSMOUTH, NH
TOPOGRAPHIC PLAN OF LAND
PREPARED BY: ALLEN & MAJOR ASSOCIATES, INC.
400 HARVEY ROAD
MANCHESTER, NH 03103
CONTACT: JAMES P. SMITH NH LLS
TEL: (603) 627-5500
DATED: 06/23/2020

PROPERTY OWNER: RICHARD P. FUSEGNI
201 KEARSARGE WAY
PORTSMOUTH, NH 03801
CONTACT: SCOTT MITCHELL
(603) 475-377

APPLICANT: J.P. MORGAN CHASE BANK
1450 BRICKELL AVENUE 3RD FLOOR
MIAMI, FL 33131
CONTACT: CHRIS FOIT
TEL: (786) 473-1769

1) SITE ADDRESS: 1574 WOODBURY AVENUE
PORTSMOUTH, NH 03801
COUNTY OF ROCKINGHAM

2) ZONING DATA: ZONED: G-1 GATEWAY CORRIDOR DISTRICT

EXISTING USE: RESTAURANT - RUBY TUESDAYS **(PERMITTED)**
PROPOSED USE: BANK **(PERMITTED BY RIGHT)**
: DRIVE THROUGH **(CONDITIONAL USE PERMIT REQUIRED)**

§10.5B34.60 (SMALL COMMERCIAL BUILDING)

	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA, SF:	N/A	43,673 S.F.	NO CHANGE
MIN. LOT FRONTAGE, FT:	50 FT.	204.32 FT.	NO CHANGE
FRONT YARD SETBACK, FT:	0 FT. - 20 FT.	87.7 FT.	20 FT.
MIN. SIDE YARD SETBACK, FT:	10 FT.	9.7 FT.	19.94 FT.
MIN. REAR YARD SETBACK, FT:	15 FT.	16.7 FT.	93.6 FT.
MAX. HEIGHT, FT:	40 FT.	± 20 FT.	21.5 FT.
MAX. HEIGHT, STORIES:	3	1	1
MIN. STREET FACADE HEIGHT:	18 FT.	± 20 FT.	21.5 FT.
MIN. OPEN SPACE COVERAGE:	10%	17.79% (7,770 S.F.)	18.18% (7,942 S.F.)
MAX. BUILDING COVERAGE:	70%	10.53%	7.55%
MAX. BUILDING FOOTPRINT:	10,000 S.F.	4,600 S.F.	3,325 S.F.
MIN. STREET FACING FACADE GLAZING:	50%	"---"	52%

3) PARKING REQUIREMENTS:
§10.1112.30 OFF-STREET PARKING REQUIREMENTS PER THE CITY OF PORTSMOUTH ZONING ORDINANCE:

FOR PROFESSIONAL, BUSINESS AND FINANCIAL SERVICES:
1 SPACE PER 350 SQUARE FEET OF GROSS FLOOR GROSS AREA

GROSS FLOOR GROSS AREA = 3,325 S.F. (MAIN BUILDING)
CALCULATION: 1 SPACE X (3,325 S.F. / 350 S.F.)
REQUIRED = 10 SPACES

EXISTING PARKING SPACES: 61 SPACES (INCLUDING 3 ACCESSIBLE SPACES)
PROPOSED PARKING SPACES: 31 SPACES (INCLUDING 2 ACCESSIBLE SPACES)

PARKING DIMENSIONS
EXISTING: VARIES
REQUIRED: 8.5' X 19'
PROPOSED: 9' X 19'

4) ALL EXISTING FEATURES ARE TO REMAIN UNLESS OTHERWISE NOTED.
5) ALL PAVEMENT MARKINGS SHALL BE LONG LIFE EPOXY.
6) PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.
7) ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
8) ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
9) SOLID WASTE TO BE DISPOSED OF BY CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
10) ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
11) CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.

NOTES:

1. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT PERPETUITY PURSUANT TO THE REQUIREMENTS TO THE SITE PLAN REVIEW REGULATIONS.
2. THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
3. ALL IMPROVEMENTS SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE OWNER AND ALL FUTURE OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL FROM THE PORTSMOUTH PLANNING DIRECTOR.

CORE STATES INC.
12700 HILLCREST ROAD
Suite 192
DALLAS, TX 75230
(214) 377-5040
www.core-eng.com

CLIENT

CHASE

811 Know what's below. Call before you dig.

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON DESIGN PLANS AND/OR FIELD LOCATIONS PERFORMED PRIOR TO CONSTRUCTION AND/OR MEASUREMENTS TAKEN IN THE FIELD. CORE STATES, INC. DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES A MINIMUM OF 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES.

REVISIONS

REV	DATE	COMMENT	BY
1	8/10/2020	PER TAC COMMENTS	MAL

DOCUMENT

SITE PLAN APPROVAL FOR CHASE BANK

SITE LOCATION

1574 WOODBURY AVENUE, PORTSMOUTH, NH 03801

ENGINEER SEAL

STATE OF NEW HAMPSHIRE
THOMAS C. PICKERING No. 10218 LICENSED PROFESSIONAL ENGINEER
08/10/2020

SHEET TITLE

SITE PLAN

JOB #:	JPM.27086
DATE:	07/01/2020
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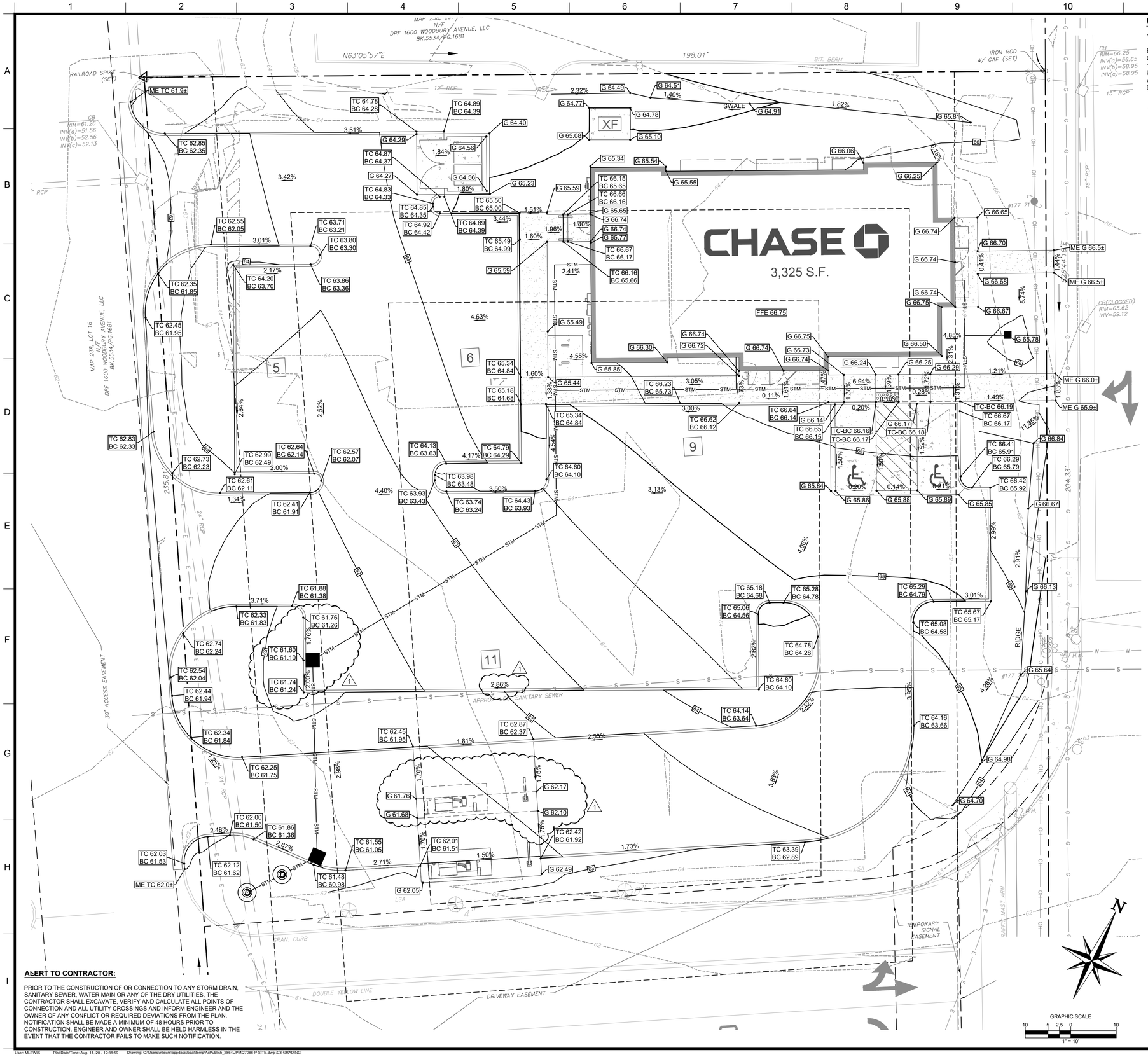
DRAWN BY:	MAL
CHECKED BY:	KGF

SHEET NO.

C-2

User: MLEWIS Plot Date/Time: Aug. 11, 20 - 12:38:54 Drawing: C:\Users\mlewis\appdata\local\temp\AcPublish_2864\JPM.27086-P-SITE.dwg /C2-SITE



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GENERAL NOTES:

1. THIS PROJECT REFERENCES A SURVEY PREPARED BY:

EXISTING CONDITIONS SURVEY
CHASE BANK SITE
1574 WOODBURY AVENUE
PORTSMOUTH, NH
ALLEN & MAJOR ASSOCIATES, INC,
DATED 06/23/2020

GRADING NOTES:

1. ALL PAVING AND GRADING CONSTRUCTION MATERIALS AND METHODS SHALL MEET THE STANDARD SPECIFICATIONS AND REQUIREMENTS OF THE TOWNSHIP.
2. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY.
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
4. ALL CUT OR FILL SLOPES SHALL BE 4:1 OR FLATTER UNLESS OTHERWISE NOTED.
5. PRECAST STRUCTURES ARE REQUIRED.
6. STORM PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS. PRIOR TO FINAL INSPECTION.
7. EXISTING CONTOUR INTERVALS SHOWN AT 1.0 FOOT.
8. PROPOSED CONTOUR INTERVALS SHOWN AT 1.0 FOOT.
9. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
10. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
11. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 2" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
12. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE APPLICABLE STATE GENERAL PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
13. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
14. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
15. TOPOGRAPHIC INFORMATION IS TAKEN FROM A TOPOGRAPHIC SURVEY BY LAND SURVEYORS. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
16. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH GOVERNING SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
17. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
18. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT, UNLESS OTHERWISE NOTED.
19. CONTRACTOR TO MAINTAIN 1.5% MAXIMUM CROSS-SLOPE ON ALL SIDEWALKS AND CROSSWALKS. CONTRACTOR TO MODIFY PAVEMENT GRADES AS NECESSARY TO MAINTAIN MAXIMUM CROSS-SLOPE IN CROSSWALKS.
20. CONTRACTOR TO PROVIDE POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES WITH 2% MINIMUM SLOPE IN PERVIOUS AREAS AND 1.5% MINIMUM SLOPE IN PAVED AREAS UNLESS OTHERWISE NOTED.
21. FOLLOWING DEMOLITION, CLEARING/GRUBBING OPERATIONS, DESIGN CUTS, AND ADDITIONAL CUTTING TO REMOVE UNSUITABLE CONDITIONS AND PRIOR TO FILL PLACEMENT AND NEW CONSTRUCTION, THE ENTIRE SITE SHOULD BE PROOF-COMPACTED WITH MULTIPLE PERPENDICULAR PASSES OF A LARGE (15-TONSTATIC WEIGHT) VIBRATORY ROLLER TO COMPACT LOOSE, NEAR SURFACE SOILS. HOWEVER, DEPENDING ON THE GROUNDWATER LEVEL AT THE TIME OF CONSTRUCTION, IT MAY BE NECESSARY TO OPERATE THE ROLLER IN STATIC MODE IN ORDER TO MINIMIZE DRAWING WATER UP THROUGH THESE TYPICALLY GRANULAR SOIL TYPES LOOSE, SOFT, WET OR UNSTABLE SOILS IDENTIFIED DURING THE PROOF-COMPACTION SHOULD BE EXCAVATED TO AN ACCEPTABLE BEARING STRATUM AS DETERMINED BY A PSI REPRESENTATIVE. IF PRESENT, ABANDONED FOUNDATIONS, SLABS AND UTILITIES SHOULD BE REMOVED ENTIRELY BELOW THE PROPOSED BUILDING AND PAVEMENT AREAS. ANY REQUIRED BACKFILL OR NEW FILL SHOULD COMPLY WITH SECTION 3.3 STRUCTURAL FILL MATERIAL AND PLACEMENT. THE PLACEMENT OF A GEOTEXTILE AND/OR COARSE GRADED STONE MAY BE REQUIRED TO STABILIZE THE UNDERCUT
22. CONTRACTOR TO ADD WATERPROOFING AT ALL LOCATIONS WHERE THE EXTERIOR GRADE IS PROPOSED ABOVE THE FINISHED FLOOR ELEVATION. CONTRACTOR TO COORDINATE WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION.

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SITE LOCATION

1574 WOODBURY AVENUE, PORTSMOUTH, NH 03801

ENGINEER SEAL

STATE OF NEW HAMPSHIRE
THOMAS C. PICKERING
No. 10218
LICENSED PROFESSIONAL ENGINEER
08/10/2020

SHEET TITLE

GRADING PLAN

JOB #:	JPM.27086
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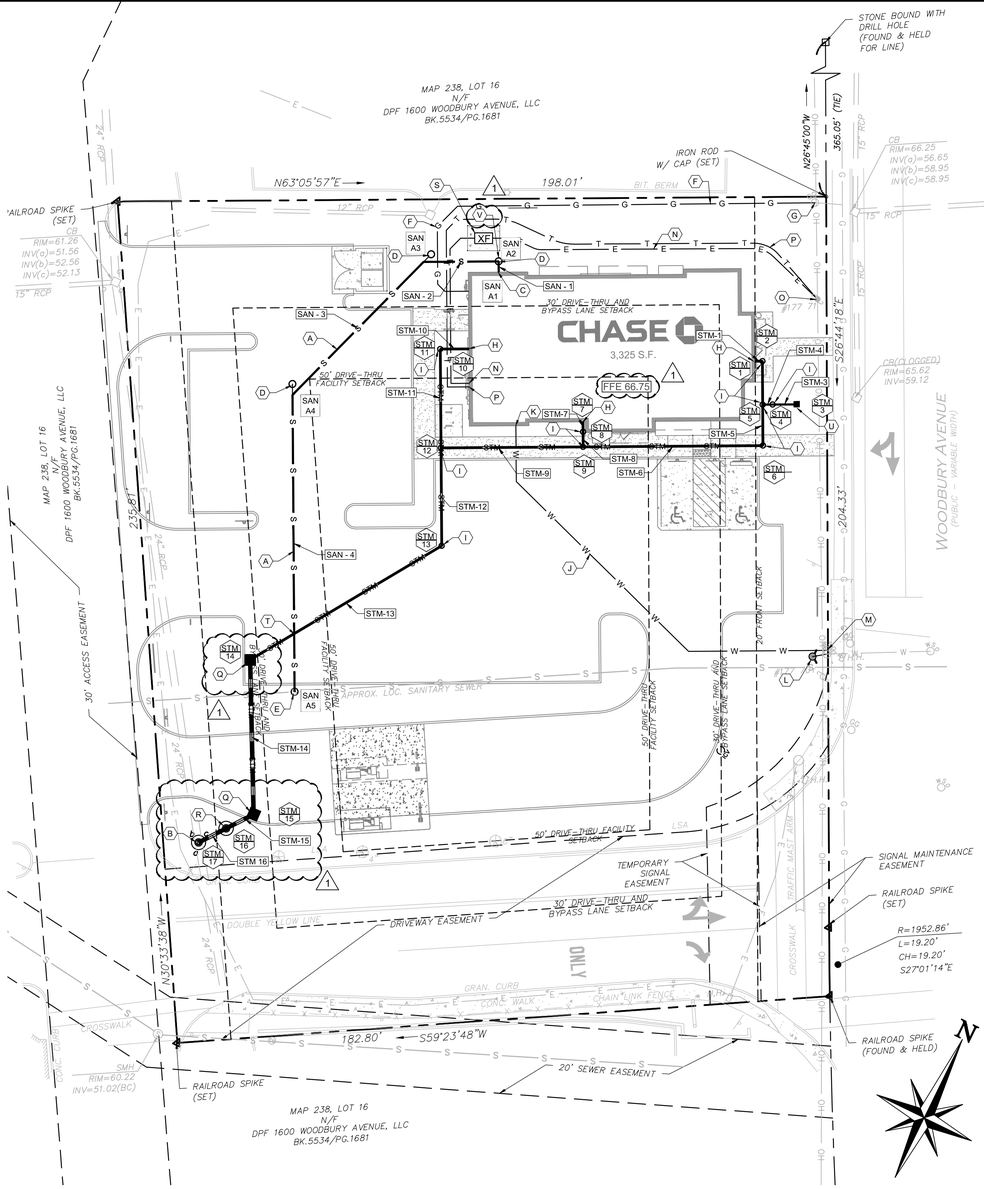
C-3

User: MLEWIS Plot Date/Time: Aug. 11, 20 - 12:38:59 Drawing: C:\Users\mlewis\appdata\local\temp\AcPublish_2864\JPM.27086-P-SITE.dwg |C3-GRADING



UTILITY PLAN

SCALE 1" = 20'

GRAPHIC SCALE

20 10 5 0 20

1" = 20'

GENERAL NOTES:

1. THIS PROJECT REFERENCES A SURVEY PREPARED BY:

EXISTING CONDITIONS SURVEY
CHASE BANK SITE
1574 WOODBURY AVENUE
PORTSMOUTH, NH
ALLEN & MAJOR ASSOCIATES, INC,
DATED 06/23/2020

UTILITY KEY NOTES:

A. PROPOSED 6" SDR 26 PVC SANITARY SEWER LINE AT A MINIMUM OF 2.0% SLOPE.
B. PROPOSED STORM DOGHOUSE MANHOLE. REFER TO CONSTRUCTION DETAILS SHEET CD-2.
C. PROPOSED SANITARY LATERAL CONNECTION TO PROPOSED BUILDING. REFER TO ARCHITECTURAL PLANS FOR DETAILS.
D. PROPOSED SANITARY SEWER CLEANOUT. REFER TO CONSTRUCTION DETAILS SHEET CD-2.
E. PROPOSED WYE CONNECTION TO EXISTING SEWER MAIN. CONTRACTOR TO VERIFY LOCATION PRIOR TO COMMENCING OF PROPOSED WORK.
F. PROPOSED GAS SERVICE LINE. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY PRIOR TO INSTALLATION.
G. PROPOSED GAS CONNECTION TO EXISTING GAS VALVE. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY TO VERIFY IF EXISTING CONNECTION IS ADEQUATE.
H. PROPOSED 6" PVC UNDERGROUND ROOF DRAIN.
I. PROPOSED STORM DRAIN CLEAN OUT.
J. PROPOSED 1-1/2" WATER SERVICE LINE.
K. PROPOSED WATER SERVICE CONNECTION TO BUILDING.
L. PROPOSED FIRE HYDRANT TO BE INSTALLED PER TOWNSHIP REQUEST.
M. PROPOSED WATER SERVICE CONNECTION TO EXISTING WATER VALVE. CONTRACTOR TO DETERMINE SIZE OF EXISTING SERVICE AND COORDINATE WITH UTILITY COMPANY PRIOR TO COMMENCING OF WORK.
N. PROPOSED ELECTRICAL CONDUITS.
O. PROPOSED ELECTRICAL POINT OF CONNECTION AT EXISTING POWER POLE. CONTRACTOR TO VERIFY IF SERVICE PROVIDED AT POWER POLE IS ADEQUATE FOR THE PROPOSED BUILDING. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY PRIOR TO COMMENCING ANY WORK.
P. PROPOSED DATA CONDUITS.
Q. PROPOSED STORM DRAIN INLET. REFER TO CONSTRUCTION DETAILS SHEET CD-3.
R. PROPOSED WATER QUALITY CDS UNIT BY CONTECH. REFER TO CONSTRUCTION DETAILS SHEET CD-2.
S. PROPOSED ELECTRICAL TRANSFORMER AND CONCRETE PAD. REFER TO LIGHTING PLANS FOR DETAIL.
T. PROPOSED SANITARY AND STORM CROSSING.
TOP OF SANITARY PIPE = 57.34'
BOTTOM OF STORM PIPE = 58.97'
U. PROPOSED 12-INCH YARD DRAIN. REFER TO CONSTRUCTION DETAILS SHEET CD-3.
V. PROPOSED SANITARY VERTICAL DROP CONNECTION TO BUILDING. SEE DETAIL ON SHEET CD-2.

UTILITY LEGEND

- EXISTING PROPERTY BOUNDARY LINE
- EXISTING ADJOINING PROPERTY LINE
- EXISTING ROAD CENTERLINE
- PROPOSED ROAD CENTERLINE
- PROPOSED DITCH CENTERLINE
- PROPOSED LIMITS OF BMP / DETENTION
- EXISTING CURB
- PROPOSED CURB
- PROPOSED MOUNTABLE
- PROPOSED BUILDING
- PROPOSED CONCRETE
- PROPOSED WATER STRUCTURES
- PROPOSED STORM STRUCTURES
- PROPOSED SANITARY STRUCTURES
- EXISTING SANITARY STRUCTURES
- EXISTING WATER STRUCTURES
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING UNDERGROUND ELECTRIC
- EXISTING TELEPHONE
- EXISTING OVERHEAD WIRES
- EXISTING SANITARY
- EXISTING STORM
- PROPOSED STORM PIPE
- PROPOSED WATER
- PROPOSED SANITARY
- PROPOSED COMMUNICATIONS LINE
- PROPOSED ELECTRIC
- PROPOSED GAS

SANITARY STRUCTURE TABLE

STRUCTURE NAME	STRUCTURE TYPE	RIM	UPSTREAM PIPE NAME	UPSTREAM PIPE INV	DOWNSTREAM PIPE NAME	DOWNSTREAM PIPE INV	DOWNSTREAM PIPE LENGTH	DOWNSTREAM PIPE SIZE AND TYPE	DOWNSTREAM PIPE SLOPE
A1	BUILDING STUB	65.45			SAN - 1	63.75'	3.00'	6" SDR 26 PVC	2.00%
A2	SANITARY VERTICAL DROP CONNECTION DETAIL	65.27	SAN - 1	63.69'	SAN - 2	59.62'	20.98'	6" SDR 26 PVC	2.00%
A3	45° BEND	64.87	SAN - 2	59.20'	SAN - 3	59.20'	52,17'	6" SDR 26 PVC	2.00%
A4	45° BEND	63.37	SAN - 3	58.16'	SAN - 4	58.16'	83.03'	6" SDR 26 PVC	2.00%
A5	EXISITING LATERAL TIE-IN	62.19	SAN - 4	56.50'					

STORM STRUCTURE TABLE

STRUCTURE NAME	STRUCTURE TYPE	RIM	UPSTREAM PIPE NAME	UPSTREAM PIPE INV	DOWNSTREAM PIPE NAME	DOWNSTREAM PIPE INV	DOWNSTREAM PIPE LENGTH	DOWNSTREAM PIPE SIZE AND TYPE	DOWNSTREAM PIPE SLOPE
1	BUILDING STUB	66.74			STM-1	63.54'	2.02'	6" PVC	8.64%
2	CO	66.72	STM-1	63.37'	STM-2	63.37'	12.15'	6" PVC	0.89%
3	PROPOSED AREA DRAIN	65.78			STM-3	64.50'	6.65'	4" PVC	1.00%
4	CLEANOUT	66.22	STM-3	64.43'	STM-4	64.43'	2.79'	4" PVC	42.19%
5	WYE BEND	66.38	STM-2 STM-4	63.26' 63.26'	STM-5	63.26'	11.46'	6" PVC	2.96%
6	CO	66,21	STM-5	62.92'	STM-6	62.92'	50,25'	6" PVC	2.50%
7	BUILDING STUB	66.74			STM-7	63.22'	2.82'	6" PVC	2.50%
8	CO	66,72	STM-7	63.15'	STM-8	63.15'	4.21'	6" PVC	35.45%
9	CO	66.65	STM-6 STM-8	61.66' 61.66'	STM-9	61.66'	39.74'	6" PVC	2.50%
10	BUILDING STUB	65.78			STM-10	62.49'	7.99'	6" PVC	2.50%
11	CO	65,60	STM-10	62,29'	STM-11	62.29'	27.61'	6" PVC	5,86%
12	CO	65.45	STM-9 STM-11	60,67' 60.67'	STM-12	60.67'	27.38'	6" PVC	2.50%
13	CO	63.92	STM-12	59.98'	STM-13	59.98'	62.32'	6" PVC	2.09%
14	PROP CURB INLET	61.21	STM-13	58.68'	STM-14	57.68'	43,18'	12" HDPE	1.32%
15	PROP CURB INLET	61.07	STM-14	57,11'	STM-15	57.11'	8.65'	12" HDPE	1.50%
16	PROP CDS UNIT	61.58	STM-15	56.98'	STM 16	56.98'	8.65'	12" HDPE	1.50%
17	PROP DOGHOUSE MANHOLE	61.13	STM 16	56,85'					

ALERT TO CONTRACTOR:

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UTILITY NOTES:

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND / OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING COMPLETE OR EXACT. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

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REVISIONS

REV	DATE	COMMENT	BY
1	8/10/2020	PER TAC COMMENTS	MAL

DOCUMENT

SITE PLAN APPROVAL FOR CHASE BANK

SITE LOCATION

1574 WOODBURY AVENUE, PORTSMOUTH, NH 03801

ENGINEER SEAL

STATE OF NEW HAMPSHIRE
THOMAS C. PICKERING
No. 19218
LICENSED PROFESSIONAL ENGINEER
08/10/2020

SHEET TITLE

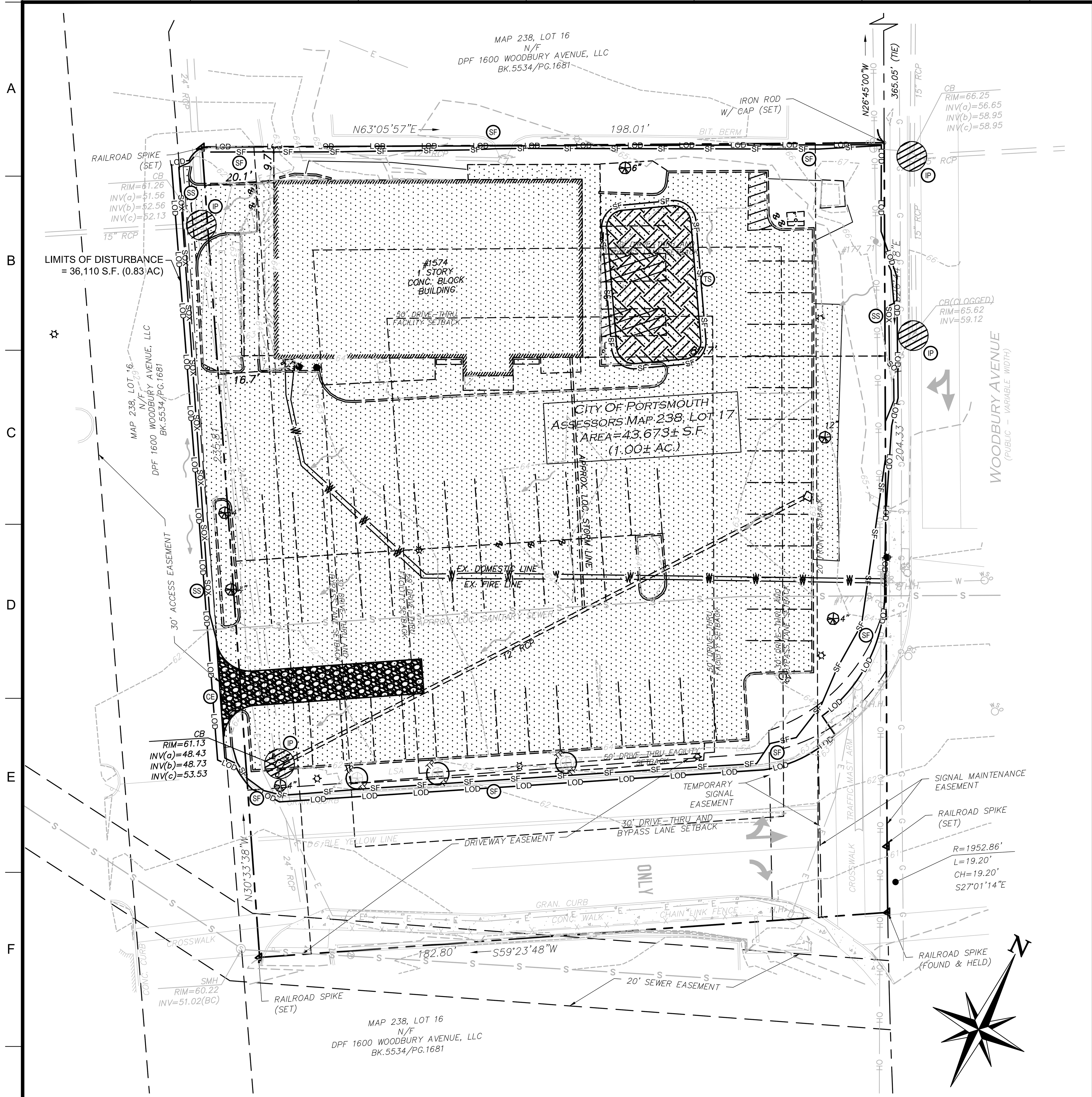
UTILITY PLAN

JOB #:	JPM.27086
DATE:	07/01/2020
SCALE:	AS NOTED
DRAWN BY:	MAL
CHECKED BY:	KGF

SHEET NO.

C-4

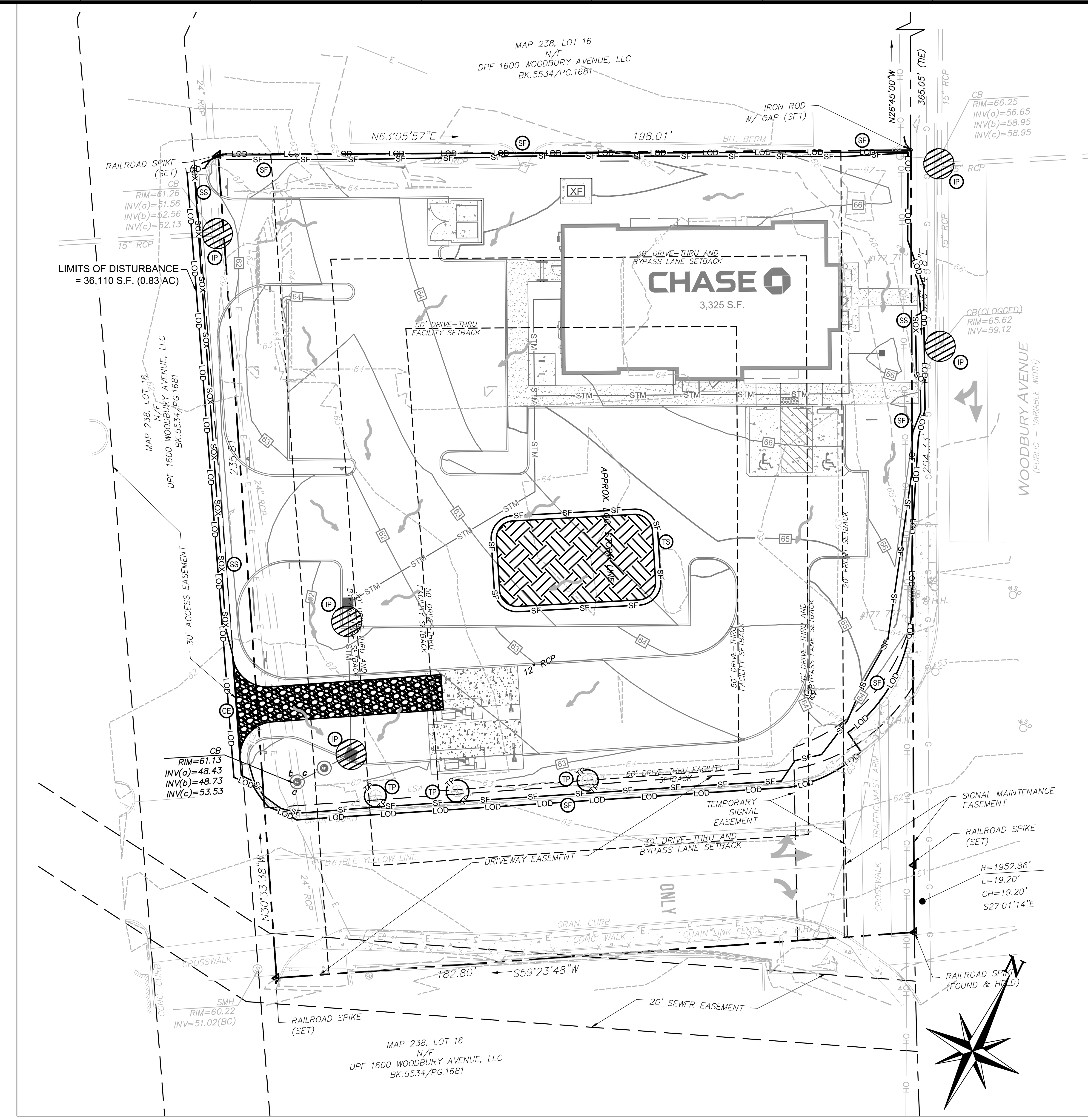
User: MLEWIS Plot Date/Time: Aug. 11, 20 - 14:45:53 Drawing: P:\J.P. Morgan Chase\Portsmouth, NH (1574 Woodbury Avenue) OV\P# 38100P322370 - JPM.27086\CIVIL\Drawings\Presentation\JPM.27086-P-SITE.dwg /C4-UTIL



EROSION & SEDIMENT CONTROL PLAN PHASE I

SCALE 1" = 20'

GRAPHIC SCALE 1" = 20'



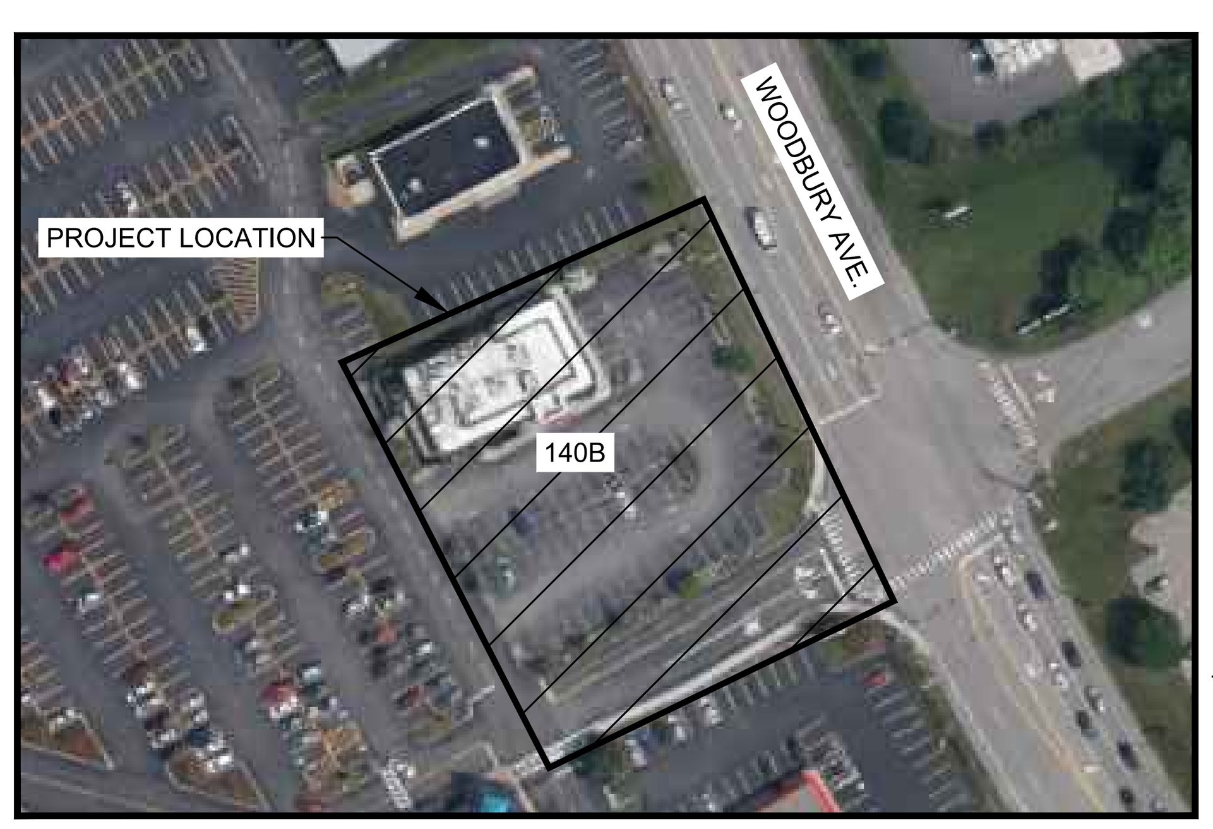
EROSION AND SEDIMENT CONTROL PLAN PHASE II

SCALE 1" = 20'

GRAPHIC SCALE 1" = 20'

SOIL SUITABILITY AND CHARACTERISTICS

DESIGNATION	SOIL	HYDROLOGIC SOIL GROUP	DESCRIPTION
140B	CHATFIELD-HOLLIS-CANTON COMPLEX, 0 TO 8 PERCENT SLOPES, ROCKY	B	CHATFIELD, VERY STONY, AND SIMILAR SOILS: 35 PERCENT HOLLIS, VERY STONY, AND SIMILAR SOILS: 25 PERCENT CANTON, VERY STONY, AND SIMILAR SOILS: 25 PERCENT MINOR COMPONENTS: 15 PERCENT



SOILS MAP

1" = 100'

GENERAL NOTES:

1. THIS PROJECT REFERENCES A SURVEY PREPARED BY:

EXISTING CONDITIONS SURVEY
CHASE BANK SITE
1574 WOODBURY AVENUE
PORTSMOUTH, NH
ALLEN & MAJOR ASSOCIATES, INC,
DATED 06/23/2020

ALERT TO CONTRACTOR:

PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OF THE DRY UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM ENGINEER AND THE OWNER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. ENGINEER AND OWNER SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.

SEQUENCE OF CONSTRUCTION:

PHASE I

1. INSTALL TEMPORARY CONSTRUCTION ENTRANCE, TEMPORARY INLET PROTECTION(S), SILT SOXX AND SILT FENCE.
2. DEMOLISH EXISTING SITE FEATURES TO INSTALL ROCK CONSTRUCTION ENTRANCE.
3. BEGIN REMOVAL OF EXISTING BUILDING AND ON-SITE FOUNDATIONS.
4. BEGIN DEMOLITION ACTIVITIES HARDSCAPE REMOVAL AND EXISTING UTILITIES DEMOLITION.
5. BEGIN CONSTRUCTION OF NEW CHASE BANK BUILDING.

PHASE II

1. TEMPORARILY SEED OR MULCH, THROUGHOUT CONSTRUCTION, DENUDED AREAS THAT WILL BE INACTIVE FOR 7 DAYS OR MORE.
2. INSTALL SUBSURFACE UTILITIES PROPOSED TO SERVE NEW CHASE BANK BUILDING AND PROPOSED STORM DRAINAGE.
3. CONTINUE WITH BALANCE OF EARTHWORK ACTIVITIES AND COMPLETE ROUGH GRADING TO ACHIEVE GRADES PROPOSED ON PLANS.
4. INSTALL CURB AND PAVEMENT SUBBASE.
5. PERMANENTLY STABILIZE AREAS TO BE VEGETATED AS THEY ARE BROUGHT TO FINAL GRADE.
6. PREPARE SITE FOR PAVING.
7. PAVE SITE AND INSTALL SIGNAGE.
8. COMPLETE GRADING AND INSTALLATION OF PERMANENT STABILIZATION OVER ALL AREAS.
9. CALL ENGINEER OF RECORD AFTER THE SITE APPEARS TO BE FULLY STABILIZED FOR AN INSPECTION.
10. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER APPROVAL OF THE ENGINEER OF RECORD AND STABILIZE ANY AREAS DISTURBED BY THE REMOVAL OF THE BMP.
11. CONTINUE DAILY INSPECTION REPORTS UNTIL THE FINAL DAILY INSPECTION IS SIGNED OFF BY THE OWNER THAT THE SITE IS FULLY STABILIZED AND THE PERMIT MAY BE TERMINATED.

NOTE: THE GENERAL CONTRACTOR MAY COMPLETE CONSTRUCTION-RELATED ACTIVITIES CONCURRENTLY ONLY IF ALL PRECEDING BMPS HAVE BEEN COMPLETELY INSTALLED.

MAINTENANCE NOTES:

ALL MEASURES STATED ON THIS PLAN SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION SHALL BE REPAIRED TO THEIR ORIGINAL CONDITION IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE INLET PROTECTION WHEN CLOGGING BECOMES APPARENT.
2. SILT SOXX AND SILT FENCE SHALL BE REPAIRED OR REPLACED TO THEIR ORIGINAL CONDITION IF DAMAGED.
3. ALL CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THROUGH THE CONSTRUCTION ENTRANCE TO BE INSTALLED FOR THE DURATION OF CONSTRUCTION ACTIVITIES.

E&S LEGEND

- SOX (SS) SILT SOXX
- SF (SF) SILT FENCE
- TP (TP) TREE PROTECTION
- (IP) INLET PROTECTION
- (TS) TOPSOIL STOCKPILE
- CONSTRUCTION ENTRANCE
- LOD LIMITS OF DISTURBANCE

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REVISIONS

REV	DATE	COMMENT	BY
1	8/10/2020	PER TAC COMMENTS	MAL

DOCUMENT

SITE PLAN APPROVAL FOR CHASE BANK

SITE LOCATION

1574 WOODBURY AVENUE, PORTSMOUTH, NH 03801

ENGINEER SEAL

STATE OF NEW HAMPSHIRE — THOMAS C. PICKERING No. 10218 LICENSED PROFESSIONAL ENGINEER

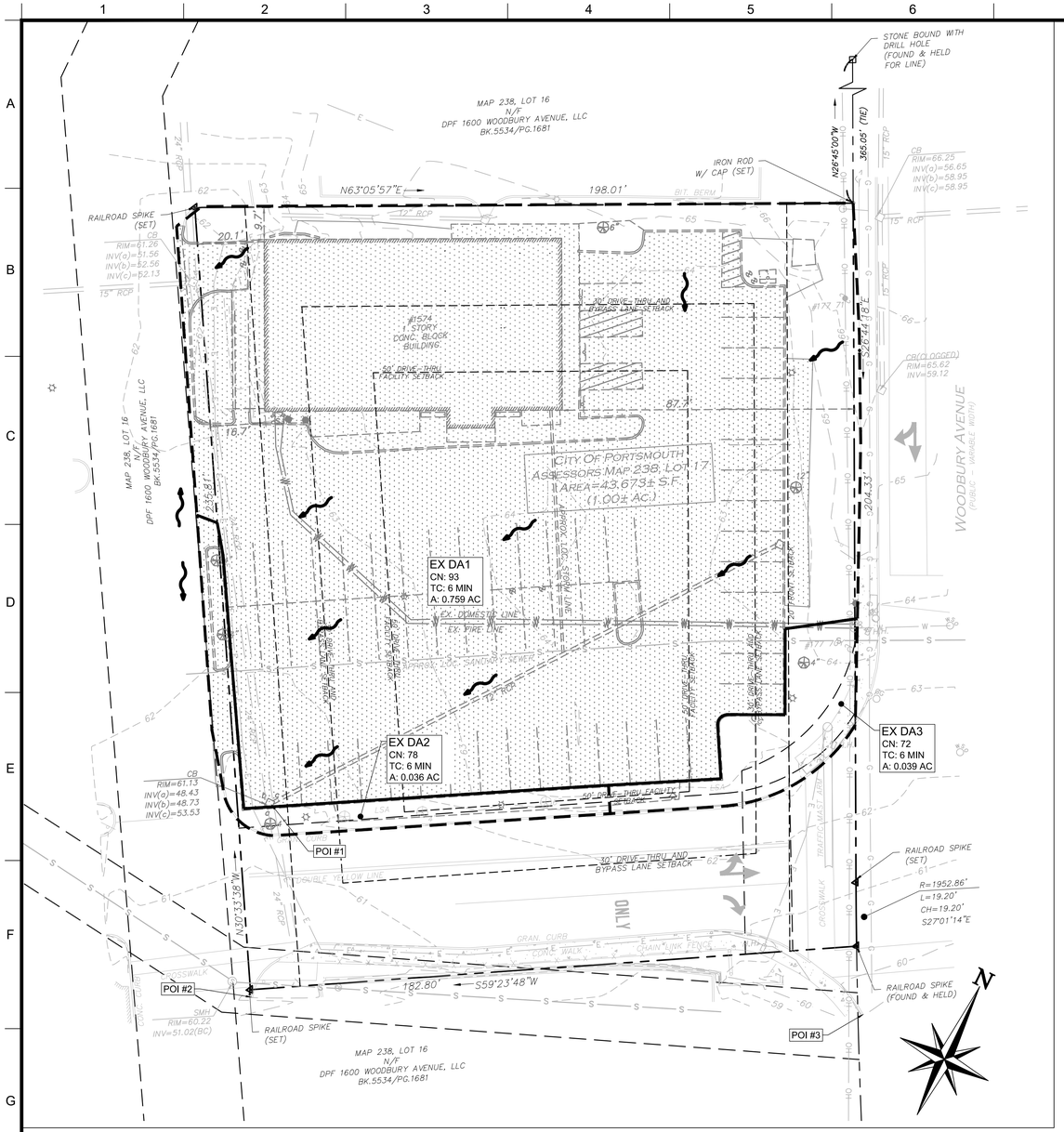
SHEET TITLE

SOIL EROSION AND SEDIMENT CONTROL

JOB #:	JPM.27086
DATE:	07/01/2020
SCALE:	AS NOTED
DRAWN BY:	MAL
CHECKED BY:	KGF

SHEET NO.

C-5



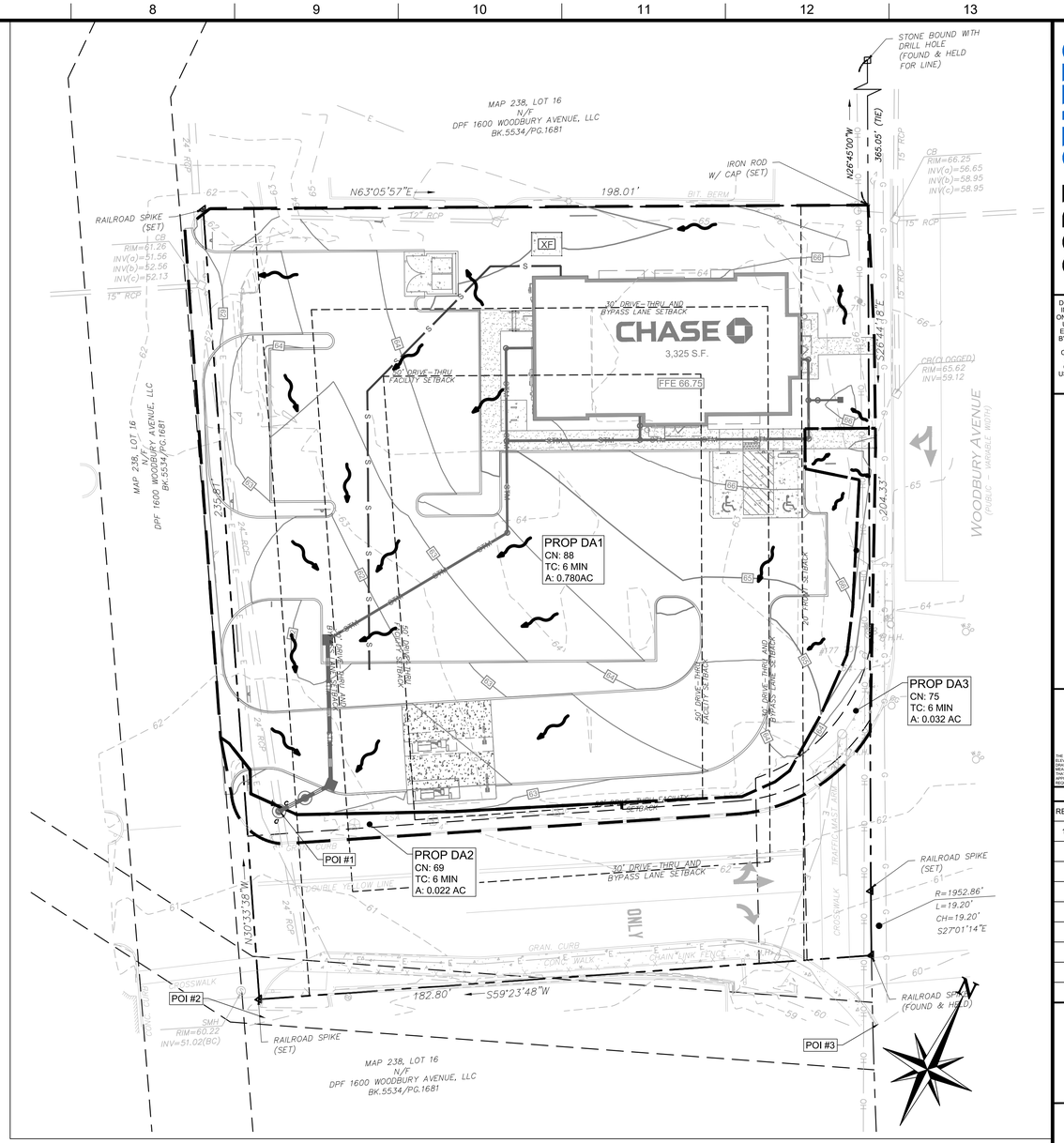
PRE-DEVELOPMENT DRAINAGE AREA MAP

SCALE 1" = 20'

GRAPHIC SCALE

20 10 5 0 20

1" = 20'



POST-DEVELOPMENT DRAINAGE AREA MAP

SCALE 1" = 20'

GRAPHIC SCALE

20 10 5 0 20

1" = 20'

GENERAL NOTES:

1. THIS PROJECT REFERENCES A SURVEY PREPARED BY:

EXISTING CONDITIONS SURVEY
CHASE BANK SITE
1574 WOODBURY AVENUE
PORTSMOUTH, NH
ALLEN & MAJOR ASSOCIATES, INC,
DATED 8/28/19

ALERT TO CONTRACTOR:

PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OF THE DRY UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM ENGINEER AND THE OWNER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. ENGINEER AND OWNER SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.

EX-DA 1

IMPERVIOUS (CN 98) = 27,143 SQUARE FEET
PERVIOUS (CN 69) = 5,919 SQUARE FEET
TOTAL (CN 93) = 33,062 SQUARE FEET (0.759 AC)

EX-DA 2 (BYPASS)

IMPERVIOUS (CN 98) = 495 SQUARE FEET
PERVIOUS (CN 69) = 1,064 SQUARE FEET
TOTAL (CN 78) = 1,559 SQUARE FEET (0.036 AC)

EX-DA 3 (BYPASS PROW)

IMPERVIOUS (CN 98) = 171 SQUARE FEET
PERVIOUS (CN 69) = 1,515 SQUARE FEET
TOTAL (CN 72) = 1,686 SQUARE FEET (0.039 AC)

PROP-DA 1

IMPERVIOUS (CN 98) = 22,846 SQUARE FEET
PERVIOUS (CN 69) = 11,114 SQUARE FEET
TOTAL (CN 88) = 33,960 SQUARE FEET (0.780 AC)

PROP-DA 2 (BYPASS)

IMPERVIOUS (CN 98) = 0 SQUARE FEET
PERVIOUS (CN 69) = 919 SQUARE FEET
TOTAL (CN 69) = 958 SQUARE FEET (0.022 AC)

PROP-DA 3 (BYPASS PROW)

IMPERVIOUS (CN 98) = 297 SQUARE FEET
PERVIOUS (CN 69) = 1,097 SQUARE FEET
TOTAL (CN 75) = 1,394 SQUARE FEET (0.032 AC)

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REVISIONS

REV	DATE	COMMENT	BY
1	8/10/2020	PER TAC COMMENTS	MAL

DOCUMENT

SITE PLAN APPROVAL FOR CHASE BANK

SITE LOCATION

1574 WOODBURY AVENUE, PORTSMOUTH, NH 03801

ENGINEER SEAL

STATE OF NEW HAMPSHIRE
THOMAS C. PICKERING No. 10218
LICENSED PROFESSIONAL ENGINEER
08/10/2020

SHEET TITLE

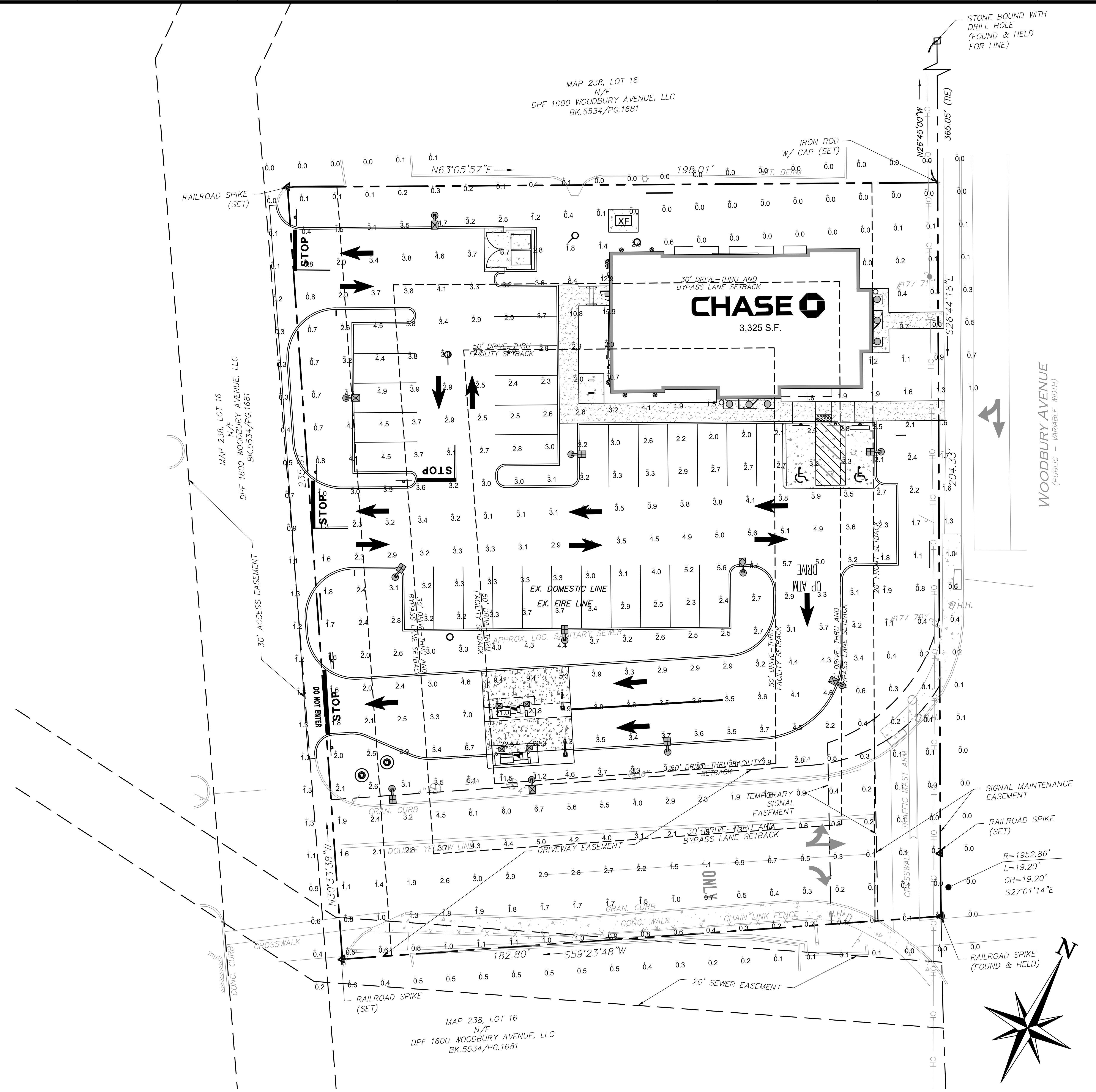
DRAINAGE AREA MAP

JOB #:	JPM.27086
DATE:	07/01/2020
SCALE:	AS NOTED
DRAWN BY:	MAL
CHECKED BY:	KGF

SHEET NO.

C-6

User: MLEWIS Plot Date/Time: Aug. 11, 20 - 12:39:16 Drawing: C:\Users\mlewis\appdata\local\temp\AcPublish_2864\JPM.27086-P-SITE.dwg \06-DRAIN



LIGHTING PLAN MEASURED AT 3-FT

SCALE 1" = 20'

GRAPHIC SCALE

20 10 5 0 20

1" = 20'

LUMINAIRE SCHEDULE

SYMBOL	MANUFACTURER	MODEL	CATALOG	QTY	DISTRIBUTION	MOUNT HT.
	COOPER LIGHTING	GLEON GALLEON LED	GLEON-AF-02-LED-E1-5WQ-7030	6	TYPE 5	20'-0"
	COOPER LIGHTING	GLEON GALLEON LED	GLEON AF-02-E1-SL4-7030	4	TYPE 4	20'-0"
	COOPER LIGHTING	GLEON GALLEON LED	GLEON-AF-02-E1-SL4-7030-HSS	1	TYPE 4	20'-0"
	CREE LIGHTING	LED SQUARE CANOPY	C-CP-A-SQ-49L-50K-DB	4	TYPE 5	9'-10"
	AMERLUX	HORNET HP	HDL-HP-R-NC-A17-T-16-120-0-10V/HDL-HP-RL	6	TYPE 5	9'-10"
	EATON	LANTERRA 9004	9004-W2-RW-LED-3090-W-BK-L1-UNV	6	TYPE 5	9'-10"
	LUMARK	XTOR CROSSTOUR LED	XTOR6B-W-BZ-MS/DIM-L20-CBP	1	TYPE 4	12'-0"

CALCULATION SUMMARY

AREA	AVERAGE	MAX	MIN
PROPERTY ANALYSIS MEASURED @ 3 FT	2.79 fc	22.4 fc	0.0 fc

LIGHTING NOTES

1. LIGHT ANALYSIS CONDUCTED AT 3-FEET ABOVE FINISHED GRADE.
2. MOUNTING HEIGHT OF THE SITE LIGHT FIXTURES ARE MEASURED FROM FINISH ASPHALT GRADE.
3. ALL PROPOSED FIXTURES ON TIMER TO OPERATE DURING NIGHT TIME HOURS, 30 MINUTES AFTER SUNSET AND 30 MINUTES BEFORE SUNRISE.
4. CONTRACTOR TO INSTALL FIXTURE ON COPPER LIGHTING POLE RSS-6-A-XX-S-Y-N-XX. MOUNT HEIGHTS ARE BASED ON HEIGHT ABOVE FINISHED ASPHALT GRADE.

LIGHTING LEGEND

- EXISTING PROPERTY BOUNDARY LINE
- EXISTING ADJOINING PROPERTY LINE
- EXISTING ROAD CENTERLINE
- EXISTING CURB
- PROPOSED CURB
- 1.9 FOOTCANDLE CALCULATION POINT
- PROPOSED SITE LIGHT FIXTURE
- EXISTING LIGHT FIXTURES

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REVISIONS

REV	DATE	COMMENT	BY
1	8/10/2020	PER TAC COMMENTS	MAL

DOCUMENT

SITE PLAN APPROVAL FOR CHASE BANK

SITE LOCATION

1574 WOODBURY AVENUE, PORTSMOUTH, NH 03801

ENGINEER SEAL

STATE OF NEW HAMPSHIRE THOMAS C. PICKERING No. 10218 LICENSED PROFESSIONAL ENGINEER 08/11/2020

SHEET TITLE

LIGHTING PLAN

JOB #:	JPM.27086
DATE:	07/01/2020
SCALE:	AS NOTED
DRAWN BY:	MAL
CHECKED BY:	KGF

SHEET NO.

C-7

McGraw-Edison

GLEON
GALLEON LED

1-10 Light Squares
Solid State LED

AREA/SITE LUMINAIRE

Catalog #		Type
Project		
Comments		Date
Prepared by		

DESCRIPTION

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated and UL/cUL Listed for wet locations.

SPECIFICATION FEATURES

Construction
Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, die-cast aluminum end caps enclose housing and die-cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested and rated. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

Optics
Patented, high-efficiency injection-molded AccuLED Optics technology. Optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT 70 CRI. Optional 3000K, 5000K and 6000K CCT.

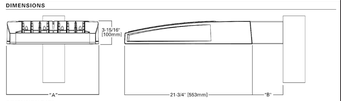
Electrical
LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480Y Wye systems only. Standard with 0-10V dimming. Skipped standard with Eaton proprietary circuit module designed to withstand 10kV of transient line surge. The Galleon LED luminaire is suitable for operation in -40°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option. Light Squares are IP66 rated. Greater than 90% lumen maintenance expected at 60,000 hours. Available in standard TA drive current and optional 800mA, 800mA and 1200mA drive currents (nominal).

Mounting
STANDARD ARM MOUNT:
Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during mounting. When mounting two or more luminaires at 90° and 120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table. Round pole adapter included. For wall mounting, specify wall mount bracket option. QUICK MOUNT ARM: Adapter is bolted directly to the pole. Quick mount arm slide into place on the adapter and is secured via two screws, facilitating quick and easy installation. The versatile, patent pending, quick mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8". Removal of the door on the quick mount arm enables wiring of the fixture without having to access the driver compartment. A knock-out enables round pole mounting.

Finish
Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is powder coated black. Standard housing colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.

Warranty
Five-year warranty.

DIMENSIONS

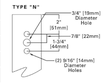


DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length †	Weight with Arm (lbs.)	EPA with Arm ‡ (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	33 (15.0 kgs.)	0.96
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	44 (20.0 kgs.)	1.00
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	54 (24.5 kgs.)	1.07
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	63 (28.6 kgs.)	1.12

NOTES: 1. Optional arm length to be used when mounting two fixtures at 90° on a single pole. 2. EPA calculated with optional arm length.

DRILLING PATTERN



CERTIFICATION DATA

UL/cUL Wet Location Listed
ISO 9001
LM79 / LM80 Compliant
3G Vibration Rated
IP66 Rated
DesignLights Consortium™ Qualified*

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120V-277V 50/60Hz
347V & 480V 60Hz
-40°C Min. Temperature
40°C Max. Temperature
50°C Max. Temperature (HA Option)

*www.designlights.org

TD500020EN
2016-09-28 15:31:55

Steel Poles

RSS ROUND
STRAIGHT STEEL

Catalog #		Type
Project		
Comments		Date
Prepared by		

FEATURES

- ASTM Grade steel base plate with ASTM A366 base cover
- Hand hole assembly 3" x 5" on 5' and 6' poles, 2" x 4" on 4' poles
- 10'-30' mounting heights
- Drilled or tenon (specify)

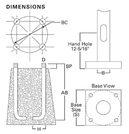
ORDERING INFORMATION

SAMPLE NUMBER: RSS6A20SF2XG

Product Family	Shaft Size (Inches) †	Wall Thickness (Inches)	Mounting Height (Feet)	Base Type	Finish	Mounting Type	Number and Location of Arms	Options (Add as Suffix)
RSS—Round-Straight Steel	4=4" 5=5" 6=6"	A=0.120" M=0.188"	10=10' 15=15' 20=20' 25=25' 30=30'	S=Square Steel Base	P=Dark Bronze G=Galvanized Steel A=Summit White K=Custom Bronze L=Light Bronze R=Primer Powder Coat H=Hartford Green B=Silver Metallic Graphite Metallic V=Grey W=White X=Custom Color (Kolbus)	2=2-3/8" O.D. Tenon (4" Long) 3=3-1/2" O.D. Tenon (5" Long) 4=4" O.D. Tenon (6" Long) 5=5" O.D. Tenon (6" Long) 6=2-3/8" O.D. Tenon (9" Long) 7=3-1/2" O.D. Tenon (10" Long) A=Type A Drilling C=Type C Drilling E=Type E Drilling F=Type F Drilling J=Type J Drilling J1=Type J Drilling K=Type K Drilling M=Type M Drilling R=Type R Drilling Z=Special/Non-Keyway Arm Z1=Type Z Drilling	1=Single 2=2 at 180° 3=Triple † 4=4 at 90° 5=2 at 90° 6=3 at 90° 7=2 at 120° X=None	A=1/2" Tapped Hub (Specify location desired) B=3/4" Tapped Hub (Specify location desired) E=Convenience Outlet † F=Fusing Convenience Outlet † G=Ground Lug M=Additional Hand Hole * L=Drilled for Bumper Gliter Y=Vibration Dampener

NOTES: 1. All shaft sizes nominal. 2. Square poles are 3 at 90°, round poles are 3 at 120°. 3. Outlet is located 4' above base and on same side of pole as hand hole, unless specified otherwise. Receptacle not included, provision only. 4. Additional hand hole is located 12" below pole top and 90° from standard hand hole location, unless otherwise specified.

DIMENSIONS



WARNING: Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to pole white paper WP513001EN for additional support information. Before installing, make sure proper anchor bolts and templates are obtained. The use of unauthorized accessories such as banners, signs, cameras or pennants for which the pole was not designed voids the pole warranty and may result in pole failure causing serious injury or property damage. Information regarding total loading capacity can be supplied upon request. The pole warranty is void unless poles are used in accordance with the above mentioned limitations. Eaton specifically disclaims any liability for damages caused by improper installations, misuse, unanticipated uses, fatigue failure or similar phenomena resulting from induced vibrations, harmonic oscillation or resonance associated with movement of air currents around the product.

Specifications and dimensions subject to change without notice. Consult your lighting representative at Eaton or visit www.eaton.com/lighting for available options, accessories and ordering information.

TD513015EN
2015-12-09 13:40:09

Lumark

XTOR
CROSSTOUR
MAXX LED

Catalog #		Type
Project		
Comments		Date
Prepared by		

DESCRIPTION

The patented Lumark Crosstour™ MAXX LED wall pack series of luminaries provides low-profile architectural style with super bright, energy-efficient LEDs. The rugged die-cast aluminum construction, back box with secure lock hinges, stainless steel hardware along with a sealed and gasketed optical compartment make Crosstour impervious to contaminants. The Crosstour MAXX wall luminaire is ideal for wall/surface, inverted mount for facade/canopy illumination, perimeter and site lighting. Typical applications include pedestrian walkways, building entrances, multi-use facilities, industrial facilities, perimeter parking areas, storage facilities, institutions, schools and loading docks.

SPECIFICATION FEATURES

Construction
Low-profile LED design with rugged one-piece, die-cast aluminum back box and hinged removable door. Matching housing styles incorporate both a full cutoff and refractive lens design. Full cutoff and refractive lens models are available in 58W, 81W and 102W. Patent pending secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes four 1/2" NPT threaded conduit entry points. The back box is secured by four lag bolts (supplied by others). External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Not recommended for car wash applications.

Optical
Silicone sealed optical LED chamber incorporates a custom engineered reflector providing high-efficiency illumination. Full cutoff models integrate an impact-resistant molded refractive prism optical lens assembly meeting requirements for Dark Sky compliance. Refractive lens models incorporate a molded lens assembly designed for maximum forward throw. Solid state LED Crosstour MAXX luminaries are thermally optimized with eight lumen packages in cool 5000K, neutral 4000K, or warm 3000K LED color temperature (CCT).

Electrical
LED driver is mounted to the die-cast aluminum housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 58W, 81W and 102W models operate in -40°C to 40°C (-40°F to 104°F). High ambient 50°C (122°F) models available in 58W and 81W models only. Crosstour MAXX luminaries maintain greater than 89% of initial light output after 72,000 hours of operation. Four half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized electrical wiring compartment. Integral LED driver compartment incorporates surge protection. 120-277V 50/60Hz, 480Y 60Hz, or 347V 60Hz electrical operation. 480Y is compatible for use with 480Y Wye systems only.

Emergency Egress
Optional integral cold weather battery emergency egress includes emergency operation test switch (available in 58W and 81W models only), an AC-ON indicator light and a premium extended rated sealed maintenance-free nickel-metal hydride battery pack. The separate emergency lighting LEDs are wired to provide redundant emergency lighting. Listed to UL Standard 924, Emergency Lighting.

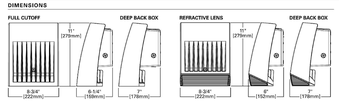
Area and Site Pole Mounting
Optional extruded aluminum 6-1/2" arm features internal bolt guides for supplied twin support rods, allowing for easy positioning of the fixture during installation to pole. Supplied with round plate adapter plate. Optional tenon adapter fits 2-3/8" or 3-1/2" O.D. Tenon.

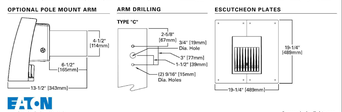
Finish
Crosstour MAXX is protected with a super TGIC carbon bronze or summit white polyester powder coat paint. Super TGIC polyester coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty
Five-year warranty.

APPLICATIONS:
WALL / SURFACE
INVERTED
SITE LIGHTING

DIMENSIONS





*www.designlights.org

CERTIFICATION DATA

UL/cUL Wet Location Listed
LM79 / LM80 Compliant
3G Vibration Tested
NOM Compliant Models
IP66 Rated
DesignLights Consortium® Qualified*

TECHNICAL DATA

40°C Ambient Temperature
External Supply Wiring 90°C Minimum

EPA

Effective Projected Area (Sq. Ft.):
XTOR58, XTOR8B, XTOR12B-0.54
With Pole Mount Arm=0.98

SHIPPING DATA:

Approximate Net Weight:
12-15 lbs. (5.4-6.8 kgs.)

TD514005EN
April 18, 2018 8:58 AM

Hornet® HP

Round Lensed Downlight/
Wall Wash

amerlux
Passion. Power. Performance.

Hornet HP/PLDR/XLW

PROJECT:

TYPE:

Features

Hornet Lensed Downlights are the perfect choice for all general lighting needs. Available in Round or Square apertures, these fixtures meet the needs of commercial and hospitality markets. Optional Solite lensing provides whisper quiet aesthetics. Also available in knife-edge trimless and remodeler. Complementing Hornet Lens Wall Wash fixture available.

Product Overview

Type:	Recessed Round Lensed Downlight/Wall Wash
Wattage:	16,23
Lumen Output:	1,645 max; 72.2 lm/W (3000K optic)
CBCP:	4,746 max (3000K optic)
Color Temp:	2200K, 2700K, 3000K, 3500K, 4000K
CRI:	83 typ.(2700K, 3000K, 3500K, 4000K)
	90+ typ. (2200K, 2700K, 3000K, 3500K, 4000K)
	CrispWhite & 3K Class A available
Dimming:	TRIAC & ELV (120V/277V) - 5% Dim
	Lutron A Series (120V/277V), 3-wire/EcoSystem Hi-lume® - 1% dim
	Lutron H Series (120V/277V), EcoSystem, Hi-lume® - 1% dim with soft on, fade to black
	0-10V (120V/277V) - 1% Dim
	DALI (120V/277V) - 1% Dim

Fixture Type

Round/Square	New Construction	Remodeler	Trim	Trimless
Yes	Yes	Yes	Yes	Yes

See separate spec sheet for Square

Performance Chart

Delivered				Color
Watts	Lumens	LPW	CBCP	Temp
16	1234	77.1	3,190	3000K-83
23	1645	72.2	4,746	3000K-83

Data is based on 3000K 83 El 9 fixture available on website
Data is based on 3000K optic
All wattage and LPW includes 2W thermal protector

Electrical Data

	16W			23W	
	System Watts	Amps		System Watts	Amps
120V	16	0.13		23	0.19
277V	16	0.06		23	0.08

Electronic constant current LED driver
Includes thermal protector, 3W power consumption

LIT-20137 - 03/09/16 - Page 1 of 5

Amerlux reserves the right to change details that do not affect overall function and performance.
Amerlux® | U.S. - 7 Pittsburgh Drive, Oakland, NJ 07436 - P (973) 882-5000 F (973) 882-2606 - amerlux.com

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CLIENT

CHASE

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THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON DESIGN PLANS AND/OR FIELD MEASUREMENTS TAKEN IN THE FIELD. CORE STATES, INC. DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES.

REVISIONS

REV	DATE	COMMENT	BY
1	8/10/2020	PER TAC COMMENTS	MAL

DOCUMENT

SITE PLAN APPROVAL FOR CHASE BANK

SITE LOCATION

1574 WOODBURY AVENUE, PORTSMOUTH, NH 03801

ENGINEER SEAL

SHEET TITLE

LIGHTING DETAILS

JOB #:	JPM.27086
DATE:	07/01/2020
SCALE:	AS NOTED
DRAWN BY:	MAL
CHECKED BY:	KGF

SHEET NO.

C-8

Lumiere

Lanterra 9004

LED
INTERIOR / EXTERIOR
CYLINDER FLOOD LIGHT
CERTIFICATION DATA
cULus - 1598
Wet Location Listed - IP66
LM79/LM80 Compliant
RoHS Compliant
10W LED, L70/102,000 @ 25° Celcius
20W LED, L70/102,000 @ 25° Celcius
30W LED, L70/102,000 @ 25° Celcius

Catalog #		Type
Project		
Comments		Date
Prepared by		

DESCRIPTION

Lanterra 9004-W1 (Up or Down) and 9004-W2 (Up and Down) are 4.25" O.D., line voltage cylinder fixtures with dimmable LED. The luminaire comes in various mountings, surface mount with integral driver in the housing, remote driver mount with round and square wall plates and square wall integral driver, all of which can be mounted over standard 4 inch j-box. The luminaire also comes with various field replaceable optics. It also comes with various lens, louvers and colors or dichroic filters, which can combine up to two at once to create multiple lighting effects. The fixture may be used indoors or outdoors and carries IP66 rating.

SPECIFICATION FEATURES

Material
Housing, hood and mounting stem are precision-machined from corrosion resistant billet stock 6061-T6 aluminum.

Finish
Fixtures constructed from 6061-T6 aluminum are double protected by an ROHS complaint chemical film undercoating and polyester powder coat paint finish, surpassing the rigorous demands of the outdoor environment. A variety of standard colors are available.

Hood
Hood is removable and accepts up to two internal accessories at once (lenses, louvers and filters) to achieve multiple lighting effects. Weep holes prevents water and mineral stains from collecting on the lens, even in the straight up position. The flush lens design reduces fixture length, minimizes debris collection and prevents water and mineral stains from collecting on the lens.

Gasket
Housing and hood are sealed with a high temperature silicone O-ring gasket to prevent water intrusion.

Lens
Tempered glass lens, factory sealed with high temperature silicone O-ring to prevent water intrusion and breakage due to thermal stock.

Hardware
Stainless steel hardware is standard to provide maximum corrosion resistance.

Electrical
Long life LED system coupled with electronic driver (120-277V/50-60Hz) is compatible with TRIAC (Trailing Edge), ELV (Forward phase) and 0-10V dimming to deliver optical performance. Light can be dimmed from 100-1% while maintaining constant CCT. It will operate in -30°C to 50°C unless noted otherwise. The driver incorporates surge protection. LED's are available in 2700K, 3000K, 3500K at 80CRI and 97CRI, 4000K at 80CRI and 97CRI, 5000K at 80CRI and industry leading high output with 87% lumen maintenance at 60,000hrs.

Compliance
Components are UL recognized and luminaires are cULus listed for 50°C ambient environments unless noted otherwise, wet location listed, and ROHS compliant. IP66 Rated. DesignLights Consortium® Qualified and classified for both DLC Standard and DLC Premium, refer to www.designlights.org for details.

Warranty
Lumiere warrants the Lanterra series of fixtures against defects in material and workmanship for five (5) years. Auxiliary equipment such as LED drivers carries the original manufacturer's warranty.

DIMENSIONS

ORDERING INFORMATION

SERIES	DIRECTION	HOOD	LED CCT & CRI	FIELD REPLACEABLE OPTIC 1	FIELD REPLACEABLE OPTIC 2	FINISH	LIGHT LEVEL	VOLTAGE	MOUNTING	OPTIONS
9004	W1 Up or Down W2 Up and Down	RW Standard-Recessed Lens with weep holes - Outdoor RI Recessed Lens with no weep holes - Indoor FL Flush lens hood	**Standard CRI** LCD27K - 2700K, 90 CRI LCD 30K - 3000K, 90 CRI LCD 35K - 3500K, 90 CRI LCD 40K - 4000K, 90 CRI LCD 50K - 5000K, 90 CRI **Premium CRI** LCD 27P - 2700K, 97 CRI LCD 30P - 3000K, 97 CRI LCD 35P - 3500K, 97 CRI LCD 40P - 4000K, 97 CRI	S Spot M Medium Flood F Flood W Wide Flood	S Spot M Medium F Flood W Wide Flood	**Standard Paint Finish** BK Black BZ Bronze CS City Silver WT White	L1 Light Level 1 (1000 Lumens) L2 Light Level 2 (2000 Lumens) L3 Light Level 3 (3000 Lumens)	UNV 120-277V / 60Hz	Surface Mount / Wall, Ceiling, Ground Recet Surface Mount - mounts directly to junction box Thermal Limitations (unless otherwise noted NO) 9004-WT-xxx-L1 no RSM (NC) 9004-WD-xxx-L2 min RSM (NC) 9004-WD-xxx-L3 min RSM (WC) Remote Driver Housing WRD Remote Driver Housing - Round Wall Plate WRS † Remote Driver Housing - Square Wall Plate Thermal Limitations (unless otherwise noted NO) 9004-WT-xxx-L1 no RSM (NC) 9004-WD-xxx-L2 min RSM (NC) 9004-WD-xxx-L3 min RSM (WC) Integral Driver Mount WIS † Wall Integral Driver Plate Thermal Limitations (unless otherwise noted NO) 9004-WT-xxx-L1 no WIS (NC) 9004-WD-xxx-L2 min WIS (NC) 9004-WD-xxx-L3 min WIS (WC)	EVPCP Stainless integral sensor

Notes: 1. Only available for double head option (WD)
2. 9004-WT not available in L3
3. 9004-WS not available in L2, L3
4. Only available for Single head, Up or down (WT) with RSM only
5. WD double head wattage tested
6. Remote Driver distance up to 50', For L2 (2000) remote distance up to 15'

EATON
Powering Business Worldwide

Specifications and dimensions subject to change without notice.

TD506025EN
11-28-18

CYLINDER FLOOD LIGHT

N.T.S.

C-CP-A-SQ-49L Series

LED Square Canopy Light
Replaces 100W PSMH

C-LITE
LED LIGHTING BY CREE

EXTREMELY DURABLE DESIGN WITH AN EFFICACY UP TO 115 LUMENS PER WATT!

PRODUCT SPECIFICATIONS

OVERVIEW

- Initial Delivered Lumens: 4,900
- CRI: > 70
- CCT: Neutral White 4000K, Cool White 5000K
- Input Power: 44 Watts
- Dimmable: No
- Operating Minimum: -40°C (-40°F)
- Lifespan: Estimated >100,000 Hours
- Power Factor: > 0.9
- Total Harmonic Distortion: < 20%
- Limited Warranty: 5 Years*
- Replaces 100W PSMH

PERFORMANCE	DURABLE	RECOMMENDED USE	INPUT VOLTAGE
• Uses 66% less energy than comparable PSMH fixtures • Delivers nearly 25% more light than comparable PSMH fixtures • Type VS distribution pattern	• Polyester powder-coat finish provides corrosion protection for long-lasting color • UV-stabilized lens designed to last	• Security • Entryways • Perimeter Lighting • Exterior canopies	• Universal (120V through 277V Operation)

ORDERING INFORMATION

Example: C-CP-A-SQ-49L-40K-WH

C-CP-A	SQ	49L		
PRODUCT	**STYLE**	**LUMEN PACKAGE**	**CCT**	**COLOR**
C-CP-A	**SQ** Square Canopy	**49L** 4,500 Lumens 44W	**40K** Neutral White (4000K) **50K** Cool White (5000K)	**DB** Dark Bronze **WH** White

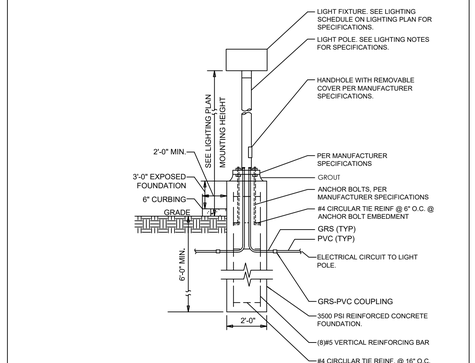
CERTIFICATIONS:

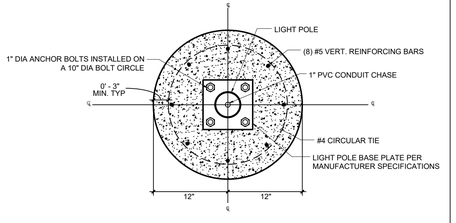
US: **c-lite.com** T (800) 236-8800 F (262) 504 5415 Canada: **www.cree.com/canada** T (800) 473-1234 F (800) 890-7507

Rev. Date: 04 18/11/2018 For informational purposes only. Content is subject to change. *See lighting.cree.com/warranty for details

RECESSED CANOPY LIGHT

N.T.S.

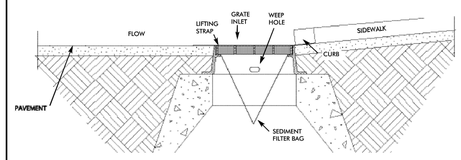




LIGHT POLE DETAIL

N.T.S.

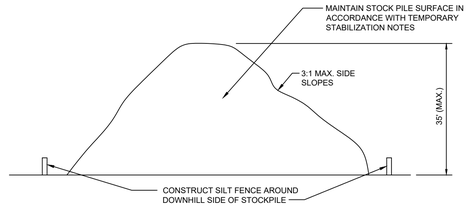
Sediment Filter Bag Grate Inlet Protection Details



SECTION

CONSTRUCTION REQUIREMENTS

1. Remove drainage inlet grate and place sediment filter bag around the frame, replace grate and sediment filter bag in position or follow manufacturer's recommendation. Lifting straps shall be exposed and ready for maintenance procedures.
2. Inspect sediment filter bag weekly and after every rainfall event.
3. Replace, clean or remove sediment filter bag as directed.

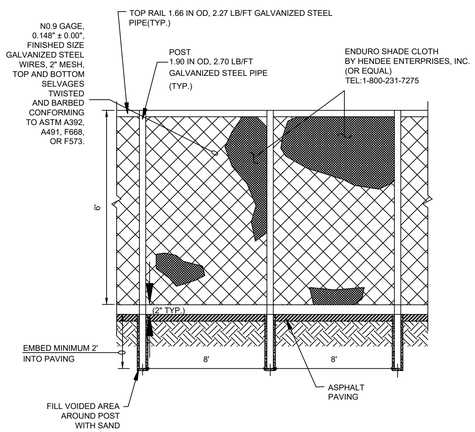


NOTE:

1. CONTRACTOR TO COVER STOCKPILE WHEN NOT IN USE, WITH POLYETHLENE FILM, SECURED BY PLACING SOIL ON OUTER EDGES.

TEMPORARY STOCKPILE DETAIL

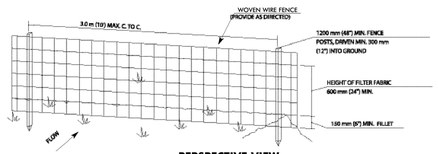
N.T.S.



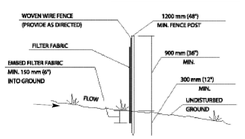
N.T.S.

TEMPORARY CHAIN LINK CONSTRUCTION FENCE

Silt Fence Perimeter Barrier Details



PERSPECTIVE VIEW

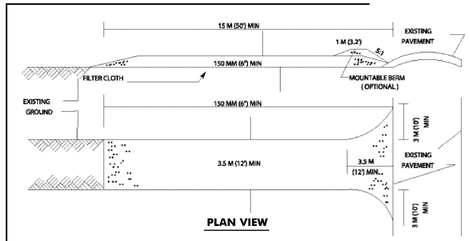


ANCHORING DETAIL

CONSTRUCTION REQUIREMENTS

1. Securely fasten filter fabric and woven wire fence (if provided) to fence posts with wire ties, staples, or other approved methods.
2. Securely fasten filter fabric to the woven wire fence with ties spaced every 600mm (24 in.) at the top, midsection and bottom.
3. When two sections of filter fabric adjoin each other, overlap the sections by 150mm (6 in.), fold, and staple at a post. Securely splice woven wire fence at a post.
4. Place silt fence 1500 mm (5 ft.) beyond the toe of slope or on the contour. At the end of silt fence runs, flare uphill.
5. Provide woven wire fence and/or closer fence post spacing in areas where high runoff volumes are anticipated, or in low spots where sediment will be collected.
6. Remove silt fence, as directed, when no longer needed. Before the silt fence is removed, stabilize with vegetation any sediment which is permitted to remain in place.

Stabilized Construction Entrance Details



CONSTRUCTION REQUIREMENTS

1. Stone Size - Use 37 mm (1 1/2 in.) stone.
2. Length - Not less than 15m (50 ft.) (Except on a single residence lot where a 9m (30 ft.) minimum length would apply).
3. Thickness - Not less than 150mm (6 in.).
4. Width - 3.5 meter (twelve (12) ft.) minimum, but not less than the full width at points where ingress or egress occurs. 7 meters (twenty-four (24) ft.) if single entrance to site.
5. Filter Cloth - Will be placed over the entire area prior to placing of stone.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

CORE STATES INC.
12700 HILLCREST ROAD
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DALLAS, TX 75230
(214) 377-5060
www.core-eng.com

CLIENT

CHASE

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REV	DATE	COMMENT	BY
1	8/10/2020	PER TAC COMMENTS	MAL

DOCUMENT

SITE PLAN APPROVAL FOR CHASE BANK

SITE LOCATION

1574 WOODBURY AVENUE, PORTSMOUTH, NH 03801

ENGINEER SEAL

STATE OF NEW HAMPSHIRE
THOMAS C. PICKERING No. 10218
LICENSED PROFESSIONAL ENGINEER
08/10/2020

SHEET TITLE

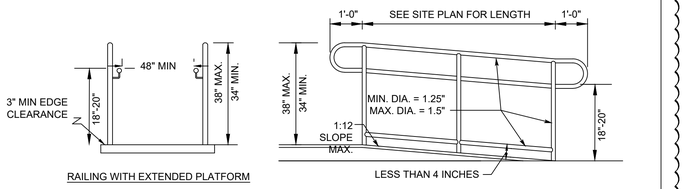
SOIL EROSION AND SEDIMENT CONTROL DETAILS

JOB #:	JPM.27086
DATE:	07/01/2020
SCALE:	AS NOTED
DRAWN BY:	MAL
CHECKED BY:	KGF

SHEET NO.

C-9

User: MLEWIS Plot Date/Time: Aug. 11, 20 - 12:40:15 Drawing: C:\Users\mlewis\appdata\local\temp\AcPublish_2864\JPM.27086 - P.07L.dwg /C-9 E&S DET



RAILING WITH EXTENDED PLATFORM

NOTES:
1.) RAMPS MAY NOT EXTEND INTO ANY PORTION OF THE PARKING SPACE OR ASSOCIATED STRIPED ISLAND.

2.) RAMPS, HANDRAILS, & APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST A.D.A. ACCESSIBILITY GUIDELINES.

3.) RAMP RUNS SHALL HAVE A MAXIMUM RISE OF 30 INCHES BEFORE A LEVEL LANDING AREA PER A.D.A. ACCESSIBILITY GUIDELINES IS REQUIRED.

4.) RAMPS & LANDINGS SHALL BE DESIGNED TO PREVENT WATER ACCUMULATION WITHIN SLOPE REQUIREMENTS OF A.D.A. ACCESSIBILITY GUIDELINES.

HANDRAIL SPECIFICATIONS:
1.) MATERIAL: 1.5" I.D. SCH.40 ALUMINUM OR STEEL PIPE.

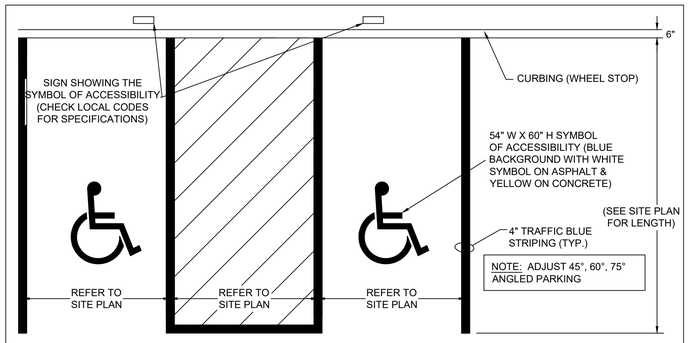
2.) FINISH: NATURAL OR HARDCOAT BLACK ANODIZED PAINTED (OR APPROVED EQUIVALENT).

3.) ALL WELDS SHALL BE GROUND SMOOTH.

4.) APPROVED MANUFACTURERS: LOCAL FABRICATION OR CRANEVEYOR CORP. (818) 442-1524 MODEL No. C4300.

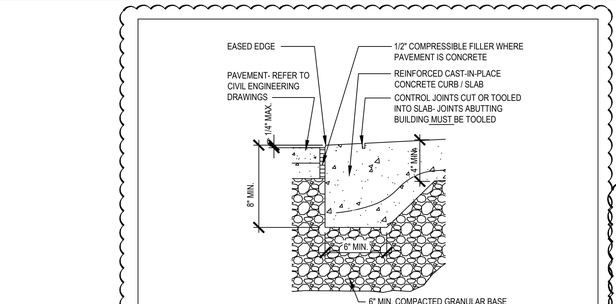
N.T.S.

FREESTANDING HANDRAIL WITH EDGE PROTECTION 1

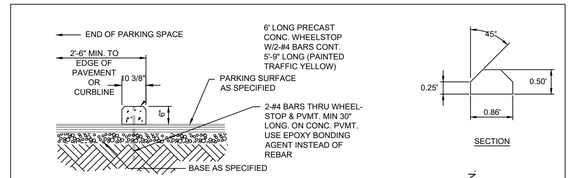


N.T.S.

ACCESSIBLE PARKING STALL



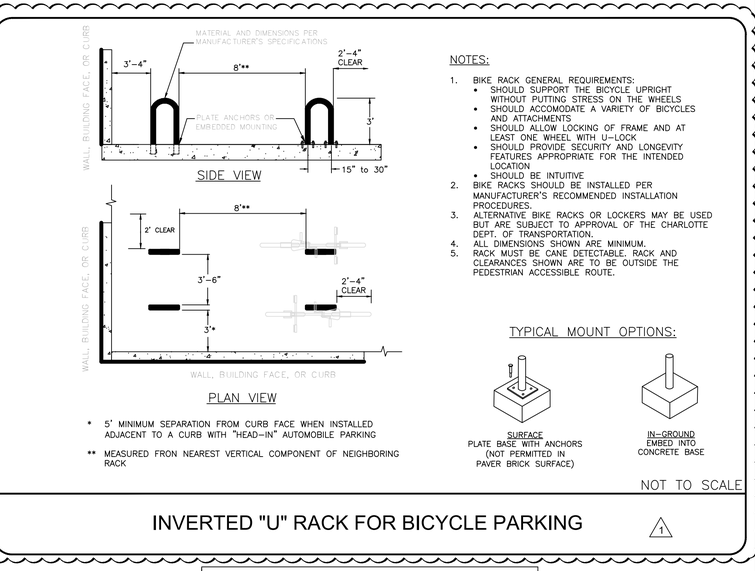
DEPRESSED CURB 1



NOTES:
1.) REFER TO PLAN SET FOR LOCATIONS OF PROPOSED WHEELSTOPS.
2.) CONCRETE WHEELSTOPS SHALL BE PAINTED TRAFFIC YELLOW SO AS TO CONTRAST WITH PAVEMENT SURFACE. WHEELSTOPS MUST BE PERPETUALLY MAINTAINED AND REPAINTED BY PROPERTY OWNER OR PARTY RESPONSIBLE FOR SITE MAINTENANCE.

CONCRETE WHEEL STOPS

NTS



* 5' MINIMUM SEPARATION FROM CURB FACE WHEN INSTALLED ADJACENT TO A CURB WITH "HEAD-IN" AUTOMOBILE PARKING

** MEASURED FRON NEAREST VERTICAL COMPONENT OF NEIGHBORING RACK

NOTES:
1. BIKE RACK GENERAL REQUIREMENTS:
   - SHOULD SUPPORT THE BICYCLE UPRIGHT WITHOUT PUTTING STRESS ON THE WHEELS
   - SHOULD ACCOMODATE A VARIETY OF BICYCLES AND ATTACHMENTS
   - SHOULD ALLOW LOCKING OF FRAME AND AT LEAST ONE WHEEL WITH U-LOCK
   - SHOULD PROVIDE SECURITY AND LONGEVITY FEATURES APPROPRIATE FOR THE INTENDED LOCATION
   - SHOULD BE INTUITIVE
2. BIKE RACKS SHOULD BE INSTALLED PER MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.
3. ALTERNATIVE BIKE RACKS OR LOCKERS MAY BE USED BUT ARE SUBJECT TO APPROVAL OF THE CHARLOTTE DEPT. OF TRANSPORTATION.
4. ALL DIMENSIONS SHOWN ARE MINIMUM.
5. RACK MUST BE CANE DETECTABLE. RACK AND CLEARANCES SHOWN ARE TO BE OUTSIDE THE PEDESTRIAN ACCESSIBLE ROUTE.

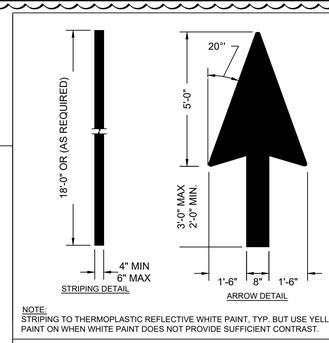
TYPICAL MOUNT OPTIONS:

SURFACE
PLATE BASE WITH ANCHORS
(NOT PERMITTED IN PAVER BRICK SURFACE)

IN-GROUND
EMBED INTO CONCRETE BASE

NOT TO SCALE

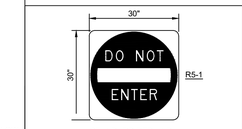
INVERTED "U" RACK FOR BICYCLE PARKING 1



NOTE:
STRIPING TO THERMOPLASTIC REFLECTIVE WHITE PAINT, TYP. BUT USE YELLOW PAINT ON WHEN WHITE PAINT DOES NOT PROVIDE SUFFICIENT CONTRAST.

PAVEMENT STRIPING DETAIL

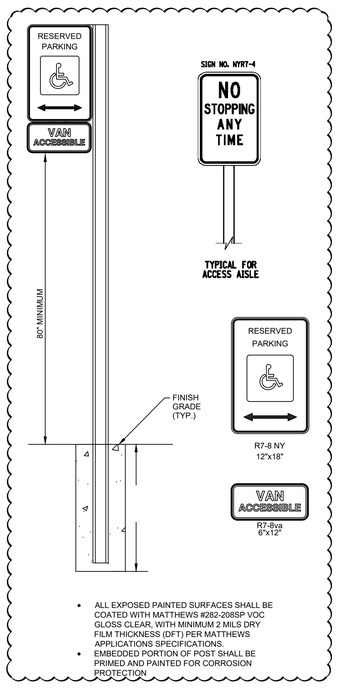
NTS



STANDARD RED AND WHITE SIGN

"DO NOT ENTER" SIGN

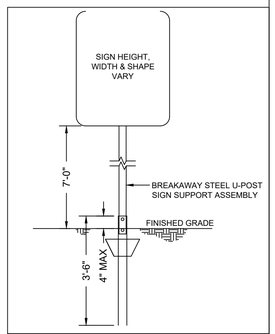
N.T.S.



- ALL EXPOSED PAINTED SURFACES SHALL BE COATED WITH MATTHEWS #282-20BSP VOC GLOSS CLEAR, WITH MINIMUM 2 MILS DRY FILM THICKNESS (DFT) PER MATTHEWS APPLICATIONS SPECIFICATIONS.
- EMBEDDED PORTION OF POST SHALL BE PRIMED AND PAINTED FOR CORROSION PROTECTION.

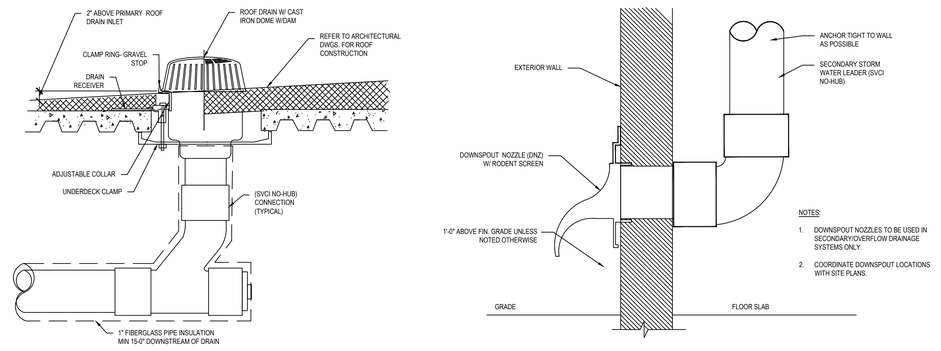
RESTRICTED PARKING SIGN DETAIL 1

N.T.S.



TRAFFIC SIGN POST DETAIL

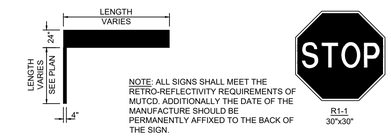
NTS



NOTES:
1. DOWNSPOUT NOZZLES TO BE USED IN SECONDARY/OVERFLOW DRAINAGE SYSTEMS ONLY.
2. COORDINATE DOWNSPOUT LOCATIONS WITH SITE PLANS.

ROOF DRAIN OVERFLOW DETAILS

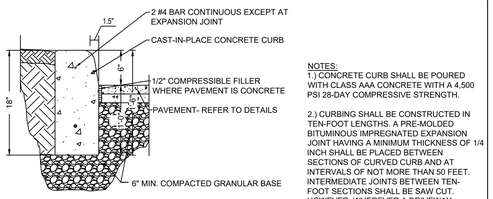
N.T.S.



NOTE: ALL SIGNS SHALL MEET THE RETRO-REFLECTIVITY REQUIREMENTS OF MUTCD. ADDITIONALLY THE DATE OF THE MANUFACTURE SHOULD BE PERMANENTLY AFFIXED TO THE BACK OF THE SIGN.

PAINTED STOP BAR & SIGN DETAIL

N.T.S.

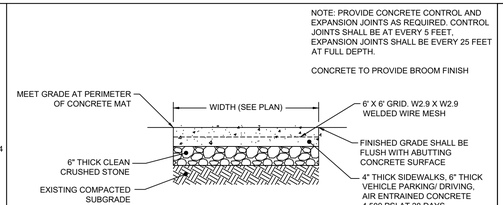


NOTES:
1.) CONCRETE CURB SHALL BE POURED WITH CLASS AAA CONCRETE WITH A 4,500 PSI 28-DAY COMPRESSIVE STRENGTH.

2.) CURBING SHALL BE CONSTRUCTED IN TEN-FOOT LENGTHS. A PRE-MOLDED BITUMINOUS IMPREGNATED EXPANSION JOINT HAVING A MINIMUM THICKNESS OF 1/4 INCH SHALL BE PLACED BETWEEN SECTIONS OF CURVED CURB AND AT INTERVALS OF NOT MORE THAN 50 FEET. INTERMEDIATE JOINTS BETWEEN TEN-FOOT SECTIONS SHALL BE SAW CUT. HOWEVER, WHEREVER A DRIVEWAY ENTERS A STREET, THAT AREA OF THE DRIVEWAY SHALL NOT HAVE A CURB JOINT AND CAN BE CONSTRUCTED IN LENGTHS NOT LONGER THAN 20 FEET.

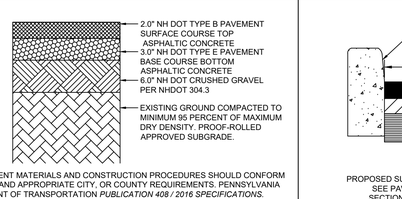
ON-SITE CONCRETE CURB DETAIL

NTS



CONCRETE PAD AND SIDEWALK DETAIL

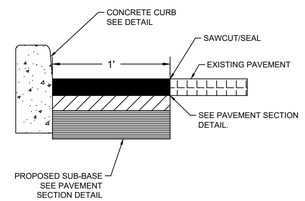
NTS



NOTE:
- ALL PAVEMENT MATERIALS AND CONSTRUCTION PROCEDURES SHOULD CONFORM TO PA DOT AND APPROPRIATE CITY, OR COUNTY REQUIREMENTS. PENNSYLVANIA DEPARTMENT OF TRANSPORTATION *PUBLICATION 408 / 2016 SPECIFICATIONS.*

ASPHALT PAVEMENT DETAIL

NTS



PAVEMENT RESTORATION DETAIL

NTS

CORE STATES INC.
12700 HILCREST ROAD
Suite 192
Dallas, TX 75230
(214) 377-5060
www.core-eng.com

CLIENT

CHASE

811 Know what's below. Call before you dig.

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON DESIGN DRAWINGS, RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. CORE STATES, INC. DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES.

REV	DATE	COMMENT	BY
1	8/10/2020	PER TAC COMMENTS	MAL

DOCUMENT

SITE PLAN APPROVAL FOR CHASE BANK

SITE LOCATION

1574 WOODBURY AVENUE, PORTSMOUTH, NH 03801

ENGINEER SEAL

STATE OF NEW HAMPSHIRE — THOMAS C. PICKERING No. 10218 — LICENSED PROFESSIONAL ENGINEER — 08/10/2020

SHEET TITLE

CONSTRUCTION DETAILS

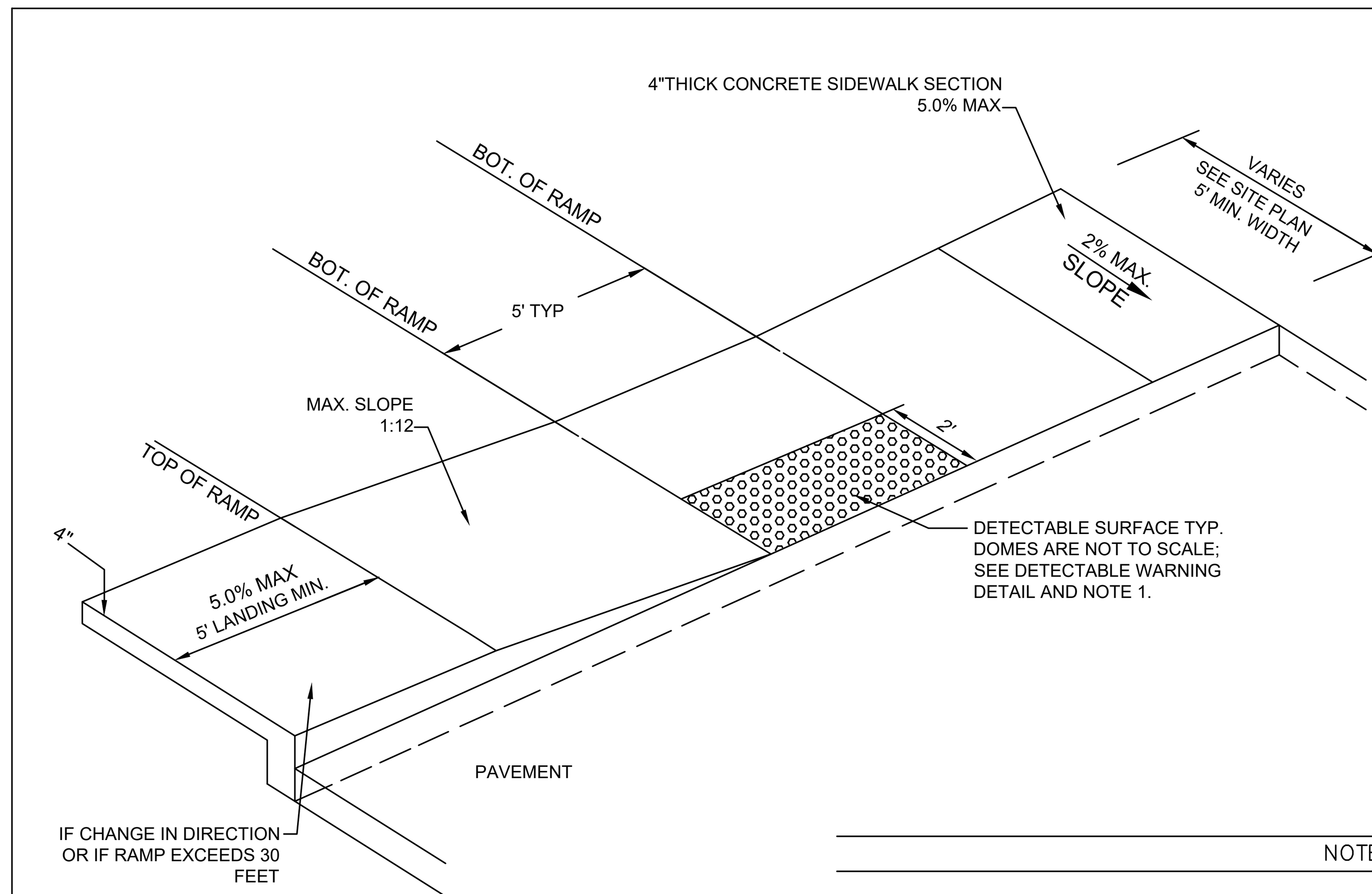
JOB #:	JPM.27086
DATE:	07/01/2020
SCALE:	AS NOTED
DRAWN BY:	MAL
CHECKED BY:	KGF

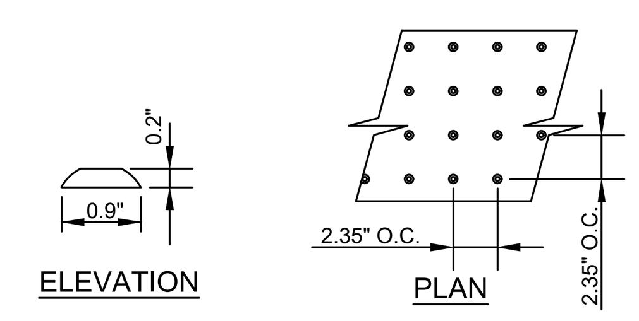
SHEET NO.

CD-1

User: MLEWIS Plot Date/Time: Aug. 11, 20 - 12:40:17 Drawing: C:\Users\mlewis\appdata\local\temp\AcPublish_2864\JPM.27086 - P-DTL.dwg ;CD-1 DETS

CURB RAMP DETAIL





NOTE:
PREFABRICATED PANELS PER A.D.A. ACCESSIBILITY GUIDELINES SECTION 4.29.2 & A4.29.2 SHALL BE USED.

DETECTABLE WARNING DETAIL

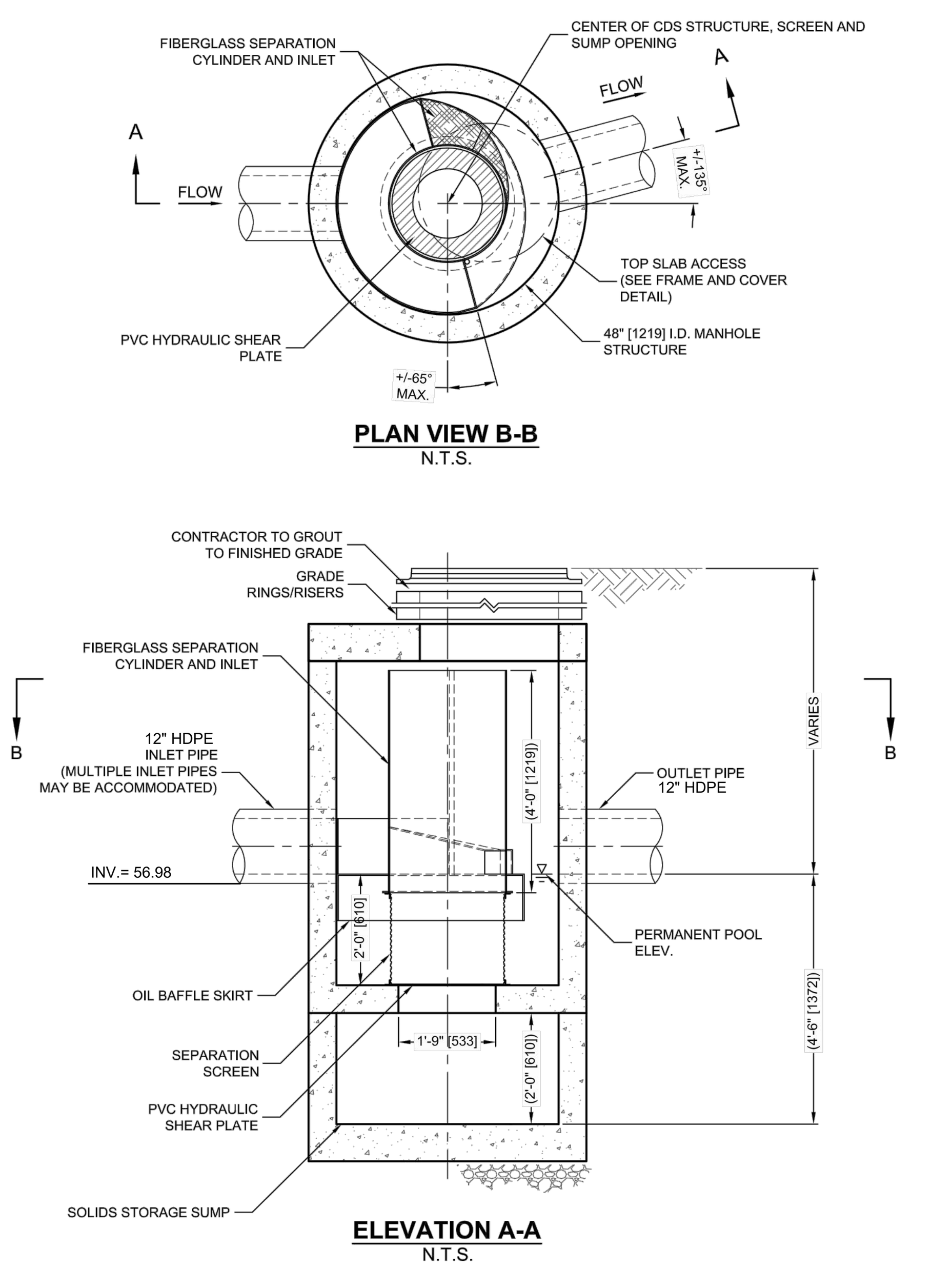
NOTES:

1. THE SURFACE OF RAMP SHALL HAVE DETECTABLE WARNINGS AS SHOWN. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES. SEE DETECTABLE WARNINGS DETAIL.
2. CONSTRUCT PER A.D.A. STANDARDS AND THE TOWN OF PORTSMOUTH BUILDING CODE.
3. REFER TO PLANS FOR ADJACENT SLOPES.
4. THE CROSS SLOPE OF THE RAMP SURFACE SHALL BE NO GREATER THAN 1.5 %. SHOULD THE CROSS SLOPE EXCEED 2% THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING THE SIDEWALK AND CURB RAMP AS NECESSARY TO CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITY ACT AND THE TOWN OF PORTSMOUTH BUILDING CODE.
5. THE LONGITUDINAL SLOPE OF THE RAMP SURFACE SHALL BE NO GREATER THAN 8.33%. SHOULD THE LONGITUDINAL SLOPE EXCEED 8.33%, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING THE SIDEWALK AND CURB RAMP AS NECESSARY TO CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITY ACT AND THE TOWN OF PORTSMOUTH BUILDING CODE.
6. ALL HANDICAP RAMPS TO BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE TOWN OF PORTSMOUTH BUILDING CODE.
7. SEE DETAIL FOR DETECTABLE WARNING LOCATION, TYPE, AND EXTENTS.

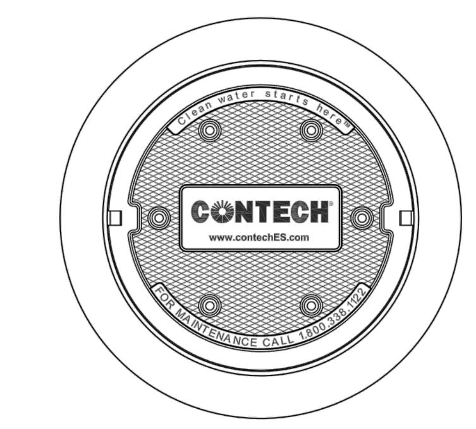
N.T.S.

CURB RAMP DETAIL (1)

WATER QUALITY MANHOLE DETAIL



CDS2015-4-C DESIGN NOTES
THE STANDARD CDS2015-4-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.
CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS			
STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)			*
PEAK FLOW RATE (CFS OR L/s)			*
RETURN PERIOD OF PEAK FLOW (YRS)			*
SCREEN APERTURE (2400 OR 4700)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION			*
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		*	*
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

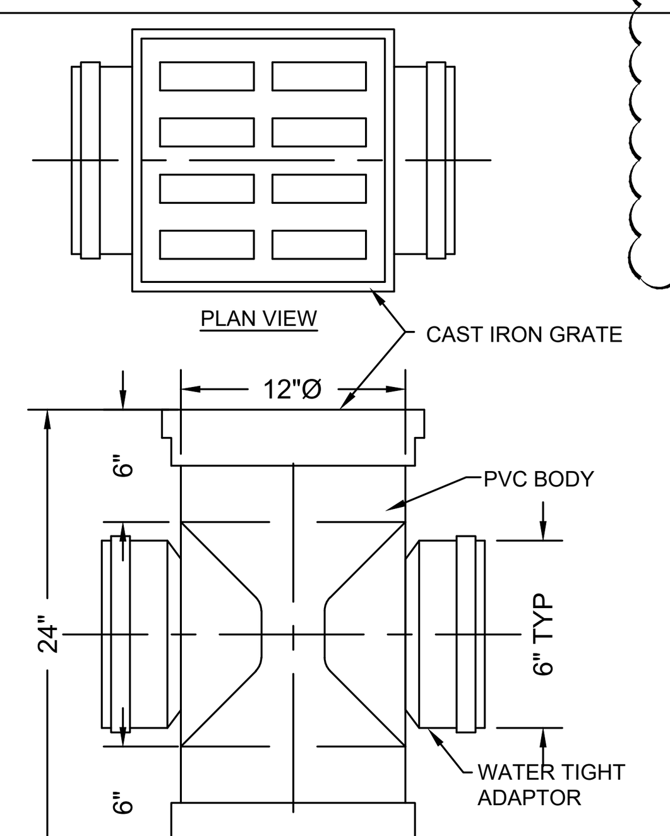
INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS2015-4-C
INLINE CDS
STANDARD DETAIL

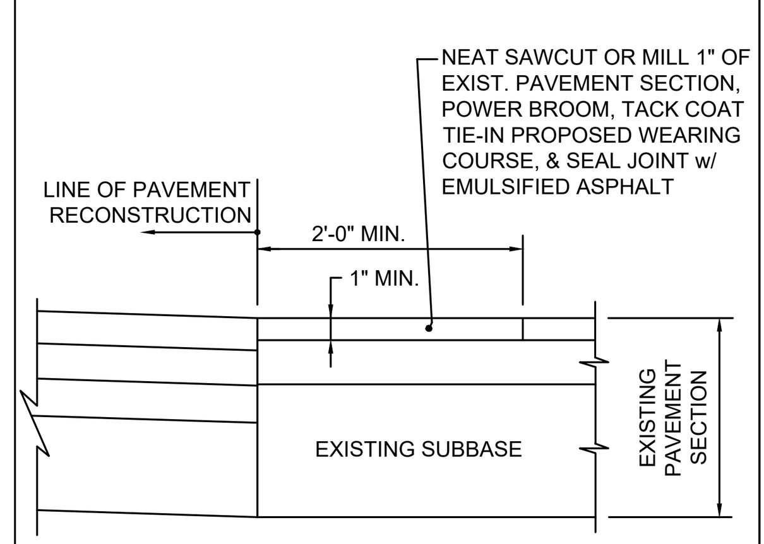
WATER QUALITY MANHOLE DETAIL (1)
N.T.S.

12" YARD DRAIN DETAIL



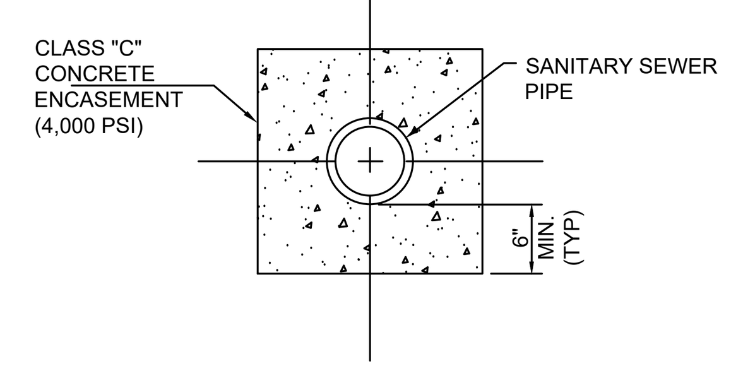
12" YARD DRAIN DETAIL
N.T.S.

PAVEMENT TIE-IN DETAIL



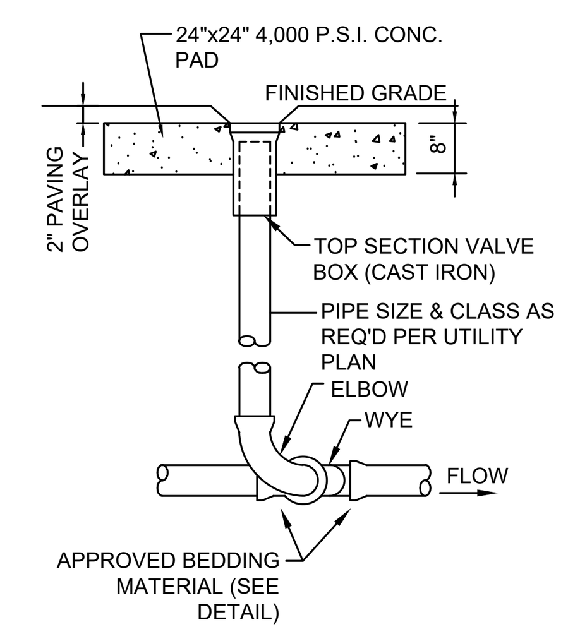
PAVEMENT TIE-IN DETAIL
N.T.S.

CONCRETE ENCASEMENT DETAIL



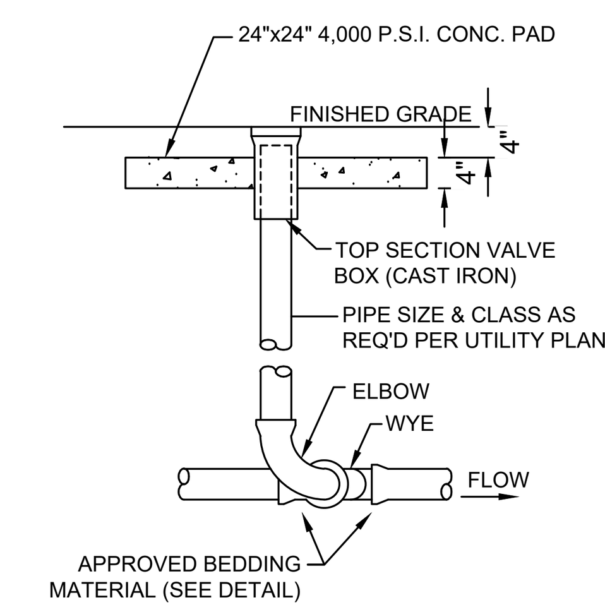
CONCRETE ENCASEMENT DETAIL
N.T.S.

TYPICAL CLEANOUT DETAIL (PAVED AREAS)



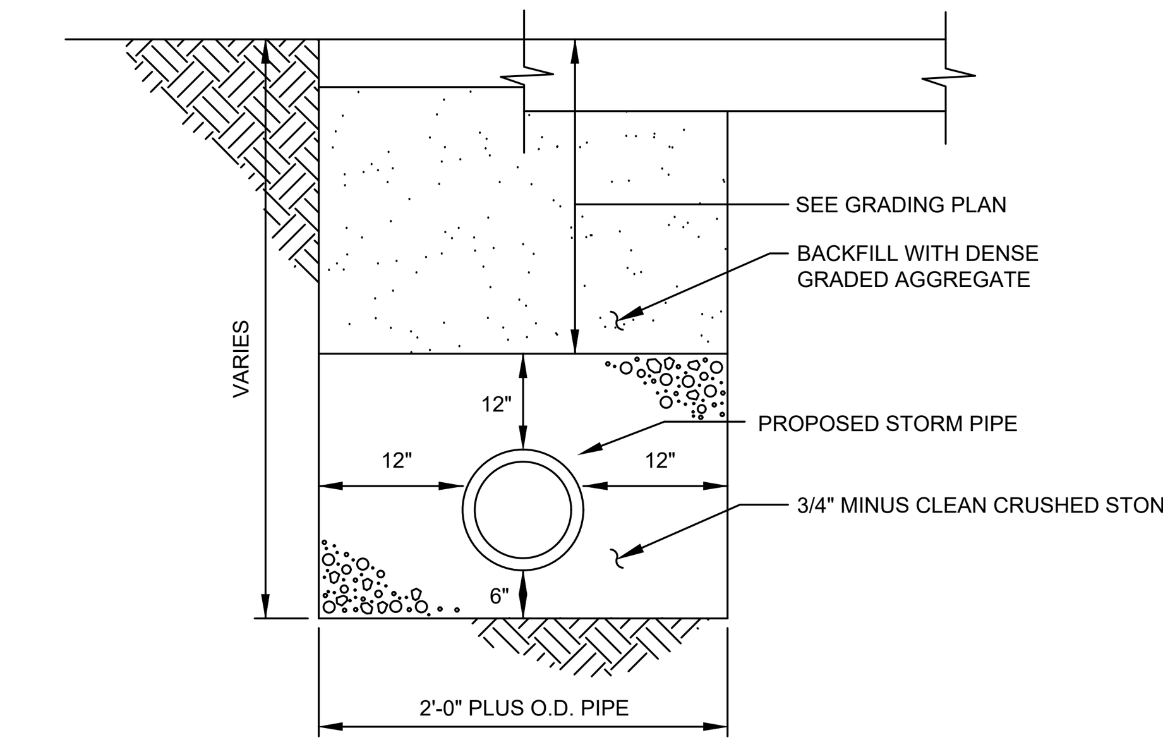
TYPICAL CLEANOUT DETAIL (PAVED AREAS)
N.T.S.

TYPICAL CLEANOUT DETAIL (LANDSCAPED AREAS)



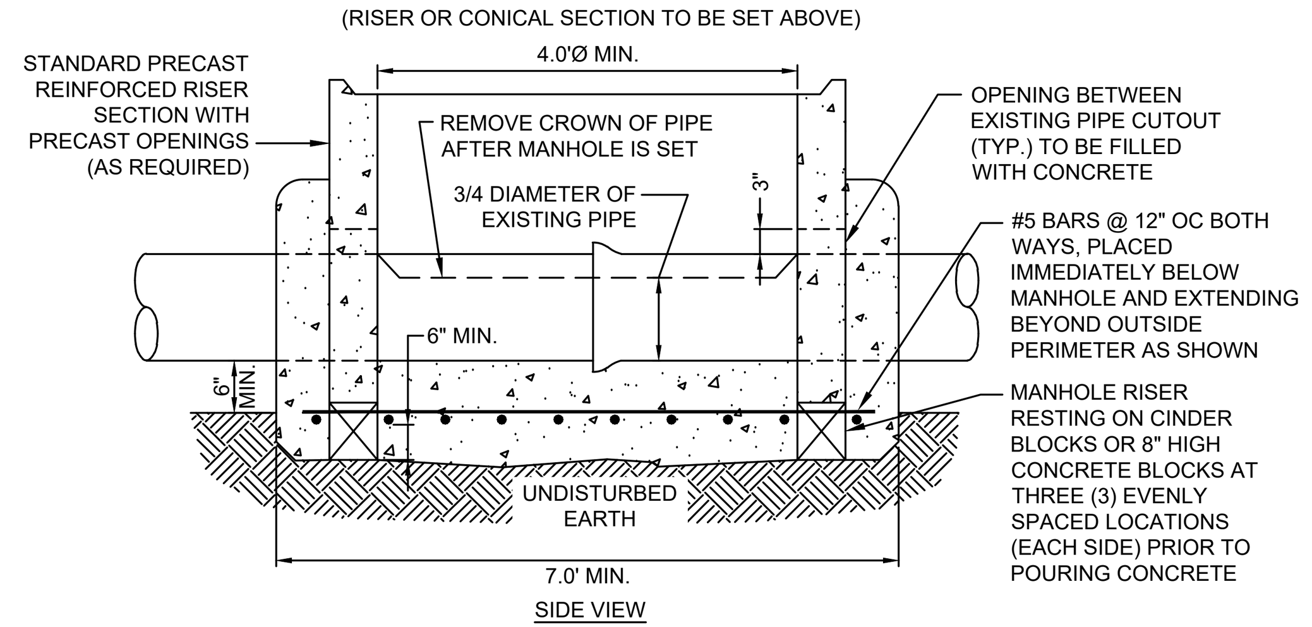
TYPICAL CLEANOUT DETAIL (LANDSCAPED AREAS)
N.T.S.

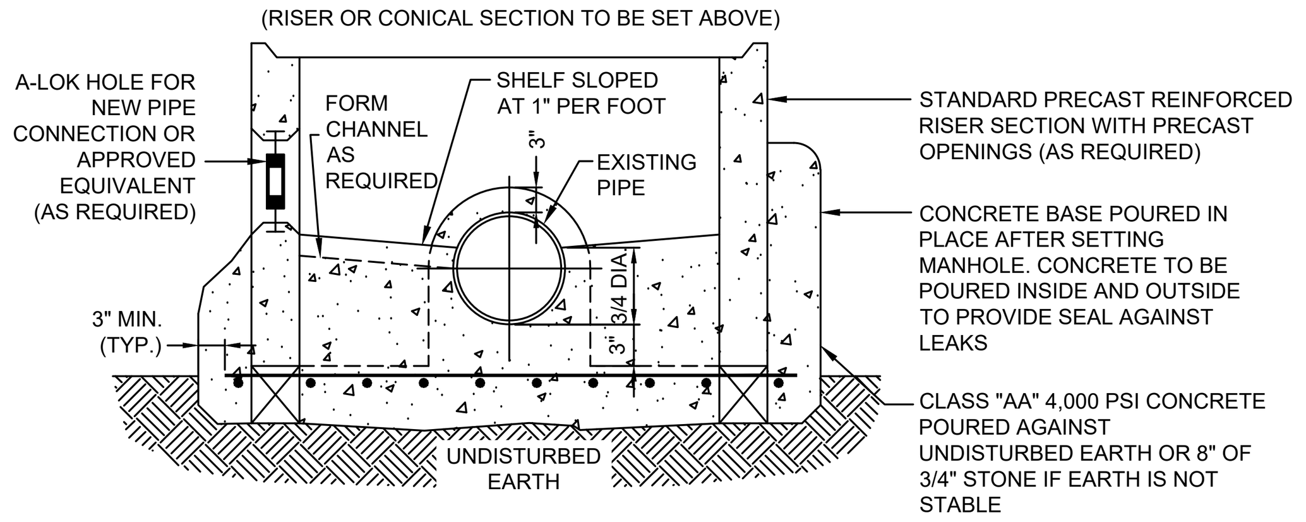
STORM SEWER TRENCH DETAIL



STORM SEWER TRENCH DETAIL
N.T.S.

DOGHOUSE MANHOLE DETAIL



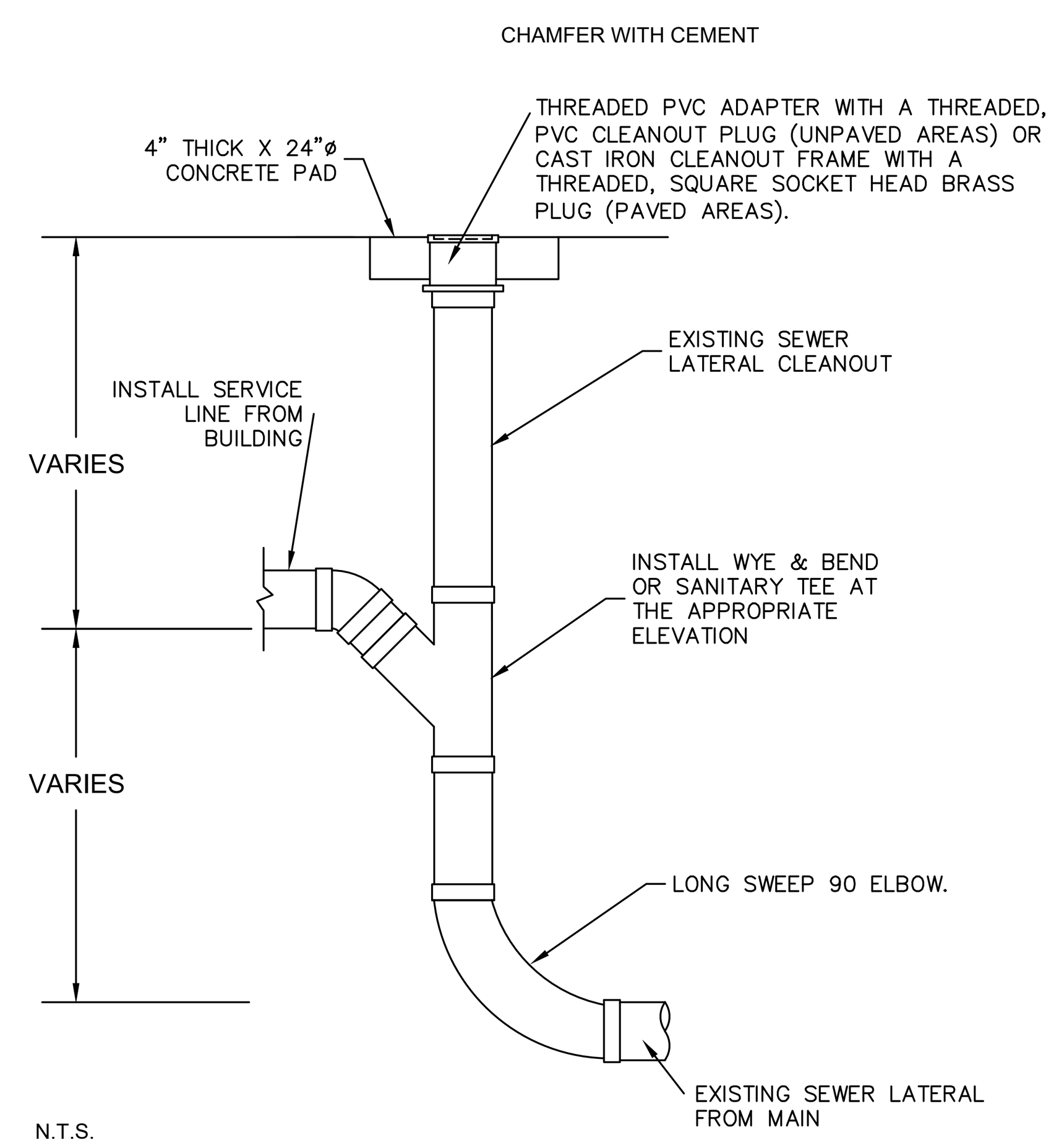


NOTES:
1.) EXISTING PIPE TO REMAIN UNTIL EXFILTRATION OR VACUUM TEST ON MANHOLE IS ACCEPTABLE TO AUTHORITY.

2.) REMOVE CROWN OF EXISTING PIPE FLUSH WITH CONCRETE SHELF.

DOGHOUSE MANHOLE DETAIL (1)
NTS

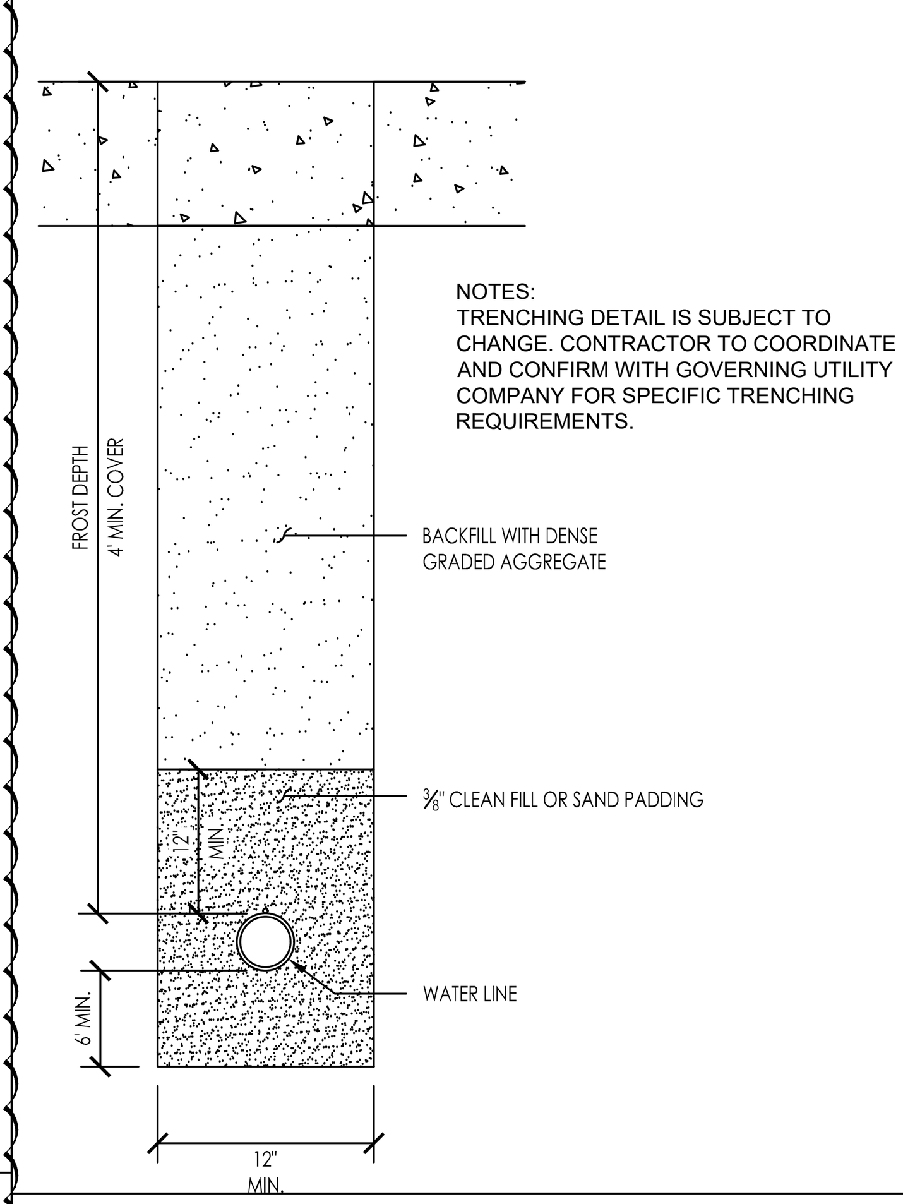
SANITARY VERTICAL DROP CONNECTION DETAIL



N.T.S.

SANITARY VERTICAL DROP CONNECTION DETAIL (1)

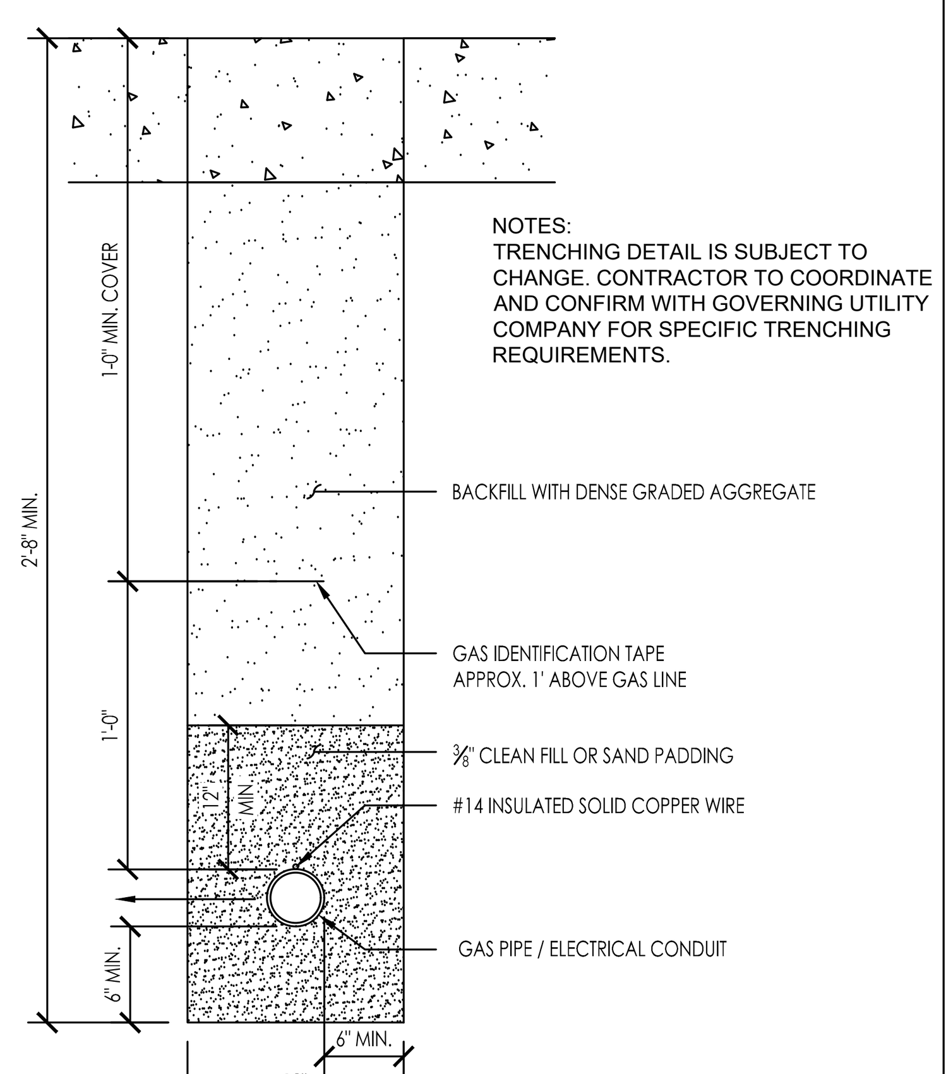
WATER TRENCH DETAIL



NOTES:
TRENCHING DETAIL IS SUBJECT TO CHANGE. CONTRACTOR TO COORDINATE AND CONFIRM WITH GOVERNING UTILITY COMPANY FOR SPECIFIC TRENCHING REQUIREMENTS.

WATER TRENCH DETAIL
N.T.S.

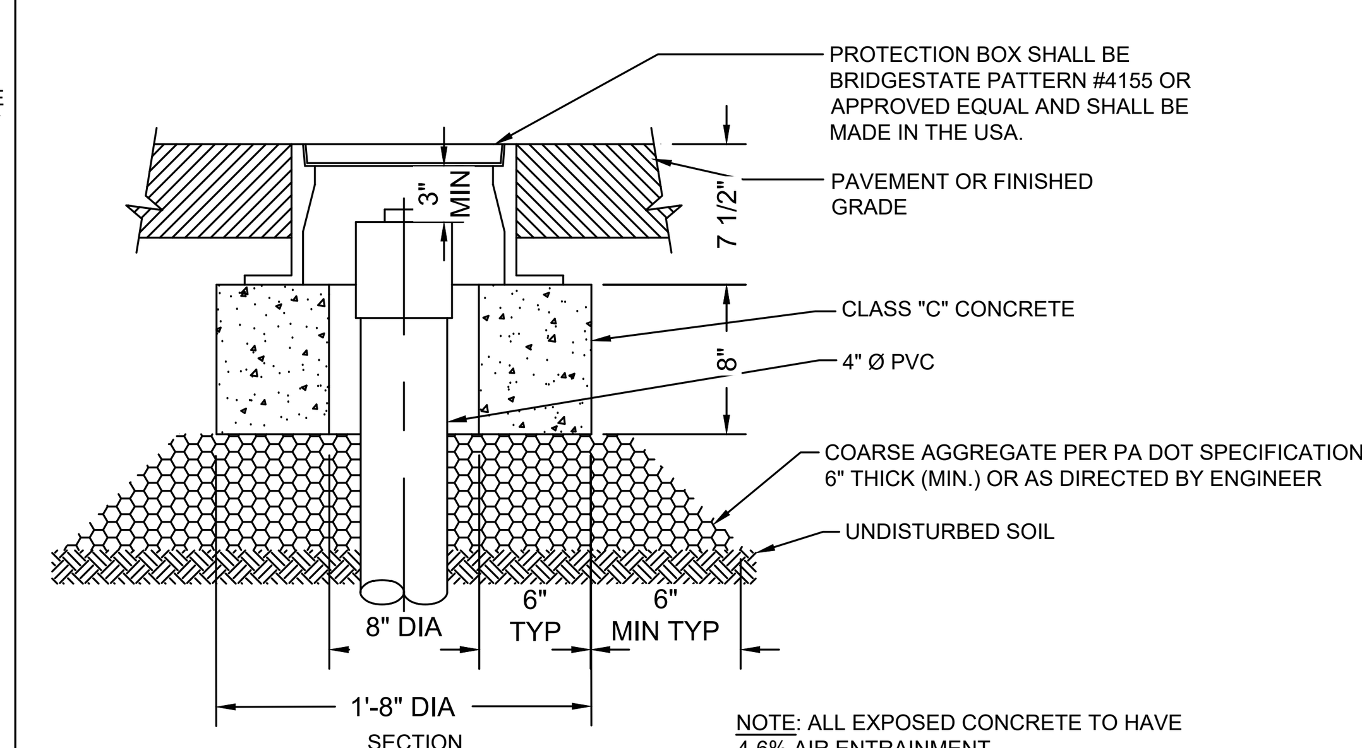
GAS / ELECTRIC TRENCH DETAIL



NOTES:
TRENCHING DETAIL IS SUBJECT TO CHANGE. CONTRACTOR TO COORDINATE AND CONFIRM WITH GOVERNING UTILITY COMPANY FOR SPECIFIC TRENCHING REQUIREMENTS.

GAS / ELECTRIC TRENCH DETAIL
N.T.S.

SANITARY LEADER CLEAN-OUT PROTECTION BOX DETAIL



NOTE: ALL EXPOSED CONCRETE TO HAVE 4-6% AIR ENTRAINMENT.

SANITARY LEADER CLEAN-OUT PROTECTION BOX DETAIL
N.T.S.

CORE STATES INC.
12700 HILLCREST ROAD
SUITE 192
DALLAS, TX 75230
(214) 377-5502
www.core-eng.com

CLIENT
CHASE

811 Know what's below. Call before you dig.

REV	DATE	COMMENT	BY
1	8/10/2020	PER TAC COMMENTS	MAL

DOCUMENT
SITE PLAN APPROVAL FOR CHASE BANK

SITE LOCATION
1574 WOODBURY AVENUE, PORTSMOUTH, NH 03801

ENGINEER SEAL
STATE OF NEW HAMPSHIRE — THOMAS C. PICKERING — No. 10218 — LICENSED PROFESSIONAL ENGINEER — 08/11/2020

SHEET TITLE
CONSTRUCTION DETAILS

JOB #:	JPM.27086
DATE:	07/01/2020
SCALE:	AS NOTED
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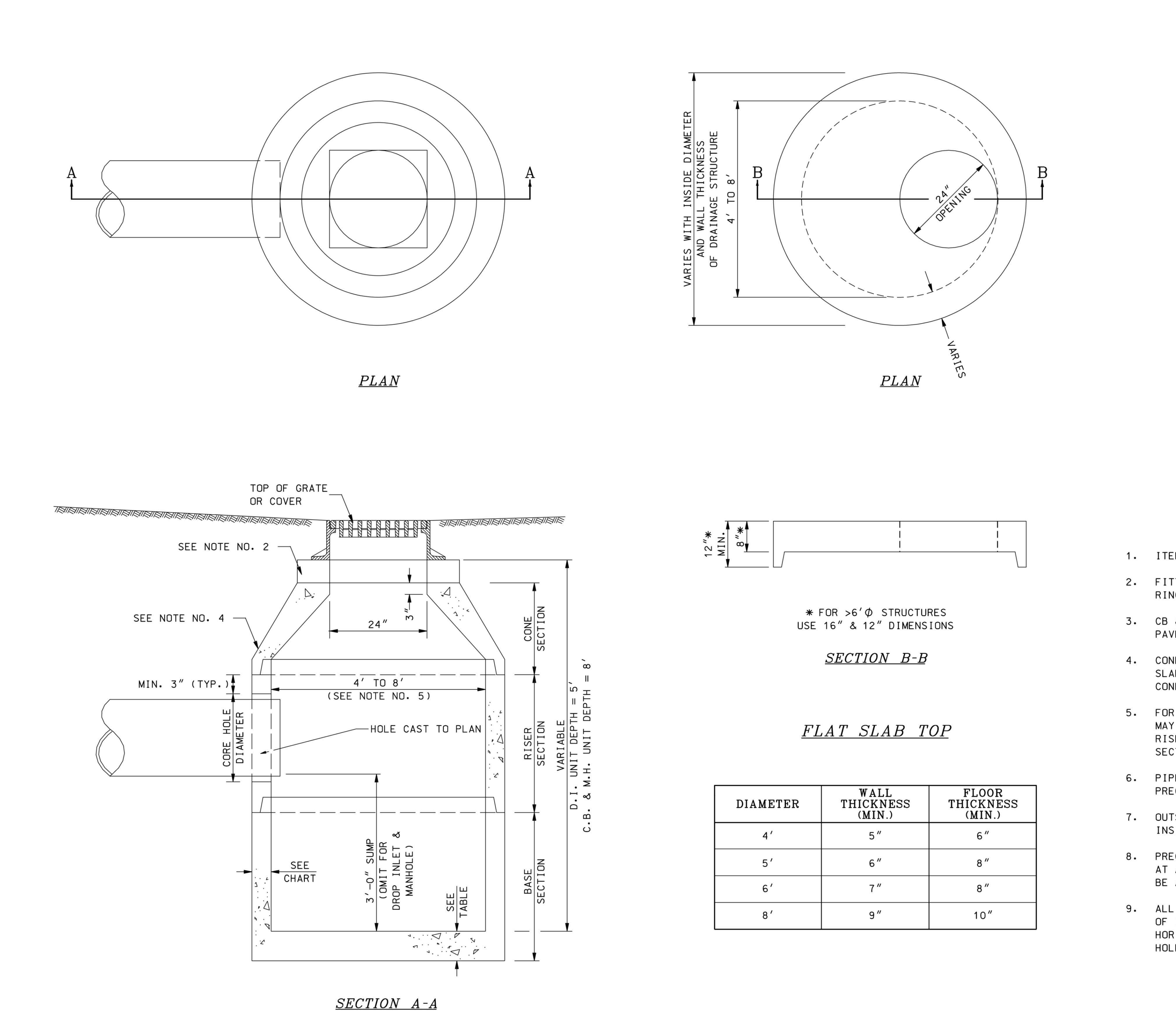
SHEET NO.
CD-2



CORE HOLE SIZE				
PIPE SIZE	RCP CORE HOLE DIA.		PLASTIC CORE HOLE DIA.	
INCHES	INCHES	FEET	INCHES	FEET
6			7	0.6
12	18	1.5	18	1.5
15	22	1.8	20	1.7
18	26	2.2	24	2.0
24	34	2.8	32	2.7
30	42	3.5	42	3.5
36	48	4.0	48	4.0
42	54	4.5	54	4.5
48	64	5.3	64	5.3
54	72	6.0		
60	78	6.5		

FLAT SLAB TOP

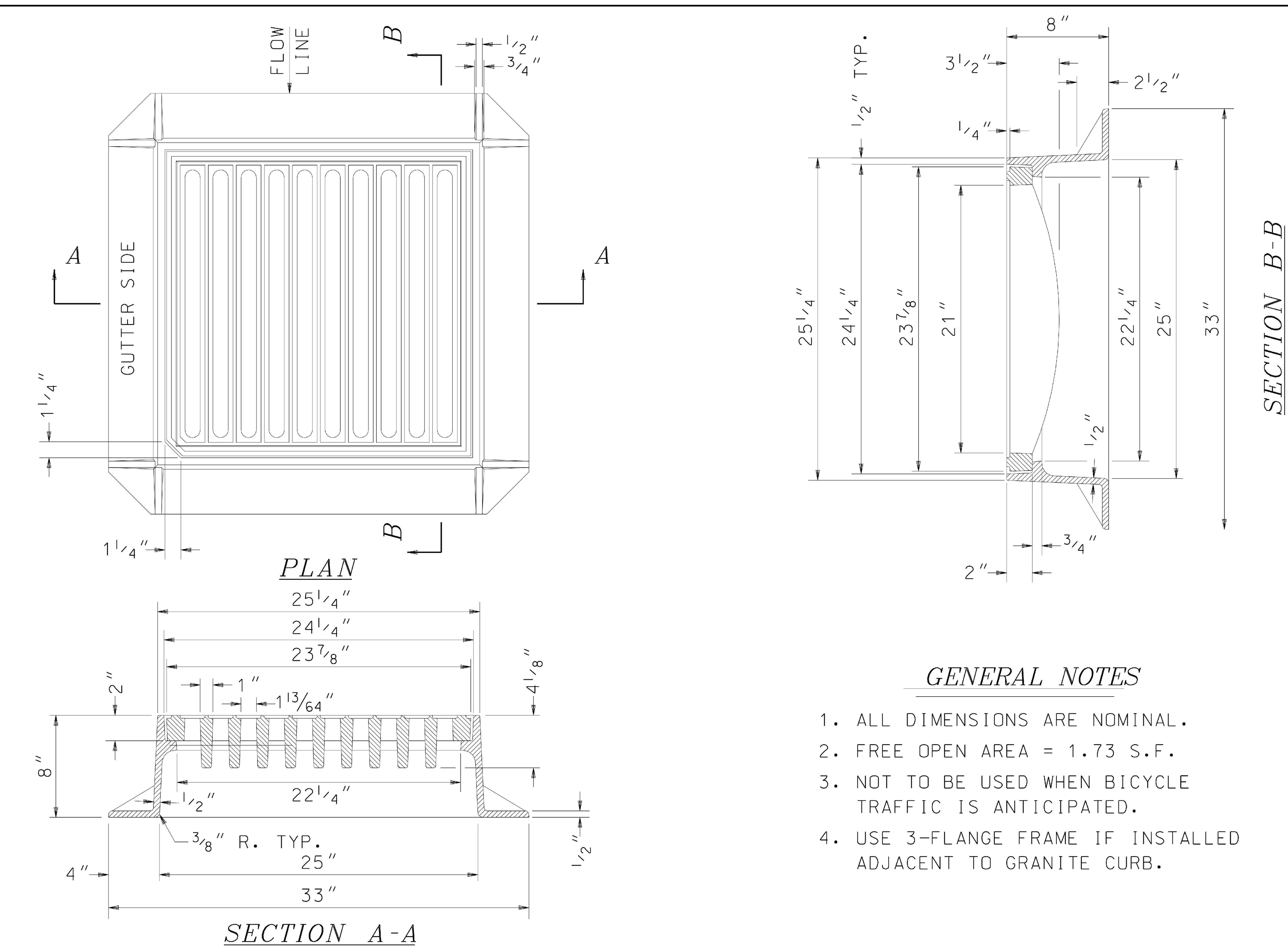
DIAMETER	WALL THICKNESS (MIN.)	FLOOR THICKNESS (MIN.)
4'	5"	6"
5'	6"	8"
6'	7"	8"
8'	9"	10"

GENERAL NOTES

1. ITEM NUMBERS: C.B.= 604.1XXX, D.I.= 604.2XXX, M.H.= 604.32XX
2. FITTING FRAME TO GRADE MAY BE DONE WITH PREFABRICATED ADJUSTMENT RINGS OR CLAY BRICKS (2 COURSES MAX.).
3. CB & DI GRATES IN PAVED AREAS SHALL BE SET ACCORDING TO THE PAVEMENT DEPRESSION DETAIL SHOWN ON PLATE 4 OF STANDARD NO. DR-2.
4. CONE SECTIONS MAY BE EITHER CONCENTRIC OR ECCENTRIC, OR FLAT SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
5. FOR STRUCTURES WITH DIAMETERS GREATER THAN 4', THE DIAMETER MAY BE CONSTANT FROM TOP TO BOTTOM WITH A FLAT SLAB TOP, OR A RISER SECTION THAT TRANSITIONS FROM A STANDARD 4' CONE SECTION TO THE LARGER DIAMETER RISER OR BASE SECTION MAY BE USED.
6. PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
7. OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
8. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
9. ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" OF INSIDE SURFACE BETWEEN HOLES, NO MORE THAN 75% OF A HORIZONTAL CROSS-SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3" TO JOINTS.

DRAINAGE STANDARD
PRECAST REINFORCED CONCRETE C.B., D.I. AND M.H.

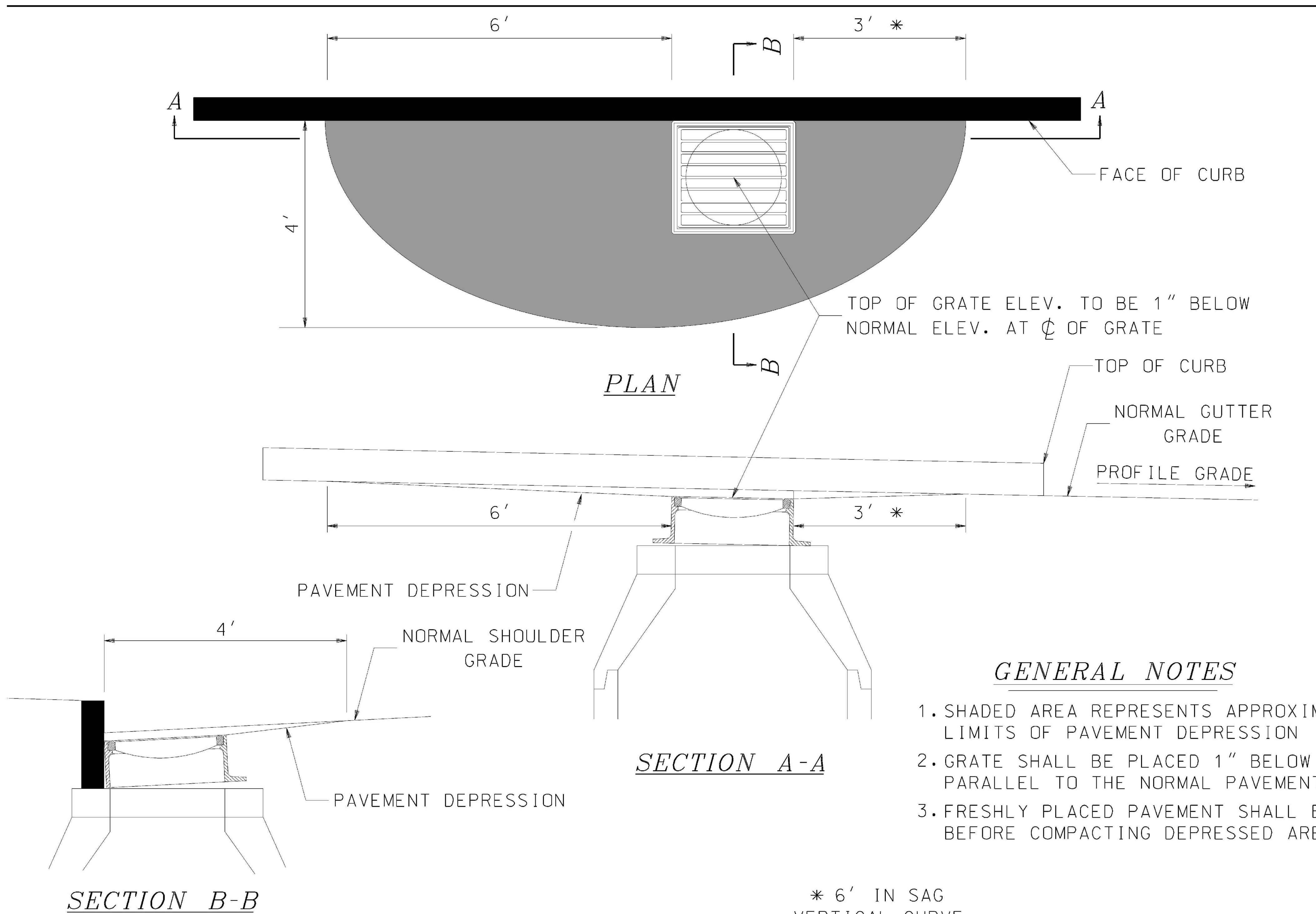
STANDARD PLANS — New Hampshire DOT — STANDARD NO. DR-5 — REVISION DATE 07-13-2001, 06-16-2010



GENERAL NOTES

1. ALL DIMENSIONS ARE NOMINAL.
2. FREE OPEN AREA = 1.73 S.F.
3. NOT TO BE USED WHEN BICYCLE TRAFFIC IS ANTICIPATED.
4. USE 3-FLANGE FRAME IF INSTALLED ADJACENT TO GRANITE CURB.

NHDOT STANDARD PLANS	REV. DATE		PLATE 1
TYPE "A" GRATE & FRAME	06-16-2010		STANDARD DR-1

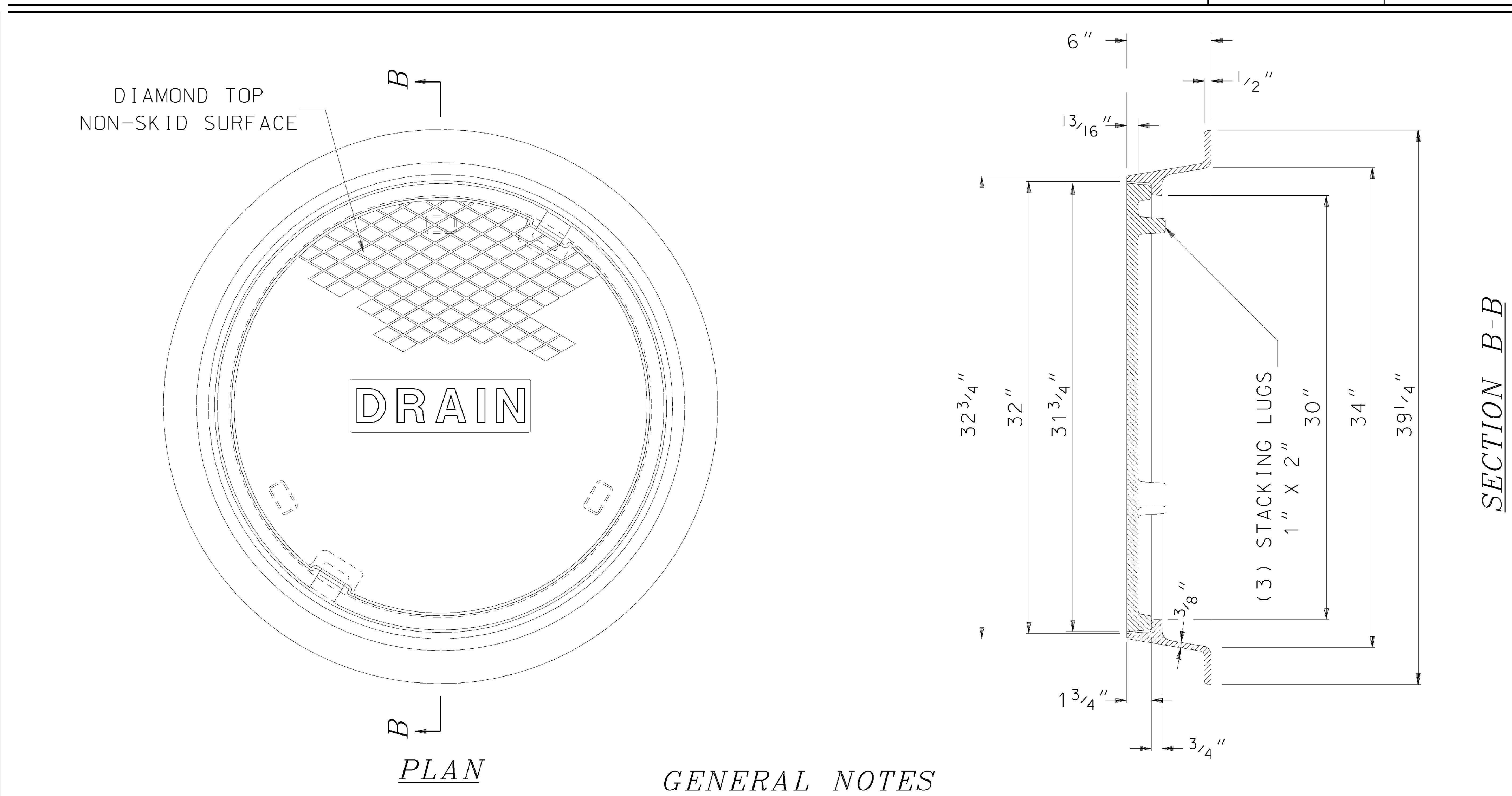


GENERAL NOTES

1. SHADED AREA REPRESENTS APPROXIMATE LIMITS OF PAVEMENT DEPRESSION
2. GRATE SHALL BE PLACED 1" BELOW AND PARALLEL TO THE NORMAL PAVEMENT GRADE
3. FRESHLY PLACED PAVEMENT SHALL BE REMOVED BEFORE COMPACTING DEPRESSED AREA

* 6' IN SAG VERTICAL CURVE

NHDOT STANDARD PLANS	REV. DATE		PLATE 4
PAVEMENT DEPRESSION DETAIL	06-16-2010		STANDARD DR-2



GENERAL NOTES

1. ALL DIMENSIONS ARE NOMINAL.
2. FRAMES USING NARROWER DIMENSIONS FOR THICKNESS ARE ALLOWED PROVIDED:
   A. THE FRAMES MEET OR EXCEED THE SPECIFIED LOAD RATING.
   B. THE INTERIOR PERIMETER (SEAT AREA) DIMENSIONS OF THE FRAMES REMAIN THE SAME TO ALLOW CONTINUED USE OF EXISTING GRATES/COVERS AS THE EXISTING FRAMES ALLOW, WITHOUT SHIMS OR OTHER MODIFICATIONS OR ACCOMMODATIONS.
   C. ALL OTHER PERTINENT REQUIREMENTS OF THE SPECIFICATIONS ARE MET.
3. LABEL TYPE OF MANHOLE WITH 3" HIGH LETTERS IN THE CENTER OF THE COVER.

NHDOT STANDARD PLANS	REV. DATE		PLATE 3
MANHOLE COVER & FRAME	06-16-2010		STANDARD DR-2
	08-14-2015		

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CLIENT: CHASE

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REV	DATE	COMMENT	BY
1	8/10/2020	PER TAC COMMENTS	MAL

DOCUMENT: SITE PLAN APPROVAL FOR CHASE BANK

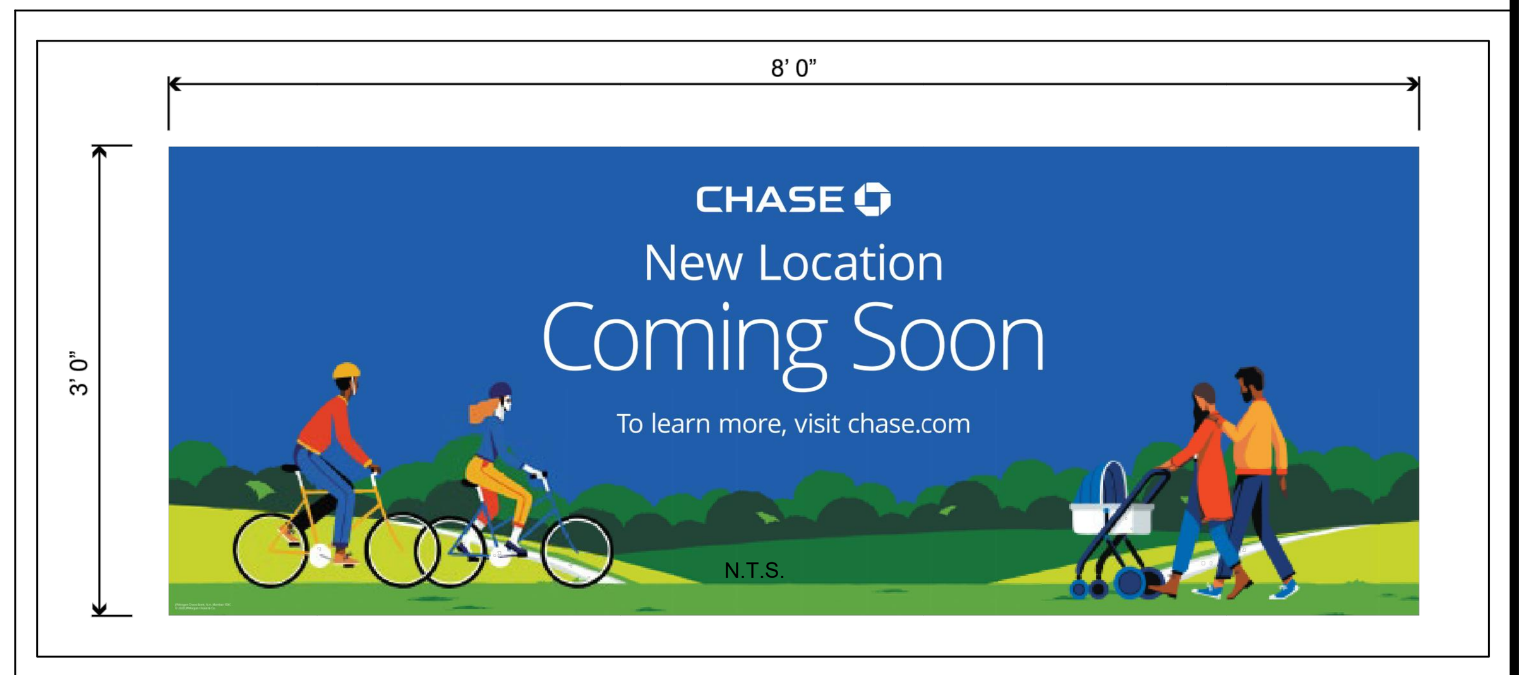
SITE LOCATION: 1574 WOODBURY AVENUE, PORTSMOUTH, NH 03801

ENGINEER SEAL: STATE OF NEW HAMPSHIRE — THOMAS C. PICKERING No. 10218 LICENSED PROFESSIONAL ENGINEER — 08/10/2020

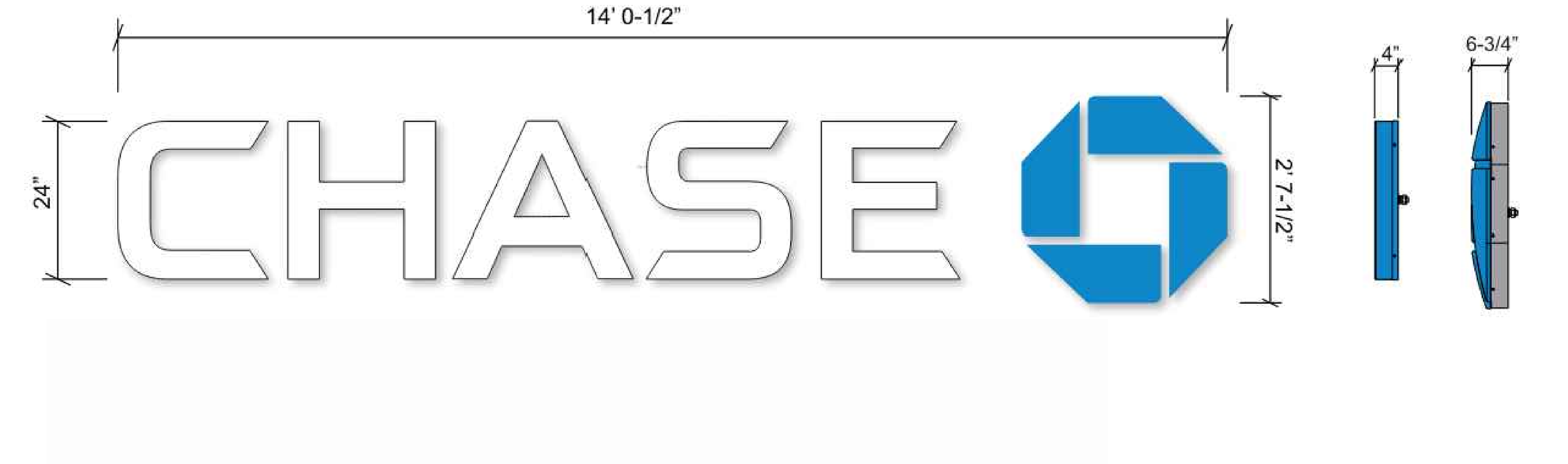
SHEET TITLE: CONSTRUCTION DETAILS

JOB #:	JPM.27086
DATE:	07/01/2020
SCALE:	AS NOTED
DRAWN BY:	MAL
CHECKED BY:	KGF

SHEET NO. CD-3

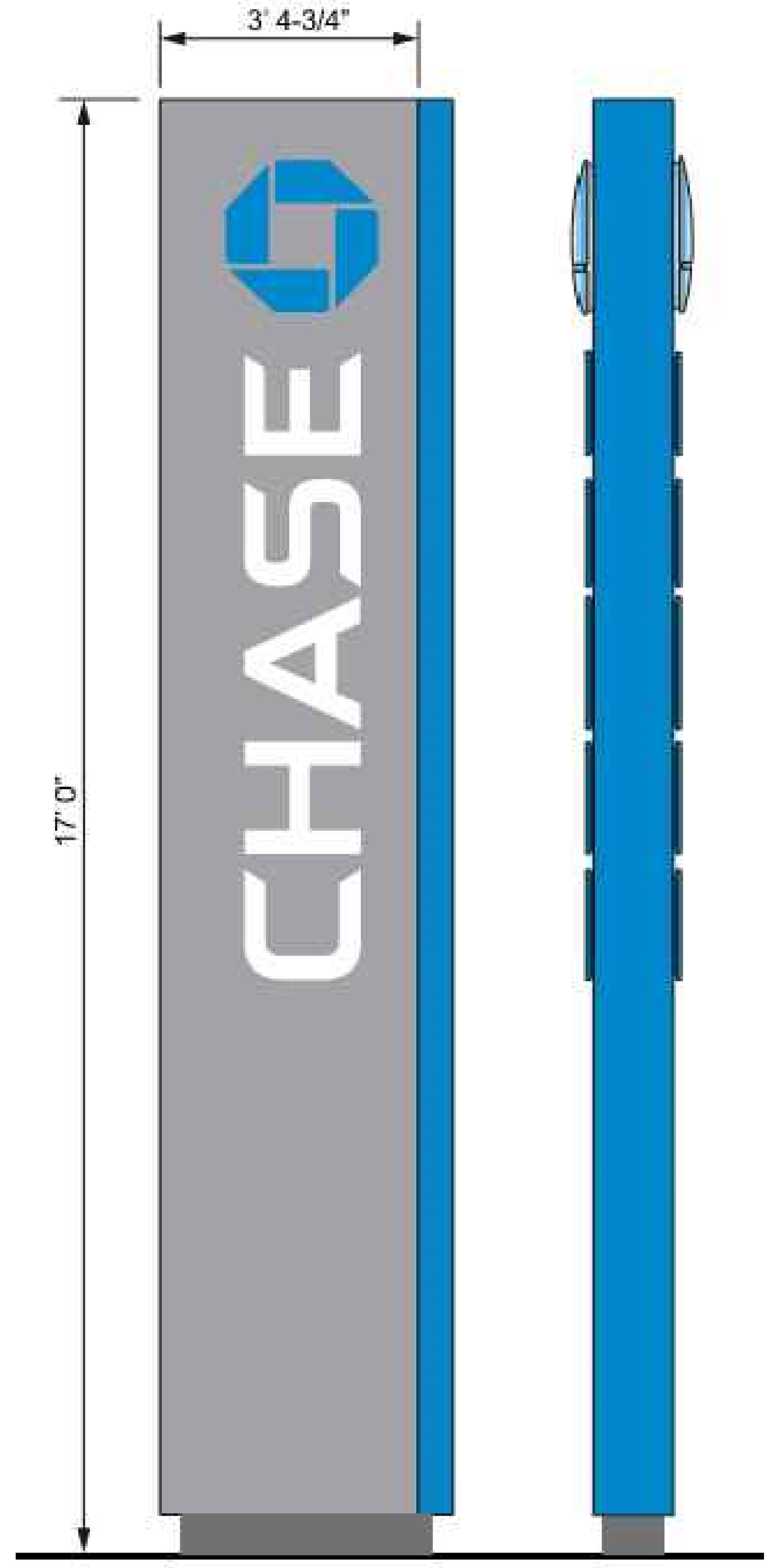


CHASE "COMING SOON" SIGN - 24 SF



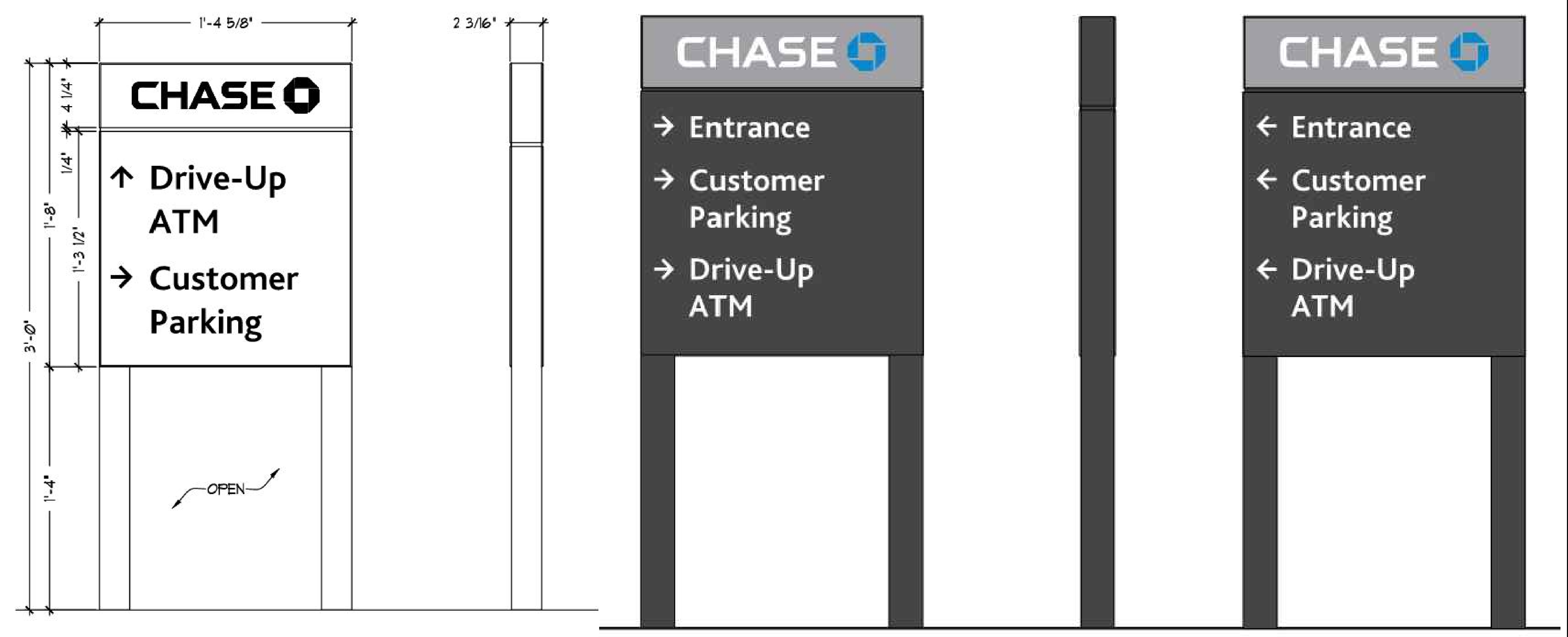
CHASE WALL SIGN - 36.9 SF

N.T.S.



CHASE PYLON SIGN - 57.73 SF

N.T.S.



CHASE DIRECTIONAL SIGN - 2.3 SF

N.T.S.

User: MLEWIS Plot Date/Time: Aug. 11, 20 - 12:40:56 Drawing: C:\Users\mlewis\appdata\local\temp\AcPublish_2864\JPM.27086 - P-DTL.dwg :CD-4 DETS

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REV	DATE	COMMENT	BY
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DOCUMENT

SITE PLAN APPROVAL FOR CHASE BANK

SITE LOCATION

1574 WOODBURY AVENUE, PORTSMOUTH, NH 03801

ENGINEER SEAL

STATE OF NEW HAMPSHIRE THOMAS C. PICKERING No. 10218 LICENSED PROFESSIONAL ENGINEER 08/11/2020

SHEET TITLE

CONSTRUCTION DETAILS

JOB #:	JPM.27086
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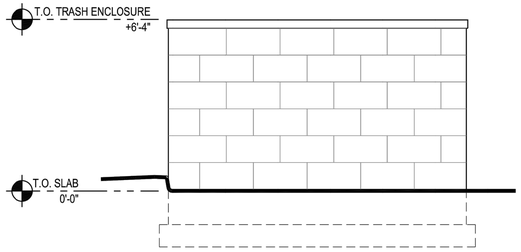
DRAWN BY:	MAL
CHECKED BY:	KGF

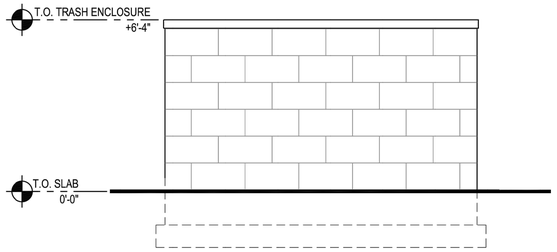
SHEET NO.

CD-4



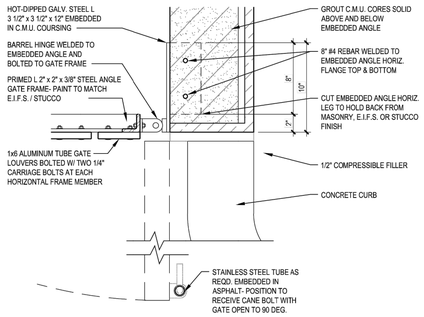
5 A0.6 TRASH ENCLOSURE - ELEVATION

3/8" = 1'-0"



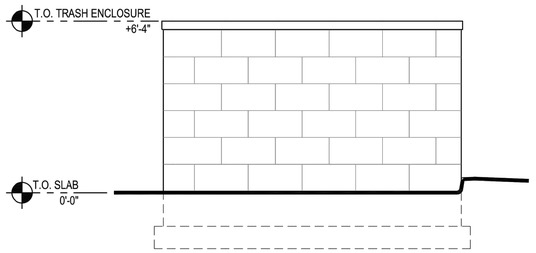
4 A0.6 TRASH ENCLOSURE - ELEVATION

3/8" = 1'-0"



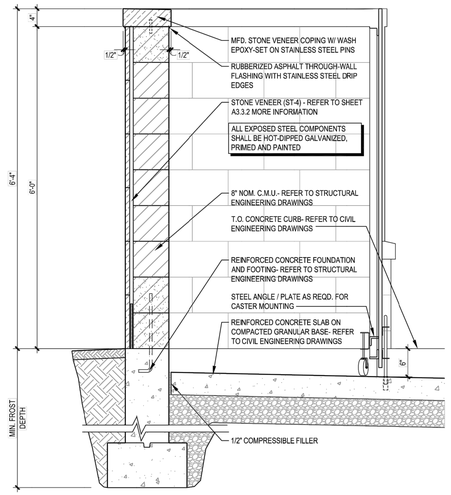
8 A0.6 TRASH ENCLOSURE - CORNER DETAIL

1 1/2" = 1'-0"



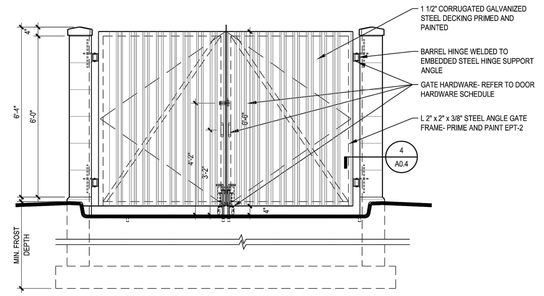
3 A0.6 TRASH ENCLOSURE - ELEVATION

3/8" = 1'-0"



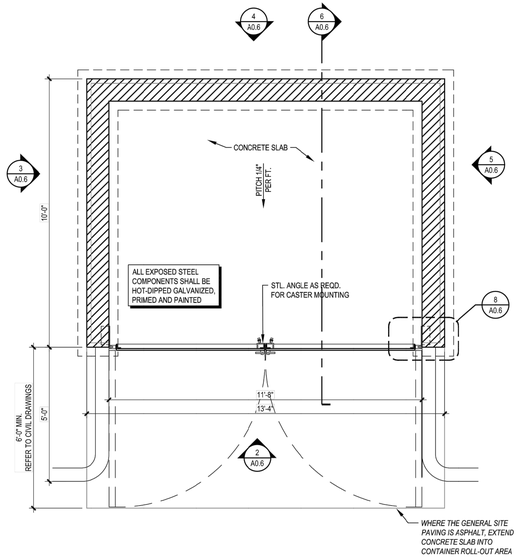
6 A0.6 TRASH ENCLOSURE - SECTION

3/4" = 1'-0"



2 A0.6 TRASH ENCLOSURE - ELEVATION

3/8" = 1'-0"



1 A0.6 TRASH ENCLOSURE - PLAN

3/8" = 1'-0"

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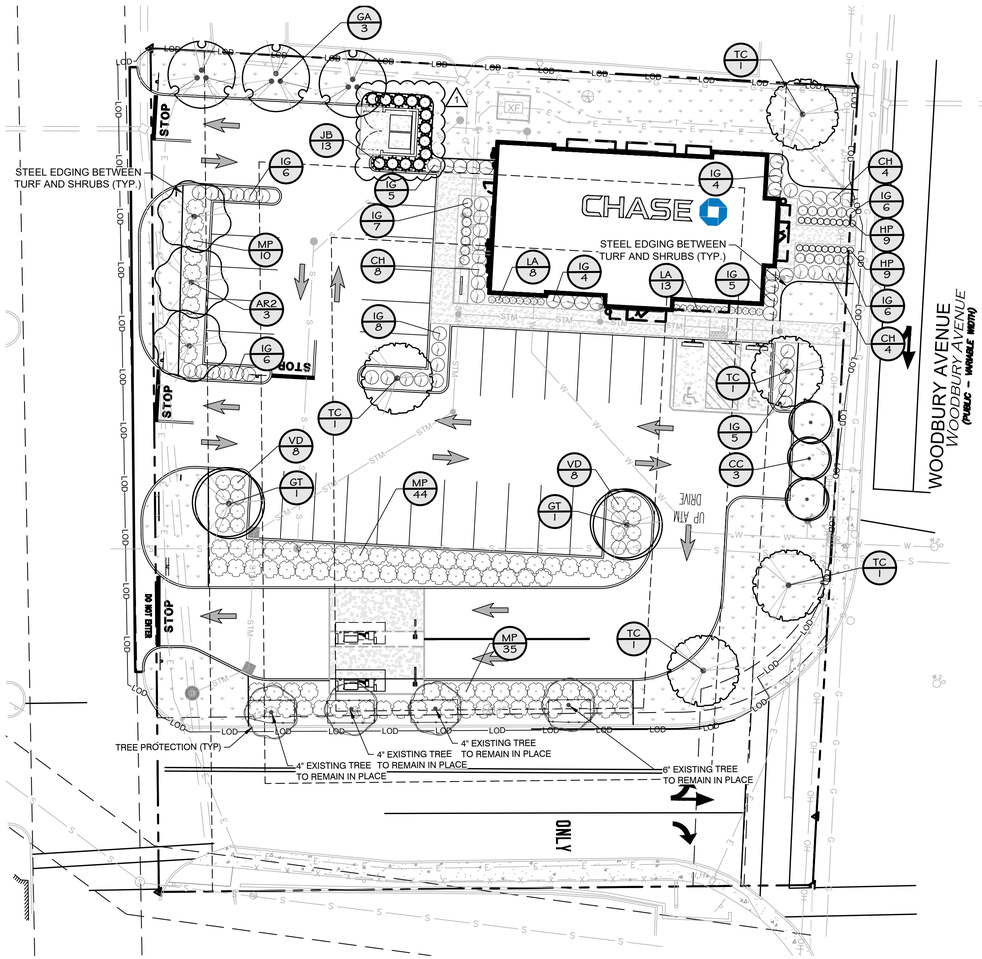
CD-5 1



PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	CAL	CONT.	SIZE	QTY
	AR2	Acer rubrum `Red Sunset` Red Sunset Maple	2" Cal.	B&B	8`-10`	3
	CC	Cercis canadensis Eastern Redbud Multi-trunk - 3-5 canes	1.5" Cal.	B&B	6`-8`	3
	GA	Ginkgo biloba `Autumn Gold` TM Autumn Gold Maidenhair Tree	2" Cal.	B&B	8`-10`	3
	GT	Gleditsia triacanthos inermis `Skycole` TM Skyline Thornless Honey Locust	2" Cal.	B&B	8`-10`	2
	TC	Tilia cordata Littleleaf Linden	2" Cal.	B&B	8`-10`	5

SHRUBS	CODE	BOTANICAL / COMMON NAME	CONTAINER	SIZE	SPACING	QTY
	CH	Clethra alnifolia `Hummingbird` Summersweet	5 gal.			16
	HP	Hypericum prolificum Broombrush	3 gal.			18
	IG	Ilex glabra `Shamrock` Inkberry	5 gal.			62
	JB	Juniperus chinensis `Blue Point` Blue Point Juniper	7 gal.	4`		13
	LA	Lavandula angustifolia English Lavender	3 gal.			21
	MP	Myrica pensylvanica `Bobzam` Bobee Northern Bayberry	5 gal.			89
	VD	Viburnum dentatum `Arrowwood` Arrowwood Viburnum	5 gal.			16

GROUND COVERS	CODE	BOTANICAL / COMMON NAME	CONT	SIZE	SPACING	QTY
	TURF	Poa pratensis Kentucky Bluegrass	sod			7,722 sf

NOTES:

THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS SHALL BE RESPONSIBLE FOR THE MAINTENANCE, REPAIR, AND REPLACEMENT OF ALL SCREENING AND LANDSCAPE MATERIALS.

ALL PLANT MATERIAL SHALL BE TENDED AND MAINTAINED IN A HEALTHY GROWING CONDITION, REPLACED WHEN NECESSARY, AND KEPT FREE OF REFUSE AND DEBRIS. ALL REQUIRED FENCES AND WALLS SHALL BE MAINTAINED IN GOOD REPAIR.

THE PROPERTY OWNER SHALL BE RESPONSIBLE TO REMOVE AND REPLACE DEAD OR DISEASED PLANT MATERIALS IMMEDIATELY WITH THE SAME TYPE, SIZE, AND QUANTITY OF PLANT MATERIALS ORIGINALLY INSTALLED, UNLESS ALTERNATIVE PLANTINGS ARE REQUESTED, JUSTIFIED AND APPROVED BY THE PLANNING BOARD OR PLANNING DIRECTOR.

ROOT BARRIERS

THE CONTRACTOR SHALL INSTALL ROOT BARRIERS NEAR ALL NEWLY-PLANTED TREES THAT ARE LOCATED WITHIN FIVE (5) FEET OF PAVING OR CURBS. ROOT BARRIERS SHALL BE "CENTURY" OR "DEEP-ROOT" 24" DEEP PANELS (OR EQUAL). BARRIERS SHALL BE LOCATED IMMEDIATELY ADJACENT TO HARDSCAPE. INSTALL PANELS PER MANUFACTURER'S RECOMMENDATIONS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR USE ROOT BARRIERS OF A TYPE THAT COMPLETELY ENCIRCLE THE ROOTBALL.

MULCHES

AFTER ALL PLANTING IS COMPLETE, CONTRACTOR SHALL INSTALL 3" THICK LAYER OF 1-1/2" SHREDDED WOOD MULCH, NATURAL (UNDYED), OVER LANDSCAPE FABRIC IN ALL PLANTING AREAS (EXCEPT FOR TURF AND SEEDED AREAS). CONTRACTOR SHALL SUBMIT SAMPLES OF ALL MULCHES TO LANDSCAPE ARCHITECT AND OWNER FOR APPROVAL PRIOR TO CONSTRUCTION. ABSOLUTELY NO EXPOSED GROUND SHALL BE LEFT SHOWING ANYWHERE ON THE PROJECT AFTER MULCH HAS BEEN INSTALLED (SUBJECT TO THE CONDITIONS AND REQUIREMENTS OF THE "GENERAL GRADING AND PLANTING NOTES" AND SPECIFICATIONS).

GENERAL GRADING AND PLANTING NOTES

1. BY SUBMITTING A PROPOSAL FOR THE LANDSCAPE PLANTING SCOPE OF WORK, THE CONTRACTOR CONFIRMS THAT HE HAS READ, AND WILL COMPLY WITH, THE ASSOCIATED NOTES, SPECIFICATIONS, AND DETAILS WITH THIS PROJECT.
2. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL EXISTING VEGETATION (EXCEPT WHERE NOTED TO REMAIN).
3. IN THE CONTEXT OF THESE PLANS, NOTES, AND SPECIFICATIONS, "FINISH GRADE" REFERS TO THE FINAL ELEVATION OF THE SOIL SURFACE (NOT TOP OF MULCH) AS INDICATED ON THE GRADING PLANS.
   a. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE ROUGH GRADES OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. SEE SPECIFICATIONS FOR MORE DETAILED INSTRUCTION ON TURF AREA AND PLANTING BED PREPARATION.
   b. CONSTRUCT AND MAINTAIN FINISH GRADES AS SHOWN ON GRADING PLANS, AND CONSTRUCT AND MAINTAIN SLOPES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT AND ON THE GRADING PLANS, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND ELIMINATE PONDING POTENTIAL.
   c. THE LANDSCAPE CONTRACTOR SHALL DETERMINE WHETHER OR NOT THE EXPORT OF ANY SOIL WILL BE NEEDED, TAKING INTO ACCOUNT THE ROUGH GRADE PROVIDED, THE AMOUNT OF SOIL AMENDMENTS TO BE ADDED (**BASED ON A SOIL TEST**, PER SPECIFICATIONS), AND THE FINISH GRADES TO BE ESTABLISHED.
   d. ENSURE THAT THE FINISH GRADE IN SHRUB AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 3" BELOW THE ADJACENT FINISH SURFACE, IN ORDER TO ALLOW FOR PROPER MULCH DEPTH. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.
   e. ENSURE THAT THE FINISH GRADE IN TURF AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 1" BELOW THE FINISH SURFACE OF THE WALKS. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.
   f. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GRADING PLANS, GEOTECHNICAL REPORT, THESE NOTES AND PLANS, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, GENERAL CONTRACTOR, AND OWNER.
4. ALL PLANT LOCATIONS ARE DIAGRAMMATIC. ACTUAL LOCATIONS SHALL BE VERIFIED WITH THE LANDSCAPE ARCHITECT OR DESIGNER PRIOR TO PLANTING. THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT ALL REQUIREMENTS OF THE PERMITTING AUTHORITY ARE MET (I.E., MINIMUM PLANT QUANTITIES, PLANTING METHODS, TREE PROTECTION METHODS, ETC.).
   a. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR DETERMINING PLANT QUANTITIES; PLANT QUANTITIES SHOWN ON LEGENDS AND CALLOUTS ARE FOR GENERAL INFORMATION ONLY. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLAN AND THE PLANT LEGEND, THE PLANT QUANTITY AS SHOWN ON THE PLAN (FOR INDIVIDUAL SYMBOLS) OR CALLOUT (FOR GROUNDCOVER PATTERNS) SHALL TAKE PRECEDENCE.
   b. **NO SUBSTITUTIONS OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT.** IF SOME OF THE PLANTS ARE NOT AVAILABLE, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING (VIA PROPER CHANNELS).
   c. THE CONTRACTOR SHALL, AT A MINIMUM, PROVIDE REPRESENTATIVE PHOTOS OF ALL PLANTS PROPOSED FOR THE PROJECT. THE CONTRACTOR SHALL ALLOW THE LANDSCAPE ARCHITECT AND THE OWNER/OWNER'S REPRESENTATIVE TO INSPECT, AND APPROVE OR REJECT, ALL PLANTS DELIVERED TO THE JOBSITE. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SUBMITTALS.
5. THE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE IN A HEALTHY CONDITION FOR 90 DAYS AFTER ACCEPTANCE BY THE OWNER. REFER TO SPECIFICATIONS FOR CONDITIONS OF ACCEPTANCE FOR THE START OF THE MAINTENANCE PERIOD, AND FOR FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD.
6. SEE SPECIFICATIONS AND DETAILS FOR FURTHER REQUIREMENTS.

0' 10' 20' 40'

Scale 1" = 20'

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ENGINEER SEAL

STATE OF NEW HAMPSHIRE
THOMAS C. PICKERING
No. 10218
LICENSED PROFESSIONAL ENGINEER
08/10/2020

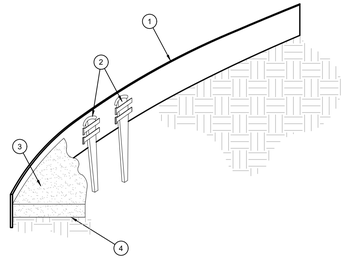
SHEET TITLE

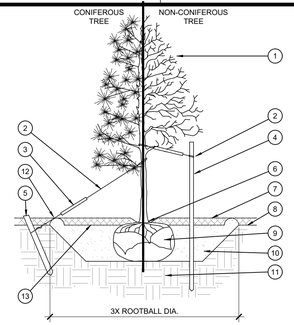
LANDSCAPE PLANTING

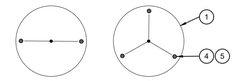
JOB #:	JPM.27086
DATE:	07/01/2020
SCALE:	
DRAWN BY:	MAL
CHECKED BY:	KGF

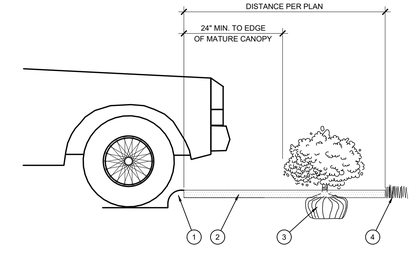
SHEET NO.

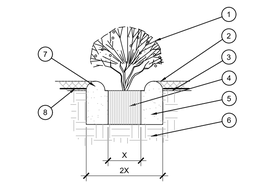
LP-1

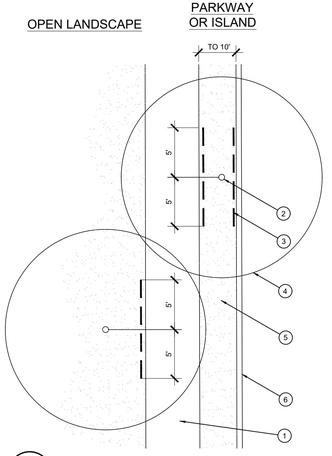


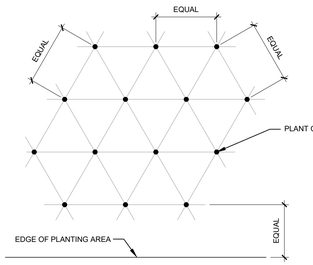












PLANTING SPECIFICATIONS

GENERAL

A. QUALIFICATIONS OF LANDSCAPE CONTRACTOR
  1. ALL LANDSCAPE WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE FIRM SPECIALIZING IN LANDSCAPE PLANTING.
  2. A LIST OF SUCCESSFULLY COMPLETED PROJECTS OF THIS TYPE, SIZE AND NATURE MAY BE REQUESTED BY THE OWNER FOR FURTHER QUALIFICATION MEASURES.
  3. THE LANDSCAPE CONTRACTOR SHALL HOLD A VALID NURSERY AND FLORAL CERTIFICATE ISSUED BY THE TEXAS DEPARTMENT OF AGRICULTURE, AS WELL AS OPERATE UNDER A COMMERCIAL PESTICIDE APPLICATOR LICENSE ISSUED BY EITHER THE TEXAS DEPARTMENT OF AGRICULTURE OR THE TEXAS STRUCTURAL PEST CONTROL BOARD.

B. SCOPE OF WORK
  1. WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES AND ANY OTHER ITEMS THAT ARE NECESSARY FOR THE EXECUTION, INSTALLATION AND COMPLETION OF ALL WORK, SPECIFIED HEREIN AND / OR SHOWN ON THE LANDSCAPE PLANS, NOTES, AND DETAILS.
  2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIALS.
  3. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK.

PRODUCTS

A. ALL MANUFACTURED PRODUCTS SHALL BE NEW.
B. CONTAINER AND BALLED-AND-BURLAPPED PLANTS:
  1. FURNISH NURSERY-GROWN PLANTS COMPLYING WITH ANSI Z60.1-2014. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. ALL PLANTS WITHIN A SPECIES SHALL HAVE SIMILAR SIZE, AND SHALL BE OF A FORM TYPICAL FOR THE SPECIES. ALL TREES SHALL BE OBTAINED FROM SOURCES WITHIN 200 MILES OF THE PROJECT SITE, AND WITH SIMILAR CLIMACTIC CONDITIONS.
  2. ROOT SYSTEMS SHALL BE HEALTHY, DENSELY BRANCHED ROOT SYSTEMS, NON-POT-BOUND, FREE FROM ENCIRCLING AND/OR GIRDLING ROOTS, AND FREE FROM ANY OTHER ROOT DEFECTS (SUCH AS J-SHAPED ROOTS).
  3. TREES MAY BE PLANTED FROM CONTAINERS OR BALLED-AND-BURLAPPED (B&B), UNLESS SPECIFIED ON THE PLANTING LEGEND. BARE-ROOT TREES ARE NOT ACCEPTABLE.
  4. ANY PLANT DEEMED UNACCEPTABLE BY THE LANDSCAPE ARCHITECT OR OWNER SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND SHALL BE REPLACED WITH AN ACCEPTBLE PLANT OF LIKE TYPE AND SIZE AT THE CONTRACTOR'S OWN EXPENSE. ANY PLANTS APPEARING TO BE UNHEALTHY, EVEN IF DETERMINED TO STILL BE ALIVE, SHALL NOT BE ACCEPTED. THE LANDSCAPE ARCHITECT AND OWNER SHALL BE THE SOLE JUDGES AS TO THE ACCEPTABILITY OF PLANT MATERIAL.
  5. ALL TREES SHALL BE STANDARD IN FORM, UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADER IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING.
  6. CALIPER MEASUREMENTS FOR STANDARD (SINGLE TRUNK) TREES SHALL BE AS FOLLOWS: SIX INCHES ABOVE THE ROOT FLARE FOR TREES UP TO AND INCLUDING FOUR INCHES IN CALIPER, AND TWELVE INCHES ABOVE THE ROOT FLARE FOR TREES EXCEEDING FOUR INCHES IN CALIPER.
  7. MULTI-TRUNK TREES SHALL BE MEASURED BY THEIR OVERALL HEIGHT, MEASURED FROM THE TOP OF THE ROOT BALL. WHERE CALIPER MEASUREMENTS ARE USED, THE CALIPER SHALL BE CALCULATED AS ONE-HALF OF THE SUM OF THE CALIPER OF THE THREE LARGEST TRUNKS.
  8. ANY TREE OR SHRUB SHOWN TO HAVE EXCESS SOIL PLACED ON TOP OF THE ROOT BALL, SO THAT THE ROOT FLARE HAS BEEN COMPLETELY COVERED, SHALL BE REJECTED.
C. SOD: PROVIDE WELL-ROOTED SOD OF THE VARIETY NOTED ON THE PLANS. SOD SHALL BE CUT FROM HEALTHY, MATURE TURF WITH SOIL THICKNESS OF 3/4" TO 1". EACH PALLET OF SOD SHALL BE ACCOMPANIED BY A CERTIFICATE FROM SUPPLIER STATING THE COMPOSITION OF THE SOD.
D. TOPSOIL: SANDY TO CLAY LOAM TOPSOIL, FREE OF STONES LARGER THAN ½ INCH, FOREIGN MATTER, PLANTS, ROOTS, AND SEEDS.
E. COMPOST: WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER, pH RANGE OF 5.5 TO 8; MOISTURE CONTENT 35 TO 55 PERCENT BY WEIGHT; 100 PERCENT PASSING THROUGH 3/4-INCH SIEVE; SOLUBLE SALT CONTENT OF 5 TO 10 DECISIEMENS/M; NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS. NO MANURE OR ANIMAL-BASED PRODUCTS SHALL BE USED.
F. FERTILIZER: GRANULAR FERTILIZER CONSISTING OF NITROGEN, PHOSPHORUS, POTASSIUM, AND OTHER NUTRIENTS IN PROPORTIONS, AMOUNTS, AND RELEASE RATES RECOMMENDED IN A SOIL REPORT FROM A QUALIFIED SOIL-TESTING AGENCY (SEE BELOW).
G. MULCH: SIZE AND TYPE AS INDICATED ON PLANS, FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS.
H. TREE STAKING AND GUYING
  1. STAKES: 6' LONG GREEN METAL T-POSTS.
  2. GUY AND TIE WIRE: ASTM A 641, CLASS 1, GALVANIZED-STEEL WIRE, 2-STRAND, TWISTED, 0.106 INCH DIAMETER.
  3. STRAP CHAFING GUARD: REINFORCED NYLON OR CANVAS AT LEAST 1-1/2 INCH WIDE, WITH GROMMETS TO PROTECT TREE TRUNKS FROM DAMAGE.
L. STEEL EDGING: PROFESSIONAL STEEL EDGING, 14 GAUGE THICK X 4 INCHES WIDE, FACTORY PAINTED DARK GREEN. ACCEPTABLE MANUFACTURERS INCLUDE COL-MET OR APPROVED EQUAL.
M. PRE-EMERGENT HERBICIDES: ANY GRANULAR, NON-STAINING PRE-EMERGENT HERBICIDE THAT IS LABELED FOR THE SPECIFIC ORNAMENTALS OR TURF ON WHICH IT WILL BE UTILIZED. PRE-EMERGENT HERBICIDES SHALL BE APPLIED PER THE MANUFACTURER'S LABELED RATES.

METHODS

A. SOIL PREPARATION
  1. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE GRADE OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY SHOULD ANY DISCREPANCIES EXIST.
  2. SOIL TESTING:
    a. AFTER FINISH GRADES HAVE BEEN ESTABLISHED, CONTRACTOR SHALL HAVE SOIL SAMPLES FROM THE PROJECT'S LANDSCAPE AREAS TESTED BY AN ESTABLISHED SOIL TESTING LABORATORY. EACH SAMPLE SUBMITTED TO THE LAB SHALL CONTAIN NO LESS THAN ONE QUART OF SOIL, TAKEN FROM BETWEEN THE SOIL SURFACE AND 6" DEPTH. IF NO SAMPLE LOCATIONS ARE INDICATED ON THE PLANS, THE CONTRACTOR SHALL TAKE A MINIMUM OF THREE SAMPLES FROM VARIOUS REPRESENTATIVE LOCATIONS FOR TESTING.
    b. THE CONTRACTOR SHALL HAVE THE SOIL TESTING LABORATORY PROVIDE RESULTS FOR THE FOLLOWING: SOIL TEXTURAL CLASS, GENERAL SOIL FERTILITY, pH, ORGANIC MATTER CONTENT, SALT (CEC), LIME, SODIUM ADSORPTION RATIO (SAR) AND BORON CONTENT.
    c. THE CONTRACTOR SHALL ALSO SUBMIT THE PROJECT'S PLANT LIST TO THE LABORATORY ALONG WITH THE SOIL SAMPLES.
    d. THE SOIL REPORT PRODUCED BY THE LABORATORY SHALL CONTAIN RECOMMENDATIONS FOR THE FOLLOWING (AS APPROPRIATE): SEPARATE SOIL PREPARATION AND BACKFILL MIX RECOMMENDATIONS FOR GENERAL ORNAMENTAL PLANTS, XERIC PLANTS, TURF, AND NATIVE SEED, AS WELL AS PRE-PLANT FERTILIZER APPLICATIONS AND RECOMMENDATIONS FOR ANY OTHER SOIL RELATED ISSUES. THE REPORT SHALL ALSO PROVIDE A FERTILIZER PROGRAM FOR THE ESTABLISHMENT PERIOD AND FOR LONG-TERM MAINTENANCE.
  3. THE CONTRACTOR SHALL INSTALL SOIL AMENDMENTS AND FERTILIZERS PER THE SOILS REPORT RECOMMENDATIONS. ANY CHANGE IN COST DUE TO THE SOIL REPORT RECOMMENDATIONS, EITHER INCREASE OR DECREASE, SHALL BE SUBMITTED TO THE OWNER WITH THE REPORT.
  4. FOR BIDDING PURPOSES ONLY, THE SOIL PREPARATION SHALL CONSIST OF THE FOLLOWING:
    a. TURF: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING:
    i. NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU. YDS. PER 1,000 S.F.
    ii. PREPLANT TURF FERTILIZER (10-20-10 OR SIMILAR, SLOW RELEASE, ORGANIC) - 15 LBS PER 1,000 S.F.
    iii. "CLAY BUSTER" OR EQUAL - USE MANUFACTURER'S RECOMMENDED RATE
    b. TREES, SHRUBS, AND PERENNIALS: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING:
    i. NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU. YDS. PER 1,000 S.F.
    ii. 12-12-12 FERTILIZER (OR SIMILAR, ORGANIC, SLOW RELEASE) - 10 LBS. PER CU. YD.
    iii. "CLAY BUSTER" OR EQUAL - USE MANUFACTURER'S RECOMMENDED RATE
    iv. IRON SULPHATE - 2 LBS. PER CU. YD.
  5. IN THE CONTEXT OF THESE PLANS, NOTES, AND SPECIFICATIONS, "FINISH GRADE" REFERS TO THE FINAL ELEVATION OF THE SOIL SURFACE (NOT TOP OF MULCH) AS INDICATED ON THE GRADING PLANS.
    a. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE ROUGH GRADES OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. SEE SPECIFICATIONS FOR MORE DETAILED INSTRUCTION ON TURF AREA AND PLANTING BED PREPARATION.
    b. CONSTRUCT AND MAINTAIN FINISH GRADES AS SHOWN ON GRADING PLANS, AND CONSTRUCT AND MAINTAIN SLOPES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT AND ON THE GRADING PLANS, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND ELIMINATE PONDING POTENTIAL.
    c. THE LANDSCAPE CONTRACTOR SHALL DETERMINE WHETHER OR NOT THE EXPORT OF ANY SOIL WILL BE NEEDED, TAKING INTO ACCOUNT THE ROUGH GRADE PROVIDED, THE AMOUNT OF SOIL AMENDMENTS TO BE ADDED (**BASED ON A SOIL TEST**, PER SPECIFICATIONS), AND THE FINISH GRADES TO BE ESTABLISHED.
    d. ENSURE THAT THE FINISH GRADE IN SHRUB AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 3" BELOW THE ADJACENT FINISH SURFACE, IN ORDER TO ALLOW FOR PROPER MULCH DEPTH. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.
    e. ENSURE THAT THE FINISH GRADE IN TURF AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 1" BELOW THE FINISH SURFACE OF THE WALKS. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.
    f. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GRADING PLANS, GEOTECHNICAL REPORT, THESE NOTES AND PLANS, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, GENERAL CONTRACTOR, AND OWNER.
  6. ONCE SOIL PREPARATION IS COMPLETE, THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT THERE ARE NO DEBRIS, TRASH, OR STONES LARGER THAN 1" REMAINING IN THE TOP 6" OF SOIL.

B. SUBMITTALS
  1. THE CONTRACTOR SHALL PROVIDE SUBMITTALS AND SAMPLES, IF REQUIRED, TO THE LANDSCAPE ARCHITECT, AND RECEIVE APPROVAL IN WRITING FOR SUCH SUBMITTALS BEFORE WORK COMMENCES.
  2. SUBMITTALS SHALL INCLUDE PHOTOS OF PLANTS WITH A RULER OR MEASURING STICK FOR SCALE, PHOTOS OR SAMPLES OF ANY REQUIRED MULCHES, AND SOIL TEST RESULTS AND PREPARATION RECOMMENDATIONS FROM THE TESTING LAB (INCLUDING COMPOST AND FERTILIZER RATES AND TYPES, AND OTHER AMENDMENTS FOR TREE/SHRUB, TURF, AND SEED AREAS AS MAY BE APPROPRIATE).
  3. SUBMITTALS SHALL ALSO INCLUDE MANUFACTURER CUT SHEETS FOR PLANTING ACCESSORIES SUCH AS TREE STAKES AND TIES, EDGING, AND LANDSCAPE FABRICS (IF ANY).
  4. WHERE MULTIPLE ITEMS ARE SHOWN ON A PAGE, THE CONTRACTOR SHALL CLEARLY INDICATE THE ITEM BEING CONSIDERED.
C. GENERAL PLANTING
  1. REMOVE ALL NURSERY TAGS AND STAKES FROM PLANTS.
  2. EXCEPT IN AREAS TO BE PLANTED WITH ORNAMENTAL GRASSES, APPLY PRE-EMERGENT HERBICIDES AT THE MANUFACTURER'S RECOMMENDED RATE.
  3. TRENCHING NEAR EXISTING TREES:
    a. CONTRACTOR SHALL NOT DISTURB ROOTS 1-1/2" AND LARGER IN DIAMETER WITHIN THE CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES, AND SHALL EXERCISE ALL POSSIBLE CARE AND PRECAUTIONS TO AVOID INJURY TO TREE ROOTS, TRUNKS, AND BRANCHES. THE CRZ IS DEFINED AS A CIRCULAR AREA EXTENDING OUTWARD FROM THE TREE TRUNK, WITH A RADIUS EQUAL TO 1' FOR EVERY 1" OF TRUNK DIAMETER-AT-BREAST-HEIGHT (4.5' ABOVE THE AVERAGE GRADE AT THE TRUNK).
    b. ALL EXCAVATION WITHIN THE CRZ SHALL BE PERFORMED USING HAND TOOLS. NO MACHINE EXCAVATION OR TRENCHING OF ANY KIND SHALL BE ALLOWED WITHIN THE CRZ.
    c. ALTER ALIGNMENT OF PIPE TO AVOID TREE ROOTS 1-1/2" AND LARGER IN DIAMETER. WHERE TREE ROOTS 1-1/2" AND LARGER IN DIAMETER ARE ENCOUNTERED IN THE FIELD, TUNNEL UNDER SUCH ROOTS. WRAP EXPOSED ROOTS WITH SEVERAL LAYERS OF BURLAP AND KEEP MOIST. CLOSE ALL TRENCHES WITHIN THE CANOPY DRIP LINES WITHIN 24 HOURS.
    d. ALL SEVERED ROOTS SHALL BE HAND PRUNED WITH SHARP TOOLS AND ALLOWED TO AIR-DRY. DO NOT USE ANY SORT OF SEALERS OR WOUND PAINTS.
C. TREE PLANTING
  1. TREE PLANTING HOLES SHALL BE EXCAVATED TO MINIMUM WIDTH OF TWO TIMES THE WIDTH OF THE ROOTBALL, AND TO A DEPTH EQUAL TO THE DEPTH OF THE ROOTBALL LESS TWO TO FOUR INCHES.
  2. SCARIFY THE SIDES AND BOTTOM OF THE PLANTING HOLE PRIOR TO THE PLACEMENT OF THE TREE. REMOVE ANY GLAZING THAT MAY HAVE BEEN CAUSED DURING THE EXCAVATION OF THE HOLE.
  3. FOR CONTAINER AND BOX TREES, TO REMOVE ANY POTENTIALLY GIRDLING ROOTS AND OTHER ROOT DEFECTS, THE CONTRACTOR SHALL SHAVE A 1" LAYER OFF OF THE SIDES AND BOTTOM OF THE ROOTBALL OF ALL TREES JUST BEFORE PLACING INTO THE PLANTING PIT. DO NOT "TEASE" ROOTS OUT FROM THE ROOTBALL.
  4. INSTALL THE TREE ON UNDISTURBED SUBGRADE SO THAT THE TOP OF THE ROOTBALL IS TWO TO FOUR INCHES ABOVE THE SURROUNDING GRADE.
  5. BACKFILL THE TREE HOLE UTILIZING THE EXISTING TOPSOIL FROM ON-SITE. ROCKS LARGER THAN 1" DIA. AND ALL OTHER DEBRIS SHALL BE REMOVED FROM THE SOIL PRIOR TO THE BACKFILL. SHOULD ADDITIONAL SOIL BE REQUIRED TO ACCOMPLISH THIS TASK, USE STORED TOPSOIL FROM ON-SITE OR IMPORT ADDITIONAL TOPSOIL FROM OFF-SITE AT NO ADDITIONAL COST TO THE OWNER. IMPORTED TOPSOIL SHALL BE OF SIMILAR TEXTURAL CLASS AND COMPOSITION IN THE ON-SITE SOIL.
  6. TREES SHALL NOT BE STAKED UNLESS LOCAL CONDITIONS (SUCH AS HEAVY WINDS OR SLOPES) REQUIRE STAKES TO KEEP TREES UPRIGHT. SHOULD STAKING BE REQUIRED, THE TOTAL NUMBER OF TREE STAKES (BEYOND THE MINIMUMS LISTED BELOW) WILL BE LEFT TO THE LANDSCAPE CONTRACTOR'S DISCRETION. SHOULD ANY TREES FALL OR LEAN, THE LANDSCAPE CONTRACTOR SHALL STRAIGHTEN THE TREE, OR REPLACE IT SHOULD IT BECOME DAMAGED. TREE STAKING SHALL ADHERE TO THE FOLLOWING GUIDELINES:
    a. 1"-2" TREES — TWO STAKES PER TREE
    b. 2-1/2"-4" TREES — THREE STAKES PER TREE
    c. TREES OVER 4" CALIPER — GUY AS NEEDED
    d. MULTI-TRUNK TREES — THREE STAKES PER TREE MINIMUM, QUANTITY AND POSITIONS AS NEEDED TO STABILIZE THE TREE
    e. MULTI-TRUNK TREES — THREE STAKES PER TREE MINIMUM, QUANTITY AND POSITIONS AS NEEDED TO STABILIZE THE TREE
  7. UPON COMPLETION OF PLANTING, CONSTRUCT AN EARTH WATERING BASIN AROUND THE TREE. COVER THE INTERIOR OF THE TREE RING WITH THE WEED BARRIER CLOTH AND TOPDRESS WITH MULCH (TYPE AND DEPTH PER PLANS).
D. SHRUB, PERENNIAL, AND GROUNDCOVER PLANTING
  1. DIG THE PLANTING HOLES TWICE AS WIDE AND 2" LESS DEEP THAN EACH PLANT'S ROOTBALL. INSTALL THE PLANT IN THE HOLE. BACKFILL AROUND THE PLANT WITH SOIL AMENDED PER SOIL TEST RECOMMENDATIONS.
  2. INSTALL THE WEED BARRIER CLOTH, OVERLAPPING IT AT THE ENDS. UTILIZE STEEL STAPLES TO KEEP THE WEED BARRIER CLOTH IN PLACE.
  3. WHEN PLANTING IS COMPLETE, INSTALL MULCH (TYPE AND DEPTH PER PLANS) OVER ALL PLANTING BEDS, COVERING THE ENTIRE PLANTING AREA.
E. SODDING
  1. SOD VARIETY TO BE AS SPECIFIED ON THE LANDSCAPE PLAN.
  2. LAY SOD WITHIN 24 HOURS FROM THE TIME OF STRIPPING. DO NOT LAY IF THE GROUND IS FROZEN.
  3. LAY THE SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. BUTT ENDS AND SIDES OF SOD STRIPS - DO NOT OVERLAP. STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES.
  4. ROLL THE SOD TO ENSURE GOOD CONTACT OF THE SOD'S ROOT SYSTEM WITH THE SOIL UNDERNEATH.
  5. WATER THE SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING TO OBTAIN AT LEAST SIX INCHES OF PENETRATION INTO THE SOIL BELOW THE SOD.
F. MULCH
  1. INSTALL MULCH TOPDRESSING, TYPE AND DEPTH PER MULCH NOTE, IN ALL PLANTING AREAS AND TREE RINGS.
  2. DO NOT INSTALL MULCH WITHIN 6" OF TREE ROOT FLARE AND WITHIN 24" OF HABITABLE STRUCTURES, EXCEPT AS MAY BE NOTED ON THESE PLANS. MULCH COVER WITHIN 6" OF CONCRETE WALKS AND CURBS SHALL NOT PROTRUDE ABOVE THE FINISH SURFACE OF THE WALKS AND CURBS. MULCH COVER WITHIN 12" OF WALLS SHALL BE AT LEAST 3" LOWER THAN THE TOP OF WALL.
G. CLEAN UP
  1. DURING LANDSCAPE PREPARATION AND PLANTING, KEEP ALL PAVEMENT CLEAN AND ALL WORK AREAS IN A NEAT, ORDERLY CONDITION.
  2. DISPOSED LEGALLY OF ALL EXCAVATED MATERIALS OFF THE PROJECT SITE.
H. INSPECTION AND ACCEPTANCE
  1. UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE SITE CLEAN, FREE OF DEBRIS AND TRASH, AND SUITABLE FOR USE AS INTENDED. THE LANDSCAPE CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY.
  2. WHEN THE INSPECTED PLANTING WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE LANDSCAPE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNER'S SATISFACTION WITHIN 24 HOURS.
  3. THE LANDSCAPE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE LANDSCAPE WORK HAS BEEN RE-INSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME, A WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE PERIODS WILL COMMENCE.
I. LANDSCAPE MAINTENANCE
  1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK SHOWN ON THESE PLANS FOR 90 DAYS BEYOND FINAL ACCEPTANCE OF ALL LANDSCAPE WORK BY THE OWNER. LANDSCAPE MAINTENANCE SHALL INCLUDE WEEKLY SITE VISITS FOR THE FOLLOWING ACTIONS (AS APPROPRIATE): PROPER PRUNING, RESTAKING OF TREES, RESETTING OF PLANTS THAT HAVE SETTLED, MOWING AND AERATION OF LAWNS, WEEDING, TREATING FOR INSECTS AND DISEASES,REPLACEMENT OF MULCH, REMOVAL OF LITTER, REPAIRS TO THE IRRIGATION SYSTEM DUE TO FAULTY PARTS AND/OR WORKMANSHIP, AND THE APPROPRIATE WATERING OF ALL PLANTINGS. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN PROPER WORKING ORDER, WITH SCHEDULING ADJUSTMENTS BY SEASON TO MAXIMIZE WATER CONSERVATION.
  2. SHOULD SEEDED AND/OR SODDED AREAS NOT BE COVERED BY AN AUTOMATIC IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL, HEALTHY STAND OF PLANTS AT NO ADDITIONAL COST TO THE OWNER.
  3. TO ACHIEVE FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD, ALL OF THE FOLLOWING CONDITIONS MUST OCCUR:
    a. THE LANDSCAPE SHALL SHOW ACTIVE, HEALTHY GROWTH (WITH EXCEPTIONS MADE FOR SEASONAL DORMANCY). ALL PLANTS NOT MEETING THIS CONDITION SHALL BE REJECTED AND REPLACED BY HEALTHY PLANT MATERIAL PRIOR TO FINAL ACCEPTANCE.
    b. ALL HARDSCAPE SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE.
    c. SODDED AREAS MUST BE ACTIVELY GROWING AND MUST REACH A MINIMUM HEIGHT OF 1 1/2 INCHES BEFORE FIRST MOWING. BARE AREAS LARGER THAN TWELVE SQUARE INCHES MUST BE RESODDED (AS APPROPRIATE) PRIOR TO FINAL ACCEPTANCE. ALL SODDED TURF SHALL BE NEATLY MOWED.
J. WARRANTY PERIOD, PLANT GUARANTEE AND REPLACEMENTS
  1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL TREES, SHRUBS, PERENNIALS, SOD, AND IRRIGATION SYSTEMS FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE OWNER'S FINAL ACCEPTANCE (90 DAYS FOR ANNUAL PLANTS). THE CONTRACTOR SHALL REPLACE, AT HIS OWN EXPENSE AND TO THE SATISFACTION OF THE OWNER, ANY PLANTS WHICH DIE IN THAT TIME, OR REPAIR ANY PORTIONS OF THE IRRIGATION SYSTEM WHICH OPERATE IMPROPERLY.
  2. AFTER THE INITIAL MAINTENANCE PERIOD AND DURING THE GUARANTEE PERIOD, THE LANDSCAPE CONTRACTOR SHALL ONLY BE RESPONSIBLE FOR REPLACEMENT OF PLANTS WHEN PLANT DEATH CANNOT BE ATTRIBUTED DIRECTLY TO OVERWATERING OR OTHER DAMAGE BY HUMAN ACTIONS.
K. PROVIDE A MINIMUM OF (2) COPIES OF RECORD DRAWINGS TO THE OWNER UPON COMPLETION OF WORK. A RECORD DRAWING IS A RECORD OF ALL CHANGES THAT OCCURRED IN THE FIELD AND THAT ARE DOCUMENTED THROUGH CHANGE ORDERS, ADDENDA, OR CONTRACTOR/CONSULTANT DRAWING MARKUPS.

1. ROLLED-TOP STEEL EDGING PER PLANS.
2. TAPERED STEEL STAKES.
3. MULCH, TYPE AND DEPTH PER PLANS.
4. FINISH GRADE.

NOTES:
1) INSTALL EDGING SO THAT STAKES WILL BE ON INSIDE OF PLANTING BED.
2) BOTTOM OF EDGING SHALL BE BURIED A MINIMUM OF 1" BELOW FINISH GRADE.
3) TOP OF MULCH SHALL BE 1" LOWER THAN TOP OF EDGING.

D STEEL EDGING
SCALE: NOT TO SCALE

1. TREE CANOPY.
2. CINCH-TIES (24" BOX/2" CAL. TREES AND SMALLER) OR 12 GAUGE GALVANIZED WIRE WITH NYLON TREE STRAPS AT TREE AND STAKE (36" BOX/2.5" CAL. TREES AND LARGER). SECURE TIES OR STRAPS TO TRUNK JUST ABOVE LOWEST MAJOR BRANCHES.
3. 24" X 3/4" P.V.C. MARKERS OVER WIRES.
4. GREEN STEEL T-POSTS. EXTEND POSTS 12" MIN. INTO UNDISTURBED SOIL.
5. PRESSURE-TREATED WOOD DEADMAN, TWO PER TREE (MIN.). BURY OUTSIDE OF PLANTING PIT AND 18" MIN. INTO UNDISTURBED SOIL.
6. TRUNK FLARE.
7. MULCH, TYPE AND DEPTH PER PLANS. DO NOT PLACE MULCH WITHIN 6" OF TRUNK.
8. FINISH GRADE.
9. ROOT BALL.
10. BACKFILL. AMEND AND FERTILIZE ONLY AS RECOMMENDED IN SOIL FERTILITY ANALYSIS.
11. UNDISTURBED NATIVE SOIL.
12. 4" HIGH EARTHEN WATERING BASIN.
13. FINISH GRADE.

NOTES:
1. SCARIFY SIDES OF PLANTING PIT PRIOR TO SETTING TREE.
2. REMOVE EXCESS SOIL APPLIED ON TOP OF THE ROOTBALL THAT COVERS THE ROOT FLARE. THE PLANTING HOLE DEPTH SHALL BE SUCH THAT THE ROOTBALL RESTS ON UNDISTURBED SOIL, AND THE ROOT FLARE IS 2"-4" ABOVE FINISH GRADE.
3. FOR B&B TREES, CUT OFF BOTTOM 1/3 OF WIRE BASKET BEFORE PLACING TREE IN HOLE, CUT OFF AND REMOVE REMAINDER OF BASKET AFTER TREE IS SET IN HOLE, REMOVE ALL NYLON TIES, TWINE, ROPE, AND OTHER PACKING MATERIAL. REMOVE AS MUCH BURLAP FROM AROUND ROOTBALL AS IS PRACTICAL.
4. REMOVE ALL NURSERY STAKES AFTER PLANTING.
5. FOR TREES 36" BOX/2.5" CAL. AND LARGER, USE THREE STAKES OR DEADMEN (AS APPROPRIATE), SPACED EVENLY AROUND TREE.
6. STAKING SHALL BE TIGHT ENOUGH TO PREVENT TRUNK FROM BENDING, BUT LOOSE ENOUGH TO ALLOW SOME TRUNK MOVEMENT IN WIND.

A TREE PLANTING
SCALE: NOT TO SCALE

1. CURB.
2. MULCH LAYER.
3. PLANT.
4. TURF (WHERE SHOWN ON PLAN).

E PLANTING AT PARKING AREA
SCALE: NOT TO SCALE

1. SHRUB, PERENNIAL, OR ORNAMENTAL GRASS.
2. MULCH, TYPE AND DEPTH PER PLANS. PLACE NO MORE THAN 1" OF MULCH WITHIN 6" OF PLANT CENTER.
3. FINISH GRADE.
4. ROOT BALL.
5. BACKFILL. AMEND AND FERTILIZE ONLY AS RECOMMENDED IN SOIL FERTILITY ANALYSIS.
6. UNDISTURBED NATIVE SOIL.
7. 3" HIGH EARTHEN WATERING BASIN.
8. WEED FABRIC UNDER MULCH.

B SHRUB AND PERENNIAL PLANTING
SCALE: NTS

1. TYPICAL WALKWAY OR PAVING
2. TREE TRUNK
3. LINEAR ROOT BARRIER MATERIAL. SEE PLANTING NOTES FOR TYPE AND MANUFACTURER. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
4. TREE CANOPY
5. TYPICAL PLANTING AREA
6. TYPICAL CURB AND GUTTER

NOTES:
1) INSTALL ROOT BARRIERS NEAR ALL NEWLY-PLANTED TREES THAT ARE LOCATED WITHIN FIVE (5) FEET OF PAVING OR CURBS.
2) BARRIERS SHALL BE LOCATED IMMEDIATELY ADJACENT TO HARDSCAPE. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR USE ROOT BARRIERS OF A TYPE THAT COMPLETELY ENCIRCLE THE ROOTBALL.

F ROOT BARRIER - PLAN VIEW
SCALE: NOT TO SCALE

NOTE: ALL PLANTS SHALL BE PLANTED AT EQUAL TRIANGULAR SPACING (EXCEPT WHERE SHOWN ON PLANS AS INFORMAL GROUPINGS). REFER TO PLANT LEGEND FOR SPACING DISTANCE BETWEEN PLANTS.

1) STEP 1: DETERMINE TOTAL PLANTS FOR THE AREA WITH THE FOLLOWING FORMULA:
TOTAL AREA / AREA DIVIDER = TOTAL PLANTS

PLANT SPACING	AREA DIVIDER	PLANT SPACING	AREA DIVIDER
6"	0.22	18"	1.95
8"	0.39	24"	3.46
10"	0.60	30"	5.41
12"	0.87	36"	7.79
15"	1.35		

2) STEP 2: SUBTRACT THE ROW (S) OF PLANTS THAT WOULD OCCUR AT THE EDGE OF THE PLANTED AREA WITH THE FOLLOWING FORMULA: TOTAL PERIMETER LENGTH / PLANT SPACING = TOTAL PLANT SUBTRACTION

EXAMPLE: PLANTS AT 18" O.C. IN 100 SF PLANTING AREA, 40 LF PERIMETER
STEP 1: 100 SF/1.95 = 51 PLANTS
STEP 2: 51 PLANTS - (40 LF / 1.95 = 21 PLANTS) = 30 PLANTS TOTAL

C PLANT SPACING
SCALE: NTS

CORE STATES INC.
12700 HILLCREST ROAD
Suite 192
DALLAS, TX 75230
(214) 377-5060
www.core-eng.com

CLIENT
CHASE

811
Know what's below.
Call before you dig.

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON DESIGN DRAWINGS, RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. CORE STATES, INC. DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES.

REV	DATE	COMMENT	BY
1	8/10/2020	PER TRC COMMENTS	MAL

DOCUMENT
SITE PLAN APPROVAL FOR CHASE BANK

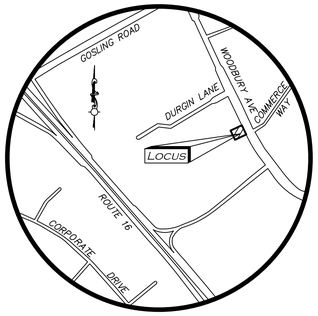
SITE LOCATION
1574 WOODBURY AVENUE,
PORTSMOUTH, NH
03801

ENGINEER SEAL
THOMAS C. PICKERING
No. 10218
08/11/2020

SHEET TITLE
PLANTING DETAILS & SPECIFICATIONS

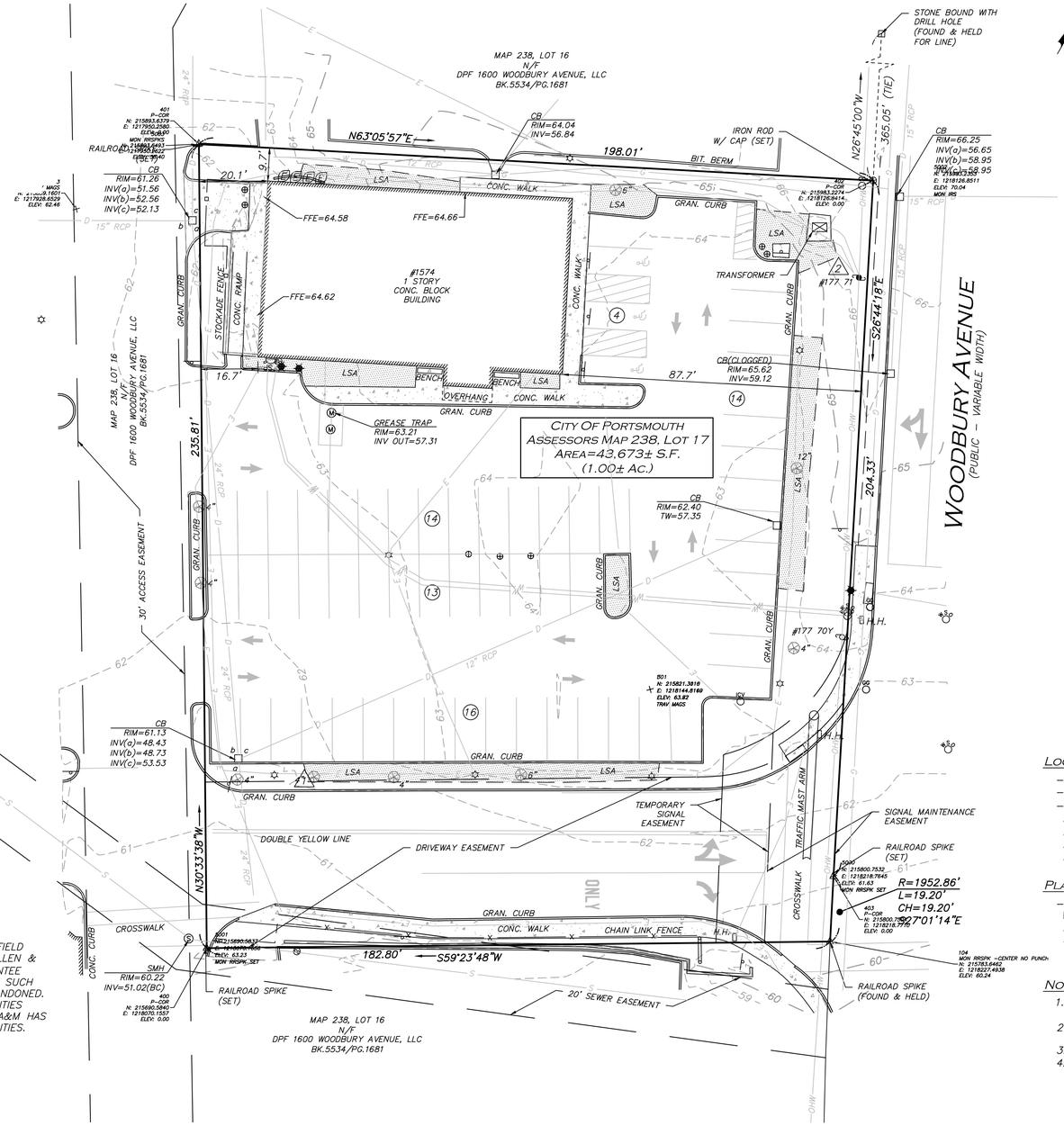
JOB #:	JPM.27086
DATE:	07/01/2020
SCALE:	
DRAWN BY:	MAL
CHECKED BY:	KGF

SHEET NO.
LP-2



LOCUS MAP
(NOT TO SCALE)

PARKING SUMMARY	
STANDARD STALLS	58
HANDICAPPED STALLS	3
TOTAL STALLS	61



UTILITY STATEMENT

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. ALLEN & MAJOR ASSOCIATES, INC. (A&M) MAKES NO GUARANTEE THAT THE UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. A&M FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. A&M HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

BENCHMARK SUMMARY

TBM #	DESCRIPTION	ELEV.
1	CHISEL SQUARE ON LIGHT POLE BASE	63.93
2	NAIL SET IN UP# 177 71	68.94

NEW HAMPSHIRE GRID (NAD 83)

LEGEND

IRON ROD (IR)	○
PK NAIL	△
SEWER MANHOLE (SMH)	Ⓢ
MISC. MANHOLE (MH)	Ⓜ
CATCH BASIN (CB)	□
UTILITY POLE	
UTILITY POLE W/RISER	
WATER GATE	
GAS GATE	
BOLLARD	
LIGHT	
PEDESTRIAN LIGHT	
TREE	
SIGN	
SIGN	
TRANSFORMER	
ELECTRIC METER	E
HANDICAPPED PARKING SPACE	
TRAFFIC MAST	
PAINTED ARROW	
PARKING SPACE COUNT	(16)
FIRE STANDPIPE	FSP
CONCRETE	
LANDSCAPED AREA (LSA)	
BUILDING	
BUILDING OVERHANG	
EASEMENT LINE	
1' CONTOUR	53
5' CONTOUR	55
PROPERTY LINE	
ABUTTERS LINE	
SEWER LINE	S
DRAIN LINE	D
ELECTRIC LINE	E
WATER LINE	W
OVERHEAD WIRES	OHW
FINISHED FLOOR ELEVATION	FFE
BITUMINOUS	BIT.
CONCRETE	CONC.
GRANITE	GRAN.
BOTTOM CENTER	(BC)
REINFORCED CONCRETE PIPE	RCP
POLYVINYL CHLORIDE PIPE	PVC
NOW OR FORMERLY	N/F
BOOK	BK.
PAGE	PG.

LOCUS REFERENCES

- CITY OF PORTSMOUTH ASSESSORS MAP 238, LOT 17
- R.C.R.D. BOOK 4452, PAGE 881
- PLAN ENTITLED, "LOT LINE RELOCATION PLAN FOR DSP SHOPPING CENTER, LLC., ENDICOTT HOTEL COMPANY & RICHARD P. FUSEGNI WOODBURY AVENUE AND DURGEN LANE COUNTY OF ROCKINGHAM, CITY OF PORTSMOUTH, NH." SCALE 1"=50', PREPARED BY MILLETTE SPRAGUE & COLWELL, INC. DATED JULY 24, 2003, AND ON FILE AT THE R.C.R.D. AS PLAN NO. 32458.

PLAN REFERENCES

- PLAN ENTITLED, "SIGNAL MAINTENANCE EASEMENT FOR PROPERTY AT 1574 WOODBURY AVENUE PORTSMOUTH, ROCKINGHAM COUNTY, NEW HAMPSHIRE, OWNED BY RICHARD P. FUSEGNI", 1"=20', DATED FEBRUARY 16, 2017, NORTH EASTERLY SURVEYING, INC., AND ON FILE AT THE R.C.R.D. AS PLAN NO. 40044.

NOTES

1. NORTH ARROW IS BASED ON NEW HAMPSHIRE GRID COORDINATE SYSTEM (NAD 83).
2. BOOK/PAGE AND PLAN REFERENCES ARE TAKEN FROM ROCKINGHAM COUNTY REGISTRY OF DEEDS IN BRENTWOOD, NH
3. VERTICAL DATUM IS NAVD 88.
4. CONTOUR INTERVAL IS ONE FOOT (1').

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

R:\PROJECTS\2614-05\SURVEY\DRAWINGS\CURRENT\S-2614-05-EC.DWG
FB# NH-13

THIS PLAN IS THE RESULT OF AN ACTUAL ON THE GROUND SURVEY PERFORMED ON OR BETWEEN JUNE 19, 2019 AND JULY 8, 2019 AND HAD AN ERROR OF CLOSURE OF NO GREATER THAN 1/10,000.

ALLEN & MAJOR ASSOCIATES, INC.

ISSUED FOR REVIEW
JUNE 23, 2020

JAMES P. SMITH NH LLS #908 DATE

REV	DATE	DESCRIPTION

APPLICANT\OWNER:
CORE STATES GROUP
9 GALEN STREET
WATERTOWN, MA 02472

PROJECT:
CHASE BANK SITE
1574 WOODBURY AVENUE
PORTSMOUTH, NH

PROJECT NO.	2614-05	DATE:	6/23/20
SCALE:	1" = 20'	DWG. NAME:	S-2614-05-EC
DRAFTED BY:	AJR	CHECKED BY:	JPS

PREPARED BY:
ALLEN & MAJOR ASSOCIATES, INC.
civil & structural engineering ◆ land surveying
environmental consulting ◆ landscape architecture
www.allenmajor.com
400 HARVEY ROAD
MANCHESTER, NH 03103
TEL: (603) 627-5500
FAX: (603) 627-5501
WOBURN, MA ◆ LAKEVILLE, MA ◆ MANCHESTER, NH

DRAWING TITLE:
EXISTING CONDITIONS

SHEET No.
1

City of Portsmouth, New Hampshire

Site Plan Application Checklist

This site plan application checklist is a tool designed to assist the applicant in the planning process and for preparing the application for Planning Board review. A pre-application conference with a member of the planning department is strongly encouraged as additional project information may be required depending on the size and scope. The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all site plan review requirements. Please refer to the Site Plan review regulations for full details.

Applicant Responsibilities (Section 2.5.2): Applicable fees are due upon application submittal along with required attachments. The application shall be complete as submitted and provide adequate information for evaluation of the proposed site development. Waiver requests must be submitted in writing with appropriate justification.

Name of Owner/Applicant: RICHARD FUSEGNI Date Submitted: 7/1/2020

Phone Number: _____ E-mail: _____

Site Address: 1514 WOODBURY AVENUE Map: 238 Lot: 17

Zoning District: G1 Lot area: 43,673 sq. ft.

Application Requirements			
☑	**Required Items for Submittal**	**Item Location (e.g. Page or Plan Sheet/Note #)**	**Waiver Requested**
☑	Fully executed and signed Application form. **(2.5.2.3)**		N/A
☑	All application documents, plans, supporting documentation and other materials provided in digital Portable Document Format (PDF). **(2.5.2.8)**		N/A

Site Plan Review Application Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	Statement that lists and describes "green" building components and systems. **(2.5.3.1A)**	N/A	
☑	Gross floor area and dimensions of all buildings and statement of uses and floor area for each floor. **(2.5.3.1B)**	C-2	N/A
☑	Tax map and lot number, and current zoning of all parcels under Site Plan Review. **(2.5.3.1C)**	C-2, SURVEY	N/A
☑	Owner's name, address, telephone number, and signature. Name, address, and telephone number of applicant if different from owner. **(2.5.3.1D)**	CV-1	N/A

Site Plan Review Application Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	Names and addresses (including Tax Map and Lot number and zoning districts) of all direct abutting property owners (including properties located across abutting streets) and holders of existing conservation, preservation or agricultural preservation restrictions affecting the subject property. **(2.5.3.1E)**	SURVEY PLAN	N/A
☑	Names, addresses and telephone numbers of all professionals involved in the site plan design. **(2.5.3.1F)**	CV-1	N/A
☑	List of reference plans. **(2.5.3.1G)**	CV-1	N/A
☑	List of names and contact information of all public or private utilities servicing the site. **(2.5.3.1H)**	CV-1	N/A

Site Plan Specifications			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	Full size plans shall not be larger than 22 inches by 34 inches with match lines as required, unless approved by the Planning Director. Submittals shall be a minimum of 11 inches by 17 inches as specified by Planning Dept. staff. **(2.5.4.1A)**	Required on all plan sheets	N/A
☑	Scale: Not less than 1 inch = 60 feet and a graphic bar scale shall be included on all plans. **(2.5.4.1B)**	Required on all plan sheets	N/A
☐	GIS data should be referenced to the coordinate system New Hampshire State Plane, NAD83 (1996), with units in feet. **(2.5.4.1C)**	N/A	N/A
☑	Plans shall be drawn to scale. **(2.5.4.1D)**	Required on all plan sheets	N/A
☑	Plans shall be prepared and stamped by a NH licensed civil engineer. **(2.5.4.1D)**		N/A
☐	Wetlands shall be delineated by a NH certified wetlands scientist and so stamped. **(2.5.4.1E)**	N/A	N/A
☑	Title (name of development project), north point, scale, legend. **(2.5.4.2A)**	SITE PLAN DRWGS.	N/A
☑	Date plans first submitted, date and explanation of revisions. **(2.5.4.2B)**	CV-1	N/A
☑	Individual plan sheet title that clearly describes the information that is displayed. **(2.5.4.2C)**	Required on all plan sheets	N/A
☑	Source and date of data displayed on the plan. **(2.5.4.2D)**		N/A

Site Plan Specifications			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	A note shall be provided on the Site Plan stating: "All conditions on this Plan shall remain in effect in perpetuity pursuant to the requirements of the Site Plan Review Regulations." **(2.5.4.2E)**	CV-1	N/A
☐	Plan sheets submitted for recording shall include the following notes: a. "This Site Plan shall be recorded in the Rockingham County Registry of Deeds." b. "All improvements shown on this Site Plan shall be constructed and maintained in accordance with the Plan by the property owner and all future property owners. No changes shall be made to this Site Plan without the express approval of the Portsmouth Planning Director." **(2.13.3)**	CV-1	N/A
☐	Plan sheets showing landscaping and screening shall also include the following additional notes: a. "The property owner and all future property owners shall be responsible for the maintenance, repair and replacement of all required screening and landscape materials." b. "All required plant materials shall be tended and maintained in a healthy growing condition, replaced when necessary, and kept free of refuse and debris. All required fences and walls shall be maintained in good repair." c. "The property owner shall be responsible to remove and replace dead or diseased plant materials immediately with the same type, size and quantity of plant materials as originally installed, unless alternative plantings are requested, justified and approved by the Planning Board or Planning Director." **(2.13.4)**	CV-1	N/A

Site Plan Specifications – Required Exhibits and Data			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
	1. Existing Conditions: (2.5.4.3A)		
☑	a. Surveyed plan of site showing existing natural and built features;	SURVEY PLAN	
☑	b. Zoning boundaries;	C-2	
☑	c. Dimensional Regulations;	C-2	
☑	d. Wetland delineation, wetland function and value assessment;	N/A	
☑	e. SFHA, 100-year flood elevation line and BFE data.	N/A	
	2. Buildings and Structures: (2.5.4.3B)		
☑	a. Plan view: Use, size, dimensions, footings, overhangs, 1st fl. elevation;	SITE PLANS	
☑	b. Elevations: Height, massing, placement, materials, lighting, façade treatments;	ELEVATION DRWGS.	
☑	c. Total Floor Area;	SITE PLAN C-2	
☑	d. Number of Usable Floors;	C-2	
☑	e. Gross floor area by floor and use.	C-2	
	3. Access and Circulation: (2.5.4.3C)		
☑	a. Location/width of access ways within site;	C-2	
☑	b. Location of curbing, right of ways, edge of pavement and sidewalks;	C-2	
☑	c. Location, type, size and design of traffic signing (pavement markings);	C-2	
☑	d. Names/layout of existing abutting streets;	C-2, SURVEY PLAN	
☑	e. Driveway curb cuts for abutting prop. and public roads;	C-2	
☑	f. If subdivision; Names of all roads, right of way lines and easements noted;	N/A	
☑	g. AASHTO truck turning templates, description of minimum vehicle allowed being a WB-50 (unless otherwise approved by TAC).	N/A	
	4. Parking and Loading: (2.5.4.3D)		
☑	a. Location of off street parking/loading areas, landscaped areas/buffers;	C-2	
☑	b. Parking Calculations (# required and the # provided).	C-2	
	5. Water Infrastructure: (2.5.4.3E)		
☑	a. Size, type and location of water mains, shut-offs, hydrants & Engineering data;	C-2	
☑	b. Location of wells and monitoring wells (include protective radii).	N/A	
	6. Sewer Infrastructure: (2.5.4.3F)		
☑	a. Size, type and location of sanitary sewage facilities & Engineering data.	C-2	
	7. Utilities: (2.5.4.3G)		
☑	a. The size, type and location of all above & below ground utilities;	C-2	
☑	b. Size type and location of generator pads, transformers and other fixtures.	N/A	

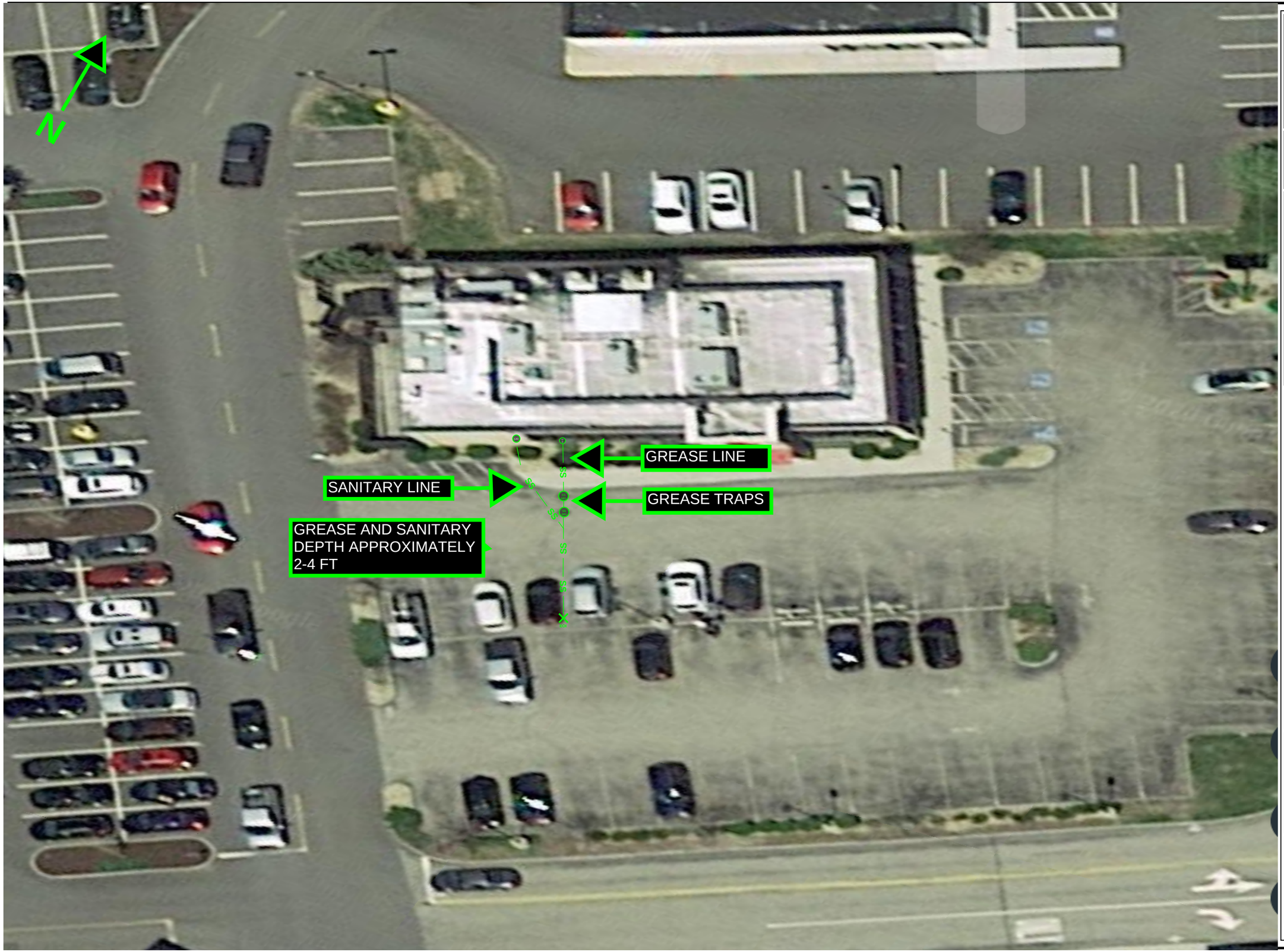
Site Plan Specifications – Required Exhibits and Data			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	**8. Solid Waste Facilities: (2.5.4.3H)**		
☑	a. The size, type and location of solid waste facilities.	C-2	
	9. Storm water Management: (2.5.4.3I)		
☑	a. The location, elevation and layout of all storm-water drainage.	C-2, SURVEY PLAN	
	10. Outdoor Lighting: (2.5.4.3J)		
☑	a. Type and placement of all lighting (exterior of building, parking lot and any other areas of the site) and; b. photometric plan.	C-2, C-7	
☑	**11.** Indicate where dark sky friendly lighting measures have been implemented. **(10.1)**	C-7	
	12. Landscaping: (2.5.4.3K)		
☑	a. Identify all undisturbed area, existing vegetation and that which is to be retained;	C-2, SITE PLANS	
☑	**b.** Location of any irrigation system and water source.	C-2	
	13. Contours and Elevation: (2.5.4.3L)		
☑	a. Existing/Proposed contours (2 foot minimum) and finished grade elevations.	C-3	
	14. Open Space: (2.5.4.3M)		
☑	a. Type, extent and location of all existing/proposed open space.	C-2	
☑	**15. All easements, deed restrictions and non-public rights of ways. (2.5.4.3N)**	C-2, SURVEY	
☑	**16. Location of snow storage areas and/or off-site snow removal. (2.5.4.3O)**	TO BE ADDED TO C-2	
☑	**17. Character/Civic District (All following information shall be included): (2.5.4.3Q)**	C-2	
	a. Applicable Building Height (10.5A21.20 & 10.5A43.30);		
	b. Applicable Special Requirements (10.5A21.30);		
	c. Proposed building form/type (10.5A43);		
	d. Proposed community space (10.5A46).		

Other Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	Traffic Impact Study or Trip Generation Report, as required. (*Four (4) hardcopies of the full study/report and Six (6) summaries to be submitted with the Site Plan Application*) **(3.2.1-2)**	TRIP GENERATION SUMMARY	
☑	Indicate where Low Impact Development Design practices have been incorporated. **(7.1)**	C-2	
☑	Indicate whether the proposed development is located in a wellhead protection or aquifer protection area. Such determination shall be approved by the Director of the Dept. of Public Works. **(7.3.1)**	N/A	
☑	Indicate where measures to minimize impervious surfaces have been implemented. **(7.4.3)**	C-2	
☑	Calculation of the maximum effective impervious surface as a percentage of the site. **(7.4.3.2)**	C-2	
☑	Stormwater Management and Erosion Control Plan. (*Four (4) hardcopies of the full plan/report and Six (6) summaries to be submitted with the Site Plan Application*) **(7.4.4.1)**	C-1	

Final Site Plan Approval Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	All local approvals, permits, easements and licenses required, including but not limited to: a. Waivers; b. Driveway permits; c. Special exceptions; d. Variances granted; e. Easements; f. Licenses. **(2.5.3.2A)**		
☐	Exhibits, data, reports or studies that may have been required as part of the approval process, including but not limited to: a. Calculations relating to stormwater runoff; b. Information on composition and quantity of water demand and wastewater generated; c. Information on air, water or land pollutants to be discharged, including standards, quantity, treatment and/or controls; d. Estimates of traffic generation and counts pre- and post-construction; e. Estimates of noise generation; f. A Stormwater Management and Erosion Control Plan; g. Endangered species and archaeological / historical studies; h. Wetland and water body (coastal and inland) delineations; i. Environmental impact studies. **(2.5.3.2B)**		

Final Site Plan Approval Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	A document from each of the required private utility service providers indicating approval of the proposed site plan and indicating an ability to provide all required private utilities to the site. **(2.5.3.2D)**		
☐	A list of any required state and federal permit applications required for the project and the status of same. **(2.5.3.2E)**		

Applicant's Signature: _____ **Date:** 8/4/2020



master locators

800.495.4248
info@masterlocators.com
www.masterlocators.com

Site Name and Location:

1574 Woodbury Ave
Portsmouth NH 03801

Assumptions & Clarifications

1. UNLESS OTHERWISE NOTED UNDERGROUND UTILITY DATA IS CONSIDERED QUALITY LEVEL B (QLB) AS DEFINED IN ASCE 38-02: STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA AND IS INTENDED TO SHOW THE APPROXIMATE HORIZONTAL LOCATIONS OF EXISTING UNDERGROUND UTILITIES AS MARKED BY MASTER LOCATORS DURING A GEOPHYSICAL INVESTIGATION PERFORMED WITHIN THE OUTLINED SCOPE OF WORK.

2. ALL UTILITY LOCATIONS SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY. THIS PLAN SHOULD NOT BE USED FOR CONSTRUCTION OR DESIGN PURPOSES AND MASTER LOCATORS IS NOT RESPONSIBLE FOR DAMAGE TO UTILITIES RESULTING FROM ANY CONSTRUCTION WORK BASED ON THESE PLAN.

3. NO BOUNDARY OR PROPERTY SURVEY WORK WAS CONDUCTED IN THE DEVELOPMENT OF THIS PLAN. THE PLAN IS NOT DRAWN TO SCALE.

4.ANY DEPTH INFORMATION PROVIDED IS CONSIDERED APPROXIMATE AND IS NOT GUARANTEED UNLESS LABELED AS QUALITY LEVEL A (QLA) DATA.

Legend & Color Codes

Electric — E
Unknown — UNK
Water — W
Comms. — C
Storm — ST
Sanitary — SS
Gas — G

Man Hole (MH)
Valve
Continuation Mark
End of Information (EOI)
Scope of Work
Bollard (B)
Utility Pole (UP)
Clean Out (C/O)
Storm Drain
Roof Drain (R/D)
Floor Drain (F/D)
Test Hole
Fire Hydrant (FH)
Irrigation Box (W)
Site Light (S/L)
Transformer (X)
Electric Box (E)
Phone Pedestal (P)
Large (>12") Storm Line
Flow Direction
Buried Vault (BV)
Witness Post (WP)

Revisions:

Date:	Description:	By:

ML Job #:
Date: 06/11/2020
Technician(s): David Castro
Client Name: Core-States Group

Summary of Underground Utility Locating

Prepared For: Chase Bank - Core States

Prepared By:
Peter Kessinger
Peter.Kessinger@gprsinc.com
Senior Project Manager-New England
603.247.6532

June 11, 2020

June 11, 2020

Chase Bank - Core States
Attn: Kevin Furao
Site: 1574 Woodbury Ave, Portsmouth, NH

We appreciate the opportunity to provide this report for our work completed on June 11, 2020.

PURPOSE

The purpose of the project was to search for underground utilities within the project boundaries provided by the client. The scope of work consisted of 1 location measuring approximately 1-acre. The client marked the desired locations prior to our scanning and our markings were then placed onto the surface using marking paint.

EQUIPMENT

- **Underground Scanning GPR Antenna**. The antenna with frequencies ranging from 250 MHz-450 MHz is mounted in a stroller frame which rolls over the surface. The surface needs to be reasonably smooth and unobstructed in order to obtain readable scans. Obstructions such as curbs, landscaping, and vegetation will limit the feasibility of GPR. The data is displayed on a screen and marked in the field in real time. The total depth achieved can be as much as 8' or more with this antenna but can vary widely depending on the types of materials being scanned through. Some soil types such as clay may limit maximum depths to 3' or less. As depth increases, targets must be larger in order to be detected and non-metallic targets can be especially difficult to locate. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link
- **Electromagnetic Pipe Locator**. The EM locator can passively detect the electromagnetic fields from live AC power or from radio signals travelling along some conductive utilities. It can also be used in conjunction with a transmitter to connect directly to accessible, metallic pipes or tracer wires. A current is sent through the pipe or tracer wire at a specific frequency and the resulting EM field can then be detected by the receiver. A utility's ability to be located depends on a variety of factors including access to the utility, conductivity, grounding, interference from other fields, and many others. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link
- **GPS**. This handheld GPS unit offers accuracy down to 4 inches; however, the accuracy will depend on the satellite environment and obstructions and should not be considered to be survey-grade. Features can be collected as points, lines, or areas and then exported into Google Earth or overlaid on a CAD drawing. For more information, please visit: Link

PROCESS

The process typically begins with using the EM pipe locator to locate pipes or utilities throughout the scan area. First, the transmitter is used to connect to and trace any visible risers, tracer wires, or accessible, conductive utilities provided that there is an exposed, metallic surface. The areas are then swept with the receiver to detect live power or radio frequency signals. Locations and depths are painted or flagged on the surface. Depths cannot always be provided depending on the location method and can be prone to error.

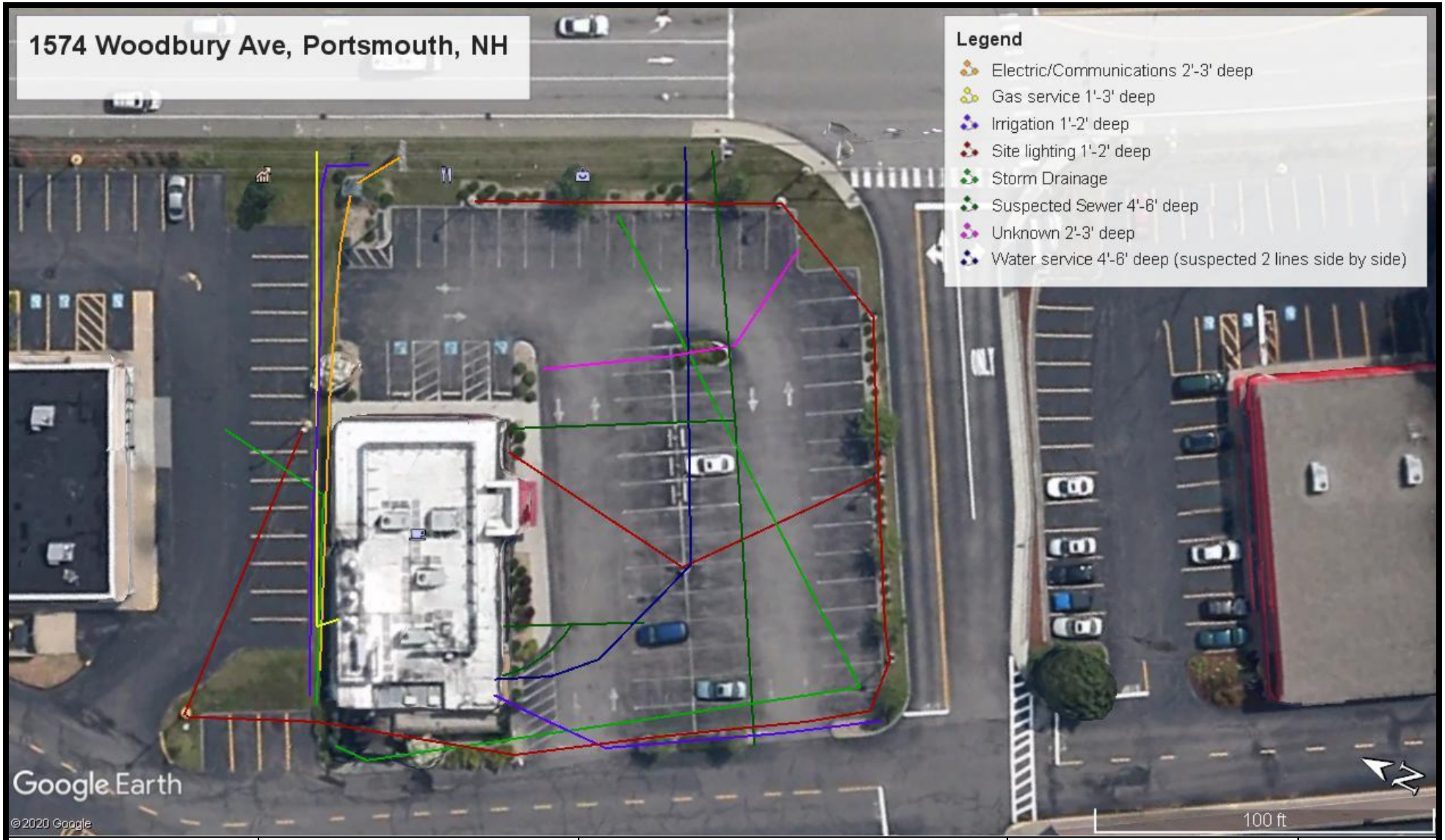
Initial GPR scans were then collected in order to evaluate the data and calibrate the equipment. Based on these findings, a scanning strategy is formed, typically consisting of scanning the entire area in a grid with 2'x2' scan spacing in order to locate any potential utilities that were not found with the pipe locator. The GPR data is viewed in real time and anomalies in the data are located and marked on the surface along with their depths using spray paint, pin flags, etc.

LIMITATIONS

Please keep in mind that there are limitations to any subsurface investigation. The equipment may not achieve maximum effectiveness due to soil conditions, above ground obstructions, reinforced concrete, and a variety of other factors. No subsurface investigation or equipment can provide a complete image of what lies below. Our results should always be used in conjunction with as many methods as possible including consulting existing plans and drawings, exploratory excavation or potholing, visual inspection of above-ground features, and utilization of services such as One Call/811. Depths are dependent on the dielectric of the materials being scanned so depth accuracy can vary throughout a site. Relevant scan examples were saved and will be provided in this report.

FINDINGS

The subsurface conditions at the time of the scanning allowed for maximum GPR depth penetration of 3'-4' in most areas. Multiple utilities were able to be located such as water, gas, electric, communications, etc. using either the GPR or EM pipe locator. The following pages will provide further explanation of the findings.



Prepared for: Kevin Furao
Prepared By: Peter Kessinger
Date of Scanning: 6/11/2020

Terms and Conditions

GPRS does not provide land survey or civil engineering data collection or documentation. This is provided as a reference map of the field markings and is not survey-grade.

LEGEND

	ELECTRIC		SANITARY
	WATER		STORM
	COMM		UNKNOWN
	GAS		

1574 Woodbury Ave, Portsmouth, NH

Prepared by:

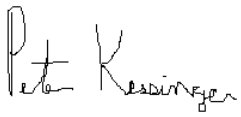
GPRS

CLOSING

GPRS, Inc. has been in business since 2001, specializing in underground storage tank location, concrete scanning, utility locating, and shallow void detection for projects throughout the United States. I encourage you to visit our website (www.gprsinc.com) and contact any of the numerous references listed.

GPRS appreciates the opportunity to offer our services, and we look forward to continuing to work with you on future projects. Please feel free to contact us for additional information or with any questions you may have regarding this report.

Signed,



Peter Kessinger
Senior Project Manager—New England

Direct: 603.247.6532

Peter.Kessinger@gprsinc.com

www.gprsinc.com

STORMWATER MANAGEMENT & SOIL EROSION CONTROL REPORT

FOR

JP MORGAN CHASE BANK – PORTSMOUTH

LOT 17, ASSESSOR MAP 238

1574 WOODBURY AVENUE

CITY OF PORTSMOUTH

ROCKINGHAM COUNTY, NEW HAMPSHIRE

PREPARED BY:

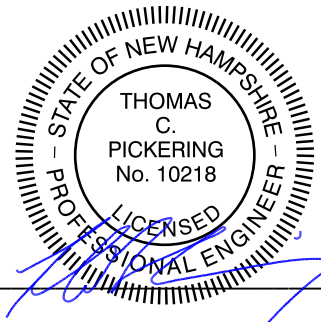
CORE STATES GROUP

9 Galen Street, Suite 117

Watertown, Massachusetts 02472

857-500-4702

July 1st, 2020



Thomas Pickering, P.E.

NH License No. 10218

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LIST OF APPENDICES

I. INTRODUCTION

The proposed Chase Bank is a commercial re-development project within the G1, Gateway Corridor District, located on Woodbury Avenue between Durgin Lane and Arthur Brady Drive part of the overall development known as "Durgin Square" situated in the City of Portsmouth, New Hampshire. The overall site **(See Appendix "A")** consists of a total tract area of 1.002 acres or 43,673 square-feet, as reference from Assessors Map 238 Lot 17. The proposed re-development of this property will include the demolition of approximately 4,600-square foot existing restaurant building, foundations, landscaping, pavement, concrete and associated utilities. The re-development proposes the construction of a new single-story Chase Bank with one (1) remote drive-thru ATM and bypass lane. The proposed redevelopment will disturb approximately 0.830 acres (36,110 sf) of the subject property. The design intent for stormwater management is to meet City of Portsmouth stormwater requirements under Ordinance Section-7.4 and in conjunction with New Hampshire Stormwater Manual.

The site is located solely within a commercialized area in the City of Portsmouth, New Hampshire. No streams or waterways are located on the subject site or adjoining the property. The subject property is occupying a parcel lot that is part of an overall shopping center. The intent of this report is to show the proposed stormwater analysis and conditions for the Chase Bank development. The majority of the site's stormwater discharges to three (3) points of analyses that discharge directly to study points located as shown on the attached drainage area maps (**See Appendix "D"**).

II. METHODOLOGY

Run-off has been generated under both pre- and post-development conditions in accordance with "Technical Release No. 55-Urban Hydrology for Small Watersheds" and City of Portsmouth stormwater requirements under Ordinance Section-7.4.

Runoff curve numbers (CN's) have been established by use of the hydrologic soil groups associated with the soils found in the Rockingham County Soil Survey. A composite soil survey map **(See Appendix "B")** is provided for review of the general soil characteristics. See the chart below of CN number breakdown for existing and proposed.

	CN
Grass/Lawn Coverage (Soil Group B)	69
Impervious Coverage	98

The existing soil stratum found within the project area is comprised of one soil type, Chatfield-Jollis-Canton (140B) as identified from mapping available from the Natural Resource Conservation Service Web Soil Survey and found in **Appendix "B".**

The proposed time of concentration is based on overland and sheet flow. The time of concentration for the drainage areas has been set to a minimum value of 6 minutes (0.10 hours), per the TR-55 Manual, for the purpose of the calculations.

Hydrographs were generated using "Hydraflow Hydrographs Extension for AutoCAD" by Autodesk, Inc. This program is based upon the Soil Conservation Service methodology for tabular hydrographs using the Type III storm event as detailed in" Technical Release No. 55-Urban Hydrology for Small Watersheds." The 24-hour rainfall for the four (4) respective storms studied have been gathered from the National Oceanic and Atmospheric Administration rainfall data:

Storm Event	24 Hour Rainfall
2-yr*	3.32"
10-yr*	5.33"
25-yr*	6.59"
50-yr*	7.51"

*Based on Rainfall Event over a 24-hour period.

III. HYDROLOGIC ANALYSIS

A. Existing Drainage Area Conditions

As shown on the Existing Drainage Area Map **(See Appendix "D")**, the existing project is comprised of three (3) drainage areas, 0.834 acres, which all discharge into three (3) study points. Study Point 1 is identified as the majority of the onsite flow that flows to the existing stormwater conveyance system. Existing Drainage Area 1, which is primarily located on the north and west part of the site, drains to Study Point-1. Study Point 2 which collects Existing Drainage Area 2 is identified by the flow that bypasses the existing stormwater conveyance system and flows to overall shopping center. The last study point, Study Point 3, is identified as the overland flow that discharges onto the public Right-of-Way and does not flow into the shopping center system. The hydraulic calculations for the existing drainage areas for each study point can be found in **Appendix "C"**.

B. Proposed Drainage Area Conditions

The proposed drainage conditions are design to replicate the existing drainage conditions while meeting the City of Portsmouth's stormwater regulations. As shown on the Proposed Drainage Area Map **(See Appendix "D")**. As it is existing, the proposed drainage area map comprises of three drainages areas which discharge to three separate study points. The hydraulic calculations for the proposed drainage areas for each study point can be found in **Appendix "C".** The description of each drainage area is located below.

IV. STORMWATER MANAGEMENT REQUIREMENTS

A. Best Management Practices (Section 7.4.2)

Per the City of Portsmouth Stormwater Management Regulations as described in Section 7.4 of Site Plan Review regulations all developments under site plan review regardless of limit of disturbance shall meet, as applicable, the 23 requirements for Best Management Practices. Below you will find how the development meets the applicable management practices.

- **Section 7.4.2.1-3**
  The Best Management Practices for sections 1-3 are not applicable to the project and therefore do not need to be met.

- **Section 7.4.2.4**
  "Snow storage areas shall be located such that no direct discharges to receiving waters are possible from the storage site. Runoff from snow storage areas shall enter treatment areas to remove suspended solids and other contaminants before being discharged to receiving waters or preferably be allowed to infiltrate into the groundwater."

  The proposed project is a redevelopment and near no streams or waterways, therefore would not have any direct discharge into receiving waters. Additionally, as part of the redevelopment the project is proposing water quality system at the most downstream part of the existing conveyance system to treat site runoff. Further details on the proposed water quality system of the project can be found below.

- **Section 7.4.2.5**
  "Every effort shall be made to retain stormwater on the site using the natural or existing flow patterns of the site."

  The proposed project is a redevelopment where a majority of the existing drainage patterns are contained on the on-site storm conveyance system and do not discharge to adjacent properties. As part of the proposed redevelopment the existing drainage patterns will be maintained.

- **Section 7.4.2.6-7**
  The Best Management Practices for sections 6-7 are not applicable to the project and therefore do not need to be met. Since the overall site is being reduced in impervious coverage and on-site water quality system is being proposed, the need for infiltration practices are not required.

- **Section 7.4.2.8**

  "Measure shall be taken to control the post-development peak rate of runoff so that it does not exceed pre-development runoff for the 2-, 10-, 25-, 50-year, 24 hour storm event.

In order to meet this standard, a pre- and post- development comparison of the 2-, 10- , 25-, 50- year storm events for each study point can be found in **Appendix "D".** The calculations show that at any point the post-development peak discharge rate does not exceed the pre-development peak discharge rate for any storm event. A summary of the runoff quantities can be found on the table below:

Summary of Existing and Proposed Runoff Quantity			
Area	Storm Event	Existing	Proposed
		Flow (cfs)	Flow (cfs)
Study Point - 1	2-year	2.131	1.858
	10-year	3.640	3.428
	25-year	4.575	4.408
	50-year	5.253	5.120
Study Point - 2	2-year	0.055	0.019
	10-year	0.123	0.054
	25-year	0.167	0.079
	50-year	0.200	0.099
Study Point -3	2-year	0.042	0.041
	10-year	0.108	0.099
	25-year	0.155	0.138
	50-year	0.189	0.167
TOTAL LOT RUNOFF	2-year	2.227	1.918
	10-year	3.871	3.581
	25-year	4.897	4.626
	50-year	5.643	5.385

Therefore, described above and through the hydraulic analysis of the pre-development and post-development conditions of the site, the proposed development meets the criteria for stormwater quantity as defined in Section 7.4.2.8 in the City of Portsmouth Ordinance.

- **Section 7.4.2.9**

  "The applicant shall demonstrate that on- and off-site downstream channel or system capacity is sufficient to carry the stormwater run-off volume flow without adverse effects, such as flooding and erosion of stream banks and shoreland areas.

  As previously stated, the overall combined site runoff of the post-development drainage is being reduced from the pre-development conditions. Therefore, it is determined that no adverse effects of the downstream bank for the proposed project.

- **Section 7.4.2.10**

  The Best Management Practices for section 10 are not applicable to the project and therefore do not need to be met.

- **Section 7.4.2.11**

  "For a storm event of ½ inch or less, the applicant shall demonstrate that stormwater management practices will remove contaminants from the stormwater runoff that leaves the site. The use of oil and grit traps in manholes, on-site vegetated waterways, and vegetated buffer strips along waterways and drainage swales, and the reduction in use of deicing salts and fertilizers may be required by the Planning Board."

  Per the New Hampshire Stormwater Manual and the City of Portsmouth, a water quality device was added at the most downstream pipe conveyance system to meet the requirements. The proposed water quality device meets the Standards depicted in the New Hampshire Stormwater Manual which requires 80% TSS Removal rate of the "first wash" water quality storm event.

  The New Hampshire Stormwater Manual defines the "first wash" water quality storm as the first 1" rainfall of any given storm event. As mentioned previously a CDS 2015-4 unit by Contech has been provided to meet these standards, a CDS Removal Rate calculated for this project has been provided in **Appendix "E"**. The CDS unit uses indirect screening technique to remove suspended solids, fine sands and larger particles. Additionally, the unit has an internal weir/bypass system to only provide solids removal for the water quality storm event and not inhibit the flow of the other storm events. A design summary of the CDS Unit can be found in **Appendix "E".**

- **Section 7.4.2.12**

  The Best Management Practices for section 12 are not applicable to the project and therefore do not need to be met.

- **Section 7.4.2.13**

  "The design of the on-site stormwater drainage systems shall not increase or impede existing flows."

  As previously stated, the overall combined site runoff of the post-development drainage is being reduced from the pre-development conditions. Therefore, it is determined that no adverse effects to the existing flows.

- **Section 7.4.2.14-19**

  The Best Management Practices for sections 14-19 are met through the proposed project. An extensive landscape and soil erosion plans are proposed to maintain integrity of downstream drainage systems in and the proposed development shall be stabilized as per these requirements.

- **Section 7.4.2.20-23**

  The Best Management Practices for section 20-23 are not applicable to the project and therefore do not need to be met.

B. Groundwater Recharge

Per the New Hampshire Stormwater Manual the proposed development groundwater recharge must meet the pre-development groundwater recharge. Since the overall impervious coverage of the site is being reduced the annual post development groundwater recharge will naturally exceed what is existing. It is determined, that no additionally BMP techniques are required to meet the groundwater recharge volume requirement.

V. SOIL EROSION AND SEDIMENT CONTROL

A. Overview

The Soil Erosion and Sediment Control Measures for this project include adequately installed perimeter silt fencing, temporary and permanent seeding and mulching, inlet protection, and the installation of temporary stone tracking pads at the project site entrance. A Phase I and Phase II plan has been provided in the drawings set for your reference. All provisions are to be in accordance with the "New Hampshire Stormwater Manual Volume 3".

The soil erosion and sediment control plan will minimize the downstream erosion hazard by controlling runoff at its source, minimizing runoff from disturbed areas and de- concentrating storm water runoff. The objectives of the erosion control plan will be achieved through the management of storm water runoff during construction.

B. Temporary Erosion and Sediment Control Measures

The temporary soil erosion and sediment control measures will include, but not limited to, silt fences, diversion ditches, stabilization of the construction entrance, sediment traps and basins, storm drain inlet protection, hydro-seeding and dust control. Detailed descriptions of each of the measures that will be employed on the project have been included in the following paragraphs:

- **Silt Fences** - Silt fences consist of standard strength filter fabric with wire mesh reinforcement (or extra strength synthetic filter fabric) secured to supporting posts and entrenched at the base. Filter fabric requirements and installation design criteria will be in accordance with the requirements in the "New Hampshire Stormwater Manual Volume 1-3". Silt fences will be installed on the down slope side of work areas, as close to the disturbed areas as possible. Sediment will be removed from behind silt fences when sediment has accumulated to one-third of the original height of the fence.
- **Dust Control -** Dust Control shall be accomplished through the use of vegetative cover, mulch, spray adhesive, sprinkling or barriers. Water will be applied by sprinkler or water truck as necessary during grading operations to minimize sediment transport and maintain acceptable air quality conditions. Repetitive treatments will be done as needed until grades are paved or stabilized with vegetation.
- **Stabilized Construction Entrance -** A ramp of crushed stone extending a minimum distance of 50 feet will be installed at each point of ingress and egress from the site. The purpose of the device is to minimize the potential of tracking mud from the site onto public rights-of-way or adjoining properties. The entrance shall be maintained in a condition, which will prevent tracking, or flowing of sediment onto public rights-of-way, all sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.

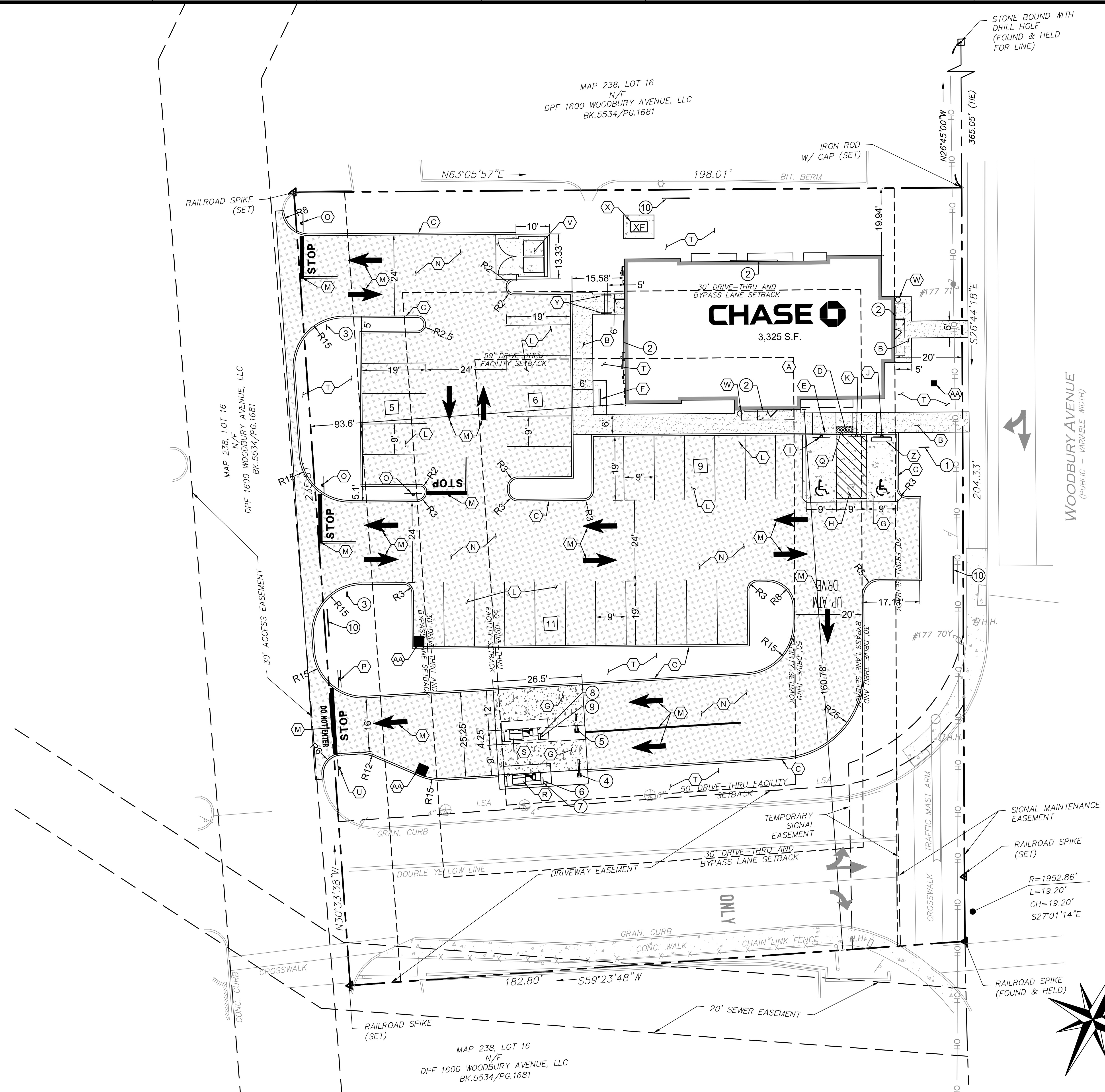
- **Soil Stockpiling -** Topsoil and earth material shall be stockpiled for reuse at the location shown on the Erosion Control Plans. All stockpiles shall be protected using a perimeter dike of silt fence or straw bale sediment barriers to prevent sediment runoff. This applies to all stockpiles remaining in place for more than two weeks. Stockpile side slopes shall not exceed 2 horizontal to 1 vertical (2:1). Temporary seeding or covering of stockpiles shall be completed within two weeks of formation.

VI. CONCLUSION

The implementation of the City of Portsmouth standards for stormwater management design have been presented and achieved through the proposed stormwater management analysis and design. Using stormwater conveyance systems, the runoff throughout the developed site has been designed to meet the necessary requirements. Based upon this analysis, the proposed storm water management system will benefit the existing downstream conveyance system by providing a reduction in impervious area and reducing peak flow stormwater rates to them.

APPENDIX A

OVERALL SITE PLAN



SITE PLAN

SCALE 1" = 20'

GRAPHIC SCALE

20 10 5 0 20

1" = 20'

GENERAL NOTES:

THIS DRAWING REFERENCES: 1574 WOODBURY AVENUE
PORTSMOUTH, NH
TOPOGRAPHIC PLAN OF LAND
PREPARED BY: ALLEN & MAJOR ASSOCIATES, INC.
400 HARVEY ROAD
MANCHESTER, NH 03103
CONTACT: JAMES P. SMITH NH LLS
TEL: (603) 627-5500
DATED: 06/23/2020

PROPERTY OWNER: RICHARD P. FUSEGNI
201 KEARSARGE WAY
PORTSMOUTH, NH 03801
CONTACT: SCOTT MITCHELL
(603) 475-377

APPLICANT: J.P. MORGAN CHASE BANK
1450 BRICKELL AVENUE 3RD FLOOR
MIAMI, FL 33131
CONTACT: CHRIS FOIT
TEL: (786) 473-1769

1) SITE ADDRESS: 1574 WOODBURY AVENUE
PORTSMOUTH, NH 03801
COUNTY OF ROCKINGHAM

2) ZONING DATA: ZONED: G-1 GATEWAY CORRIDOR DISTRICT

EXISTING USE: RESTAURANT - RUBY TUESDAYS **(PERMITTED)**
PROPOSED USE: BANK **(PERMITTED BY RIGHT)**
: DRIVE THROUGH **(CONDITIONAL USE PERMIT REQUIRED)**

§10.5B34.60 (SMALL COMMERCIAL BUILDING)

	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA, SF:	N/A	43,673 S.F.	NO CHANGE
MIN. LOT FRONTAGE, FT:	50 FT.	204.32 FT.	NO CHANGE
FRONT YARD SETBACK, FT:	0 FT. - 20 FT.	87.7 FT.	20 FT.
MIN. SIDE YARD SETBACK, FT:	10 FT.	9.7 FT.	19.94 FT.
MIN. REAR YARD SETBACK, FT:	15 FT.	16.7 FT.	93.6 FT.
MAX. HEIGHT, FT:	40 FT.	± 20 FT.	21.5 FT.
MAX. HEIGHT, STORIES:	3	1	1
MIN. STREET FACADE HEIGHT:	18 FT.	± 20 FT.	21.5 FT.
MIN. OPEN SPACE COVERAGE:	10%	17.79% (7,770 S.F.)	18.18% (7,942 S.F.)
MAX. BUILDING COVERAGE:	70%	10.53%	7.55%
MAX. BUILDING FOOTPRINT:	10,000 S.F.	4,600 S.F.	3,325 S.F.
MIN. STREET FACING FACADE GLAZING:	50%	"---"	52%

3) PARKING REQUIREMENTS:
§10.1112.30 OFF-STREET PARKING REQUIREMENTS PER THE CITY OF PORTSMOUTH ZONING ORDINANCE:

FOR PROFESSIONAL, BUSINESS AND FINANCIAL SERVICES:
1 SPACE PER 350 SQUARE FEET OF GROSS FLOOR GROSS AREA

GROSS FLOOR GROSS AREA = 3,325 S.F. (MAIN BUILDING)
CALCULATION: 1 SPACE X (3,325 S.F. / 350 S.F.)
REQUIRED = 10 SPACES

EXISTING PARKING SPACES: 61 SPACES (INCLUDING 3 ACCESSIBLE SPACES)
PROPOSED PARKING SPACES: 31 SPACES (INCLUDING 2 ACCESSIBLE SPACES)

PARKING DIMENSIONS
EXISTING: VARIES
REQUIRED: 8.5' X 19'
PROPOSED: 9' X 19'

4) ALL EXISTING FEATURES ARE TO REMAIN UNLESS OTHERWISE NOTED.
5) ALL PAVEMENT MARKINGS SHALL BE LONG LIFE EPOXY.
6) PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.
7) ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
8) ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
9) SOLID WASTE TO BE DISPOSED OF BY CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
10) ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
11) CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.

SIGNAGE TABLE (SIGN DISTRICT 5)

PROVISION	REQUIRED	PROPOSED	COMMENT
TEMPORARY SIGNS			
MAXIMUM SIGN AREA	64 SF	60 SF	COMPLIANT
MAXIMUM SIGN HEIGHT	12 FEET	<12 FT (MOUNTED ON CONSTRUCTION FENCE)	COMPLIANT
FREESTANDING SIGN			
MAXIMUM ALLOWED PER LOT	1	1 MONUMENT SIGN 1 ATM SIGN 1 FUTURE ATM SIGN	COMPLIANT VARIANCE VARIANCE
MAXIMUM SIGN AREA	100 SF	56.2 SF 9.5 SF 9.5 SF	COMPLIANT
MAXIMUM SETBACK FRONT LOT LINE	10 FT	10 FT	COMPLIANT
WALL SIGN			
MAXIMUM ALLOWED	ONE PER STREET FRONTAGE AND/OR AT MAIN ENTRANCE	1 EAST ELEVATION (WOODBURY AVE) 1 SOUTH ELEVATION 1 NORTH ELEVATION 1 WEST ELEVATION	COMPLIANT - COMPLIANT VARIANCE VARIANCE
MAXIMUM SIGN AREA	100 SF	36.9 SF	COMPLIANT
TOTAL AGGREGATE SIGNS			
MAXIMUM AGGREGATE SIGN AREA	1.5 SF PER LINEAR FEET OF BUILDING FRONTAGE = 1.5 x 42.5 LF = 63.75 SF	147.6 SF	VARIANCE

SIGN KEY NOTES: (XX)

1. PROPOSED CHASE PROTOTYPICAL PYLON SIGN (56.2 S.F.).
2. PROPOSED WHITE W/BLUE OCTAGON ILLUMINATED CHANNEL "CHASE" LOGO SIGN WALL SIGN (36.9 S.F.).
3. PROPOSED DOUBLE FACED NON-ILLUMINATED DIRECTIONAL SIGN (2.3 S.F.).
4. PROPOSED CLEARANCE SIGN AND HEADACHE BAR.
5. PROPOSED CLEARANCE SIGN AND HEADACHE BAR FOR FUTURE DRIVE-UP ATM.
6. PROPOSED SIGNATURE DRIVE-UP "CHASE" LOGO LETTERS (5.6 S.F.).
7. PROPOSED SIGNATURE DRIVE-UP OCTAGON (3.9 S.F.).
8. FUTURE SIGNATURE DRIVE-UP "CHASE" LOGO LETTERS (5.6 S.F.).
9. FUTURE SIGNATURE DRIVE-UP OCTAGON (3.9 S.F.).
10. TEMPORARY "COMING SOON" SIGN MOUNTED ON CONSTRUCTION FENCE (60S.F.).

SITE KEY NOTES:

A. PROPOSED 3,325 S.F. JPMORGAN CHASE BANK BUILDING. REFER TO ARCHITECTURAL PLANS FOR DETAILS.
B. PROPOSED CONCRETE SIDEWALK. REFER TO CONSTRUCTION DETAILS SHEET.
C. PROPOSED CONCRETE CURB. REFER TO CONSTRUCTION DETAILS SHEET.
D. PROPOSED DEPRESSED CONCRETE CURB. REFER TO CONSTRUCTION DETAILS SHEET.
E. PROPOSED TRANSITION CURB SECTION. REFER TO CONSTRUCTION DETAILS SHEET.
F. PROPOSED BIKE RACK ON CONCRETE PAD. REFER TO CONSTRUCTION DETAILS SHEET.
G. PROPOSED CONCRETE PAD. REFER TO CONSTRUCTION DETAILS SHEET.
H. PROPOSED 9' X 19' ACCESSIBLE PARKING SPACE AND AISLE WITH SYMBOLS OF ACCESSIBILITY. REFER TO CONSTRUCTION DETAILS SHEET.
I. PROPOSED VAN ACCESSIBLE PARKING SIGN. REFER TO CONSTRUCTION DETAILS SHEET.
J. PROPOSED ACCESSIBLE PARKING SIGN. REFER TO CONSTRUCTION DETAILS SHEET.
K. PROPOSED NO PARKING ANYTIME SIGN. REFER TO CONSTRUCTION DETAILS SHEET.
L. PROPOSED 9' X 19' STANDARD PARKING SPACE. REFER TO CONSTRUCTION DETAILS SHEET/
M. PROPOSED SITE MARKINGS. REFER TO CONSTRUCTION DETAILS SHEET.
N. PROPOSED ASPHALT PAVEMENT. REFER TO CONSTRUCTION DETAILS SHEET.
O. PROPOSED STOP SIGN. REFER TO CONSTRUCTION DETAILS SHEET.
P. PROPOSED STOP & DO NOT ENTER SIGN. REFER TO CONSTRUCTION DETAILS SHEET.
Q. PROPOSED DETECTABLE WARNING SURFACE. REFER TO CONSTRUCTION DETAILS SHEET.
R. PROPOSED DRIVE-UP SIGNATURE ATM CANOPY. REFER TO CONSTRUCTION DETAILS SHEET.
S. PROPOSED "FUTURE" DRIVE-UP SIGNATURE ATM CANOPY. REFER TO CONSTRUCTION DETAILS SHEET.
T. PROPOSED LANDSCAPE AREA. REFER TO LANDSCAPE PLAN FOR DETAILS.
U. PROPOSED DO NOT ENTER SIGN. REFER TO CONSTRUCTION DETAILS SHEET.
V. PROPOSED TRASH ENCLOSURE.
W. PROPOSED TRASH BIN. REFER TO ARCHITECT PLANS FOR DETAIL.
X. RELOCATED ELECTRIC TRANSFORMER AND CONCRETE PAD. REFER TO LIGHTING PLANS FOR DETAIL.
Y. PROPOSED HANDRAIL. REFER TO CONSTRUCTION DETAILS SHEET.
Z. PROPOSED WHEEL STOP. REFER TO CONSTRUCTION DETAILS SHEET.
AA. PROPOSED STORM DRAIN INLET. REFER TO CONSTRUCTION DETAILS SHEET.

SITE LEGEND

- EXISTING PROPERTY BOUNDARY LINE
- EXISTING ADJOINING PROPERTY LINE
- EXISTING ROAD CENTERLINE
- PROPOSED ROAD CENTERLINE
- PROPOSED DITCH CENTERLINE
- PROPOSED LIMITS OF BMP / DETENTION
- PROPOSED SAWCUT LINE
- EXISTING CURB
- PROPOSED CURB
- PROPOSED DEPRESSED CURB
- PROPOSED BUILDING
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- EXISTING SANITARY STRUCTURES
- EXISTING WATER STRUCTURES
- EXISTING OVERHEAD WIRES
- X PROPOSED PARKING COUNT

ALERT TO CONTRACTOR:

PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OF THE DRY UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM ENGINEER AND THE OWNER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. ENGINEER AND OWNER SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.

CORE STATES INC.
12700 HILLCREST ROAD
Suite 192
DALLAS, TX 75230
(214) 377-5060
www.core-eng.com

CLIENT

CHASE

811 Know what's below. Call before you dig.

REVISIONS

REV	DATE	COMMENT	BY

DOCUMENT

SITE PLAN APPROVAL FOR CHASE BANK

SITE LOCATION

1574 WOODBURY AVENUE, PORTSMOUTH, NH 03801

ENGINEER SEAL

SHEET TITLE

SITE PLAN

JOB #:	JPM.27086
DATE:	07/01/2020
SCALE:	AS NOTED
DRAWN BY:	MAL
CHECKED BY:	KGF

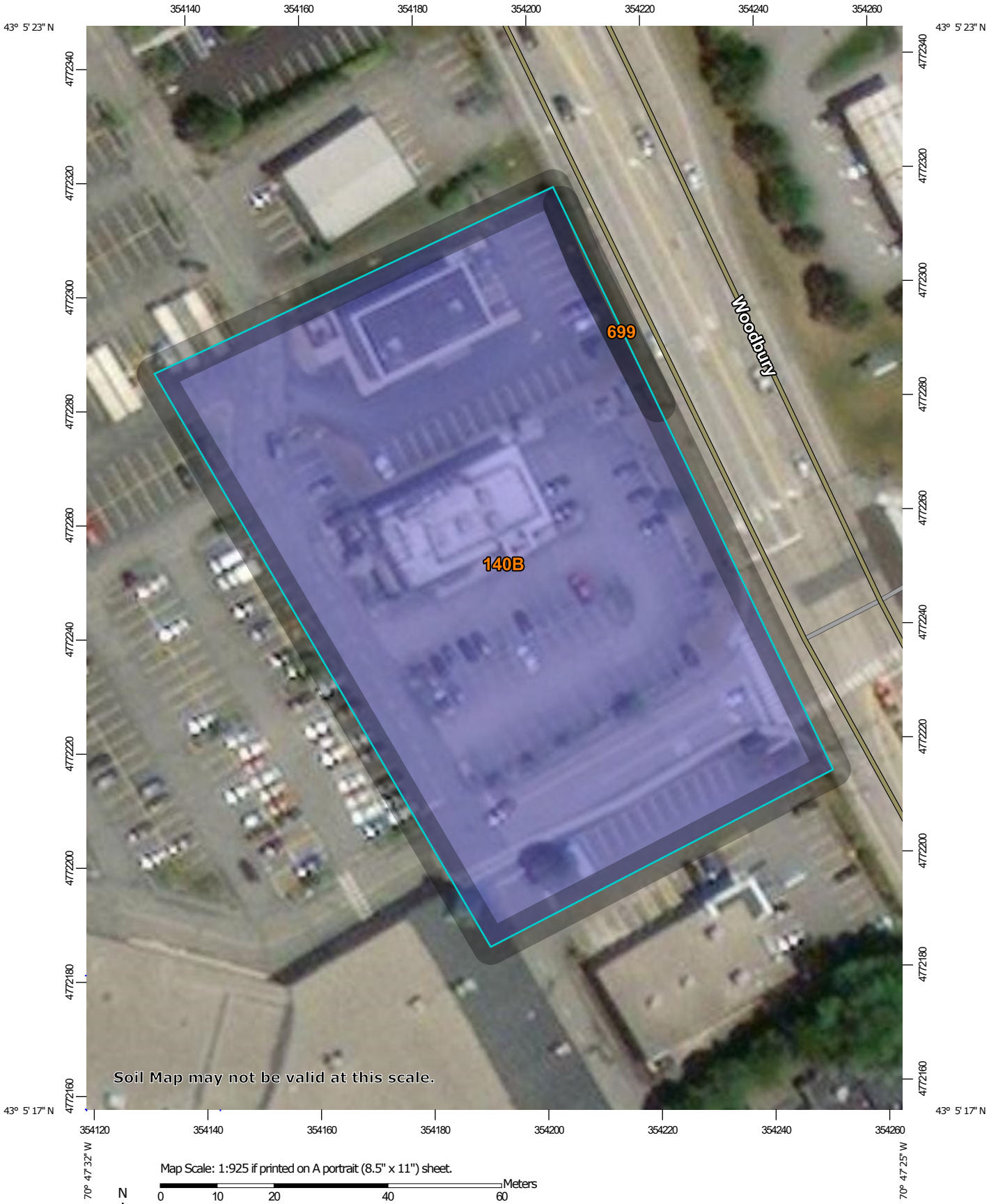
SHEET NO.

C-2

APPENDIX B

WEB SOIL SURVEY MAP

Hydrologic Soil Group—Rockingham County, New Hampshire
(Chase Bank Portsmouth, NH Soil Group)



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Lines

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Points

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Water Features

Streams and Canals

Transportation

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rockingham County, New Hampshire
Survey Area Data: Version 21, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Sep 9, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
140B	Chatfield-Hollis-Canton complex, 0 to 8 percent slopes, rocky	B	2.1	99.8%
699	Urban land		0.0	0.2%
Totals for Area of Interest			**2.1**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

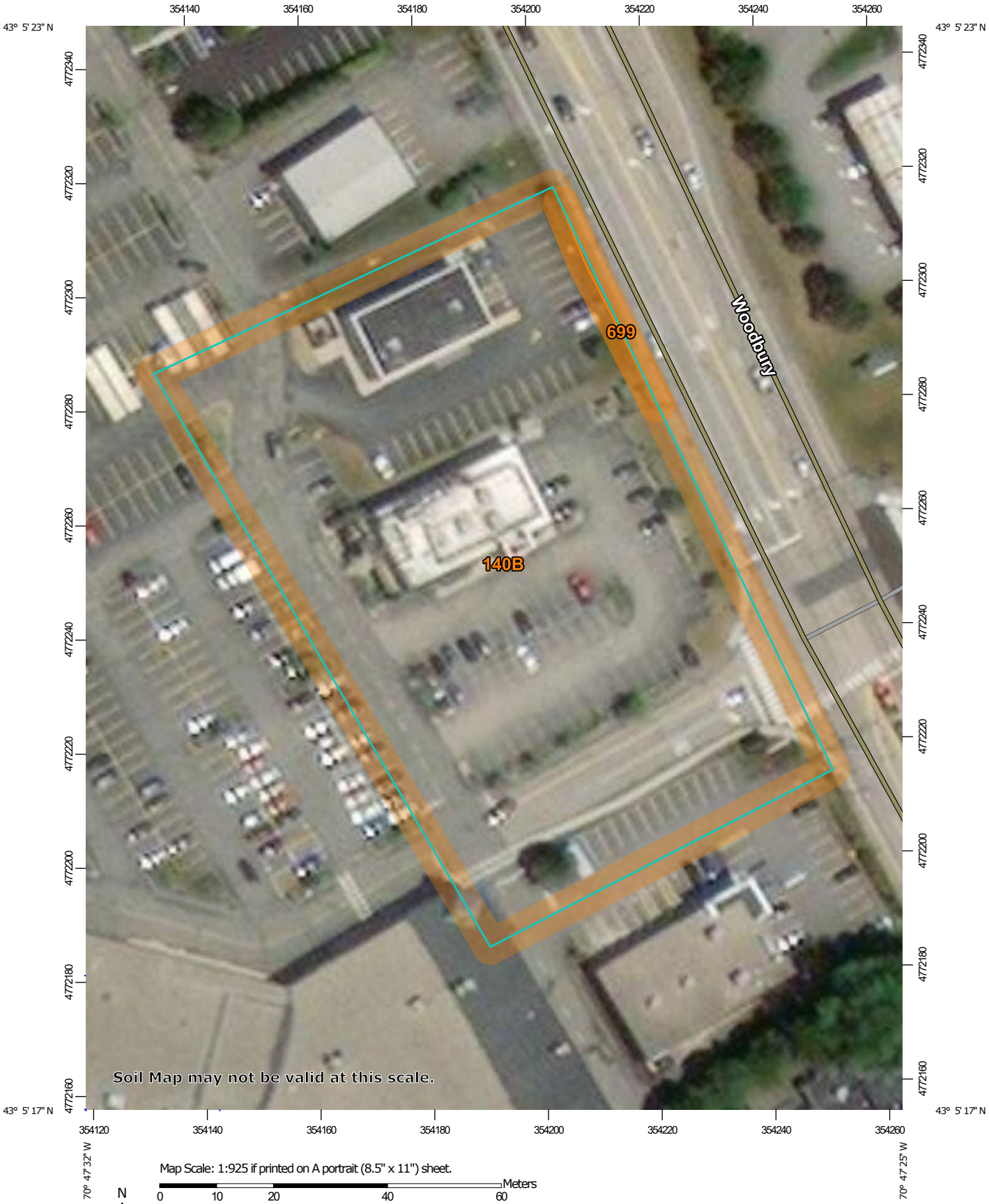
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Soil Map—Rockingham County, New Hampshire
(Chase Bank Portsmouth, NH Soils Map)



Map Scale: 1:925 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 10 20 40 60

Feet
0 40 80 160 240

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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Survey Area Data: Version 21, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Sep 9, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
140B	Chatfield-Hollis-Canton complex, 0 to 8 percent slopes, rocky	2.1	99.8%
699	Urban land	0.0	0.2%
Totals for Area of Interest		**2.1**	**100.0%**

APPENDIX C

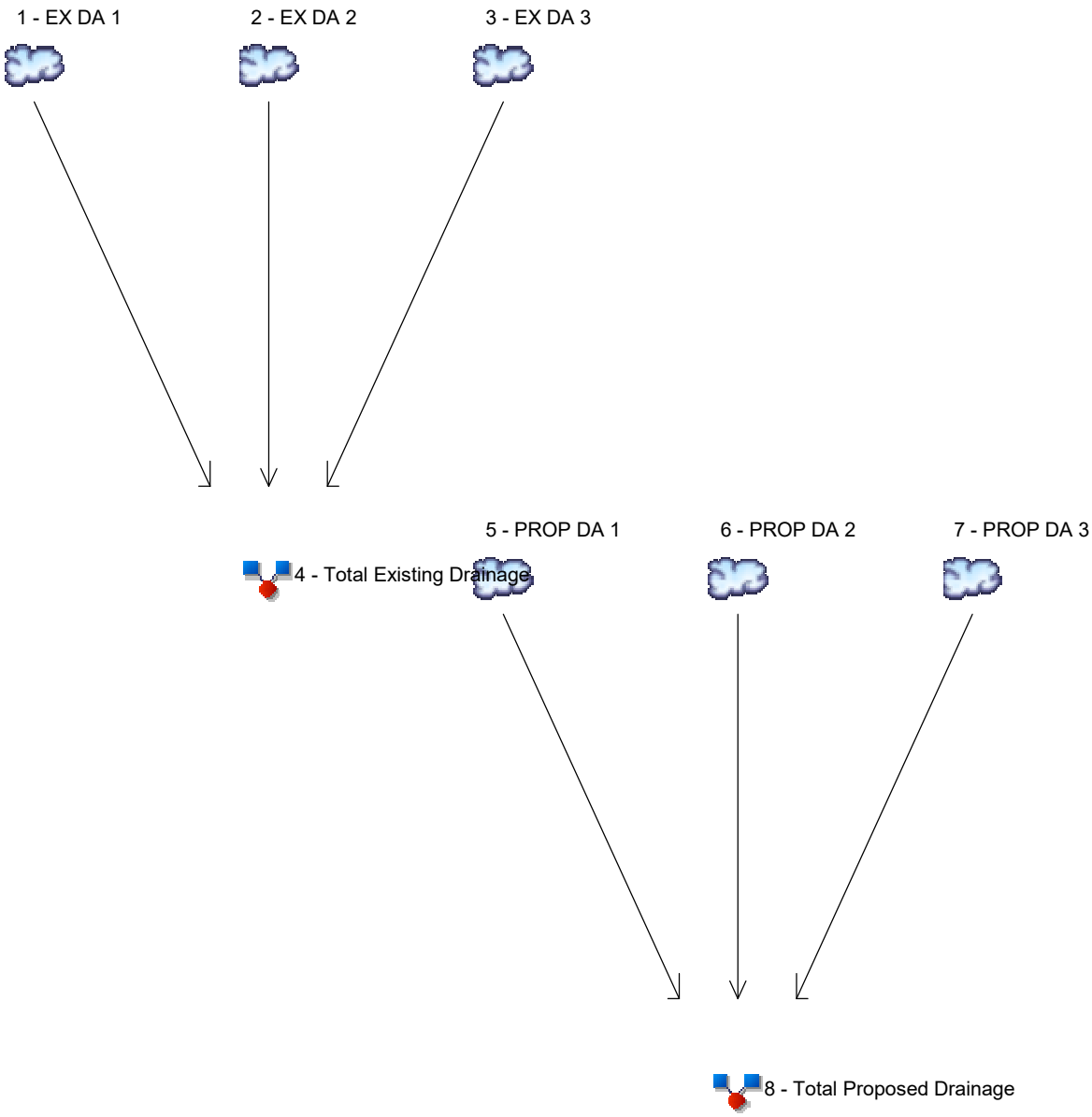
HYDRAULIC CALCULATIONS REPORT

Hydraflow Table of Contents

2020.06.28 Hydraulics Design.gpw

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Tuesday, 06 / 30 / 2020

Watershed Model Schematic



Legend

Hyd.	Origin	Description
1	SCS Runoff	EX DA 1
2	SCS Runoff	EX DA 2
3	SCS Runoff	EX DA 3
4	Combine	Total Existing Drainage
5	SCS Runoff	PROP DA 1
6	SCS Runoff	PROP DA 2
7	SCS Runoff	PROP DA 3
8	Combine	Total Proposed Drainage

Hydrograph Return Period Recap

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)							Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	SCS Runoff	------	-------	2.131	-------	-------	3.640	4.575	5.253	-------	EX DA 1
2	SCS Runoff	------	-------	0.055	-------	-------	0.123	0.167	0.200	-------	EX DA 2
3	SCS Runoff	------	-------	0.042	-------	-------	0.108	0.155	0.189	-------	EX DA 3
4	Combine	1, 2, 3	-------	2.227	-------	-------	3.871	4.897	5.643	-------	Total Existing Drainage
5	SCS Runoff	------	-------	1.858	-------	-------	3.428	4.408	5.120	-------	PROP DA 1
6	SCS Runoff	------	-------	0.019	-------	-------	0.054	0.079	0.099	-------	PROP DA 2
7	SCS Runoff	------	-------	0.041	-------	-------	0.099	0.138	0.167	-------	PROP DA 3
8	Combine	5, 6, 7	-------	1.918	-------	-------	3.581	4.626	5.385	-------	Total Proposed Drainage

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

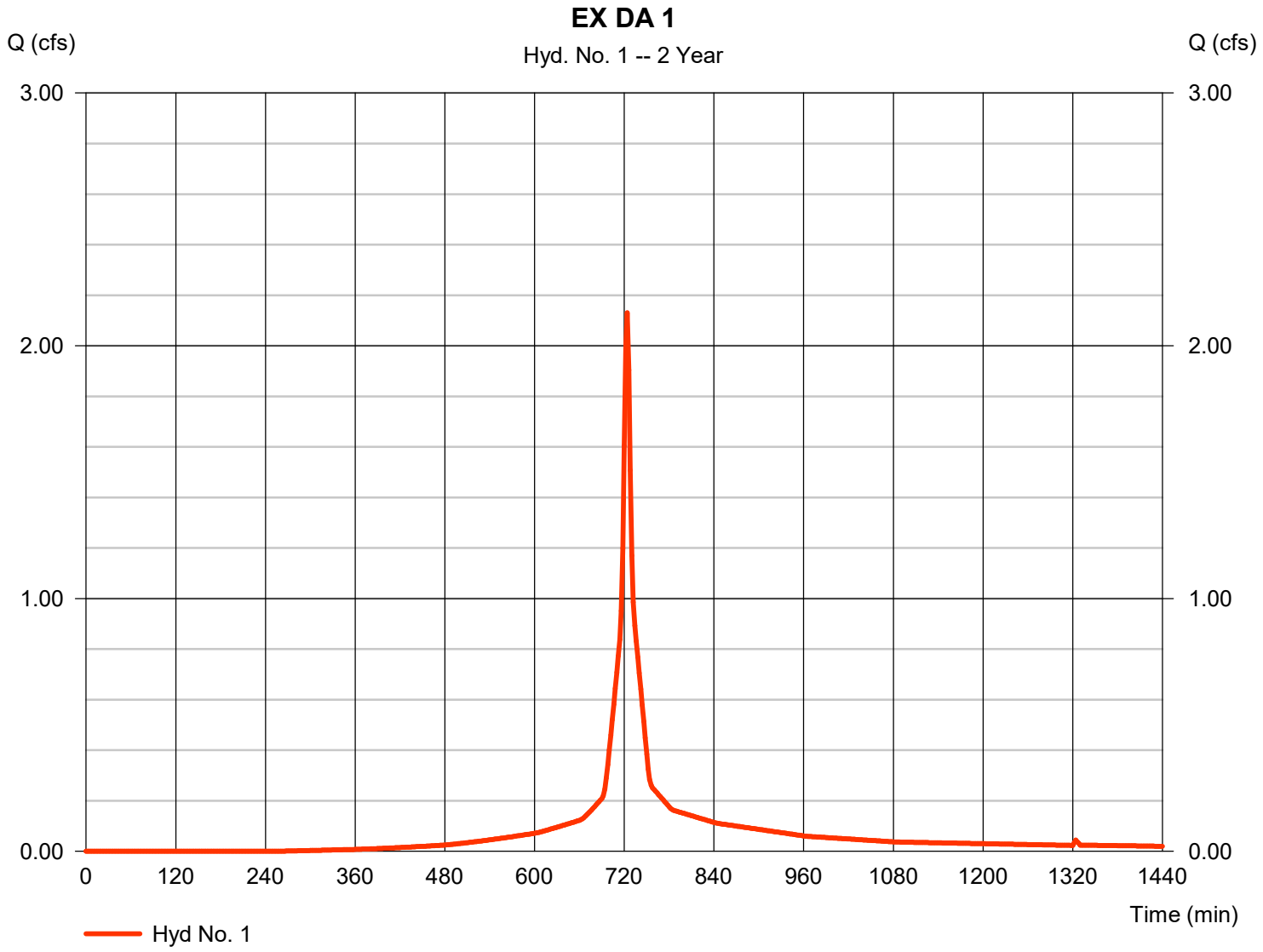
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	2.131	2	724	6,624	------	------	------	EX DA 1
2	SCS Runoff	0.055	2	724	167	------	------	------	EX DA 2
3	SCS Runoff	0.042	2	724	133	------	------	------	EX DA 3
4	Combine	2.227	2	724	6,925	1, 2, 3	------	------	Total Existing Drainage
5	SCS Runoff	1.858	2	724	5,588	------	------	------	PROP DA 1
6	SCS Runoff	0.019	2	724	63	------	------	------	PROP DA 2
7	SCS Runoff	0.041	2	724	128	------	------	------	PROP DA 3
8	Combine	1.918	2	724	5,780	5, 6, 7	------	------	Total Proposed Drainage

Hydrograph Report

Hyd. No. 1

EX DA 1

Hydrograph type	=	SCS Runoff	Peak discharge	=	2.131 cfs
Storm frequency	=	2 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	6,624 cuft
Drainage area	=	0.760 ac	Curve number	=	93
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.32 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

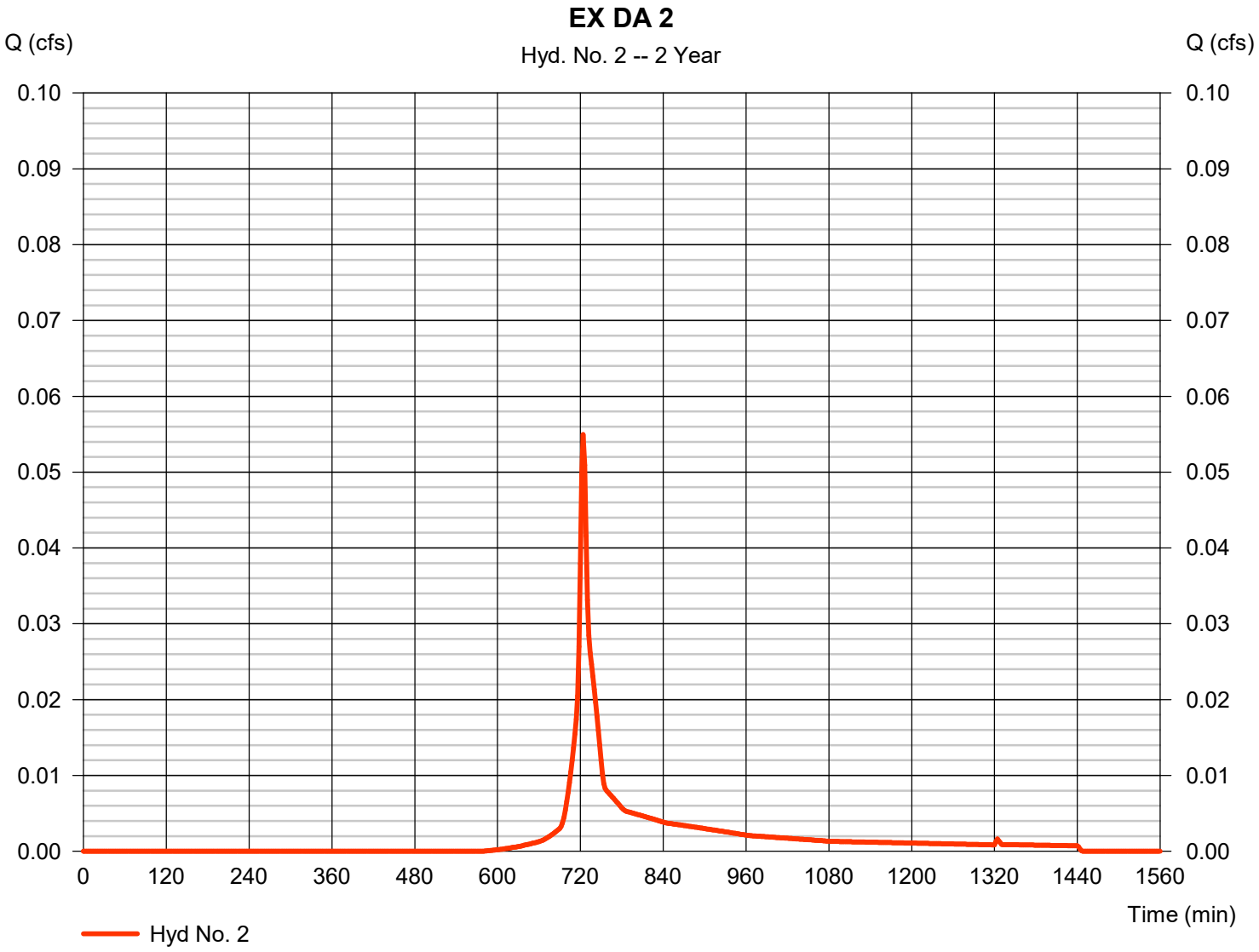


Hydrograph Report

Hyd. No. 2

EX DA 2

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.055 cfs
Storm frequency	=	2 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	167 cuft
Drainage area	=	0.036 ac	Curve number	=	78
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.32 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

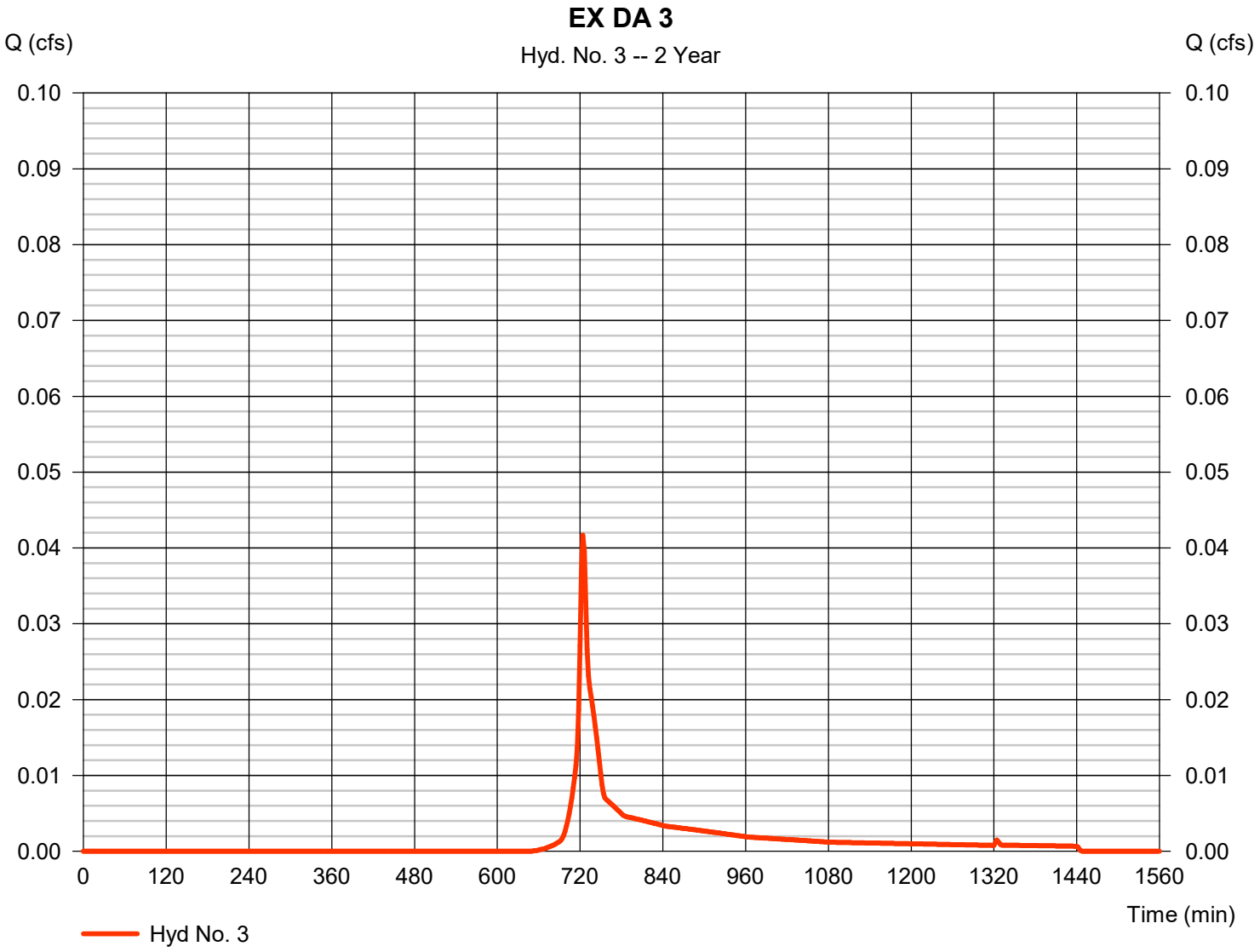


Hydrograph Report

Hyd. No. 3

EX DA 3

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.042 cfs
Storm frequency	=	2 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	133 cuft
Drainage area	=	0.039 ac	Curve number	=	72
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.32 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

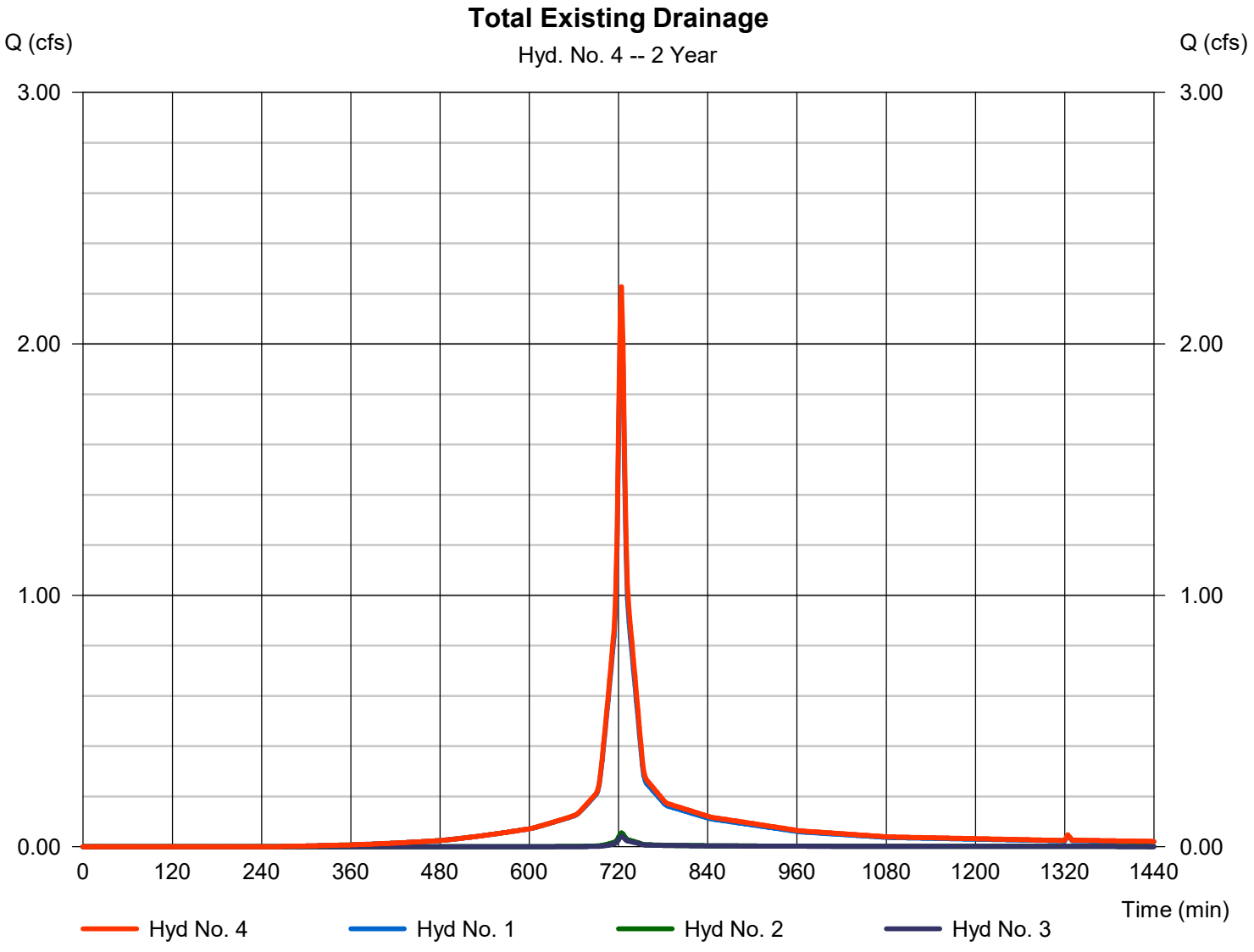


Hydrograph Report

Hyd. No. 4

Total Existing Drainage

Hydrograph type	= Combine	Peak discharge	= 2.227 cfs
Storm frequency	= 2 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 6,925 cuft
Inflow hyds.	= 1, 2, 3	Contrib. drain. area	= 0.835 ac

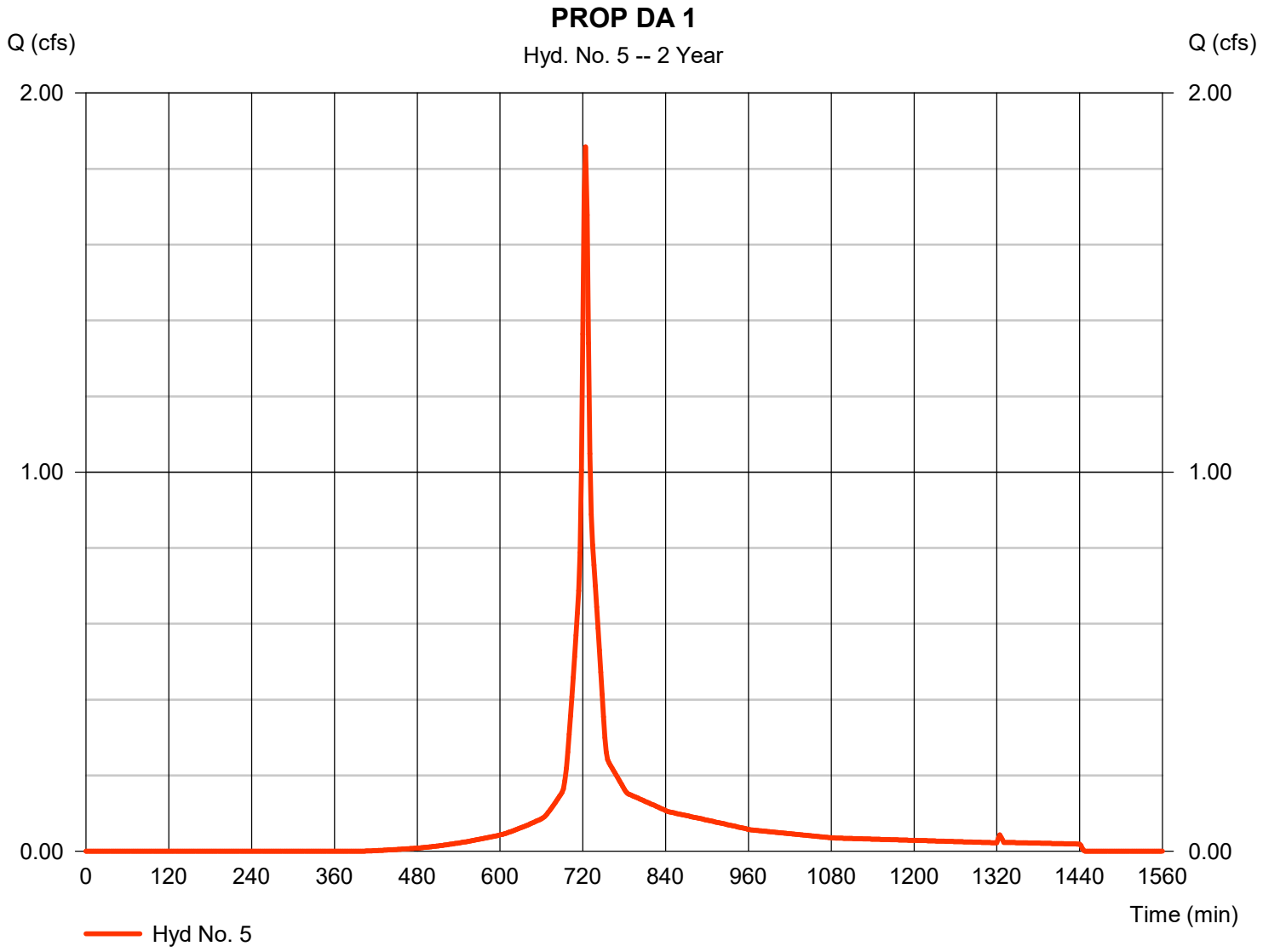


Hydrograph Report

Hyd. No. 5

PROP DA 1

Hydrograph type	=	SCS Runoff	Peak discharge	=	1.858 cfs
Storm frequency	=	2 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	5,588 cuft
Drainage area	=	0.780 ac	Curve number	=	88
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.32 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

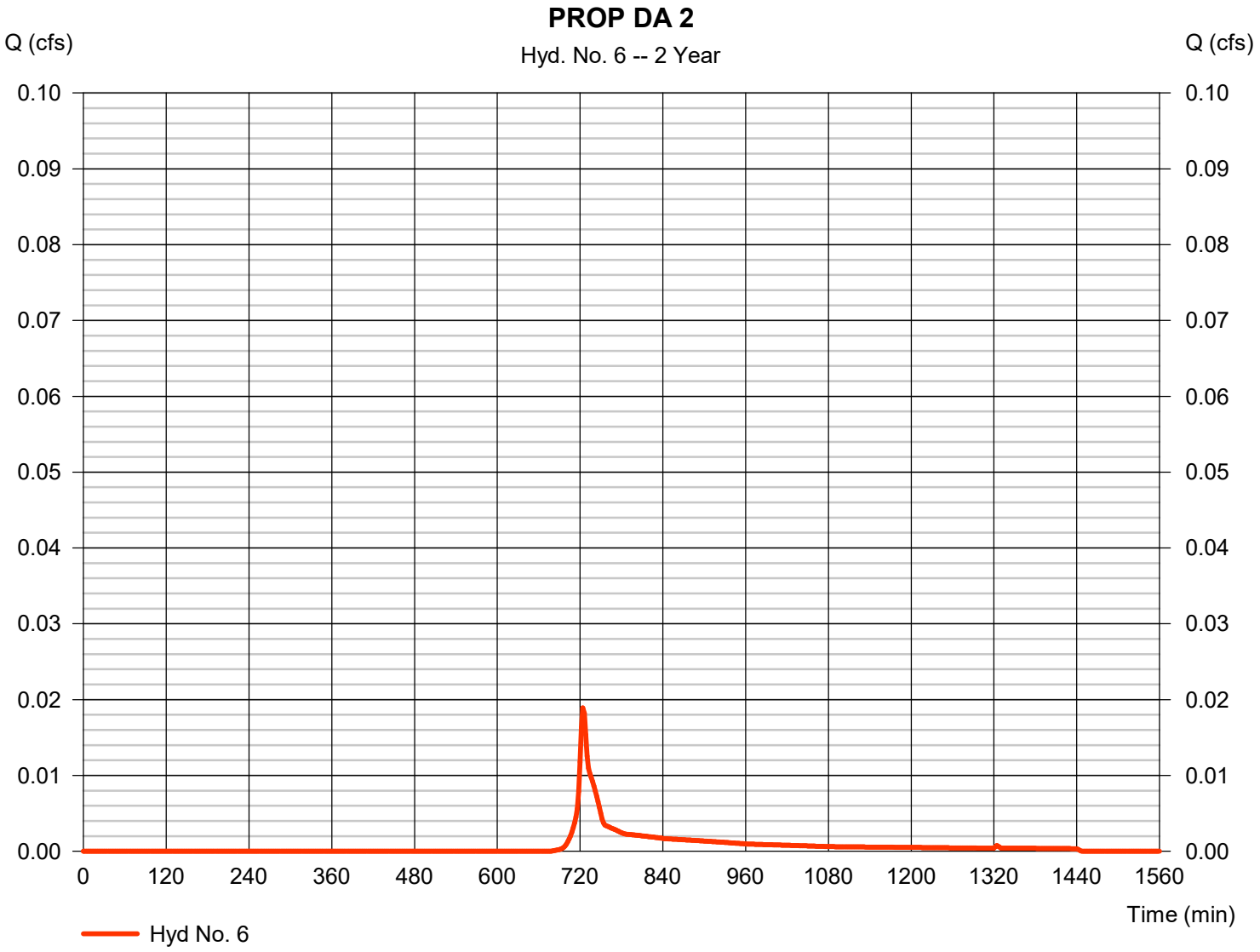


Hydrograph Report

Hyd. No. 6

PROP DA 2

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.019 cfs
Storm frequency	=	2 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	63 cuft
Drainage area	=	0.022 ac	Curve number	=	69
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.32 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

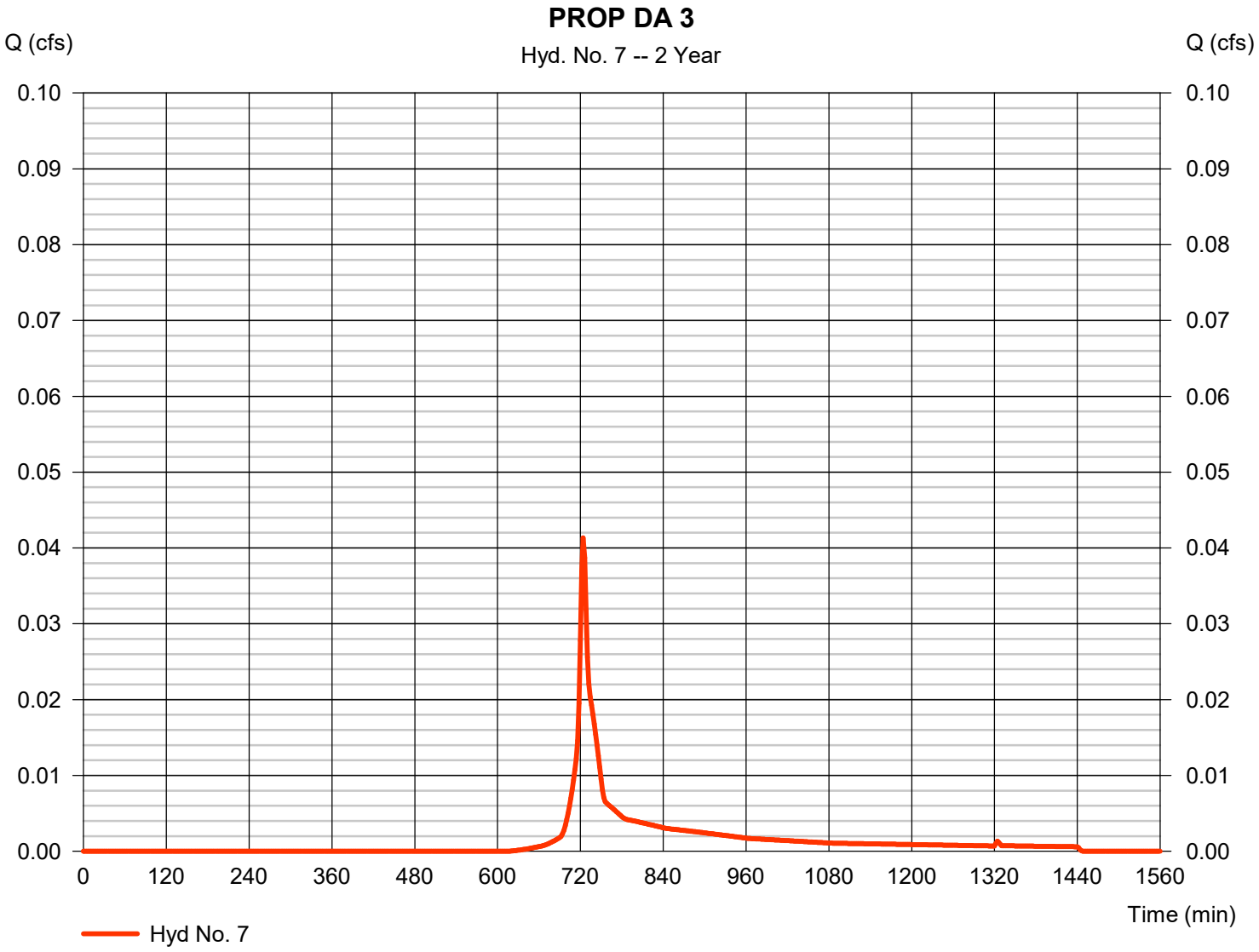


Hydrograph Report

Hyd. No. 7

PROP DA 3

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.041 cfs
Storm frequency	=	2 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	128 cuft
Drainage area	=	0.032 ac	Curve number	=	75
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.32 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

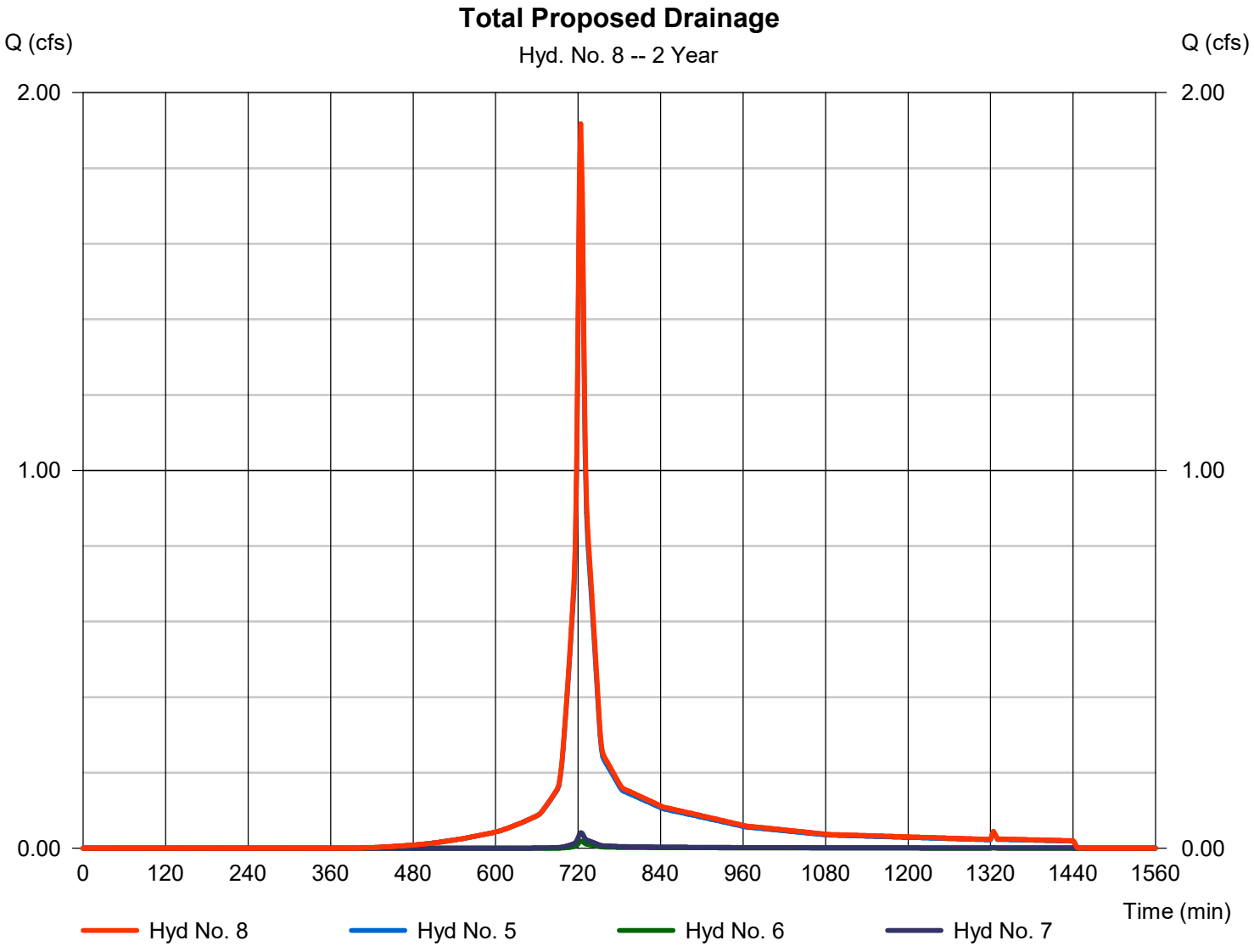


Hydrograph Report

Hyd. No. 8

Total Proposed Drainage

Hydrograph type	= Combine	Peak discharge	= 1.918 cfs
Storm frequency	= 2 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 5,780 cuft
Inflow hyds.	= 5, 6, 7	Contrib. drain. area	= 0.834 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

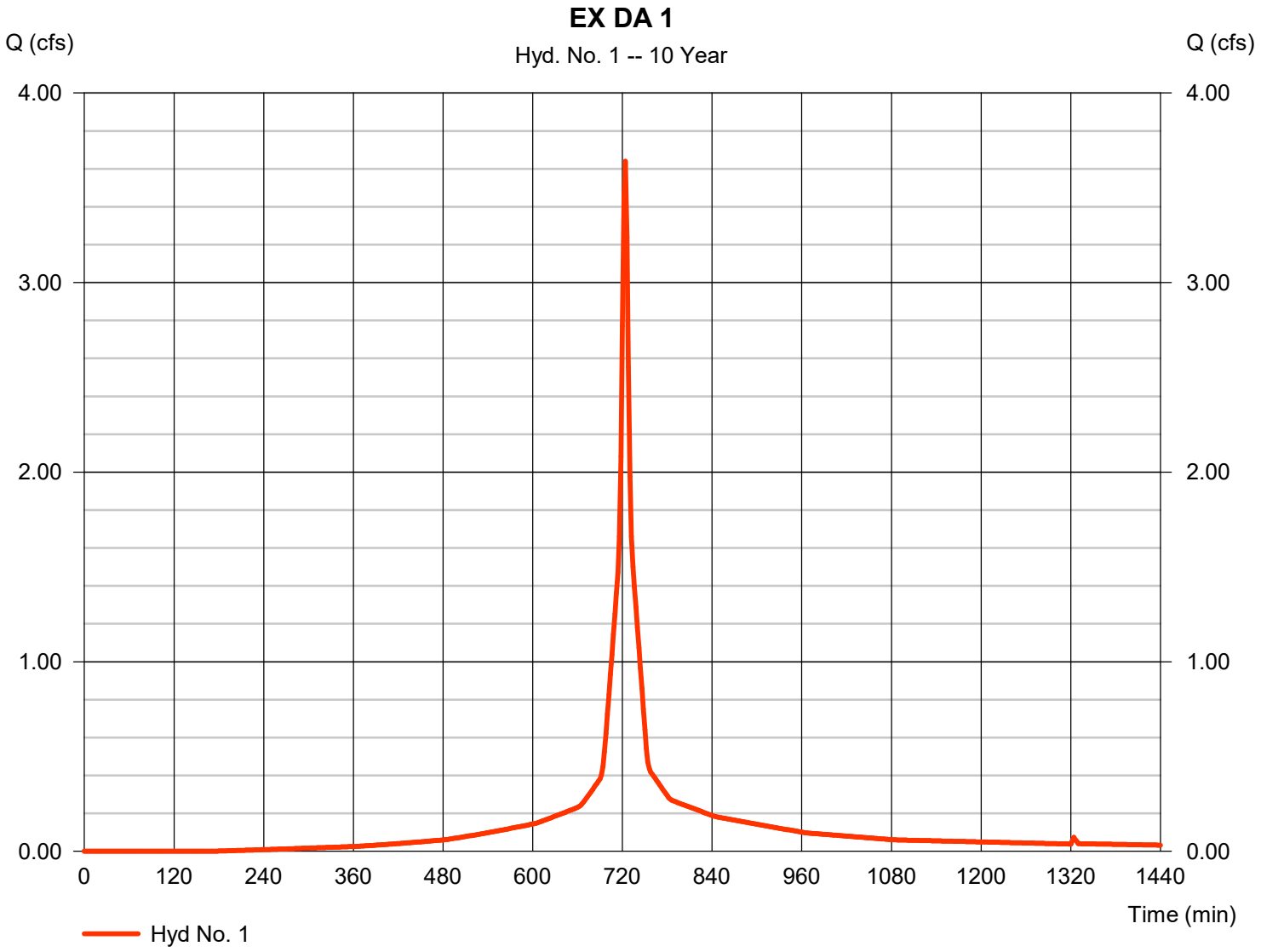
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	3.640	2	724	11,696	------	------	------	EX DA 1
2	SCS Runoff	0.123	2	724	367	------	------	------	EX DA 2
3	SCS Runoff	0.108	2	724	326	------	------	------	EX DA 3
4	Combine	3.871	2	724	12,389	1, 2, 3	------	------	Total Existing Drainage
5	SCS Runoff	3.428	2	724	10,573	------	------	------	PROP DA 1
6	SCS Runoff	0.054	2	724	165	------	------	------	PROP DA 2
7	SCS Runoff	0.099	2	724	296	------	------	------	PROP DA 3
8	Combine	3.581	2	724	11,034	5, 6, 7	------	------	Total Proposed Drainage

Hydrograph Report

Hyd. No. 1

EX DA 1

Hydrograph type	=	SCS Runoff	Peak discharge	=	3.640 cfs
Storm frequency	=	10 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	11,696 cuft
Drainage area	=	0.760 ac	Curve number	=	93
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.33 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

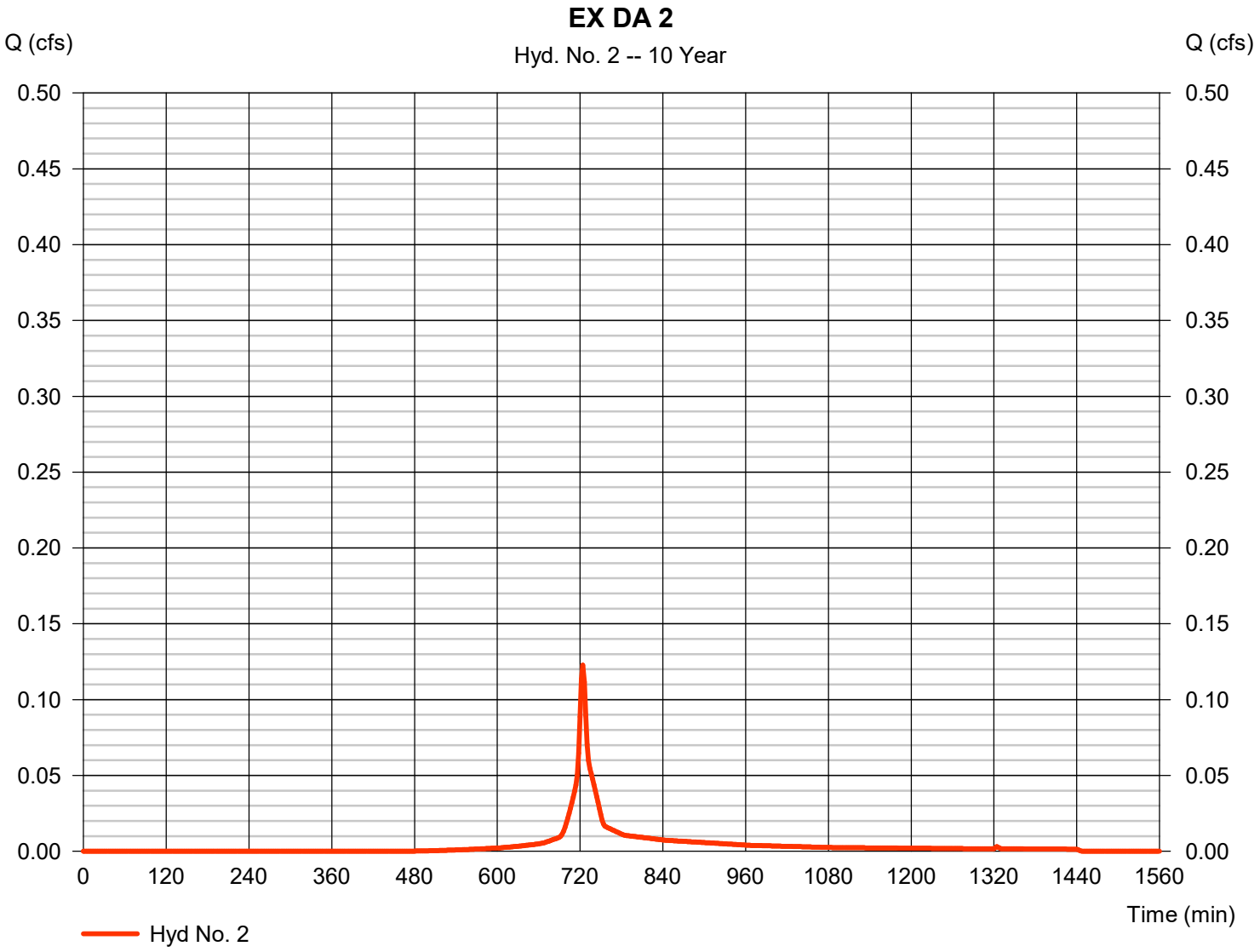


Hydrograph Report

Hyd. No. 2

EX DA 2

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.123 cfs
Storm frequency	=	10 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	367 cuft
Drainage area	=	0.036 ac	Curve number	=	78
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.33 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

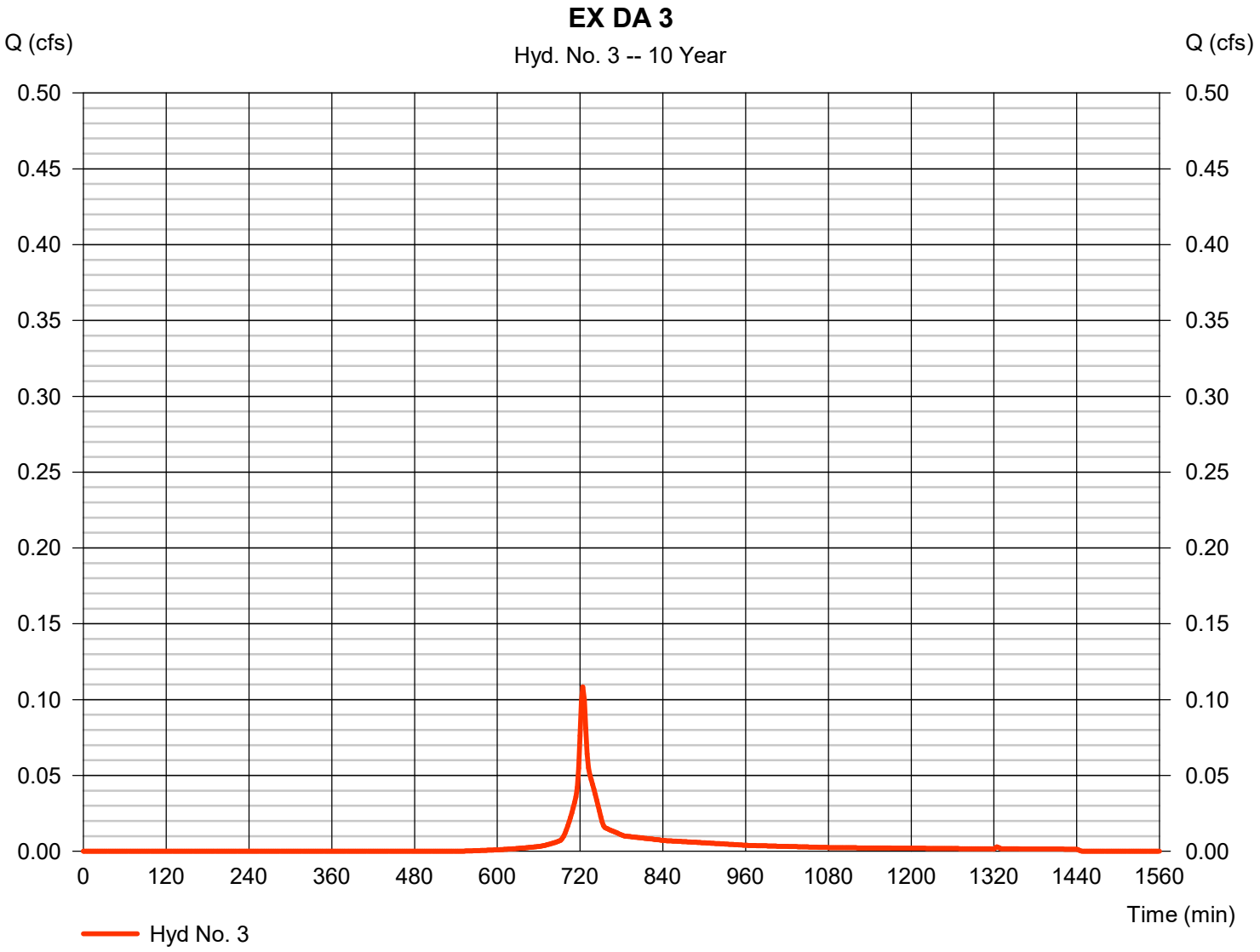


Hydrograph Report

Hyd. No. 3

EX DA 3

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.108 cfs
Storm frequency	=	10 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	326 cuft
Drainage area	=	0.039 ac	Curve number	=	72
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.33 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

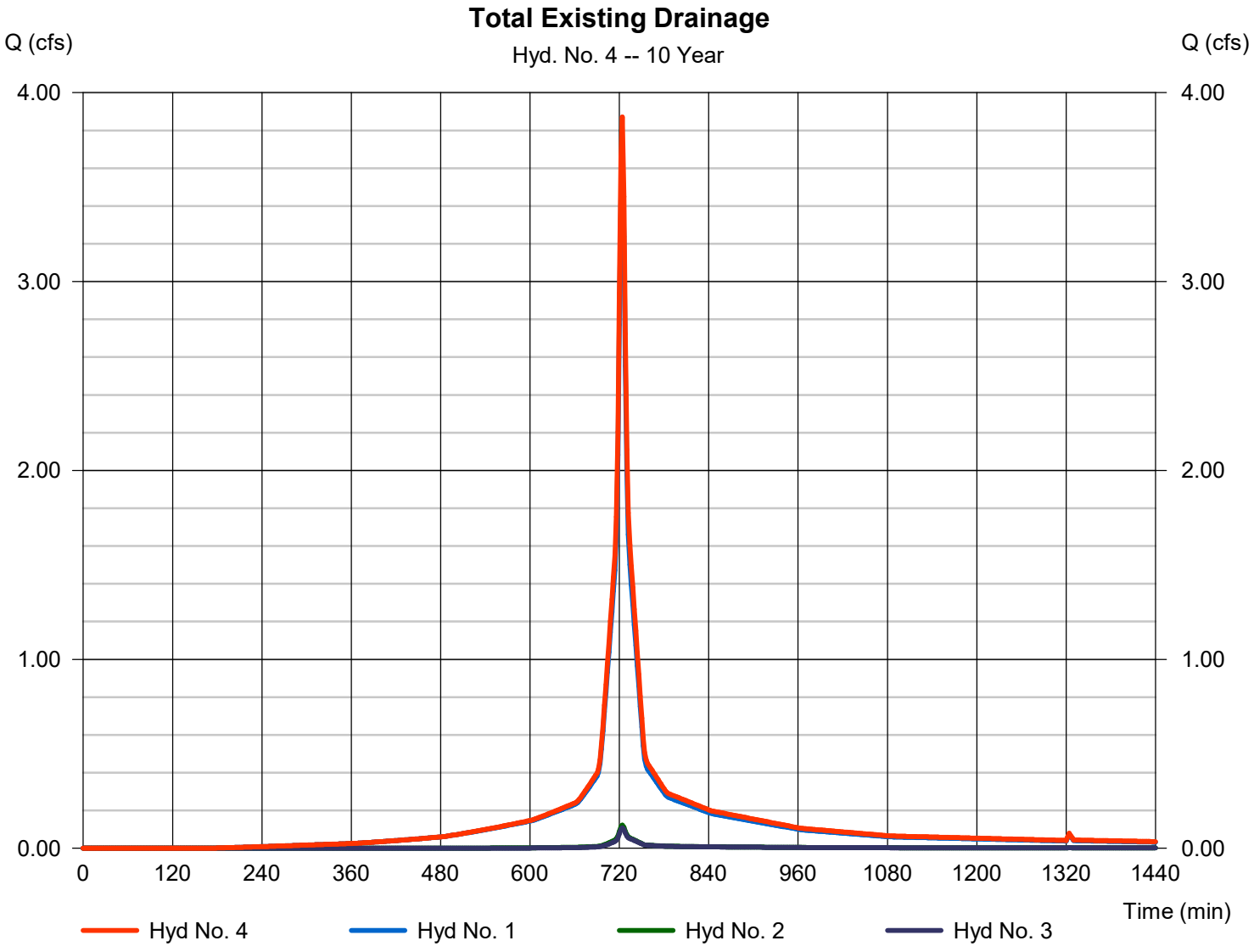


Hydrograph Report

Hyd. No. 4

Total Existing Drainage

Hydrograph type	= Combine	Peak discharge	= 3.871 cfs
Storm frequency	= 10 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 12,389 cuft
Inflow hyds.	= 1, 2, 3	Contrib. drain. area	= 0.835 ac

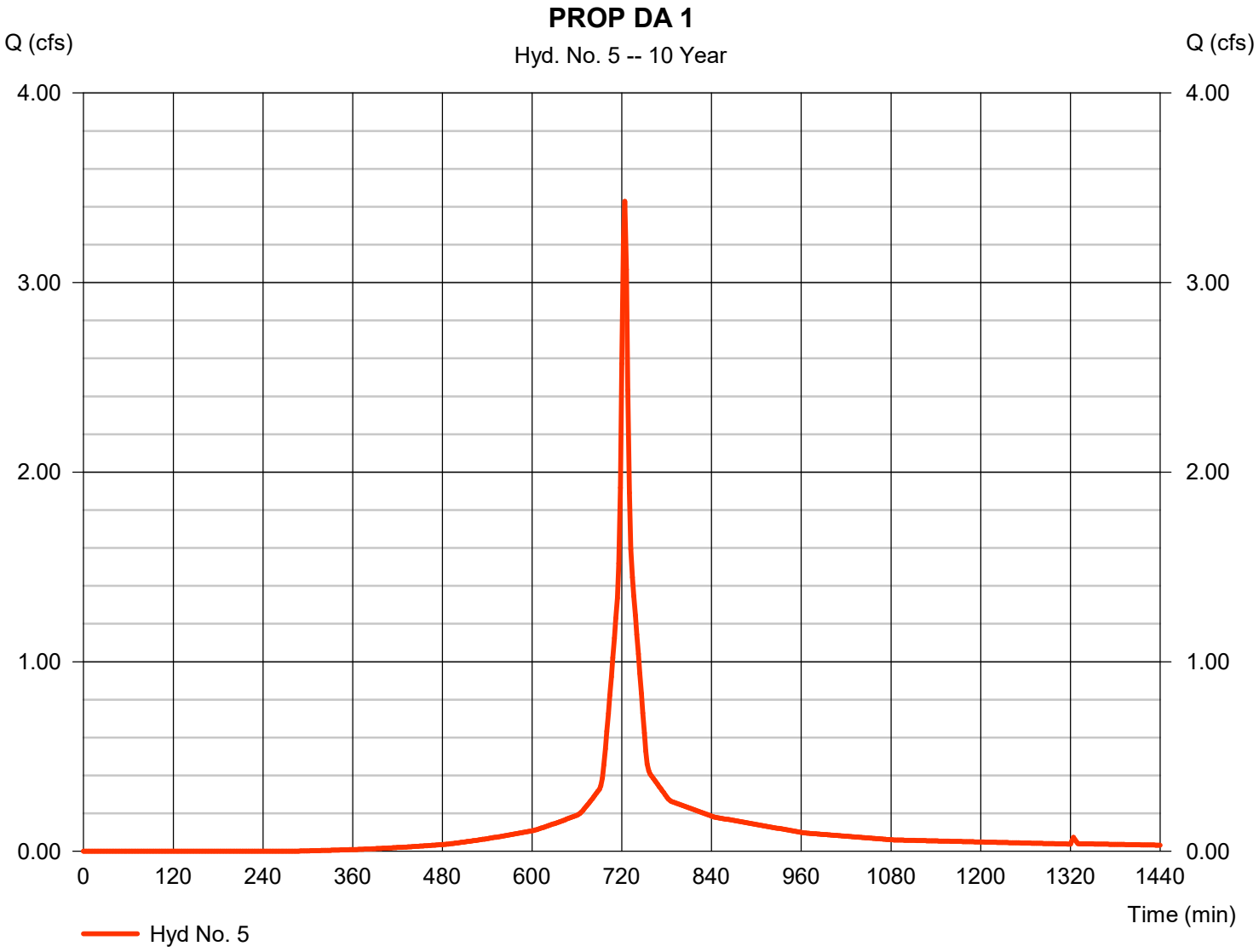


Hydrograph Report

Hyd. No. 5

PROP DA 1

Hydrograph type	=	SCS Runoff	Peak discharge	=	3.428 cfs
Storm frequency	=	10 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	10,573 cuft
Drainage area	=	0.780 ac	Curve number	=	88
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.33 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

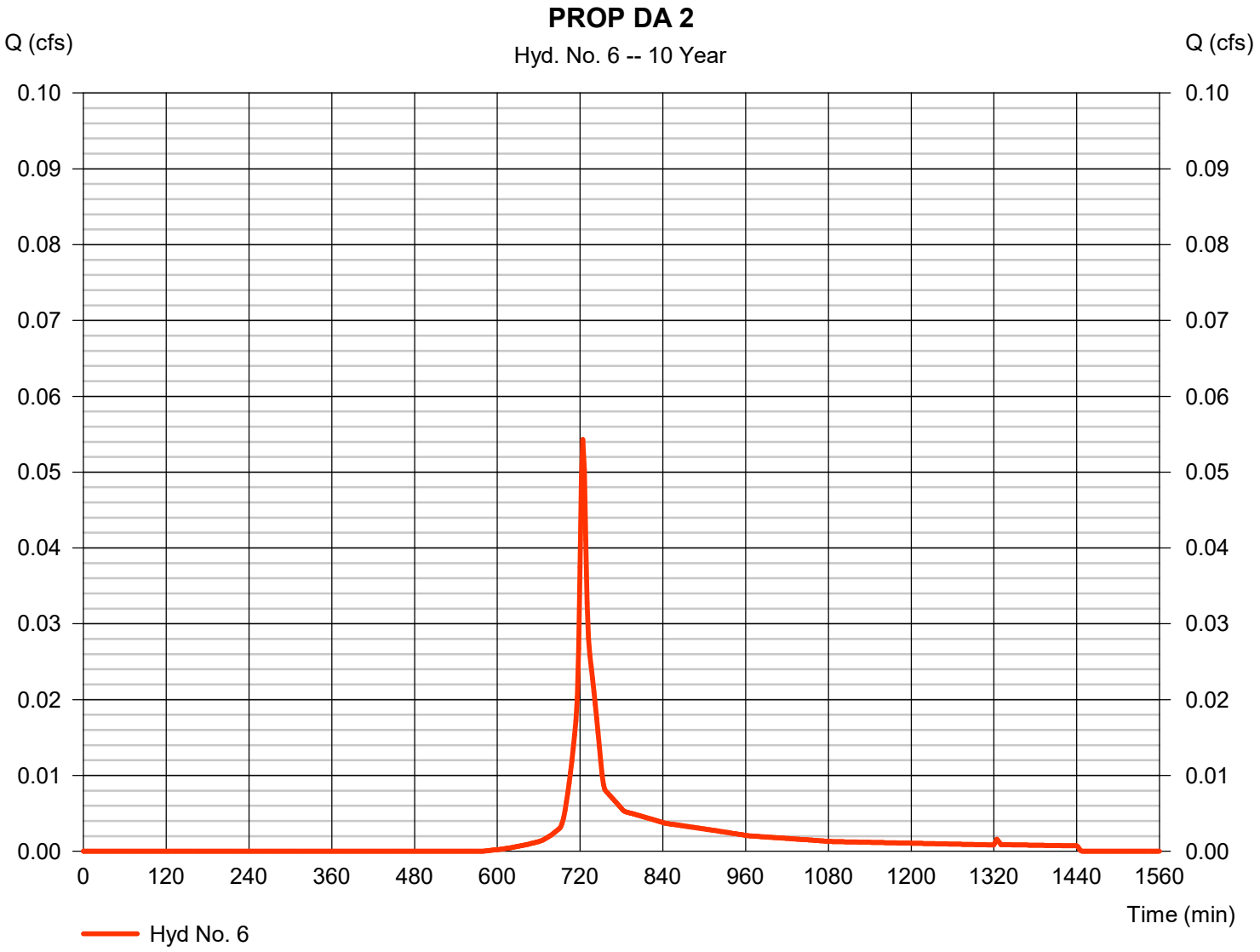


Hydrograph Report

Hyd. No. 6

PROP DA 2

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.054 cfs
Storm frequency	=	10 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	165 cuft
Drainage area	=	0.022 ac	Curve number	=	69
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.33 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

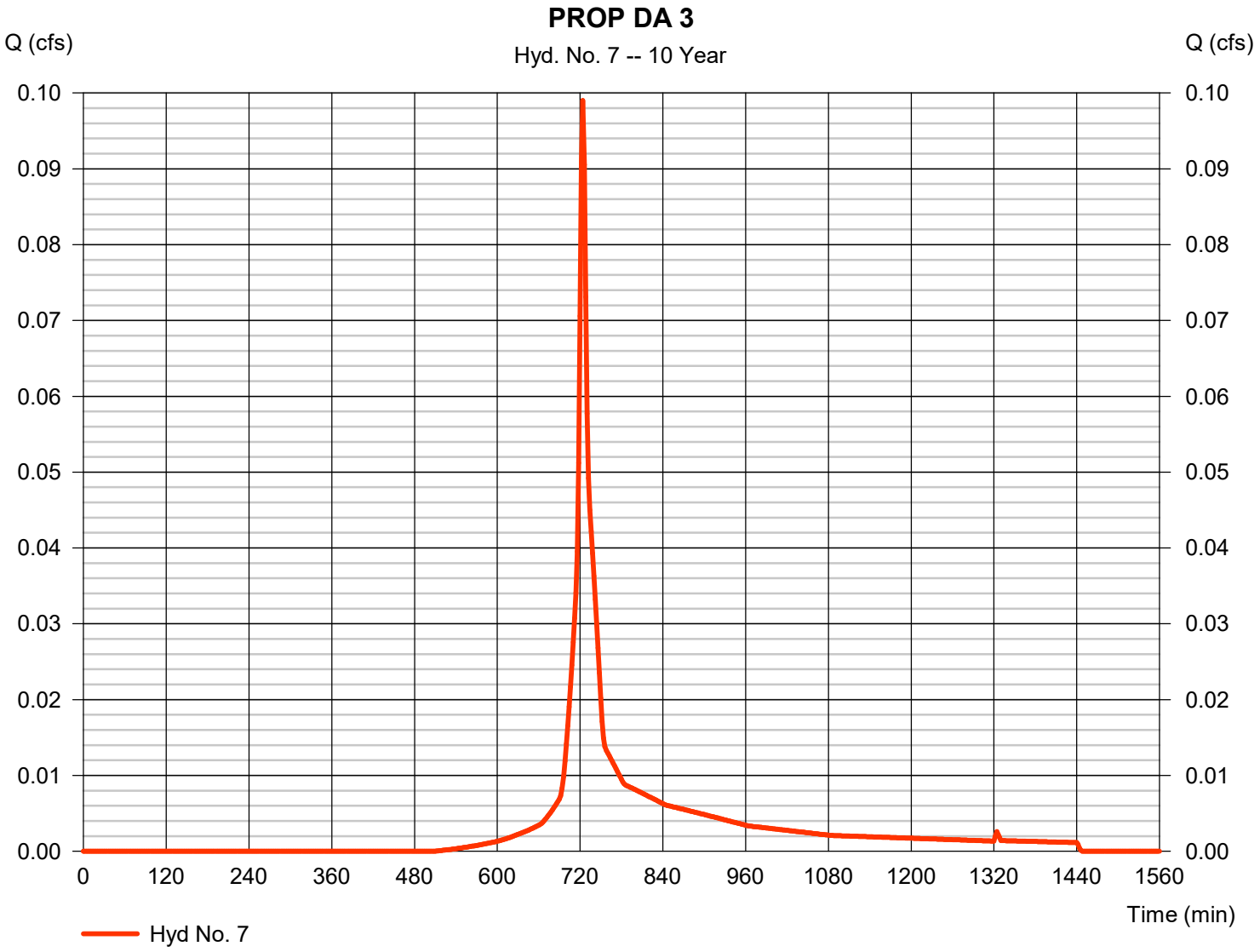


Hydrograph Report

Hyd. No. 7

PROP DA 3

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.099 cfs
Storm frequency	=	10 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	296 cuft
Drainage area	=	0.032 ac	Curve number	=	75
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.33 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

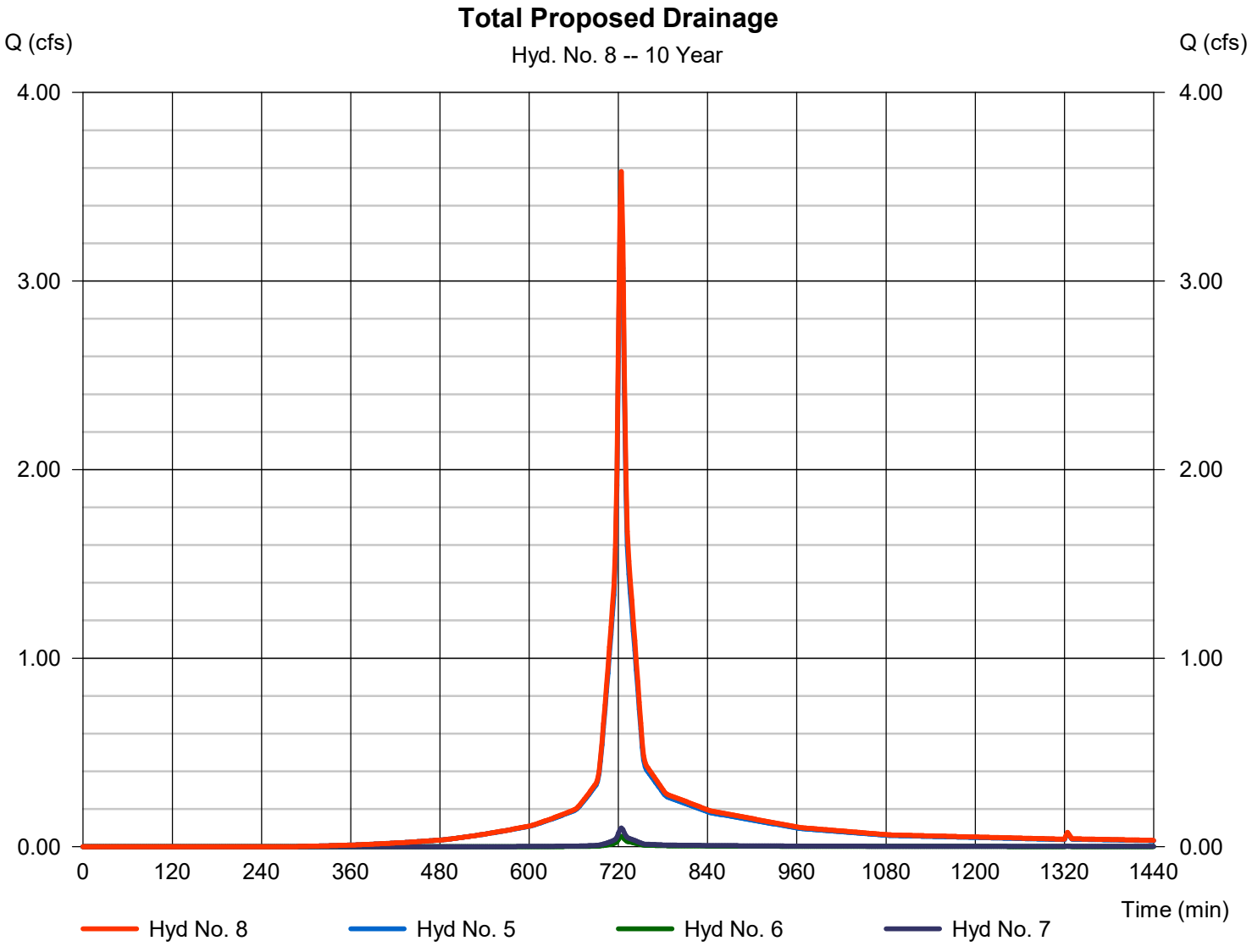


Hydrograph Report

Hyd. No. 8

Total Proposed Drainage

Hydrograph type	= Combine	Peak discharge	= 3.581 cfs
Storm frequency	= 10 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 11,034 cuft
Inflow hyds.	= 5, 6, 7	Contrib. drain. area	= 0.834 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

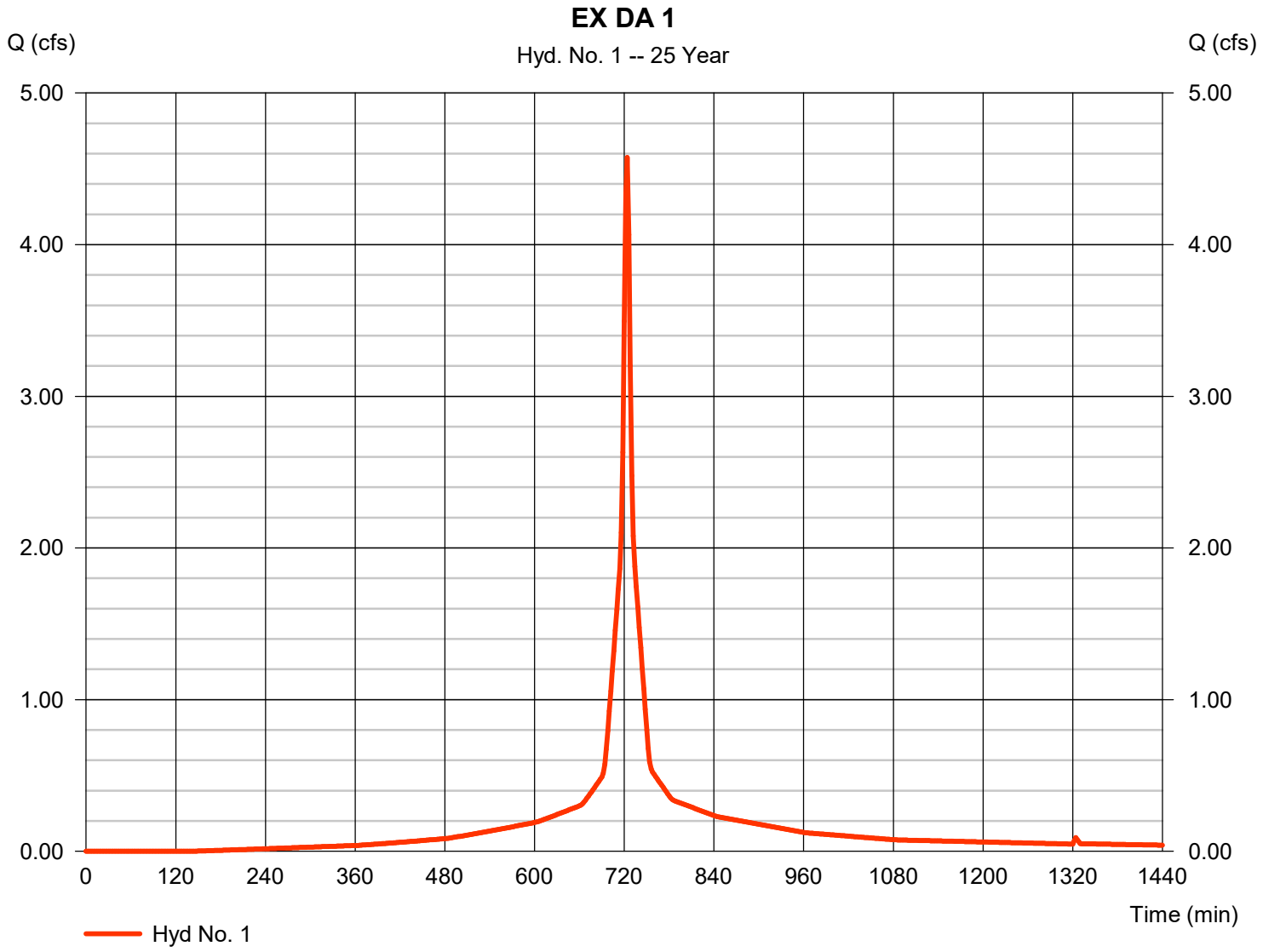
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	4.575	2	724	14,912	------	------	------	EX DA 1
2	SCS Runoff	0.167	2	724	503	------	------	------	EX DA 2
3	SCS Runoff	0.155	2	724	462	------	------	------	EX DA 3
4	Combine	4.897	2	724	15,877	1, 2, 3	------	------	Total Existing Drainage
5	SCS Runoff	4.408	2	724	13,792	------	------	------	PROP DA 1
6	SCS Runoff	0.079	2	724	238	------	------	------	PROP DA 2
7	SCS Runoff	0.138	2	724	413	------	------	------	PROP DA 3
8	Combine	4.626	2	724	14,443	5, 6, 7	------	------	Total Proposed Drainage

Hydrograph Report

Hyd. No. 1

EX DA 1

Hydrograph type	=	SCS Runoff	Peak discharge	=	4.575 cfs
Storm frequency	=	25 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	14,912 cuft
Drainage area	=	0.760 ac	Curve number	=	93
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	6.59 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

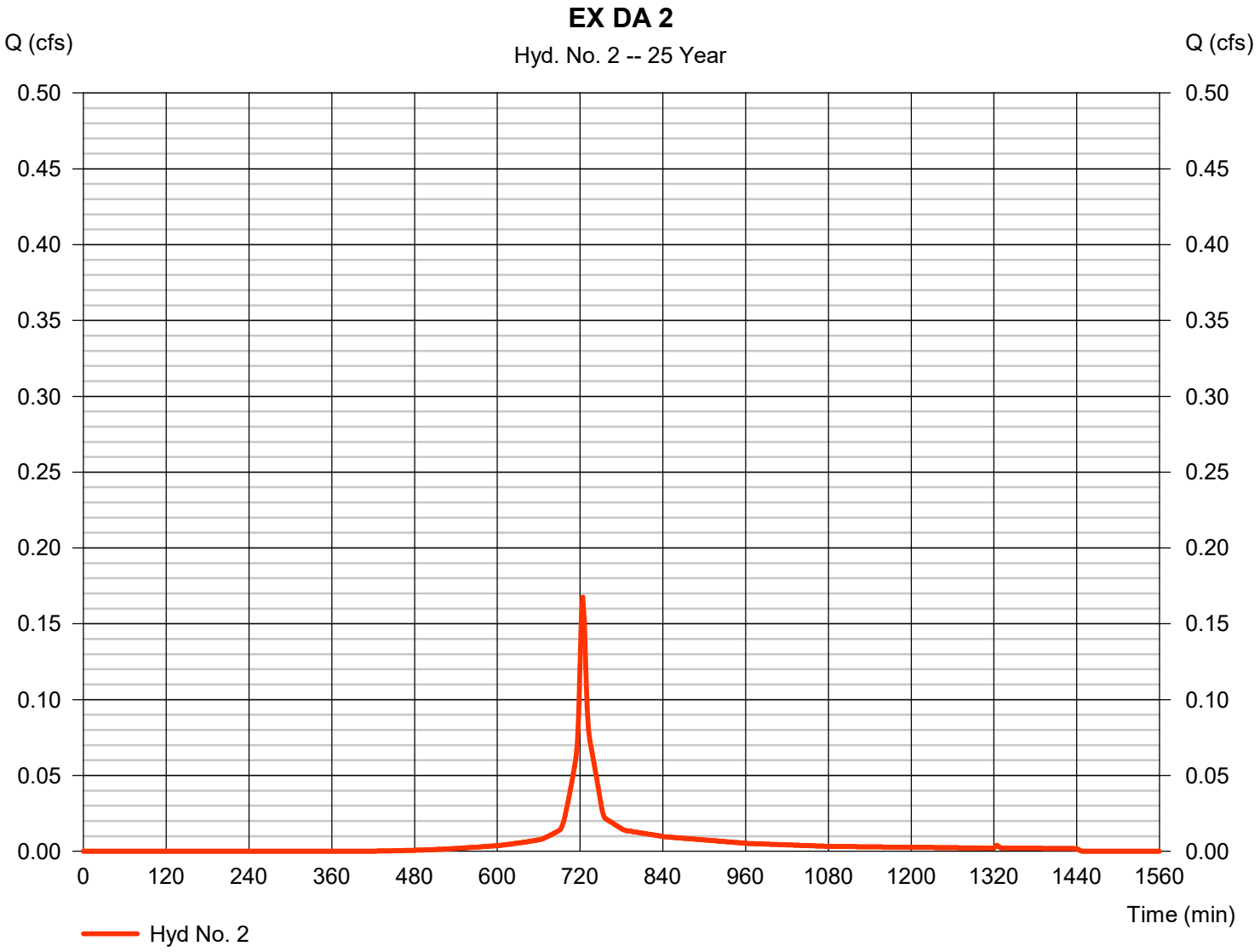


Hydrograph Report

Hyd. No. 2

EX DA 2

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.167 cfs
Storm frequency	=	25 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	503 cuft
Drainage area	=	0.036 ac	Curve number	=	78
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	6.59 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

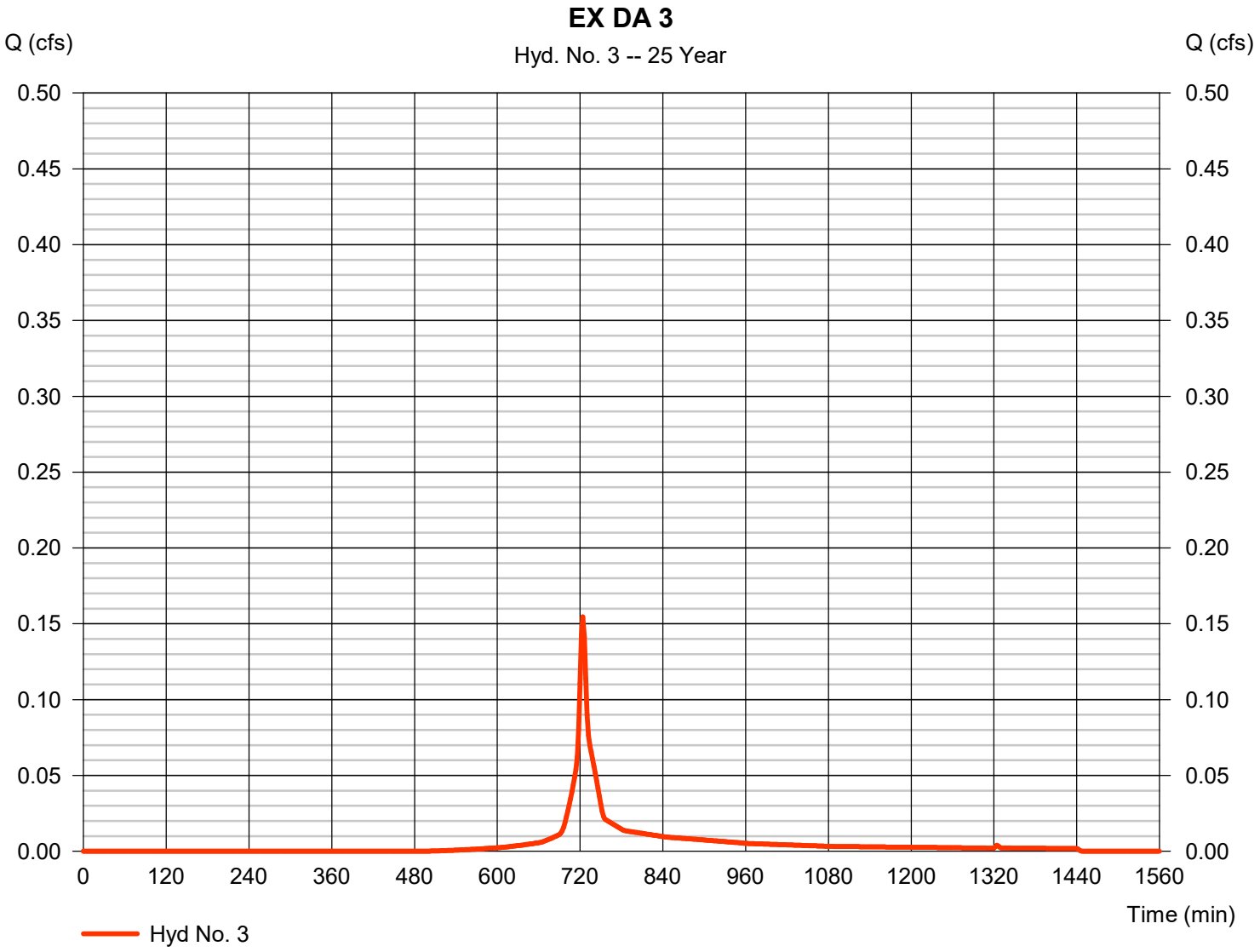


Hydrograph Report

Hyd. No. 3

EX DA 3

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.155 cfs
Storm frequency	=	25 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	462 cuft
Drainage area	=	0.039 ac	Curve number	=	72
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	6.59 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

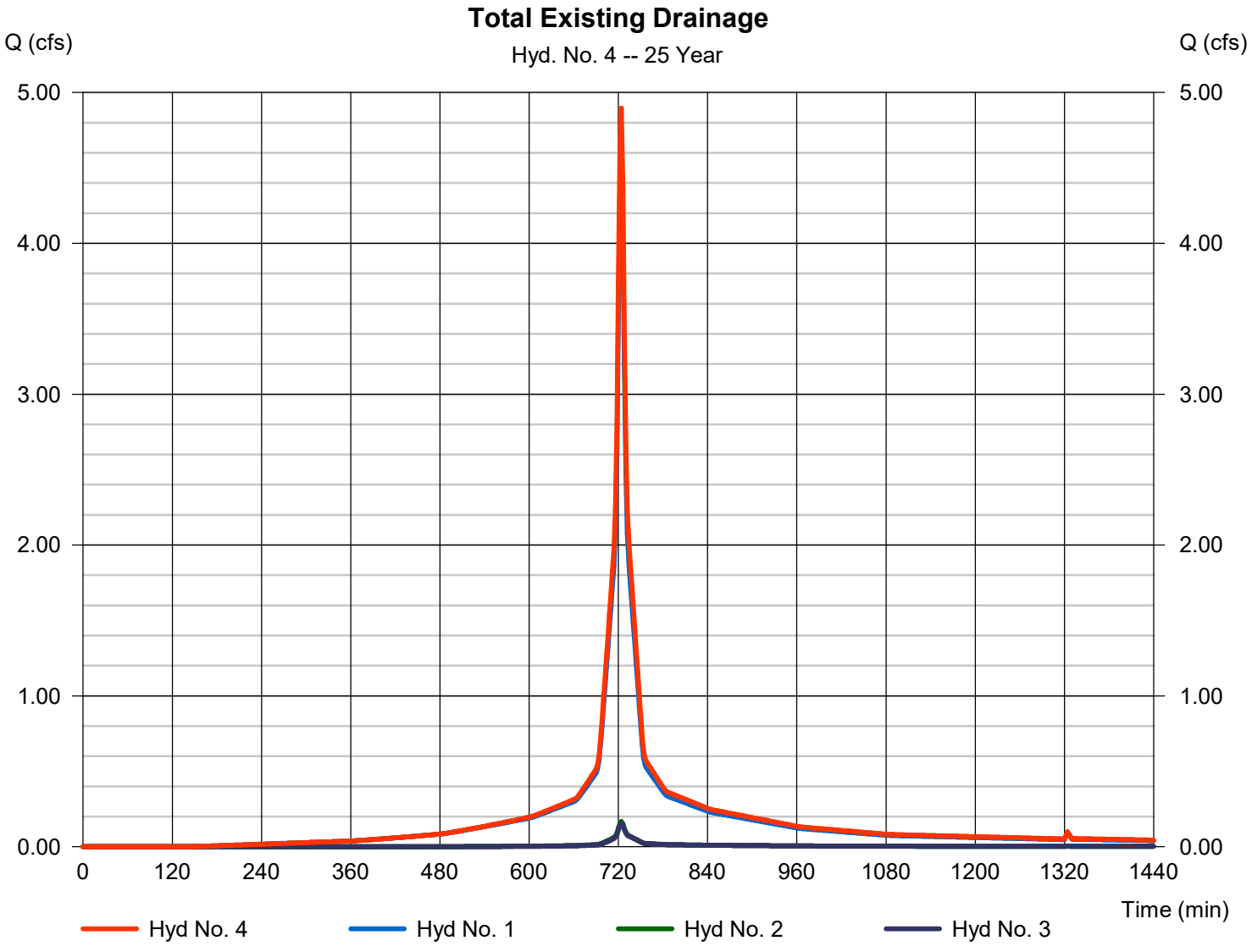


Hydrograph Report

Hyd. No. 4

Total Existing Drainage

Hydrograph type	= Combine	Peak discharge	= 4.897 cfs
Storm frequency	= 25 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 15,877 cuft
Inflow hyds.	= 1, 2, 3	Contrib. drain. area	= 0.835 ac

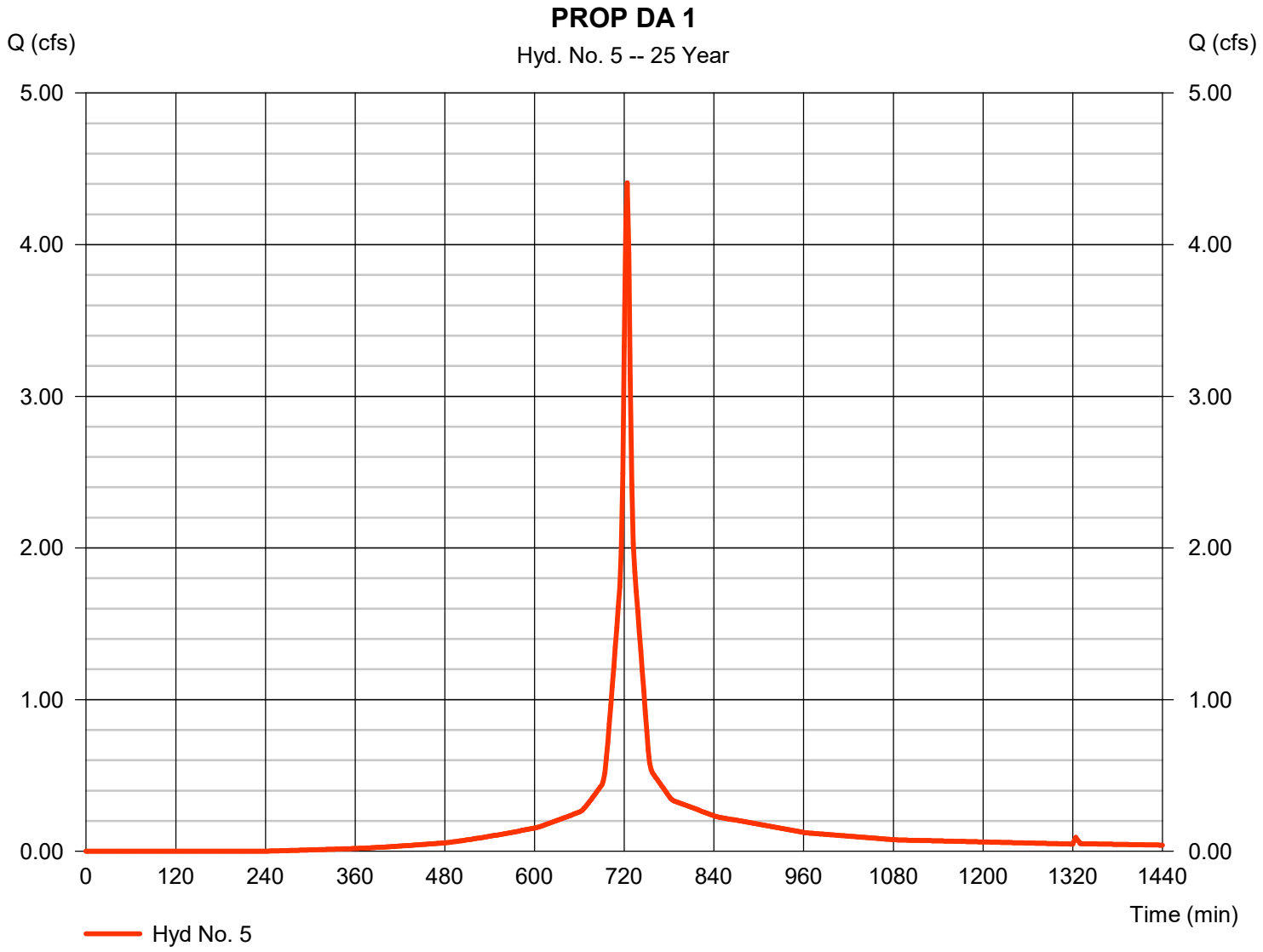


Hydrograph Report

Hyd. No. 5

PROP DA 1

Hydrograph type	=	SCS Runoff	Peak discharge	=	4.408 cfs
Storm frequency	=	25 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	13,792 cuft
Drainage area	=	0.780 ac	Curve number	=	88
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	6.59 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

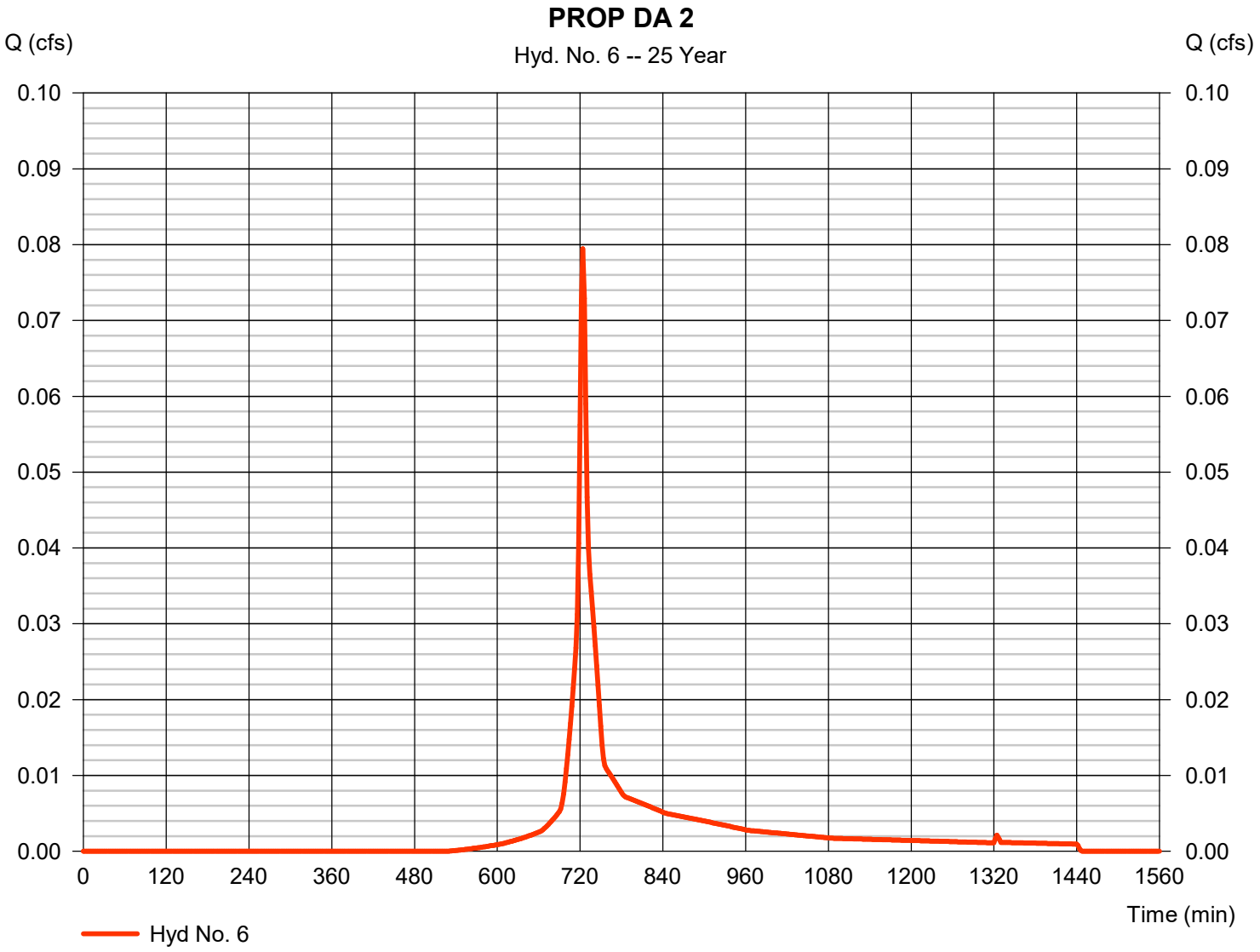


Hydrograph Report

Hyd. No. 6

PROP DA 2

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.079 cfs
Storm frequency	=	25 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	238 cuft
Drainage area	=	0.022 ac	Curve number	=	69
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	6.59 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

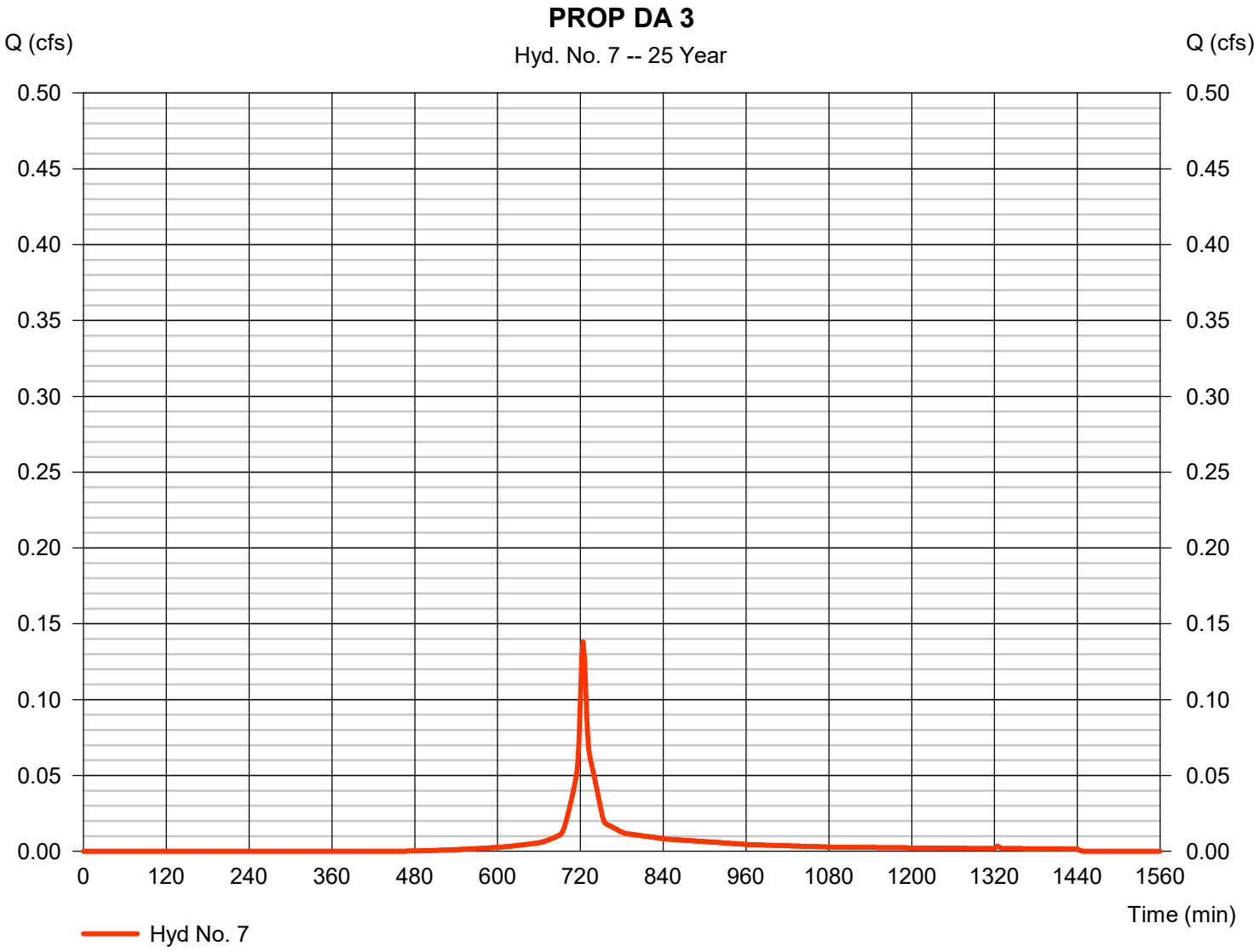


Hydrograph Report

Hyd. No. 7

PROP DA 3

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.138 cfs
Storm frequency	=	25 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	413 cuft
Drainage area	=	0.032 ac	Curve number	=	75
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	6.59 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

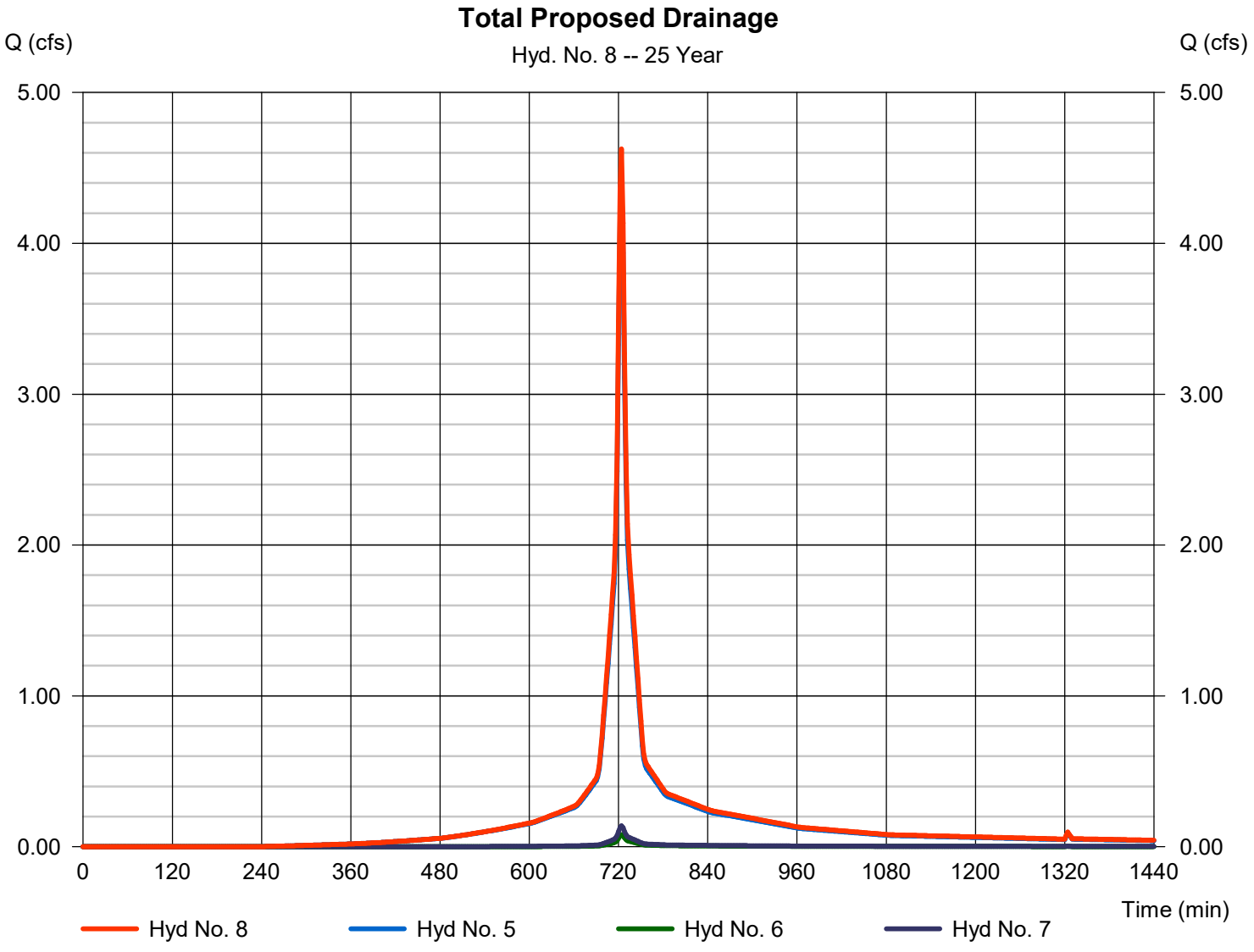


Hydrograph Report

Hyd. No. 8

Total Proposed Drainage

Hydrograph type	= Combine	Peak discharge	= 4.626 cfs
Storm frequency	= 25 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 14,443 cuft
Inflow hyds.	= 5, 6, 7	Contrib. drain. area	= 0.834 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

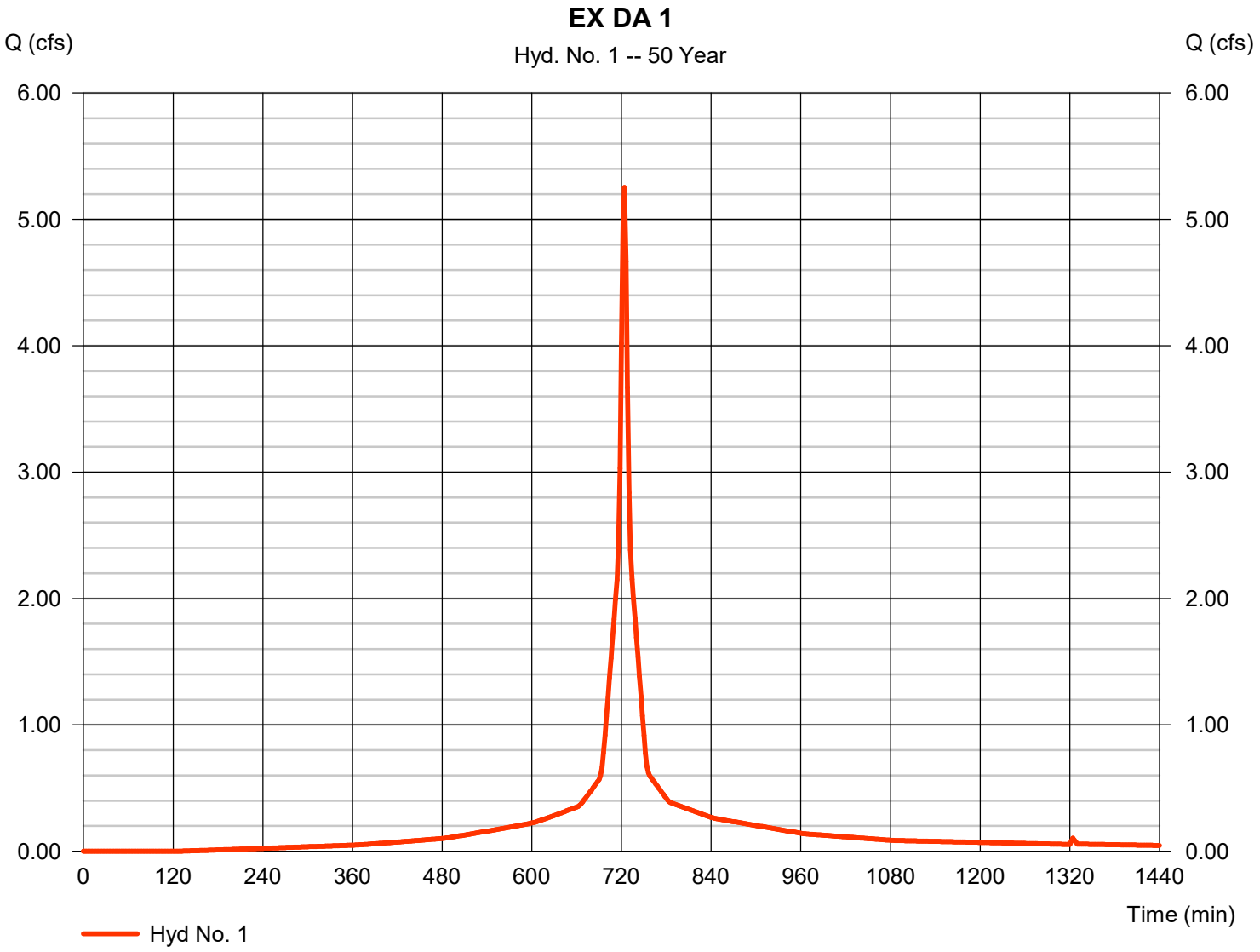
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	5.253	2	724	17,268	------	------	------	EX DA 1
2	SCS Runoff	0.200	2	724	605	------	------	------	EX DA 2
3	SCS Runoff	0.189	2	724	566	------	------	------	EX DA 3
4	Combine	5.643	2	724	18,440	1, 2, 3	------	------	Total Existing Drainage
5	SCS Runoff	5.120	2	724	16,165	------	------	------	PROP DA 1
6	SCS Runoff	0.099	2	724	295	------	------	------	PROP DA 2
7	SCS Runoff	0.167	2	724	501	------	------	------	PROP DA 3
8	Combine	5.385	2	724	16,961	5, 6, 7	------	------	Total Proposed Drainage

Hydrograph Report

Hyd. No. 1

EX DA 1

Hydrograph type	=	SCS Runoff	Peak discharge	=	5.253 cfs
Storm frequency	=	50 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	17,268 cuft
Drainage area	=	0.760 ac	Curve number	=	93
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	7.51 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

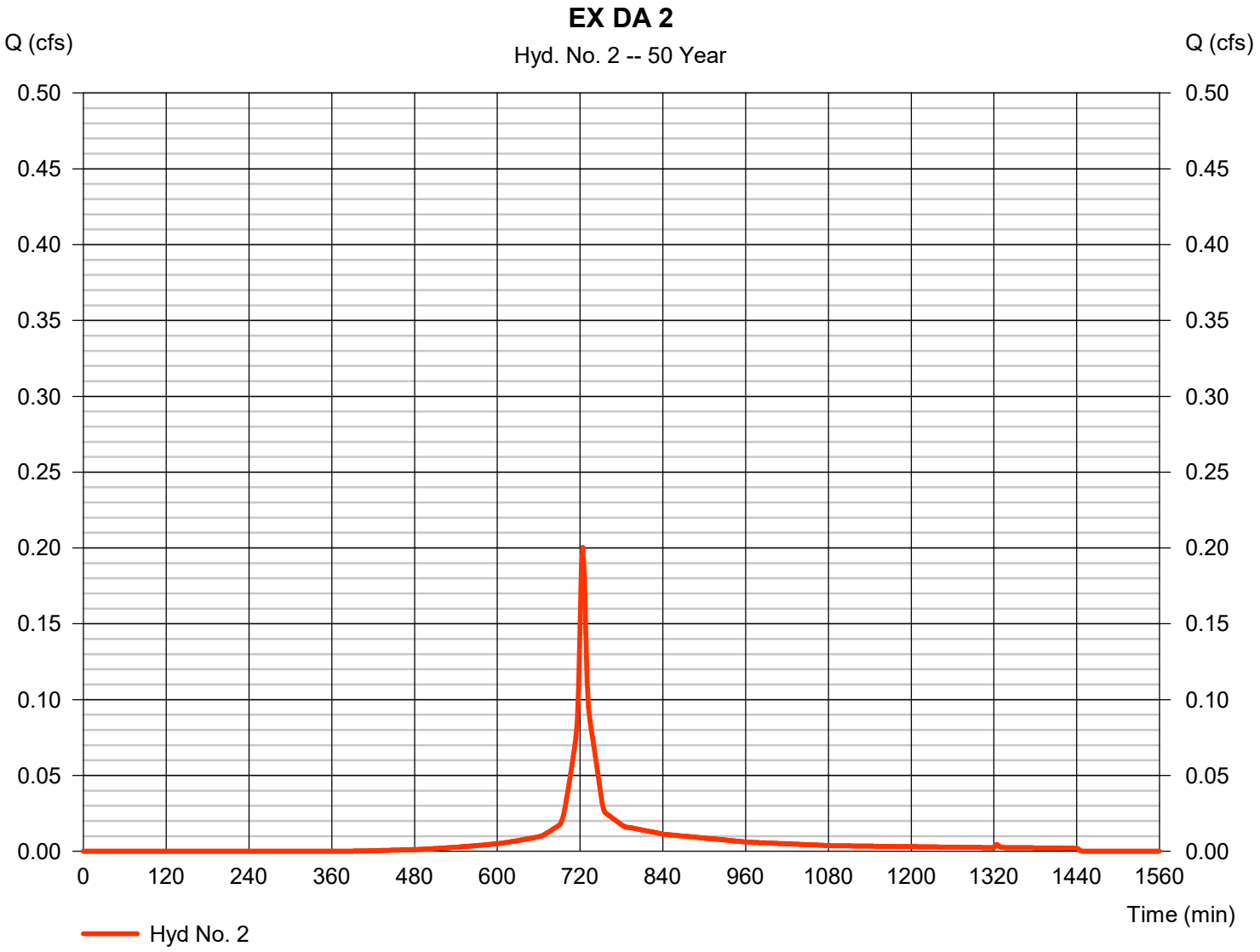


Hydrograph Report

Hyd. No. 2

EX DA 2

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.200 cfs
Storm frequency	=	50 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	605 cuft
Drainage area	=	0.036 ac	Curve number	=	78
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	7.51 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

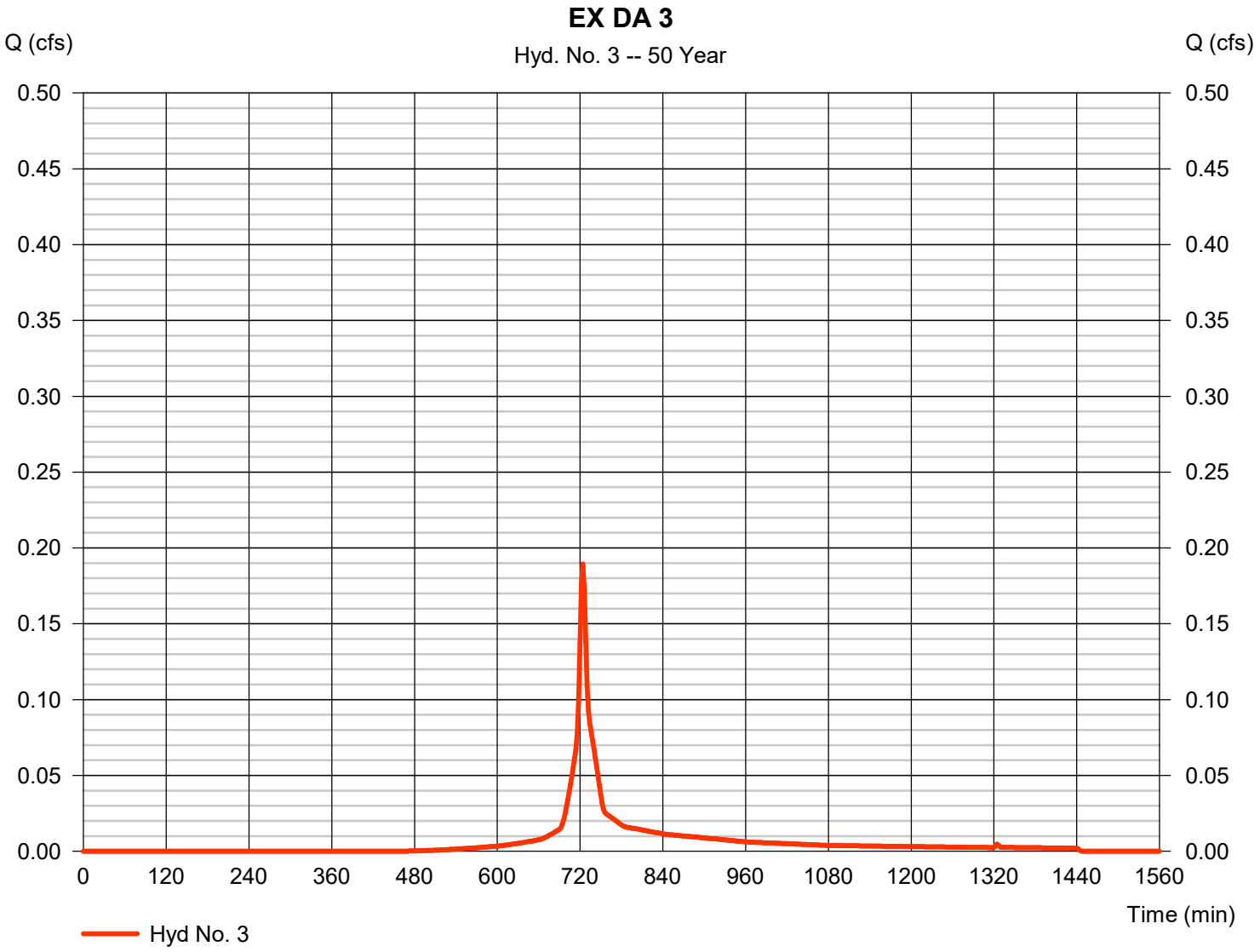


Hydrograph Report

Hyd. No. 3

EX DA 3

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.189 cfs
Storm frequency	=	50 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	566 cuft
Drainage area	=	0.039 ac	Curve number	=	72
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	7.51 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

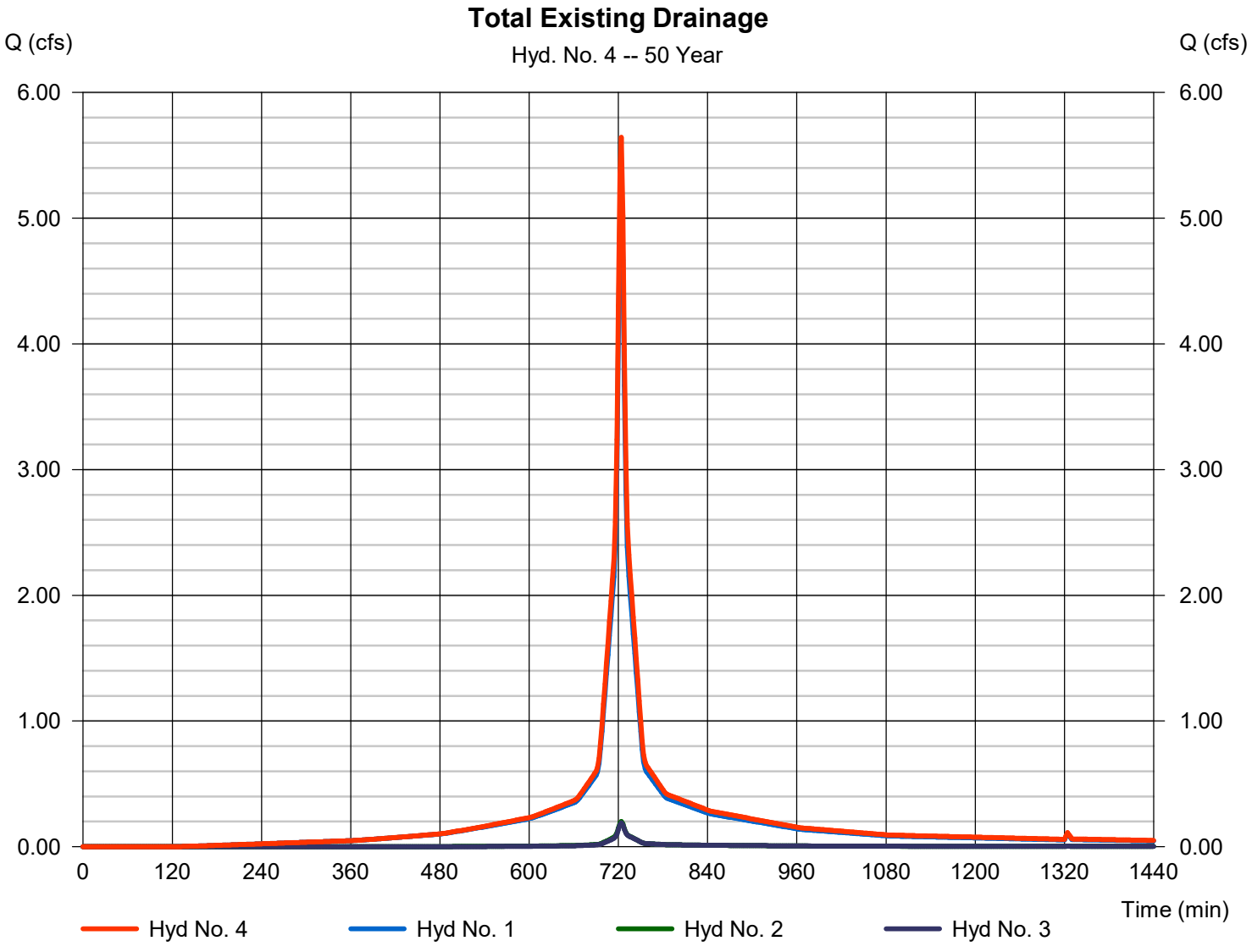


Hydrograph Report

Hyd. No. 4

Total Existing Drainage

Hydrograph type	=	Combine	Peak discharge	=	5.643 cfs
Storm frequency	=	50 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	18,440 cuft
Inflow hyds.	=	1, 2, 3	Contrib. drain. area	=	0.835 ac

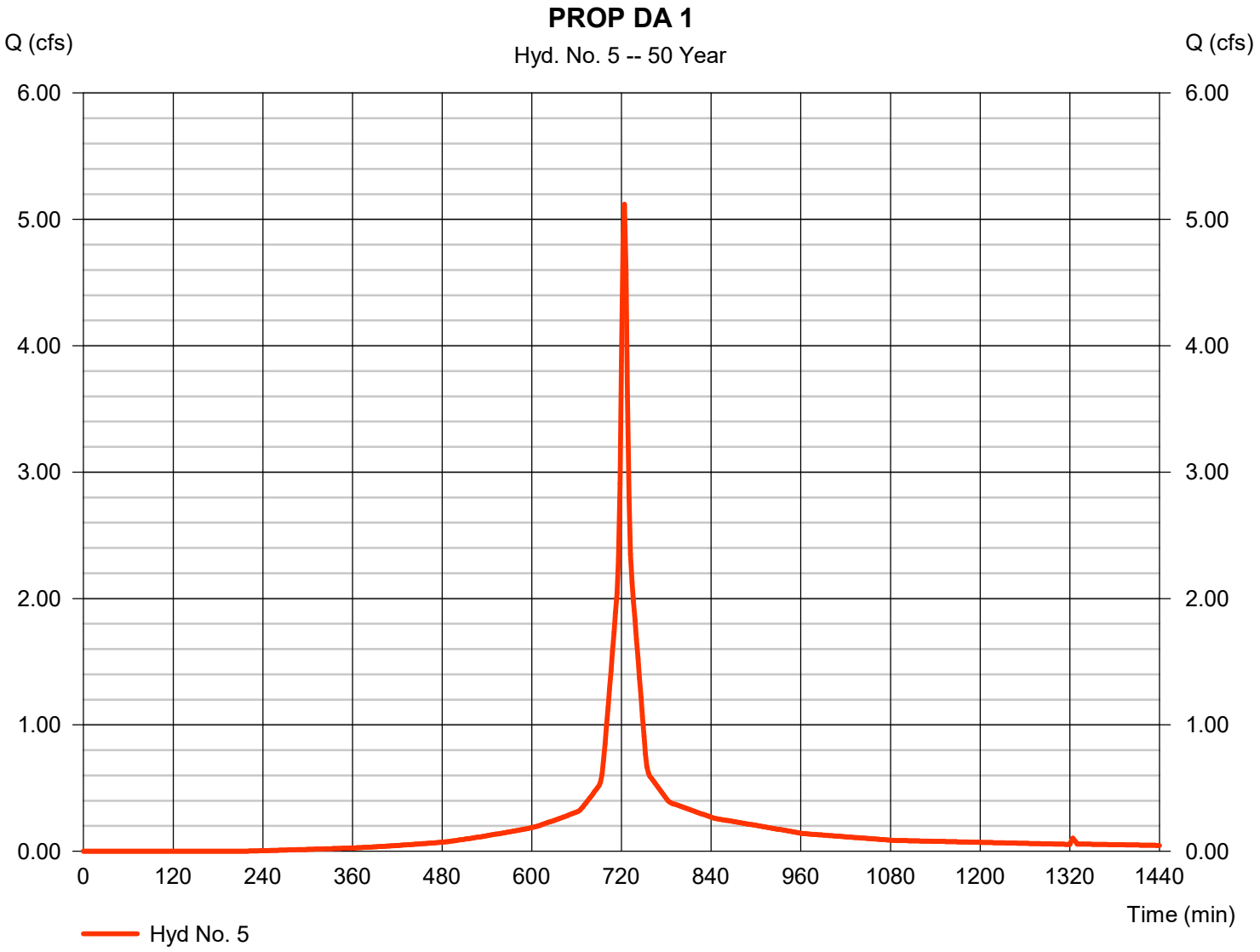


Hydrograph Report

Hyd. No. 5

PROP DA 1

Hydrograph type	=	SCS Runoff	Peak discharge	=	5.120 cfs
Storm frequency	=	50 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	16,165 cuft
Drainage area	=	0.780 ac	Curve number	=	88
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	7.51 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

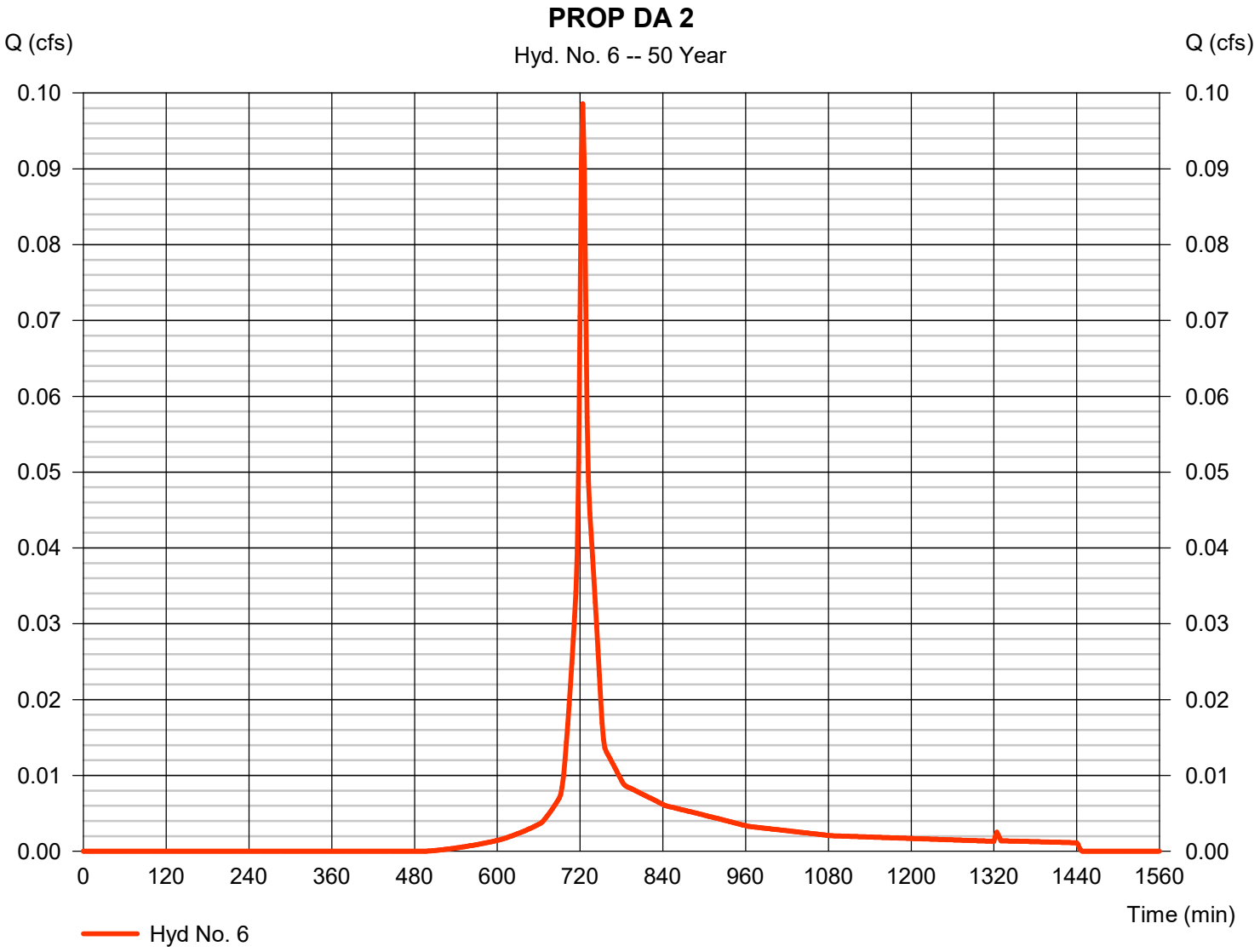


Hydrograph Report

Hyd. No. 6

PROP DA 2

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.099 cfs
Storm frequency	=	50 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	295 cuft
Drainage area	=	0.022 ac	Curve number	=	69
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	7.51 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

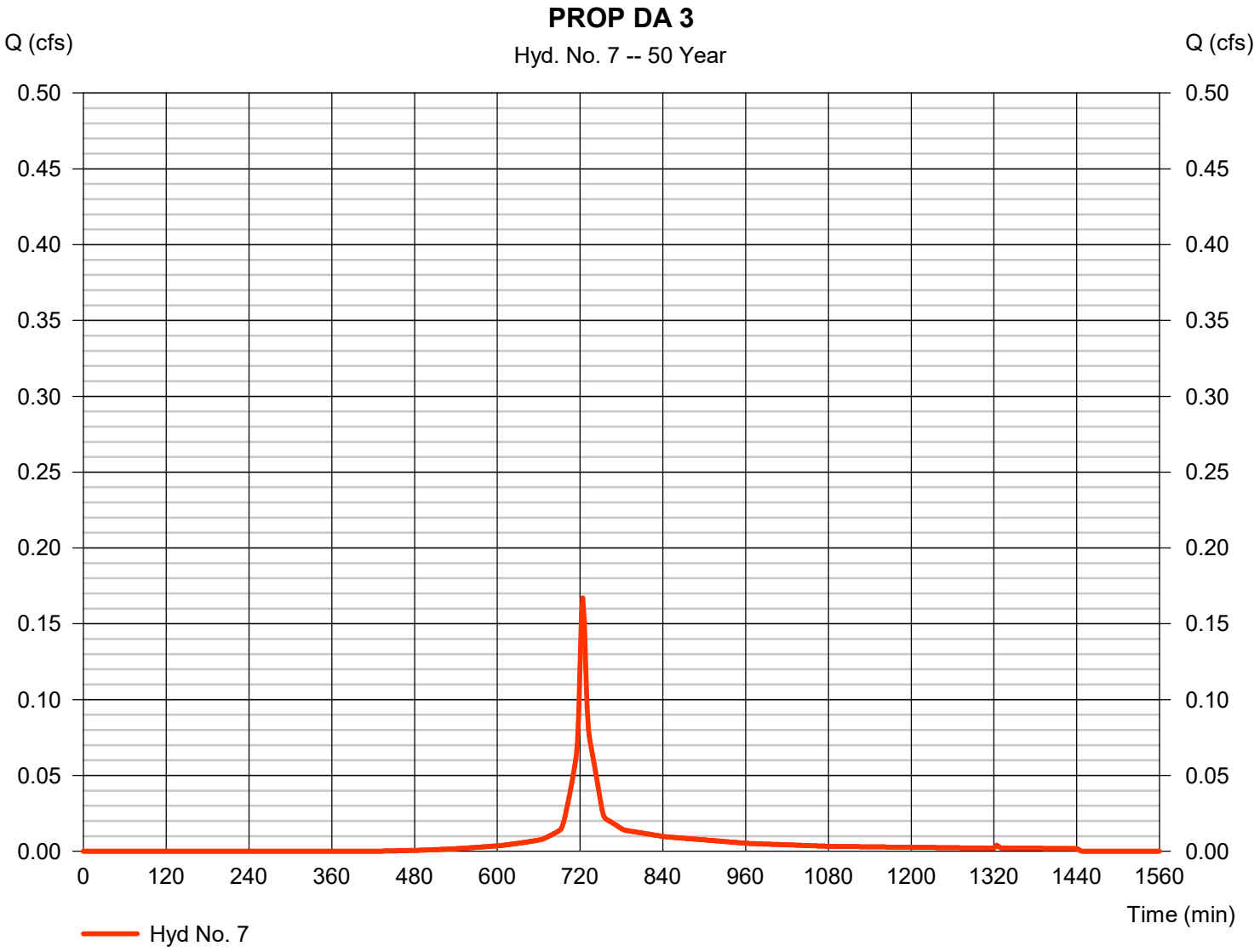


Hydrograph Report

Hyd. No. 7

PROP DA 3

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.167 cfs
Storm frequency	=	50 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	501 cuft
Drainage area	=	0.032 ac	Curve number	=	75
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	7.51 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

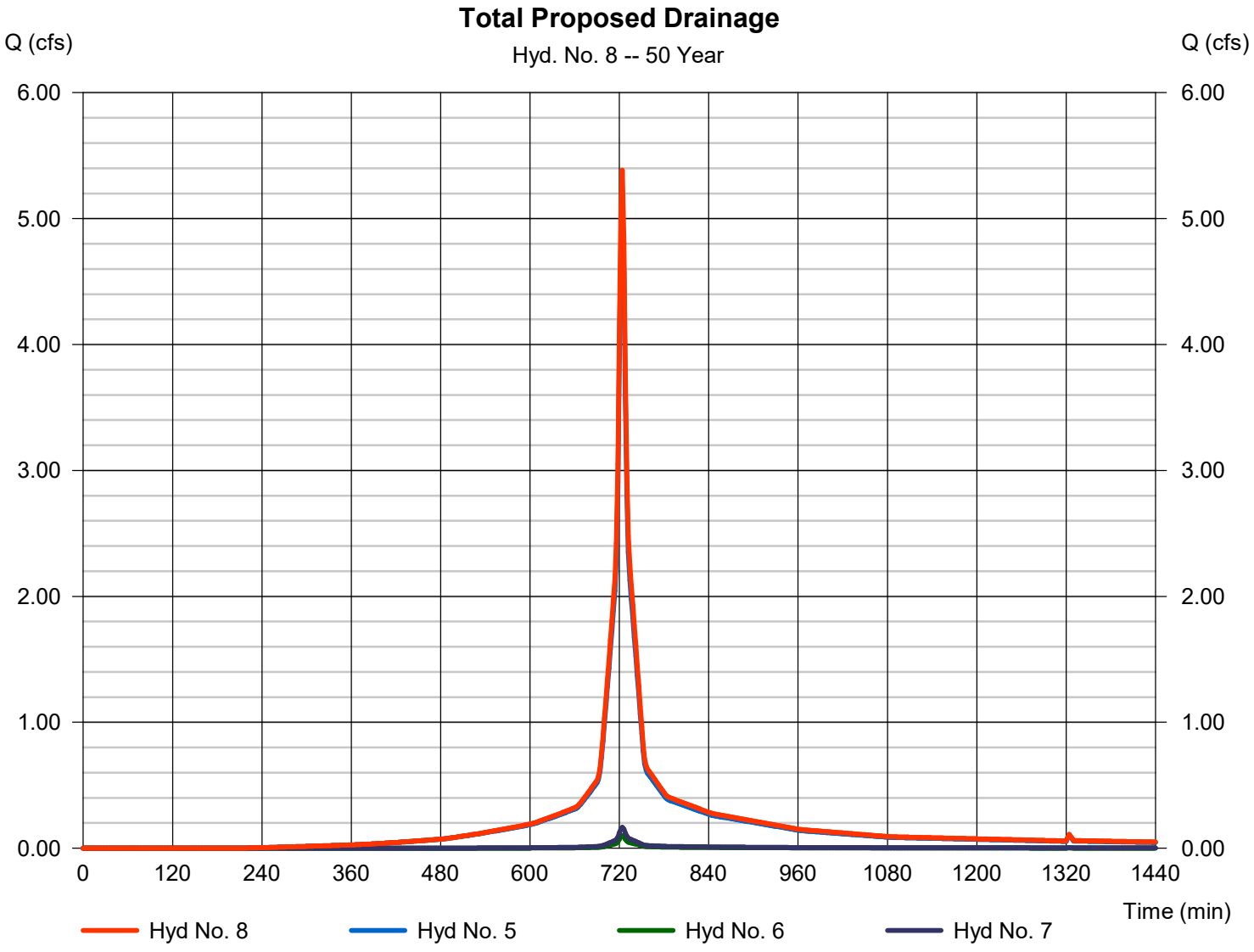


Hydrograph Report

Hyd. No. 8

Total Proposed Drainage

Hydrograph type	=	Combine	Peak discharge	=	5.385 cfs
Storm frequency	=	50 yrs	Time to peak	=	724 min
Time interval	=	2 min	Hyd. volume	=	16,961 cuft
Inflow hyds.	=	5, 6, 7	Contrib. drain. area	=	0.834 ac



Hydraflow Rainfall Report

Return Period (Yrs)	Intensity-Duration-Frequency Equation Coefficients (FHA)			
	B	D	E	(N/A)
1	18.0672	3.8000	0.7285	--------
2	22.0221	3.9000	0.7320	--------
3	0.0000	0.0000	0.0000	--------
5	27.7805	3.8000	0.7295	--------
10	32.0891	3.7000	0.7233	--------
25	39.6397	3.8000	0.7285	--------
50	43.8573	3.7000	0.7237	--------
100	50.1557	3.8000	0.7284	--------

File name: Portsmouth NH.IDF

Intensity = B / (Tc + D)^E

Return Period (Yrs)	Intensity Values (in/hr)											
	5 min	10	15	20	25	30	35	40	45	50	55	60
1	3.71	2.67	2.13	1.79	1.56	1.39	1.26	1.15	1.06	0.99	0.93	0.88
2	4.45	3.21	2.56	2.16	1.88	1.67	1.51	1.38	1.28	1.19	1.11	1.05
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	5.69	4.09	3.27	2.75	2.39	2.13	1.93	1.76	1.63	1.52	1.42	1.34
10	6.71	4.83	3.86	3.25	2.83	2.52	2.28	2.09	1.93	1.80	1.69	1.59
25	8.13	5.86	4.68	3.94	3.43	3.05	2.76	2.53	2.33	2.17	2.04	1.92
50	9.17	6.60	5.27	4.44	3.86	3.44	3.11	2.85	2.64	2.46	2.30	2.17
100	10.29	7.41	5.92	4.98	4.34	3.86	3.49	3.20	2.95	2.75	2.58	2.43

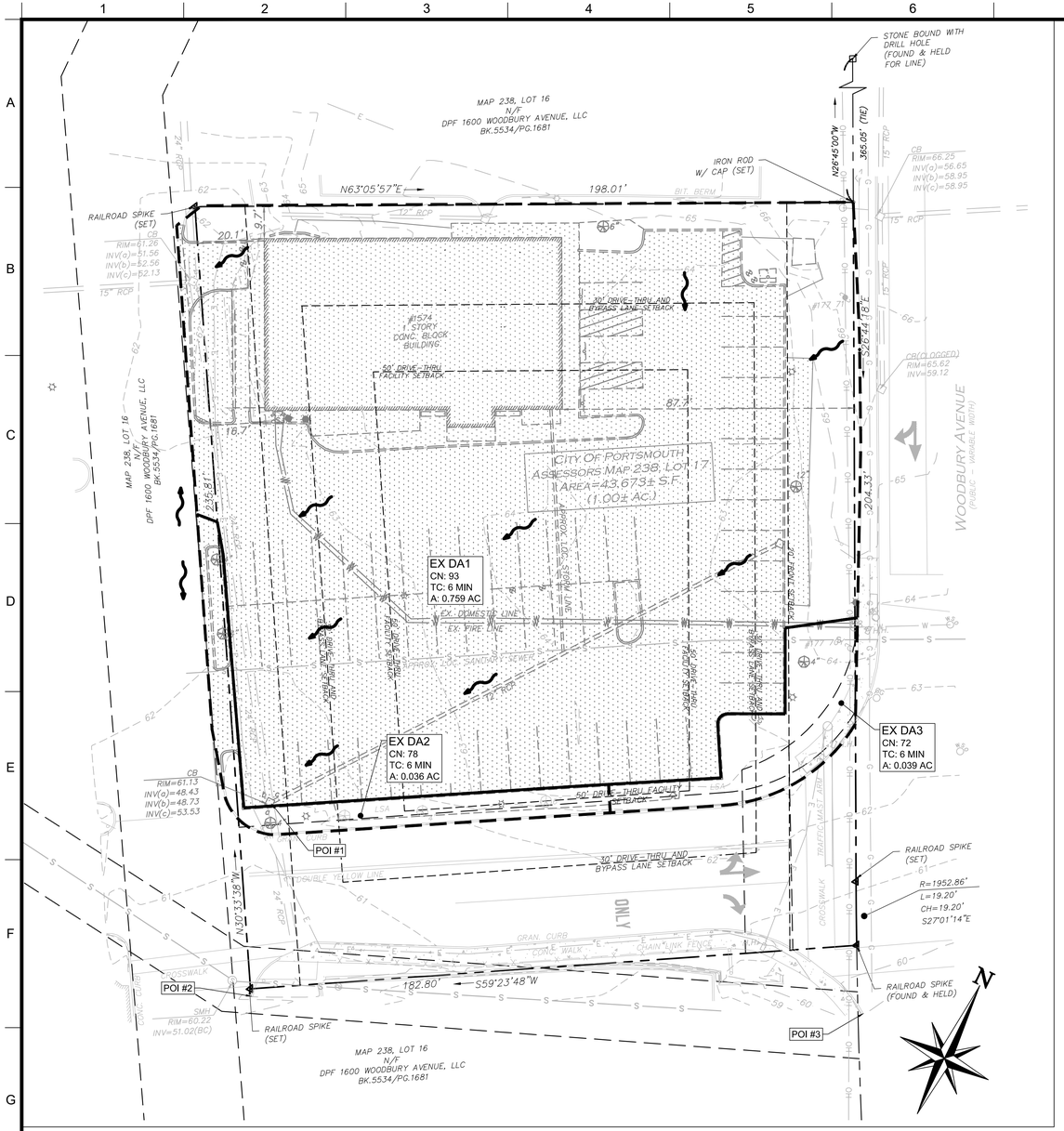
Tc = time in minutes. Values may exceed 60.

n, NH (1574 Woodbury Avenue) OVP# 38100P322370 - JPM.27086\CIVIL\Engineering\Stormwater\Portsmouth NH.pcp

Storm Distribution	Rainfall Precipitation Table (in)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	0.00	3.32	0.00	0.00	5.33	6.59	7.51	7.28
SCS 6-Hr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-1st	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX D

DRAINAGE AREA MAPS



PRE-DEVELOPMENT DRAINAGE AREA MAP

SCALE 1" = 20'

GRAPHIC SCALE
20 10 5 0 20
1" = 20'

POST-DEVELOPMENT DRAINAGE AREA MAP

SCALE 1" = 20'

GRAPHIC SCALE
20 10 5 0 20
1" = 20'

EX-DA 1

IMPERVIOUS (CN 98) = 27,143 SQUARE FEET
PERVIOUS (CN 69) = 5,919 SQUARE FEET
TOTAL (CN 93) = 33,062 SQUARE FEET (0.759 AC)

EX-DA 2 (BYPASS)

IMPERVIOUS (CN 98) = 495 SQUARE FEET
PERVIOUS (CN 69) = 1,064 SQUARE FEET
TOTAL (CN 78) = 1,559 SQUARE FEET (0.036 AC)

EX-DA 3 (BYPASS PROW)

IMPERVIOUS (CN 98) = 171 SQUARE FEET
PERVIOUS (CN 69) = 1,515 SQUARE FEET
TOTAL (CN 72) = 1,686 SQUARE FEET (0.039 AC)

PROP-DA 1

IMPERVIOUS (CN 98) = 22,846 SQUARE FEET
PERVIOUS (CN 69) = 11,114 SQUARE FEET
TOTAL (CN 88) = 33,960 SQUARE FEET (0.780 AC)

PROP-DA 2 (BYPASS)

IMPERVIOUS (CN 98) = 0 SQUARE FEET
PERVIOUS (CN 69) = 919 SQUARE FEET
TOTAL (CN 69) = 958 SQUARE FEET (0.022 AC)

PROP-DA 3 (BYPASS PROW)

IMPERVIOUS (CN 98) = 297 SQUARE FEET
PERVIOUS (CN 69) = 1,097 SQUARE FEET
TOTAL (CN 75) = 1,394 SQUARE FEET (0.032 AC)

GENERAL NOTES:

1. THIS PROJECT REFERENCES A SURVEY PREPARED BY:

EXISTING CONDITIONS SURVEY
CHASE BANK SITE
1574 WOODBURY AVENUE
PORTSMOUTH, NH
ALLEN & MAJOR ASSOCIATES, INC,
DATED 8/28/19

ALERT TO CONTRACTOR:

PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OF THE DRY UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM ENGINEER AND THE OWNER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. ENGINEER AND OWNER SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.

User: MLEWIS Plot Date/Time: Jul. 01, 20 - 09:57:04 Drawing: P:\J.P. Morgan Chase\Portsmouth, NH (1574 Woodbury Avenue) OVP# 38100P322370 - JPM.27086\CIVIL\Drawings\Presentation\JPM.27086-P-SITE-NEW.dwg ;C6-DRAIN

CORE STATES INC.
12700 HILLCREST ROAD
Suite 192
DALLAS, TX 75230
(214) 377-5060
www.core-eng.com

CLIENT

CHASE

811
Know what's below. Call before you dig.

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON DESIGN DRAWINGS, RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. CORE STATES, INC. DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES.

REVISIONS

REV	DATE	COMMENT	BY

DOCUMENT

SITE PLAN
APPROVAL FOR
CHASE BANK

SITE LOCATION

1574 WOODBURY
AVENUE,
PORTSMOUTH, NH
03801

ENGINEER SEAL

SHEET TITLE

DRAINAGE
AREA MAP

JOB #:	JPM.27086
DATE:	07/01/2020
SCALE:	AS NOTED
DRAWN BY:	MAL
CHECKED BY:	KGF

SHEET NO.

C-6

APPENDIX E

CDS UNIT SPECIFICATIONS

CDS Design Summary

Chase Bank: WQ

Portsmouth, NH

Information Provided:

- Total Contributing Drainage Area = 33,960 sf (0.780 Acres)
- Impervious cover = 22,846 sf (0.524 Acres)
- Design Storm = 1.00" Rainfall
- T_c = 6 minutes
- Unit Peak Discharge, qu = 650 cfs/mi^2/in

CDS Information:

The CDS technology features a patented non-blocking, indirect screening technique developed to treat stormwater runoff. The unit is highly effective in the capture of suspended solids, fine sands and larger particles. Because of its non-blocking screening capacity, the CDS unit is un-matched in its ability to capture and retain gross pollutants such as trash and debris.

Design Summary:

A CDS 2015-4 was selected for this site. The CDS 2015-4 was sized to treat the 1" first flush of 0.519 cfs, and to remove greater than 80% TSS on an annual basis.

Water Quality Volume (WQV)

0.78	ac	A = Area draining to the practice
0.52	ac	A_I = Impervious area draining to the practice
0.67	decimal	I = percent impervious area draining to the practice, in decimal form
0.66	unitless	Rv = Runoff coefficient = 0.05 + (0.9 x I)
0.51	ac-in	WQV= 1" x Rv x A
1,855	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")

Water Quality Flow (WQF)

1	inches	P = amount of rainfall. For WQF in NH, P = 1".
0.66	inches	Q = water quality depth. Q = WQV/A
96	unitless	CN = unit peak discharge curve number. CN =1000/(10+5P+10Q–10*[Q^2 + 1.25*Q*P] $^{0.5}$)
0.4	inches	S = potential maximum retention. S = (1000/CN) - 10
0.076	inches	Ia = initial abstraction. Ia = 0.2S
6.0	minutes	T_c = Time of Concentration
650.0	cfs/mi^2/in	qu is the unit peak discharge. Obtain this value from TR-55 exhibits 4-II and 4-III
0.519	cfs	WQF = q_u x WQV. Conversion: to convert "cfs/mi^2/in * ac-in" to "cfs" multiply by 1mi^2/640ac

Fig. 1 – BMP Worksheet for WQF

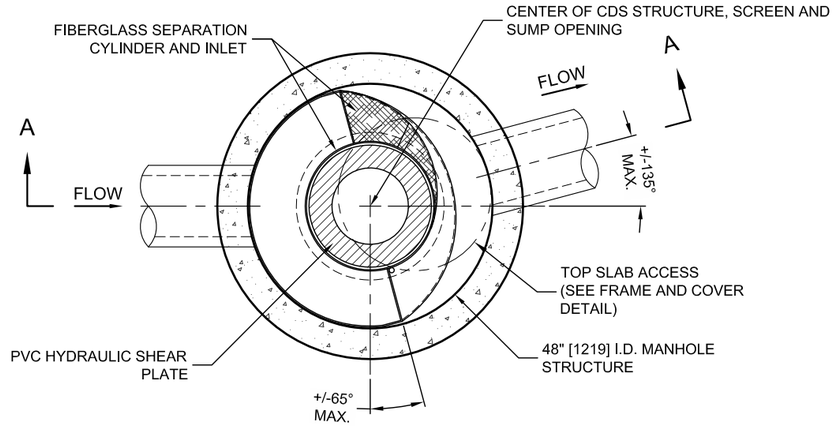
CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION
BASED ON THE RATIONAL RAINFALL METHOD

Chase Bank
Portsmouth, NH

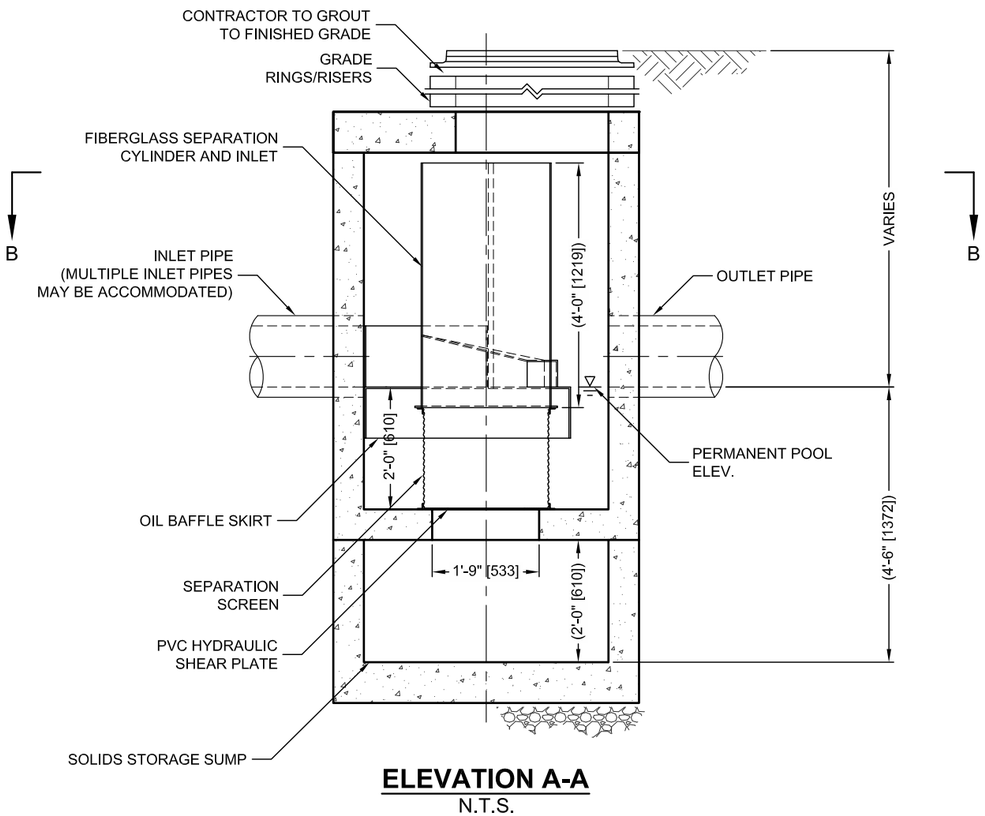
Area	**0.78 ac**	Unit Site Designation	**WQ**
Weighted C	**0.88**	Rainfall Station #	**104**
t_c	**6 min**		
CDS Model	**2015-4**	CDS Treatment Capacity	**0.7 cfs**

Rainfall Intensity[1] (in/hr)	Percent Rainfall Volume[1]	Cumulative Rainfall Volume	Total Flowrate (cfs)	Treated Flowrate (cfs)	Incremental Removal (%)
0.02	13.0%	13.0%	0.01	0.01	12.5
0.04	12.2%	25.2%	0.03	0.03	11.7
0.06	11.2%	36.4%	0.04	0.04	10.7
0.08	10.0%	46.4%	0.05	0.05	9.4
0.10	8.2%	54.6%	0.07	0.07	7.7
0.12	5.8%	60.4%	0.08	0.08	5.4
0.14	6.5%	66.9%	0.10	0.10	6.0
0.16	4.6%	71.5%	0.11	0.11	4.3
0.18	3.7%	75.2%	0.12	0.12	3.3
0.20	3.3%	78.5%	0.14	0.14	3.0
0.25	6.7%	85.2%	0.17	0.17	5.9
0.30	3.7%	88.9%	0.21	0.21	3.2
0.35	2.4%	91.3%	0.24	0.24	2.1
0.40	1.8%	93.1%	0.27	0.27	1.5
0.45	1.9%	95.0%	0.31	0.31	1.6
0.50	1.1%	96.1%	0.34	0.34	0.9
0.75	2.6%	98.7%	0.51	0.51	1.9
1.00	0.9%	99.6%	0.69	0.69	0.6
1.50	0.4%	100.0%	1.03	0.70	0.2
2.00	0.0%	100.0%	1.37	0.70	0.0
0.00	0.0%	100.0%	0.00	0.00	0.0
					91.9
				Removal Efficiency Adjustment[2] =	6.5%
				Predicted % Annual Rainfall Treated =	93.4%
				Predicted Net Annual Load Removal Efficiency =	**85.4%**

1 - Based on 10 years of hourly precipitation data from NCDC 1683, Concord WSO Airport, Merrimack County, NH
2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.



PLAN VIEW B-B
N.T.S.

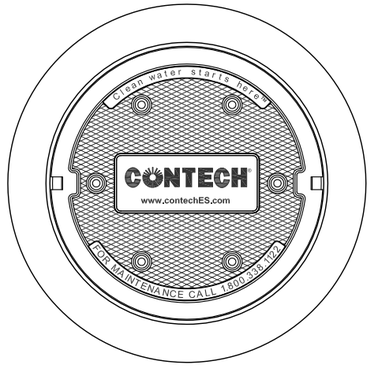


ELEVATION A-A
N.T.S.

CDS2015-4-C DESIGN NOTES

THE STANDARD CDS2015-4-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	
WATER QUALITY FLOW RATE (CFS OR L/s)	*
PEAK FLOW RATE (CFS OR L/s)	*
RETURN PERIOD OF PEAK FLOW (YRS)	*
SCREEN APERTURE (2400 OR 4700)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*

RIM ELEVATION	*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH® ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS2015-4-C INLINE CDS STANDARD DETAIL