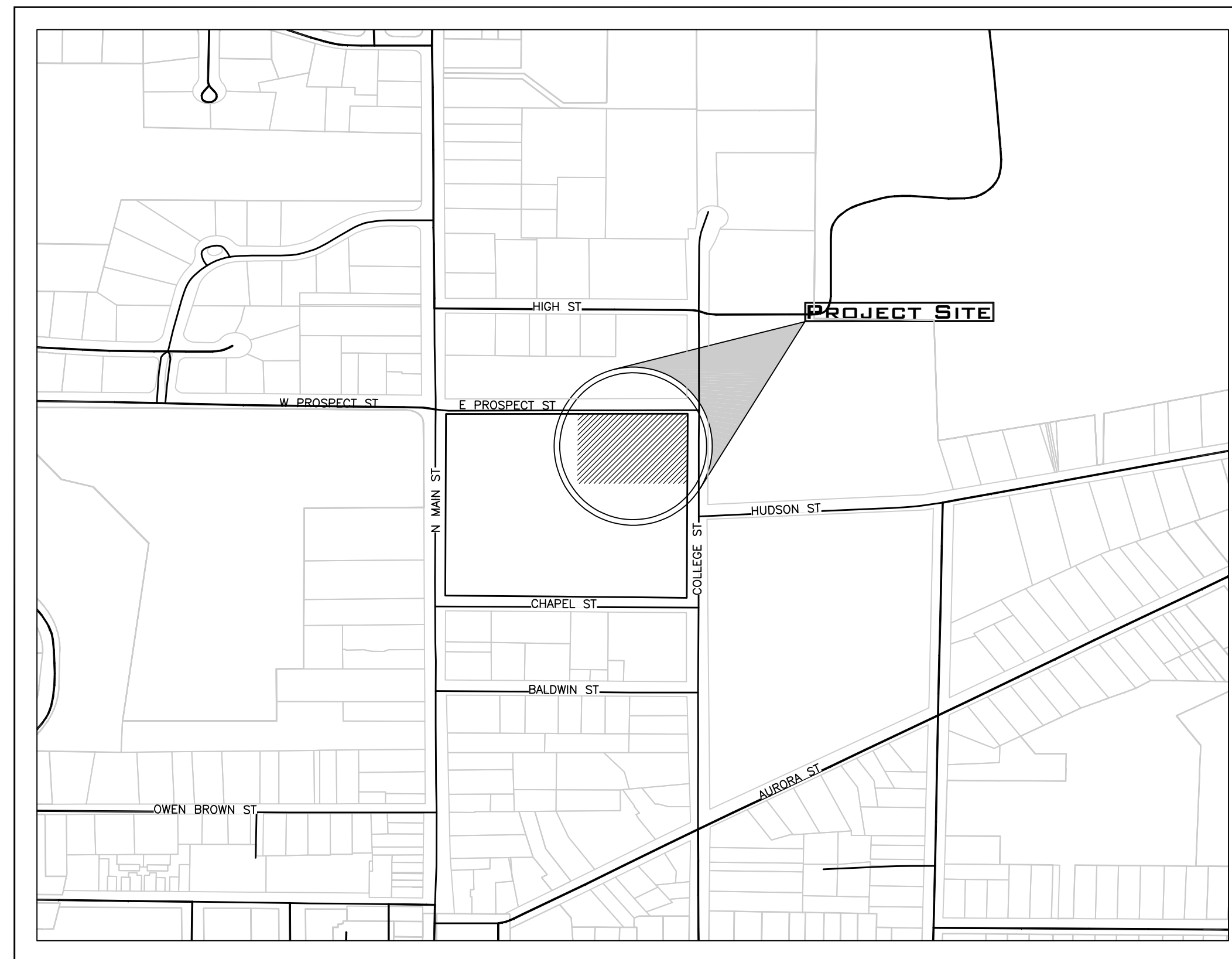


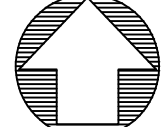
IMPROVEMENT PLANS FOR WESTERN RESERVE ACADEMY 160 COLLEGE STREET

THE CITY OF HUDSON, COUNTY OF
SUMMIT AND STATE OF OHIO

INDEX TO DRAWINGS

TITLE PAGE	C1.01
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GRADING PLAN	C5.01
NOTES & DETAILS	C6.01-C6.03
SWPPP	C7.01-C7.04




VICINITY MAP
 SCALE: 1" = 400'

DAVID PIETRANTONE P.E. #61756

DATE

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WESTERN RESERVE ACADEMY
160 COLLEGE STREET

TITLE PAGE



C1.01

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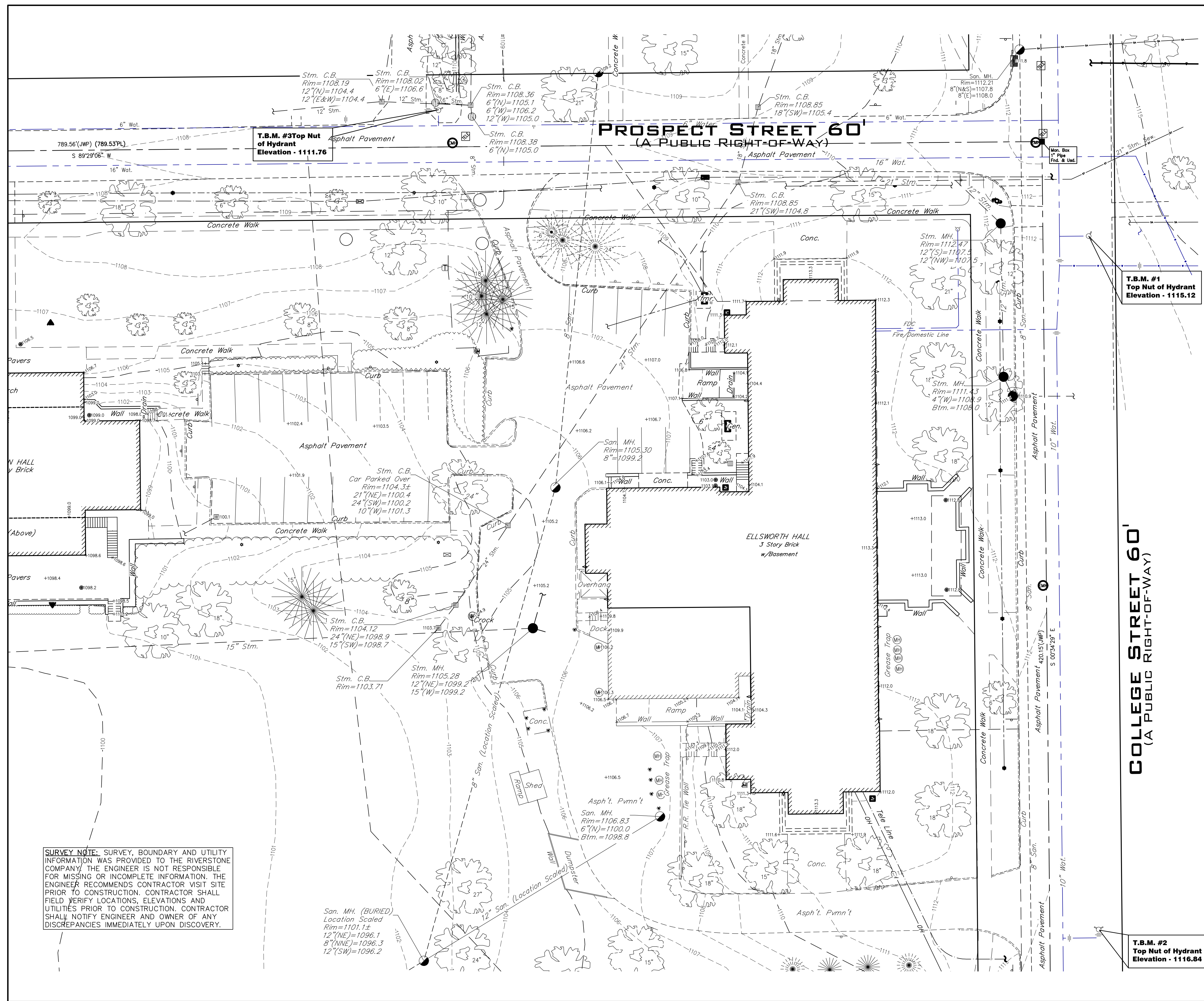
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WESTERN RESERVE ACADEMY
160 COLLEGE STREET
EXISTING CONDITIONS



OGPUPS
Ohio Oil & Gas Producers Underground Protection Service
Call 844-475-2864 ext 811

C2.01



T.B.M. #3
Top Nut of Hydrant
Elevation - 1111.76

T.B.M. #1
Top Nut of Hydrant
Elevation - 1115.12

COLLEGE STREET 60'
(A PUBLIC RIGHT-OF-WAY)

T.B.M. #2
Top Nut of Hydrant
Elevation - 1116.84

PROSPECT STREET 60'
(A PUBLIC RIGHT-OF-WAY)

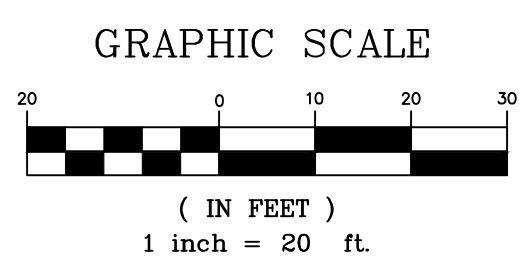
ELLSWORTH HALL
3 Story Brick
w/Basement

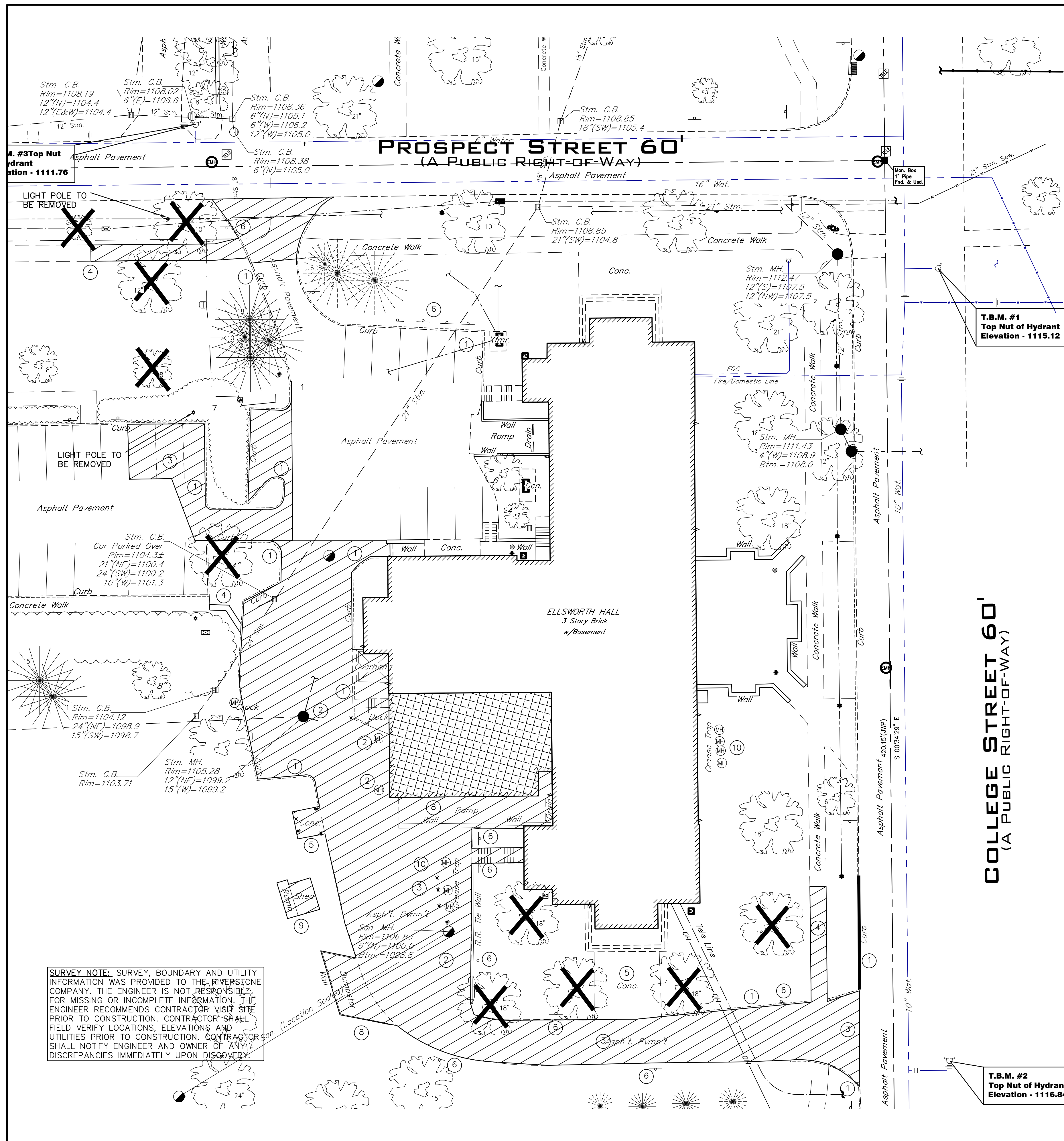
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LEGEND

<ul style="list-style-type: none"> M = Monument Box Found O = Iron Pin or Pipe Found ● = 5/8" Iron Pin Set and Capped Riverstone Company Dudley PS6747 ⊕ = P.K. Nail ⊙ = Gas Meter ⊗ = Gas Valve ⊚ = Utility Pole ⊛ = Light Pole ⊜ = Guy Anchor & Line ⊝ = Telephone Box ⊞ = Electric Box ⊟ = Cable Box ⊠ = Bollard ⊡ = Cleanout / Test Tee 	<ul style="list-style-type: none"> ⊕ = Spot Elevation Tag ⊙ = Hydrant ⊗ = Water Service Valve ⊚ = Water Valve ⊛ = Water Meter ⊜ = Reducer ⊝ = Storm Manhole ⊞ = Sanitary Manhole ⊟ = Curb Inlet ⊠ = Catch Basin ⊡ = Property Line ⊢ = Centerline
<ul style="list-style-type: none"> Ex. Parcel line Original Sublot Line Original Lot Line Centerline Property Line Right-of-way Line Easement Line Railroad Tracks 	<ul style="list-style-type: none"> Electric Line Gas Line Sanitary/Combination Sewer Storm Sewer Waterline Fence Line (Wooden) Fence Line (Chain-Link) Guardrail

Ac. Acres	L.C.A. Limited Common Area
Adj. Adjacent	L.F. Lineal Feet
A.F.N. Auditor's File Number	M.E. Match Existing
Asp. Asphalt	Meas./M. Measured
B.F. Basement Floor	MH Manhole
BW Bottom of Wall	Obs. Observed
Calc./C. Calculated	Pg. Page
CB Catch Basin	P.P.N. Permanent Parcel Number
C.C.M.R. Cuyahoga County Map Records	Prop. Proposed
C.L.F. Chain-link Fence	Rec./R. Record
Cr. Clears	R/W Right-of-way
C.O. Clean Out	San. Sanitary
Comb. Combination	S.F. Square Feet
Conc. Concrete	S/L Sublot
Conn. Connection	Stm. Storm
D.H. Drill Hole	T.B.M. Temporary Bench Mark
D.I.W.M. Ductile Iron Water Main	T/C Top of Curb
Encr. Encroaches	Tele. Telephone
Ex. Existing	T.F. Top Of Footer
F.F. Finished Floor	T.T. Test Tee
GUT Gutter	TW Top of Wall
Inv. Invert	Typ. Typical
	Vol. Volume
	Wat. Water





GENERAL SITE DEMOLITION NOTES:

CONTRACTOR SHALL COMPLETELY CLEAR SITE. REMOVAL SHALL INCLUDE BUT NOT LIMITED TO ALL PAVEMENTS, SIDEWALKS, CURBS, BUILDINGS, BASEMENTS, FOOTERS, FOUNDATIONS, PORCHES, STEPS, POLES, UTILITIES, BOLLARDS, WALLS, FENCES, TREES, LANDSCAPING AND ALL APPURTENANCES WITHIN THE SITE.

CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL PERMITS NECESSARY FOR SITE DEMOLITION AND SHALL BE RESPONSIBLE FOR ALL FEES.

CONTRACTOR SHALL CALL THE OHIO UTILITIES PROTECTION SERVICE (OUPS) A MINIMUM OF 48 HOURS BEFORE ANY DEMOLITION WORK.

CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL UTILITY DEMOLITION WORK WITH THE APPROPRIATE UTILITIES PRIOR TO DEMOLITION. ALL UTILITY CONNECTIONS SHALL BE REMOVED ACCORDING TO UTILITY COMPANY REQUIREMENTS.

SANITARY AND WATER CONNECTIONS TO REMAIN FOR REUSE SHALL BE LOCATED, INSPECTED AND MARKED IN THE FIELD. CONTRACTOR SHALL NOTIFY ENGINEER OF EXACT LOCATIONS AND ELEVATIONS. ALL OTHER CONNECTIONS NOT PROPOSED TO BE REUSED SHALL BE PLUGGED AND ABANDON PER UTILITY REQUIREMENTS.

SITE DEMOLITION LEGEND:

- TREE TO BE REMOVED
- PAVEMENT (CONCRETE, ASPHALT OR GRAVEL) TO BE REMOVED - SAWCUT ALL PAVEMENTS & SIDEWALKS AT NEAREST CONTROL JOINT WHERE EXISTING PAVEMENT & SIDEWALKS SHALL REMAIN.
- TREES TO BE REMOVED.
- VEGETATION TO BE REMOVED.

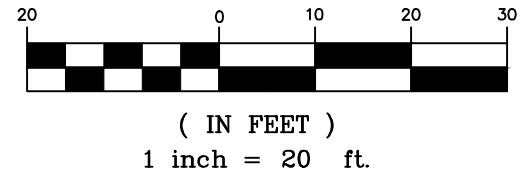
SITE DEMOLITION PLAN KEYNOTES:

- 1 SAWCUT AND REMOVE CURB. CONTRACTOR SHALL SAWCUT AND REMOVE CURB PROVIDING A CLEAN SMOOTH EDGE AND ENSURE THE INTEGRITY OF THE PAVEMENT TO REMAIN.
- 2 PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL LOCATE, EXPOSE, MARK, AND INSPECT EXISTING STORM AND SEWER CONNECTIONS FOR ANY CONFLICT WITH PROPOSED BUILDING ADDITION. MANHOLES AND UTILITY CONNECTIONS BELOW PROPOSED BUILDING ADDITION TO BE REMOVED.
- 3 ASPHALT PAVEMENT TO BE REMOVED. CONTRACTOR SHALL SAWCUT AND REMOVE ASPHALT PAVEMENT. CONTRACTOR SHALL PROVIDE A CLEAN SMOOTH EDGE OF PAVEMENT AND ENSURE THE INTEGRITY OF THE PAVEMENT TO REMAIN.
- 4 SIDEWALK TO BE REMOVED. SAWCUT AT THE NEAREST JOINT AND PROVIDE SMOOTH CLEAN EDGE AND ENSURE INTEGRITY OF PAVEMENT TO REMAIN.
- 5 CONCRETE PAVEMENT TO BE REMOVED. CONTRACTOR SHALL SAWCUT AND REMOVE CONCRETE PAVEMENT. CONTRACTOR SHALL PROVIDE A CLEAN SMOOTH EDGE OF PAVEMENT AND ENSURE THE INTEGRITY OF THE PAVEMENT TO REMAIN.
- 6 PARKING SIGNS TO BE REMOVED.
- 7 VEGETATION AREA TO BE REMOVED.
- 8 RETAINING WALL TO BE REMOVED.
- 9 SHED TO BE REMOVED.
- 10 GREASE TRAPS TO BE REMOVED.

LEGEND

= Monument Box Found	= Iron Pin or Pipe Found	= 5/8" Iron Pin Set and Capped Riverstone Company Dudley PS6747	= Spot Elevation Tag
= Gas Meter	= Gas Valve	= Utility Pole	= Hydrant
= Telephone Box	= Electric Box	= Cable Box	= Water Service Valve
= Bollard	= Cleanup / Test Tee	= P.K. Nail	= Water Valve
= Ex. Parcel line	= Original Sublot Line	= Original Lot Line	= Water Meter
= Centerline	= Property Line	= Right-of-way Line	= Reducer
= Easement Line	= Railroad Tracks	= Electric Line	= Sanitary Manhole
= Gas Line	= Sanitary/Combination Sewer	= Storm Sewer	= Telephone Manhole
= Waterline	= Fence Line (Wooden)	= Fence Line (Chain-Link)	= Curb Inlet
= Guardrail	= Ac.	= Adj.	= Catch Basin
= L.C.A.	= L.F.	= M.E.	= Catch Basin
= Meas./M.	= M.H.	= Obs.	= Catch Basin
= Pgs.	= P.P.N.	= Prop.	= Catch Basin
= Permanent Parcel Number	= Rec./R.	= Record	= Catch Basin
= Right-of-way	= R/W	= Right-of-way	= Catch Basin
= San.	= S.F.	= Square Feet	= Catch Basin
= S/L	= S/L	= Sublot	= Catch Basin
= Storm	= Storm	= Storm	= Catch Basin
= T.B.M.	= T.B.M.	= Temporary Bench Mark	= Catch Basin
= To Be Removed	= T/C	= Top of Curb	= Catch Basin
= Telephone	= T.E.	= Top of Footer	= Catch Basin
= T.T.	= T.T.	= Test Tee	= Catch Basin
= TW	= TW	= Top of Wall	= Catch Basin
= Typical	= T.V.	= Typical Volume	= Catch Basin
= Wat	= Wat	= Water	= Catch Basin

GRAPHIC SCALE



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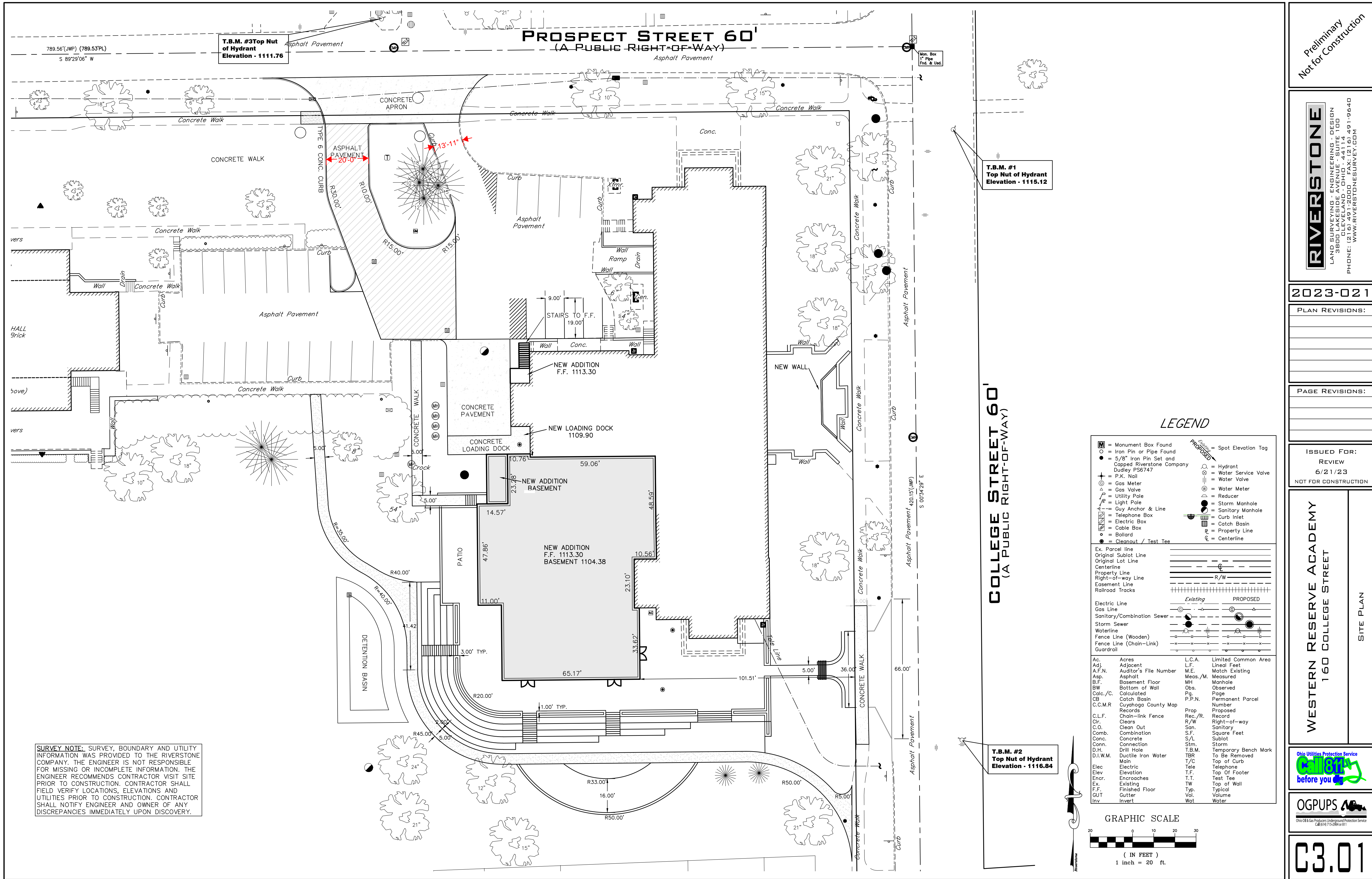
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160 COLLEGE STREET
SITE DEMOLITION PLAN

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OGUPS
before you dig

OGPUPS
Ohio Oil & Gas Producers Underground Protection Service
Call 844.715.2884 or 611

C2.02



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T.B.M. #3 Top Nut of Hydrant
Elevation - 1111.76

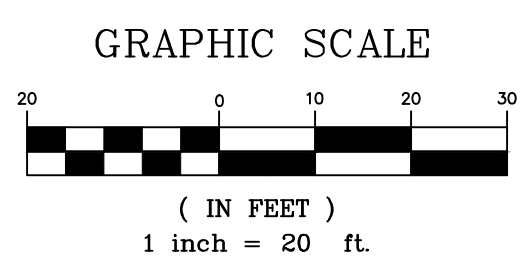
T.B.M. #1
Top Nut of Hydrant
Elevation - 1115.12

COLLEGE STREET 60'
(A PUBLIC RIGHT-OF-WAY)

T.B.M. #2
Top Nut of Hydrant
Elevation - 1116.84

LEGEND

<ul style="list-style-type: none"> Mon. Box Found Iron Pin or Pipe Found 5/8" Iron Pin Set and Capped P.K. Nail Gas Meter Gas Valve Utility Pole Guy Anchor & Line Telephone Box Electric Box Cable Box Bollard Cleanout / Test Tee 	<ul style="list-style-type: none"> Spot Elevation Tag Water Service Valve Water Valve Water Meter Reducer Storm Manhole Sanitary Manhole Curb Inlet Catch Basin Property Line Centerline
<ul style="list-style-type: none"> Ex. Parcel line Original Sublot Line Original Lot Line Centerline Property Line Right-of-way Line Easement Line Railroad Line 	<ul style="list-style-type: none"> Electric Line Gas Line Sanitary/Combination Sewer Storm Sewer Waterline Fence Line (Wooden) Fence Line (Chain-Link) Guardrail
<ul style="list-style-type: none"> Ac. Acres Adj. Adjacent A.F.N. Auditor's File Number Asp. Asphalt B.F. Basement Floor B.W. Bottom of Wall Calc./C. Calculated CB Catch Basin C.C.M.R. Cuyahoga County Map Records C.L.F. Chain-link Fence Clr. Clears C.O. Clean Out Comb. Combination Conc. Concrete Conn. Connection D.H. Drill Hole D.I.W.M. Ductile Iron Water Main Elev. Elevation Encr. Encroaches Ex. Existing F.F. Finished Floor G.U.T. Gutter Inv. Invert 	<ul style="list-style-type: none"> L.C.A. Limited Common Area L.F. Lineal Feet M.E. Match Existing Meas./M. Measured MH Manhole Obs. Observed Pgs. Pages P.P.N. Permanent Parcel Number Prop. Proposed Rec./R. Record R/W Right-of-way San. Sanitary S.F. Square Feet S/L Sublot Stm. Storm T.B.M. Temporary Bench Mark TBR To Be Removed T/C Top of Curb Tele. Telephone T.F. Top Of Footer T.T. Test Tee T.W. Top of Wall Typ. Typical Vol. Volume Wat. Water



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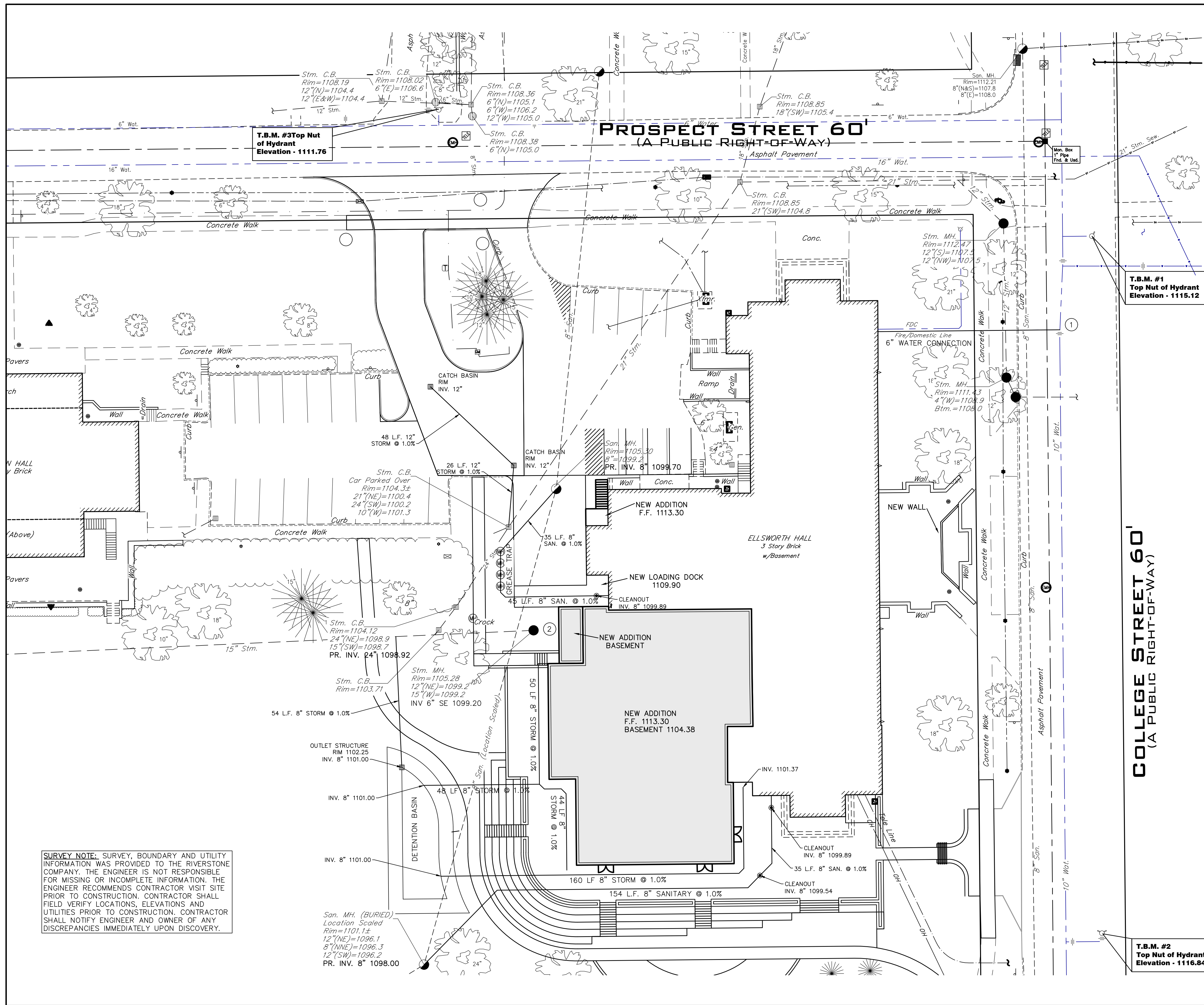
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WESTERN RESERVE ACADEMY
160 COLLEGE STREET
SITE PLAN



OGPUPS
Ohio Oil & Gas Producers Underground Protection Service
Call 800-477-2864 or 611

C3.01



- UTILITY PLAN NOTES
- CONTRACTOR SHALL REMOVE THE EXISTING 4" COMBINATION WATER CONNECTION AND INSTALL NEW 6" COMBINATION FIRE/DOMESTIC WATER LINE.
 - RIM OF EXISTING STORM MANHOLE TO BE ADJUSTED TO NEW GRADE
 -

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LEGEND

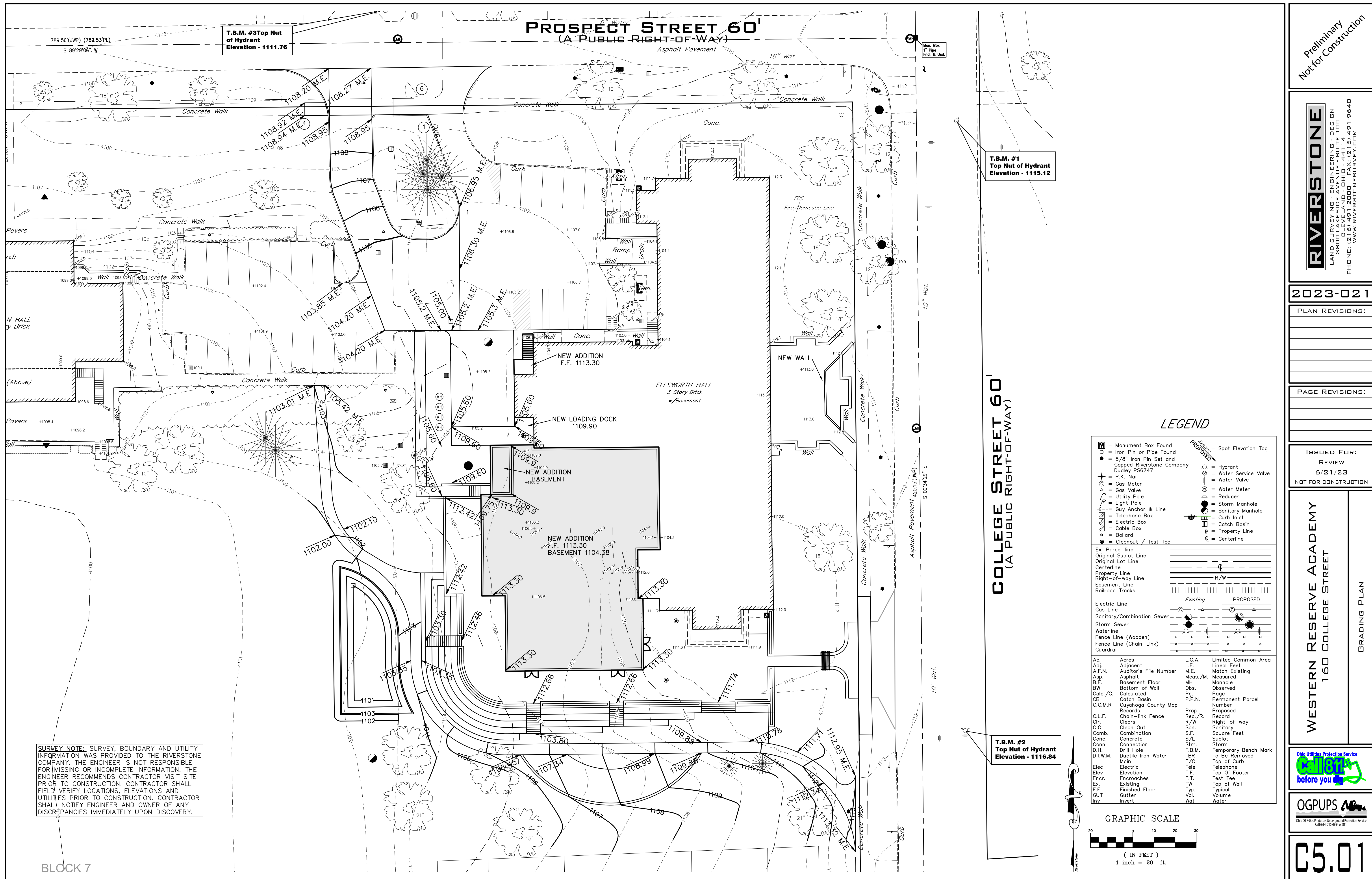
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<ul style="list-style-type: none"> — = Electric Line — = Gas Line — = Sanitary/Combination Sewer — = Storm Sewer — = Waterline — = Fence Line (Wooden) — = Fence Line (Chain-Link) — = Guardrail 	<ul style="list-style-type: none"> — = Existing — = PROPOSED

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A.F.N.	Auditor's File Number	M.E.	Match Existing
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B.F.	Basement Floor	MH	Manhole
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CB	Catch Basin	P.P.N.	Permanent Parcel Number
C.C.M.R.	Cuyahoga County Map Records	Prop	Proposed
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Comb.	Combination	S.F.	Square Feet
Conc.	Concrete	S/L	Sublot
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D.H.	Drill Hole	T.B.M.	Temporary Bench Mark
D.I.W.M.	Ductile Iron Water Main	TBR	To Be Removed
Elev	Elevation	T/C	Top of Curb
Encr.	Encroaches	Tele	Telephone
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F.F.	Finished Floor	T.T.	Test Tee
GUT	Gutter	TW	Top of Wall
Inv	Invert	Typ.	Typical
		Vol	Volume
		Wat	Water

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

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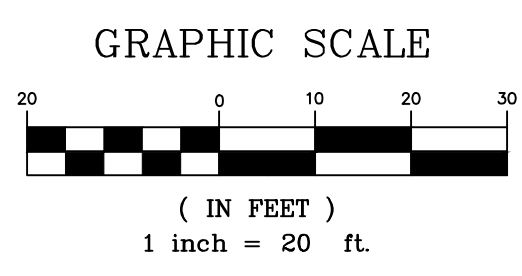
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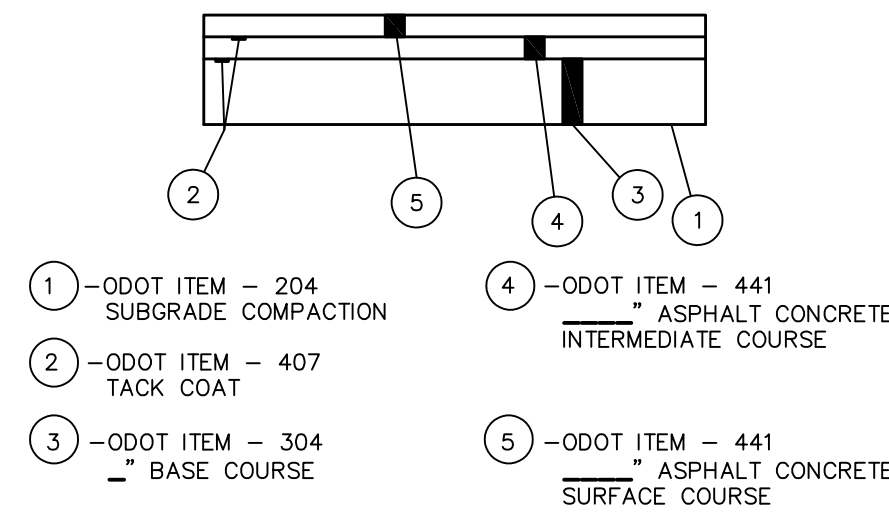
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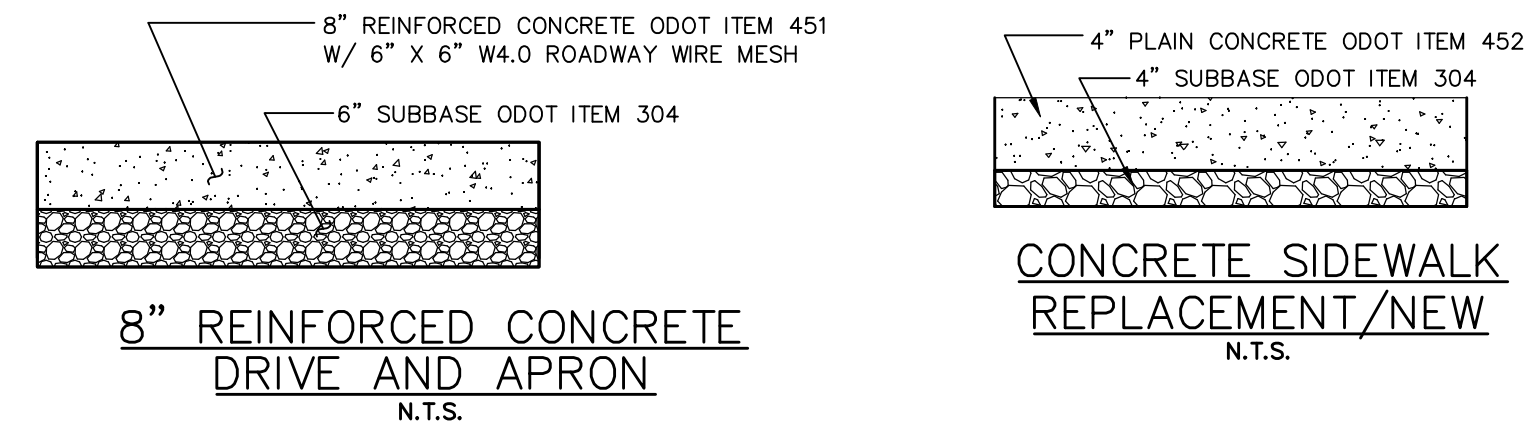


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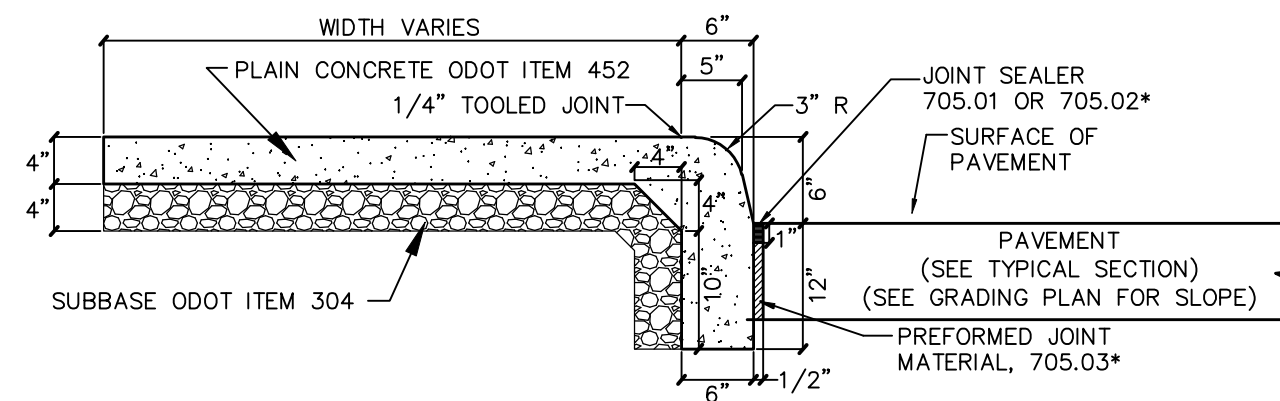
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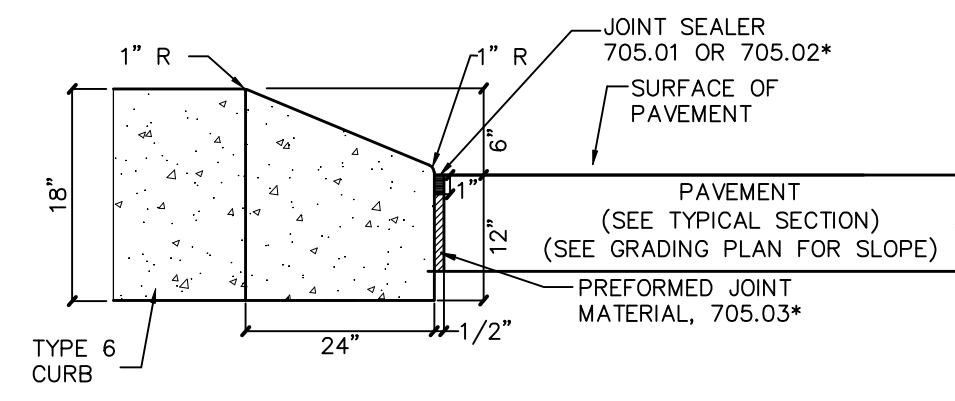
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N.T.S.



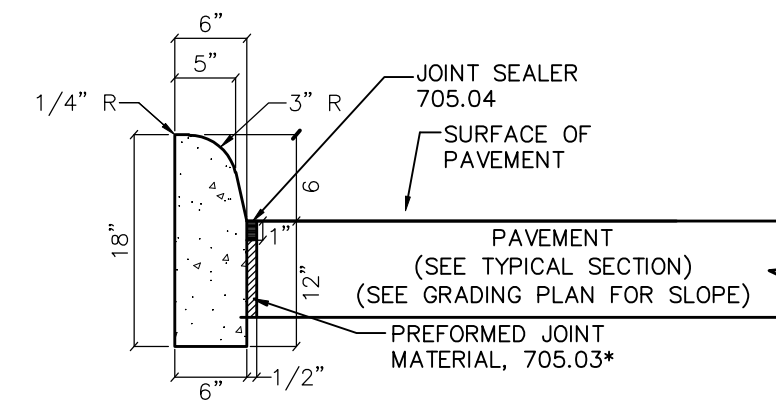
CONCRETE SIDEWALK REPLACEMENT/NEW
N.T.S.



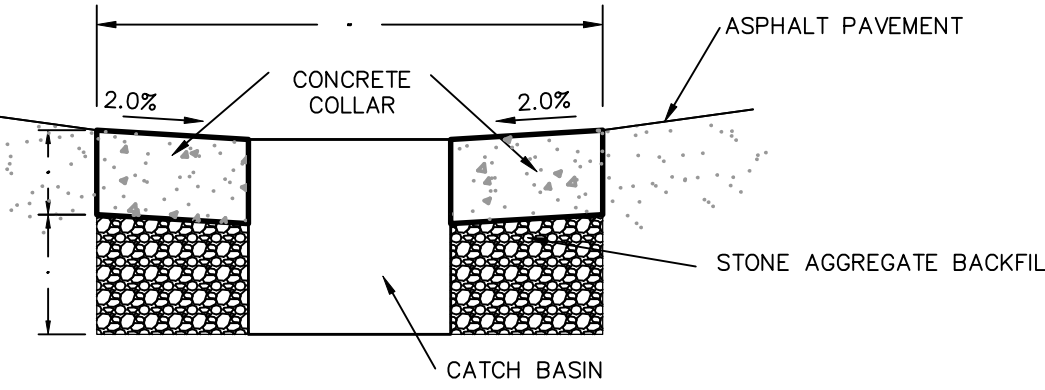
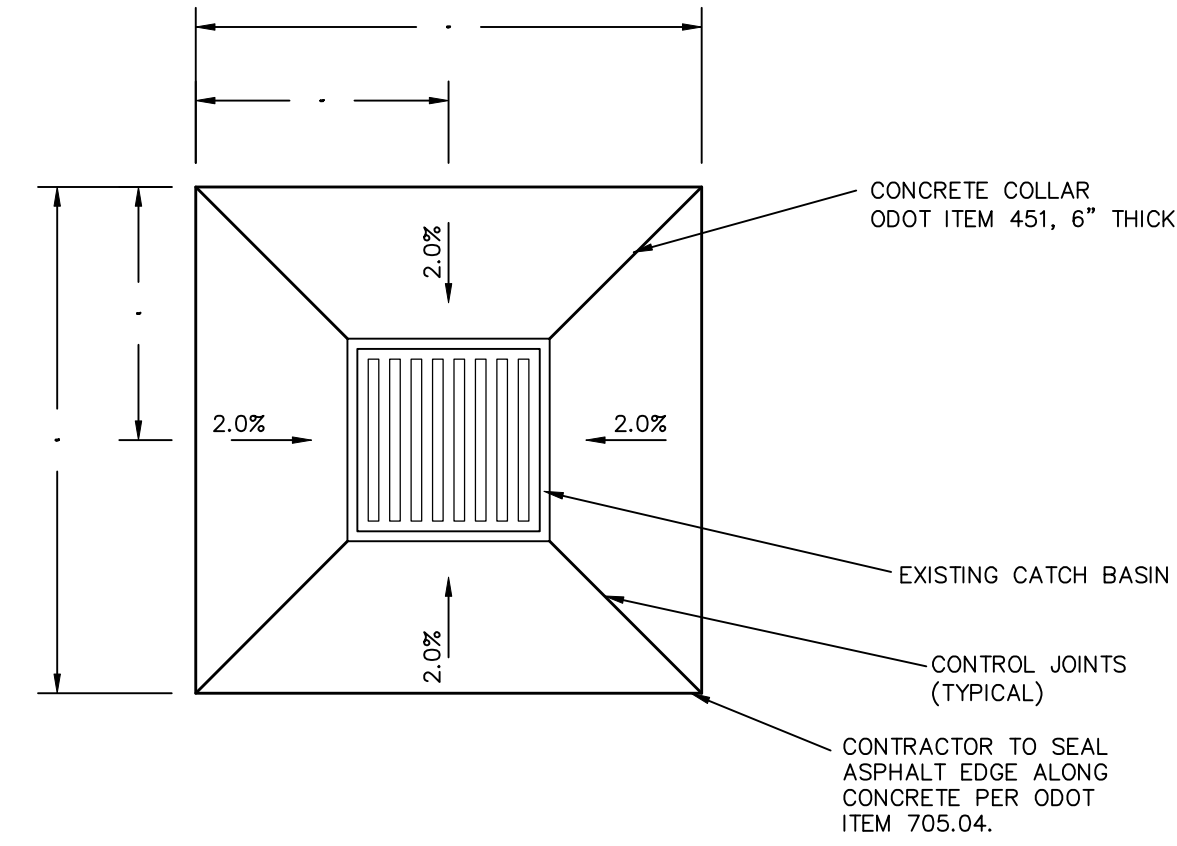
INTEGRAL CURB & WALK
N.T.S.



END CURB TAPER
N.T.S.



TYPE 6 CURB DETAIL
N.T.S.



TYPICAL CONCRETE COLLAR
N.T.S.

GENERAL NOTES

- 1.) A PRE-CONSTRUCTION CONFERENCE SCHEDULED BY THE CONTRACTOR SHALL BE HELD PRIOR TO START OF ANY WORK. IN ADDITION, THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE TO THE CITY ENGINEER PRIOR TO BEGINNING WORK TO ARRANGE FOR INSPECTION.
- 2.) ANY AND ALL CHANGES IN PLAN QUANTITIES OR MATERIALS SHALL BE APPROVED IN WRITING BY THE DEVELOPER PRIOR TO INCORPORATION IN THE WORK.
- 3.) EARTHWORK QUANTITIES:
 - A) ALL STUMPS, TREES AND OTHER CONSTRUCTION DEBRIS SHALL BE DISPOSED OF BY THE CONTRACTOR OFF-SITE.
 - B) THE CONTRACTOR SHALL PLACE AND COMPACT ALL SUITABLE FILL MATERIAL EXCAVATED DURING HIS CONSTRUCTION OPERATIONS WITHIN THE FILL AREAS DESIGNATED ON THE GRADING PLAN AND/OR AS DIRECTED BY THE DEVELOPER AND/OR HAULED OFF-SITE AT THE DEVELOPER'S DISCRETION.
 - C) NO DISPOSAL SITE WITHIN THE PROJECT LIMITS SHALL BE UTILIZED.
- 4.) SEEDING AND MULCHING: SEDIMENT CONTROL SHALL BE ACCOMPLISHED BY SEEDING AND MULCHING IMMEDIATELY UPON COMPLETION OF EXCAVATION OR FILL AND FINISHED GRADING IN ACCORDANCE WITH ITEM 659 OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.
- 5.) ALL TRENCHES IN PAVED AREAS SHALL BE BACKFILLED WITH GRANULAR MATERIALS FROM THE TOP OF THE TRENCH BEDDING. BACKFILL TO BE MECHANICALLY COMPACTED. SLAG NOT ALLOWED.
- 6.) ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SYSTEM PROHIBITED.
- 7.) PRIOR TO CONNECTION CONSTRUCTION, CONTRACTOR TO VERIFY LOCATIONS, SIZE AND DEPTH OF EXISTING SEWER & WATER TIE-INS.
- 8.) THE UTILITY OWNERSHIPS ARE AS FOLLOWS:

OUPS TICKET #B311600953-00B

OHIO UTILITIES PROTECTION SERVICE
106 WEST RYAN - ROOM 427
YOUNGSTOWN, OHIO 44051
PH: (800) 362-2764

SPECTRUM/TIME WARNER
1100 EAST 22ND STREET
EUCLID, OHIO 44117
PH: (800) 993-2225

SUMMIT COUNTY DEPARTMENT OF SANITARY SERVICES
1180 SOUTH MAIN STREET SUITE 201
AKRON, OH 44301
PH: (330) 926-2405

HUDSON WATER DEPARTMENT
1769 GEORGE TOWN RD
HUDSON, OH 44236
PH: (330) 342-1710

DOMINION ENERGY
320 SPRINGSIDE DRIVE, SUITE 320
AKRON, OHIO 44333
PH: (877) 542-2630

PIN OAK ENERGY PARTNERS LLC
368 SOUTH MAIN STREET, SUITE 401
AKRON, OHIO 44311
PH: (888) 748-0763 EXT. 701

WINDSTREAM OHIO
560 TERNES AVE.
ELYRIA, OHIO 44035
PH: (440) 329-4245

THE LOCATION OF UNDERGROUND UTILITIES ARE PLOTTED ACCORDING TO THE INFORMATION FURNISHED BY THE UTILITIES CONCERNED AND THE ENGINEER DOES NOT GUARANTEE THE ACCURACY THEREOF.

- 9.) ALL WORK CONTEMPLATED UNDER THIS CONTRACT SHALL COMPLY WITH U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT, THE STANDARD SPECIFICATIONS OF THE CITY OF HUDSON AND THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS LATEST EDITION, EXCEPT WHERE SPECIFICALLY SPECIFIED IN THESE PLANS.
- 10.) IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATION OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL.
- 11.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ALL MATERIAL TESTING AND ALL PERMITS REQUIRED FOR THIS PROJECT.
- 12.) THE LOCATION OF ALL EXISTING UNDERGROUND UTILITY FACILITIES ARE SHOWN ON THE PLANS FROM DATA AVAILABLE AT THE TIME OF THE FIELD SURVEY IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF THE EXISTING UTILITY OWNERS AND UTILITY PROTECTION SERVICE LISTED ABOVE IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE AND AS OUTLINED IN PROJECT SPECIFICATIONS.
- 13.) ALL WORK CONTEMPLATED SHALL BE GOVERNED BY THE RULES, REGULATIONS AND SPECIFICATIONS OF THE CITY OF HUDSON ENGINEER AND AT ALL TIMES BE SUBJECT TO THEIR DIRECT SUPERVISION AND INSPECTION.
- 14.) ALL SANITARY SEWER CONNECTIONS SHALL BE 6" DIAMETER V.C.P. C-700 E.S. w/PREMIUM JOINTS (OR THERMOPLASTIC AS SPECIFIED) @ 1.0% MIN. (INCLUDING TEST TEE LOCATED AT R/W - SEE DETAIL).
- 15.) ALL EXISTING CONNECTIONS SHALL BE TESTED WITH DYE AND CAMERA BEFORE TYING IN FOR USE WITH PROPOSED LOTS.
- 16.) COLOR DVD VIDEO OF THE SANITARY AND STORM SEWERS (8" AND GREATER) SHALL BE GIVEN TO THE CITY OF HUDSON DIVISION OF WATER POLLUTION CONTROL.
- 17.) COST OF REMOVAL, FILLING, ABANDONING AND DISPOSAL OF EXISTING SEWERS & CONNECTIONS TO BE INCLUDED IN PRICES BID UNDER OTHER ITEMS (OF SPECIFICATIONS) AND NO ADDITIONAL COMPENSATION WILL BE MADE.
- 18.) TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION BY THE CONTRACTOR.
- 19.) ALL SANITARY AND STORM MAIN LINE SEWERS & HOUSE CONNECTIONS SHALL HAVE PREMIUM JOINTS.
- 20.) FLEXIBLE GASKETS SHALL BE PROVIDED AT ALL SANITARY AND STORM MANHOLES.
- 21.) FOR CURB INLET MANHOLE, BRICK MAY BE USED TO FIT CASTING.

ENVIRON. IMPACT NOTES

- 1.) IF, DURING THE COURSE OF CONSTRUCTION, EVIDENCE OF ANY DEPOSIT OF HISTORICAL AND/OR ARCHAEOLOGICAL INTEREST IS FOUND, CEASE OPERATIONS AFFECTING THE FIND AND NOTIFY THE OHIO HISTORIC PRESERVATION OFFICE AT (614) 297-3470. NO FURTHER DISTURBANCE OF THE DEPOSITS SHALL OCCUR UNTIL THE CONTRACTOR HAS BEEN NOTIFIED BY THE OWNER THAT HE OR SHE MAY PROCEED. THE OWNER WILL ISSUE THE NOTICE TO PROCEED ONLY AFTER THE STATE OHIO OFFICIAL HAS SURVEYED THE FIND AND MADE SUCH A DETERMINATION.
- 2.) ACCESS FOR EMERGENCY VEHICLES MUST BE PROVIDED AT ALL TIMES.
- 3.) THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING LOCAL ACCESS TO ALL RESIDENCES AND BUSINESSES, AND TO PROVIDE WHATEVER TEMPORARY MATERIALS ARE NECESSARY TO PROVIDE A SAFE, ADEQUATE DRIVE SURFACE.
- 4.) NO MANHOLE OR SEWER EXCAVATION WILL BE LEFT OPEN AWAITING CONNECTION OR REMOVAL AT A LATER DATE BY THE CONTRACTOR'S FORCES, OR OTHERS, BUT SHALL BE TEMPORARILY BACKFILLED AND RESURFACED, IF APPLICABLE, WITH A TEMPORARY PAVEMENT PASSABLE TO TRAFFIC.
- 5.) NO MORE THAN 200 TO 300 FEET OF SEWER TRENCH SHALL REMAIN OPEN AT ONE TIME. MATERIALS EXCAVATED DURING TRENCHING SHALL BE PILED ON THE UPHILL SIDE OF THE TRENCH.
- 6.) STOCKPILED TOPSOIL AND FILL MATERIALS SHALL BE PROTECTED WITH EROSION CONTROL BARRIERS OR TEMPORARY SEEDING. EXCESS SOIL THAT IS STOCKPILED MUST BE EITHER REMOVED OR REGRADED WITHIN 15 DAYS OF THE COMPLETION OF CONSTRUCTION.
- 7.) IF TREE REMOVAL IS NECESSARY, TREES SHALL BE FELLED IN A MANNER THAT AVOIDS DAMAGE TO ADJACENT REMAINING TREES. WHERE ROOT DAMAGE CANNOT BE AVOIDED, PRUNING AND PAINTING AS APPROPRIATE TO COMPENSATE FOR DAMAGE WILL BE DONE BY AN AUTHORIZED ARBORIST.

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RIVERSTONE
LAND SURVEYING - ENGINEERING - DESIGN
3800 LAKESIDE AVENUE - SUITE 100
CLEVELAND, OHIO 44114
PHONE: (216) 491-9640
WWW.RIVERSTONEDESIGN.COM

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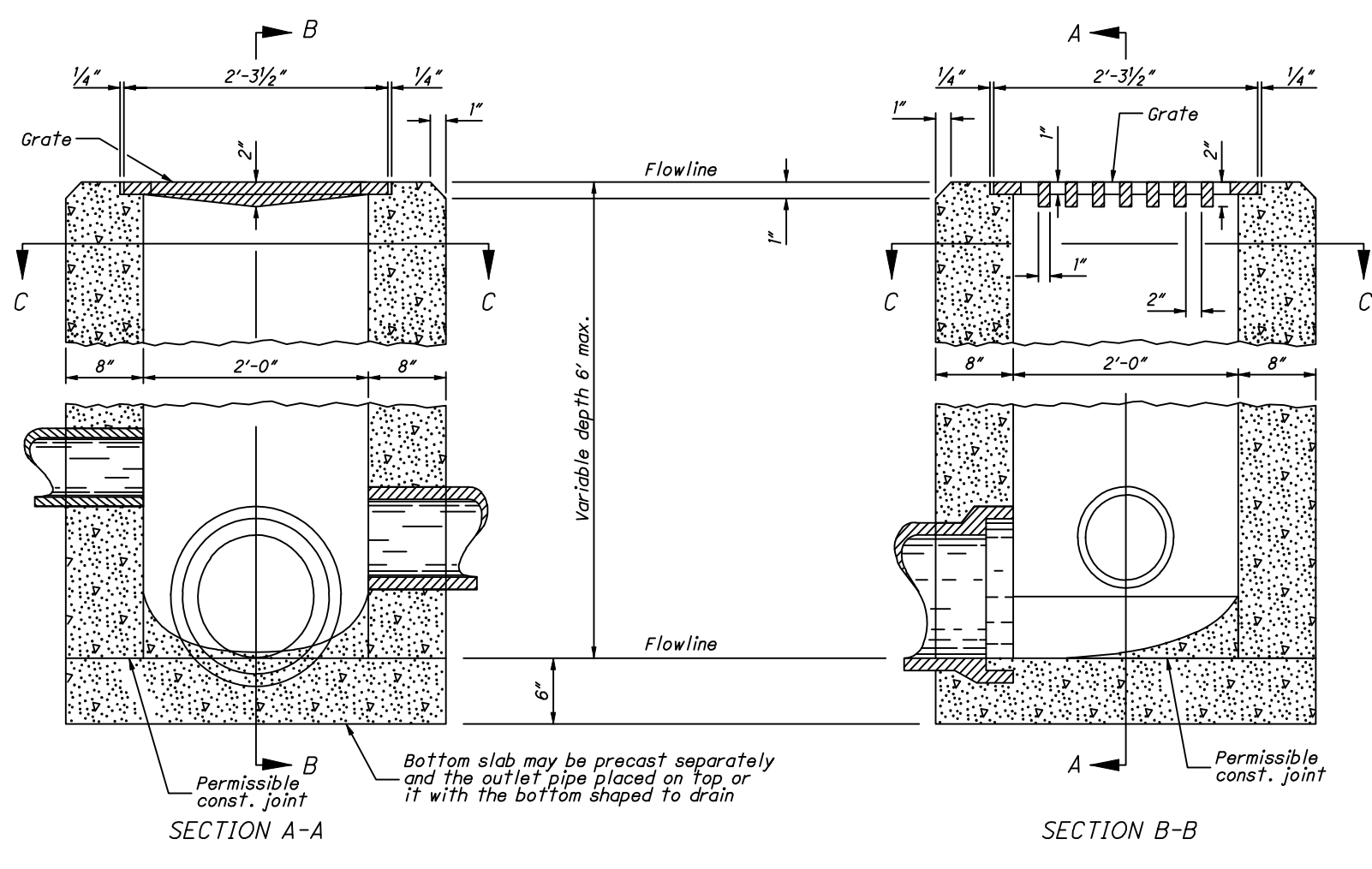
WESTERN RESERVE ACADEMY
160 COLLEGE STREET

NOTES & DETAILS

Ohio Utilities Protection Service
Call it
before you dig

OGPUPS
Ohio Oil & Gas Producers Underground Protection Service
Call (814) 775-2566 ext 811

C6.01



NOTES

CB-2-2B GRATE: Furnish a design essentially the same and equally as strong as the one shown (see Construction Information Table), or meet the requirements of O.S. 711.6. Provide grate openings and dimensions as shown here unless otherwise shown in the plans.

If necessary, bicycle safe grates will be specified in the plans. Furnish Neenoh No. R-4859-S or EJ No. 510M3 (0051043) grates or approved equals. Place grate elevation 4" to 6" below normal ditch and return to normal 10" to 15" each side of inlet.

CB-2-2C FRAME & GRATE: Where the catch basin is specified for use in a parking lot, furnish Neenoh No. R-878-450 or EJ No. V-5522 (4562200) frame and V-5222 (4562203) grate or approved equals. If necessary, bicycle safe grates will be specified in the plans. Furnish Neenoh No. R-3405 grate or EJ No. 5250M (0052503) grate or approved equals.

On cast-in-place and precast units, provide a level surface on the catch basin 4" below the plan grate elevation for setting the frame and grate assembly. Provide a concrete apron to encase and secure the frame of a width not less than the thickness of the catch basin walls that the frame was placed on or as shown in the plans. Slope apron to provide local depression.

GRATE TEXT: Cast the following text into the top of the grate:
"DRAINS TO WATERWAY" and "DUMP NO WASTE"

Print text in bold, capital letters of least 1/2" high. "WATERWAY" may be substituted with "STREAM", "RIVER", "LAKE", etc. Actual placement and logo may vary per manufacturer.

WALLS: Construct brick or cast-in-place walls with a nominal 8" thickness. Provide precast walls of least 6" thick with sufficient reinforcing to permit shipping and handling without damage.

CONCRETE: Use 4000 psi compressive strength for cast-in-place concrete. Meet the requirements of O.S. 706.13 for all precast concrete and mark with the catch basin number.

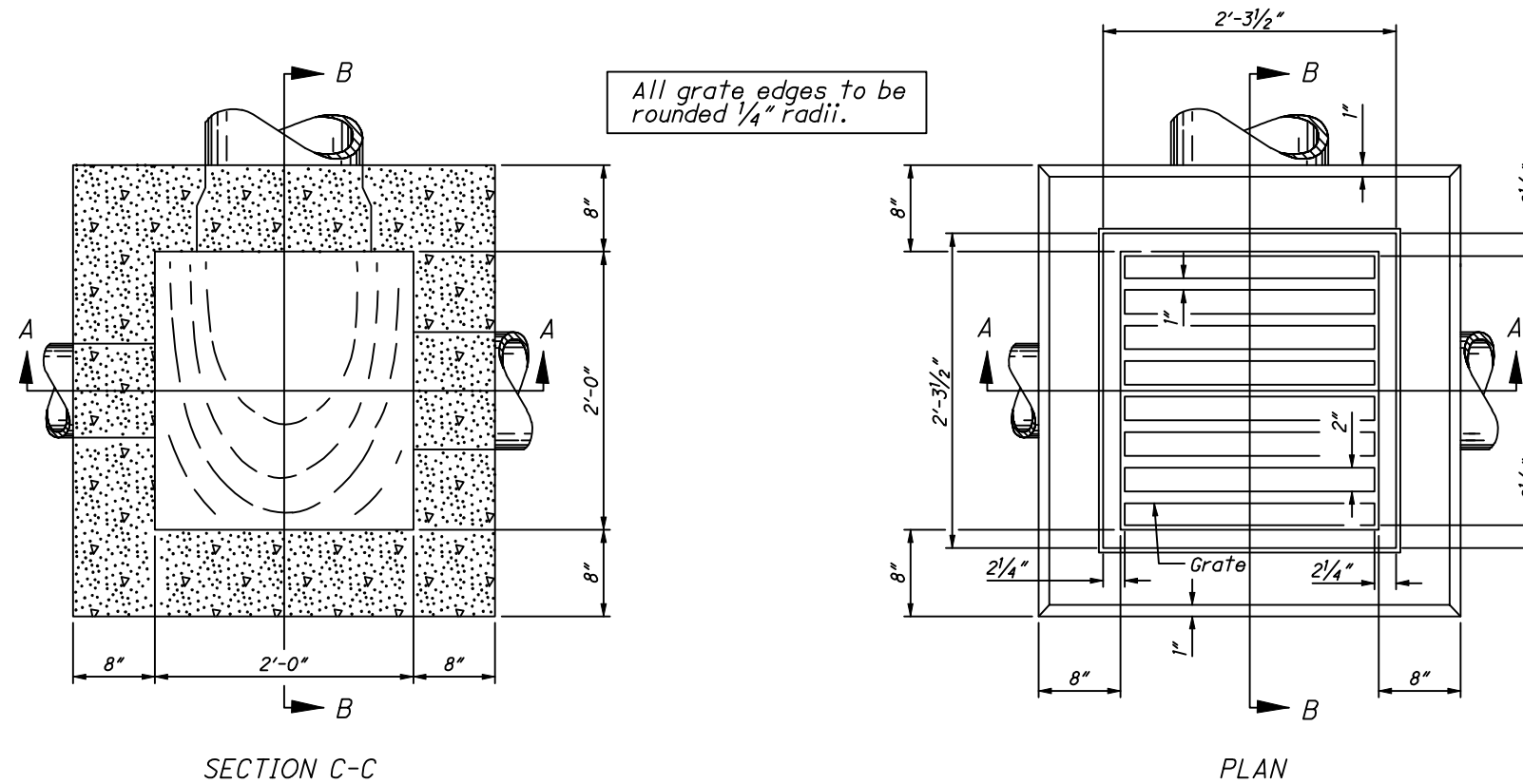
PRECAST BASE: If a precast base is used, set it deep enough so that the top can be placed on the base to provide the grate elevation specified in the plans. Do not use brick layers to adjust the top elevation.

LOCATION AND ELEVATION: When given on the plans, location and elevation are at the top center of the grate.

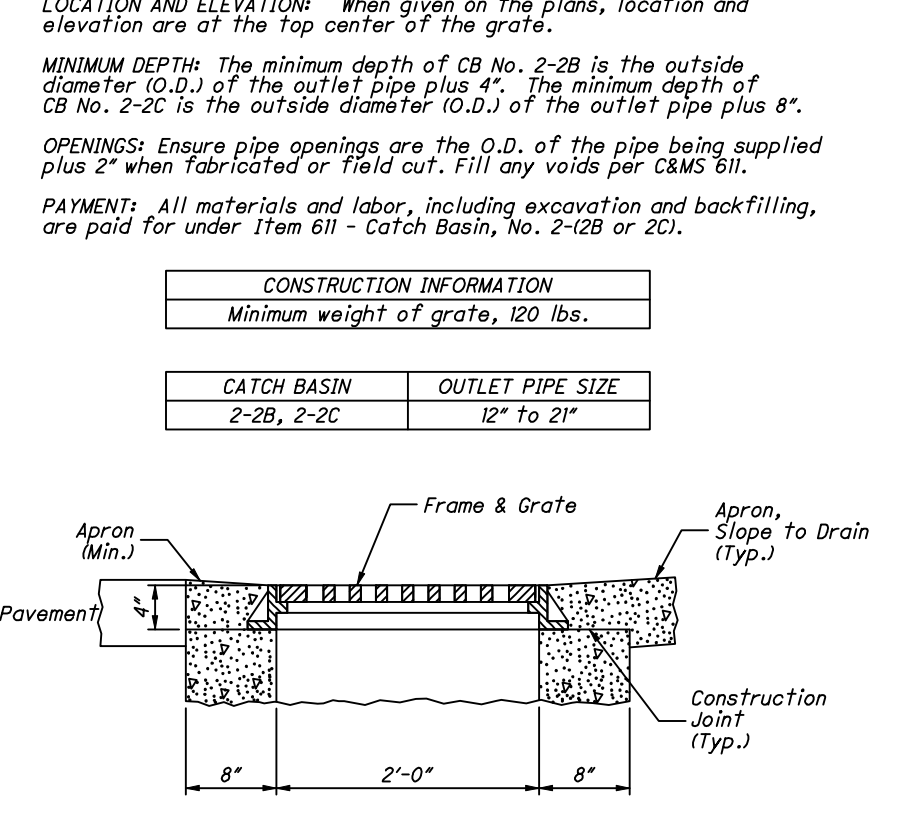
MINIMUM DEPTH: The minimum depth of CB No. 2-2B is the outside diameter (O.D.) of the outlet pipe plus 4". The minimum depth of CB No. 2-2C is the outside diameter (O.D.) of the outlet pipe plus 8".

OPENINGS: Ensure pipe openings are the O.D. of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

PAYMENT: All materials and labor, including excavation and backfilling, are paid for under Item 611 - Catch Basin, No. 2-2B or 2C1.

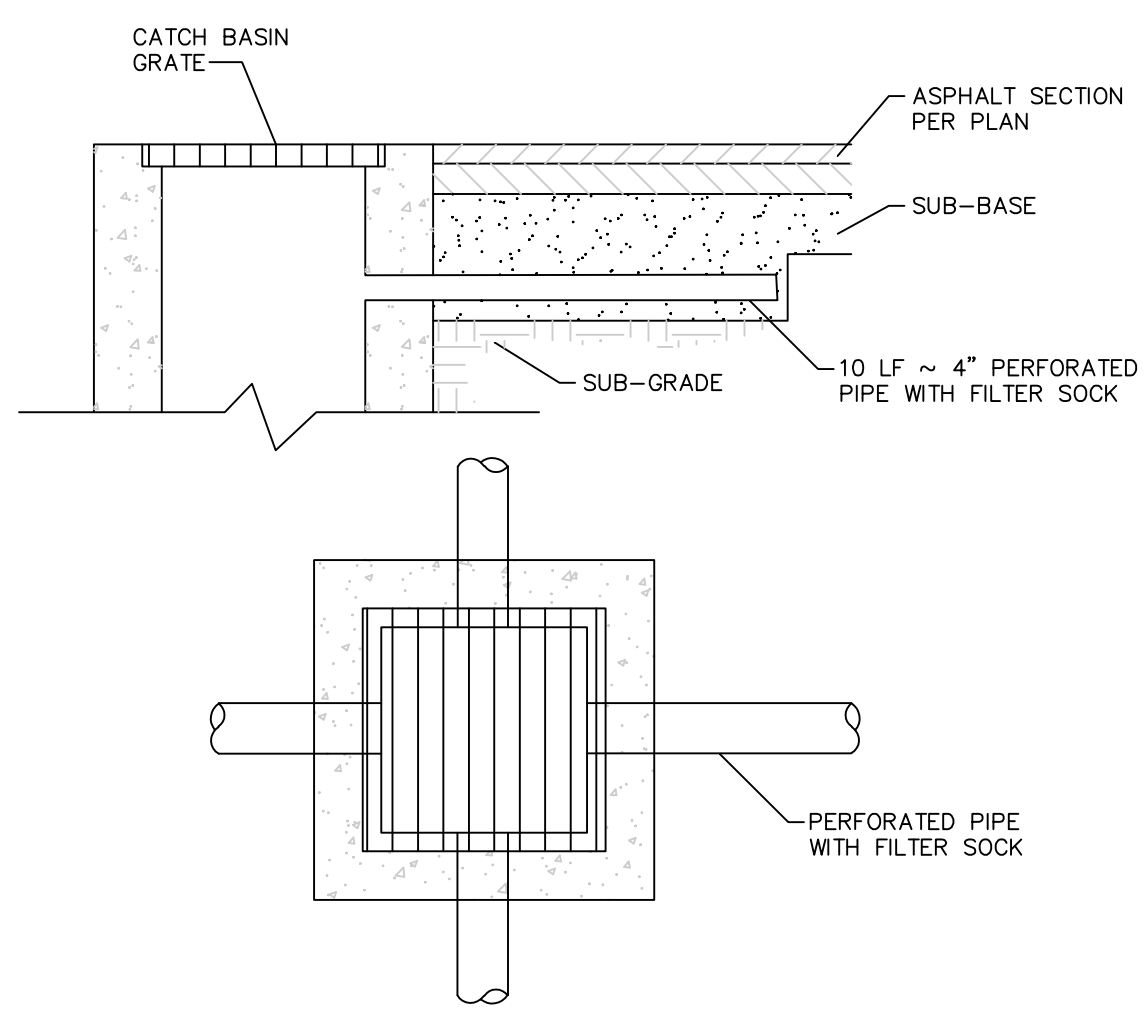
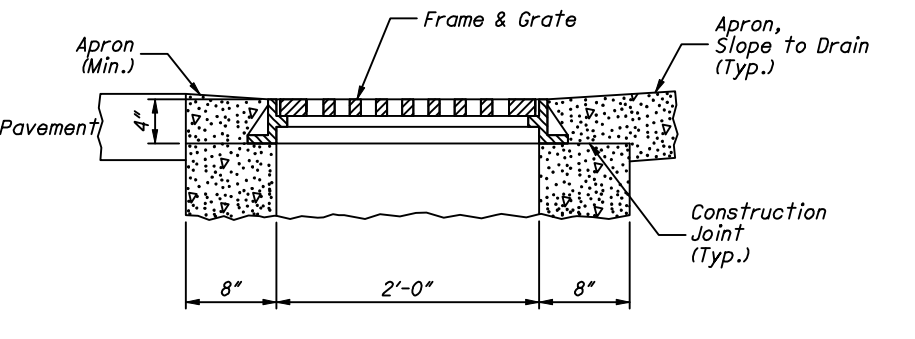


CATCH BASIN No. 2-2B



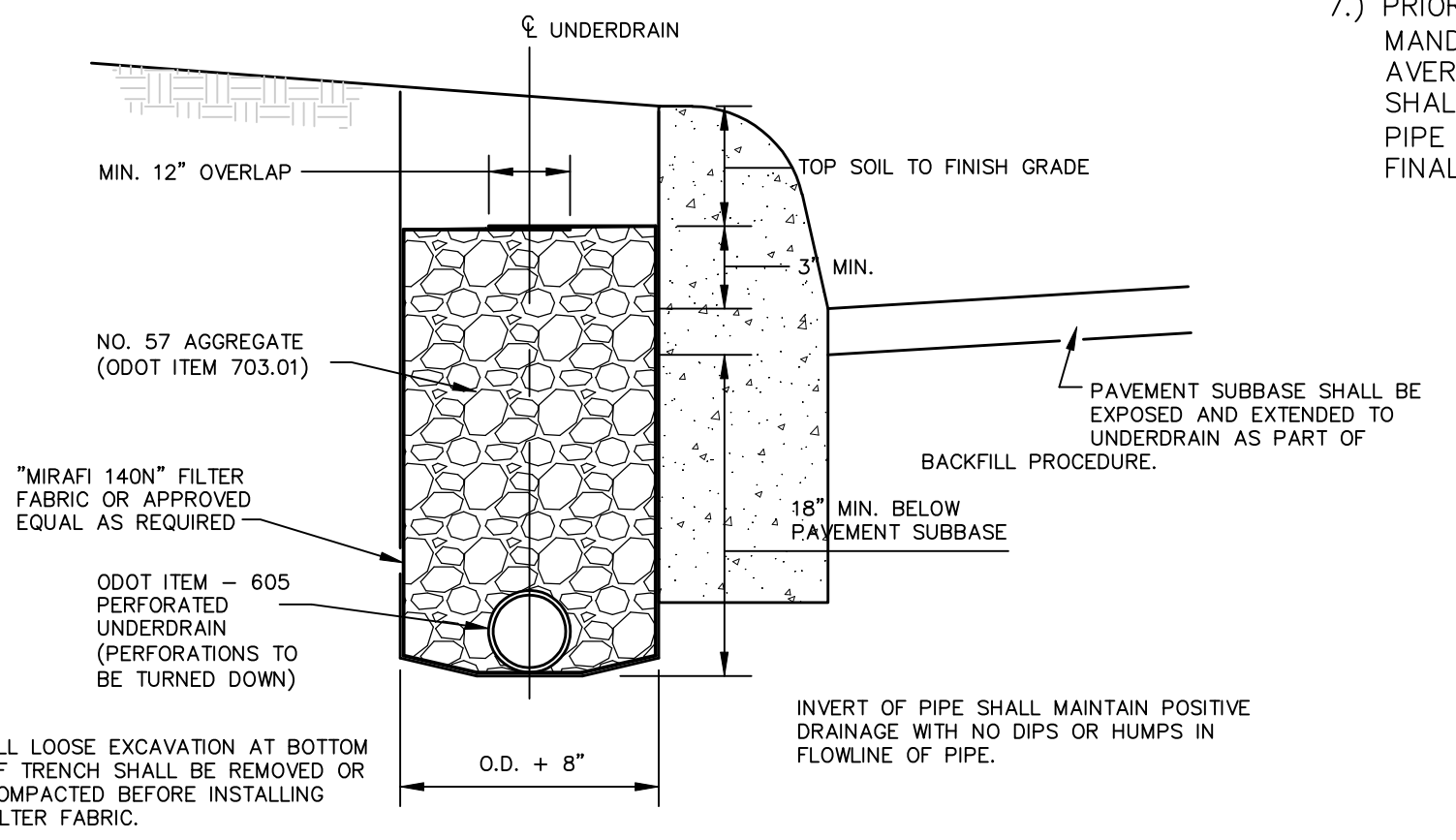
CATCH BASIN No. 2-2C

CONSTRUCTION INFORMATION	
Minimum weight of grate, 120 lbs.	
CATCH BASIN	OUTLET PIPE SIZE
2-2B, 2-2C	12" to 24"

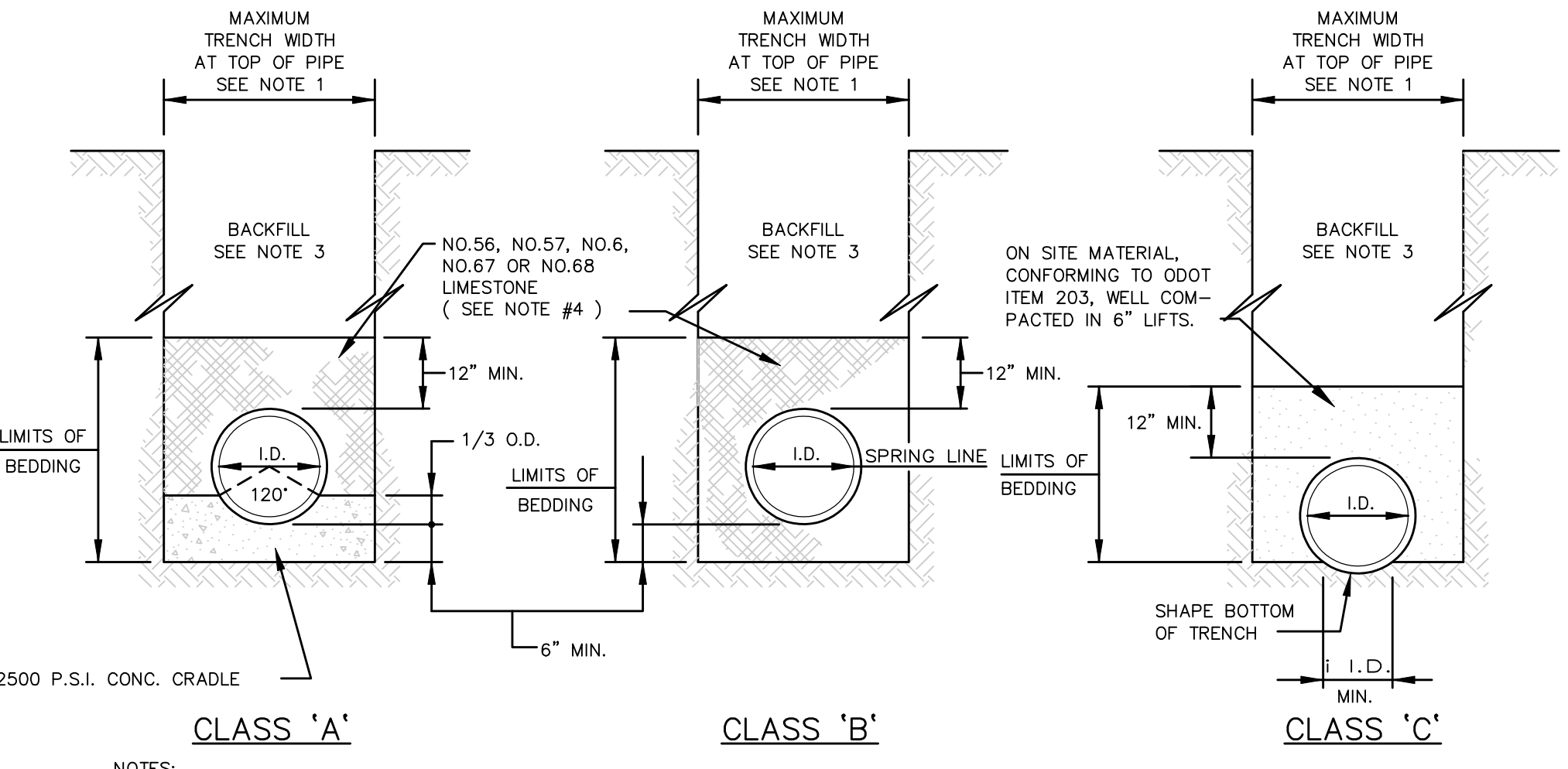


NOTE:
INSTALL FINGER DRAINS AT ALL CATCH BASINS AND CURB INLETS IN PAVEMENT.

FINGER DRAIN DETAIL
N.T.S.



CURB UNDERDRAIN WITH FABRIC WRAP
N.T.S.

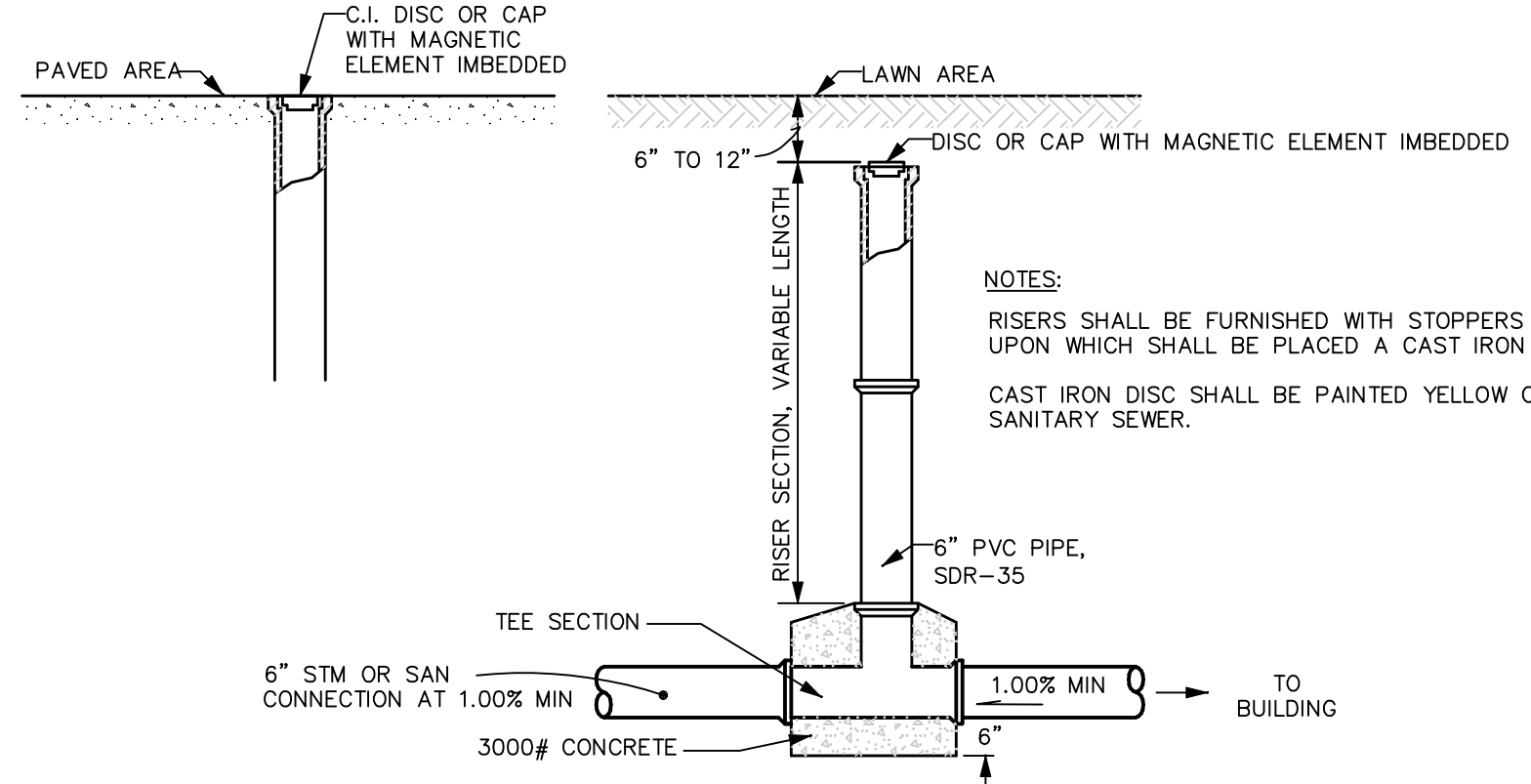


CLASS 'A' **CLASS 'B'** **CLASS 'C'**

NOTES:

- MAXIMUM TRENCH AT TOP OF PIPE SHALL BE O.D.+24" FOR ALL PIPES UP TO AND INCLUDING 24" I.D.; O.D.+30" FOR PIPE LARGER THAN 24" I.D. TO 54" I.D.; AND O.D.+48" FOR PIPE SIZES 60" AND OVER.
- ALL TRENCH EXCAVATION SHALL CONFORM TO THE RULES AND REGULATIONS OF THE OHIO STATE INDUSTRIAL COMMISSION (OSIC) AND THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA).
- ALL BACKFILL MATERIAL USED UNDER ANY PAVEMENTS SHALL BE PREMIUM BACKFILL PLACED FROM THE INITIAL ONE FOOT OVER THE TOP OF UTILITIES, TO PREVENT FLOTATION AND ENTRY OF FLOWABLE FILL INTO ANY OTHER AREAS, TO THE SUBGRADE. ALL OTHER AREAS SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND SHALL BE TAMPED WITH MACHINE MOUNTED TAMPING EQUIPMENT. NO FLOODING, JETTING OR PUDDLING OF BACKFILL WILL BE PERMITTED. BACKFILL SHALL BE COMPACTED TO 100% OF MAXIMUM LABORATORY DRY DENSITY PER ASTM D 698.
- ALL BEDDING SHALL BE CLASS 'B' EXCEPT AS STATED IN NOTE 6 OR OTHERWISE NOTED ON THE PLANS. BEDDING LIMITS FOR R.C.P. AND D.I.P. SHALL BE TO THE PIPE SPRINGLINE.
- SLAG BEDDING SHALL NOT BE USED.
- BEDDING FOR DUCTILE IRON PIPE USED FOR WATERLINE OR FORCE MAIN SHALL BE CLASS 'C' EXCEPT WHEN INSTALLED IN ROCK AND UNDER PAVEMENT OR STRUCTURES, IN WHICH CASE, BEDDING SHALL BE CLASS 'B' OR AS NOTED ON THE PLANS.
- INSTALL A MAGNETIC DETECTOR TAPE 12" ABOVE THE CENTERLINE OF NON-METALLIC WATERLINES OR SANITARY FORCE MAINS.

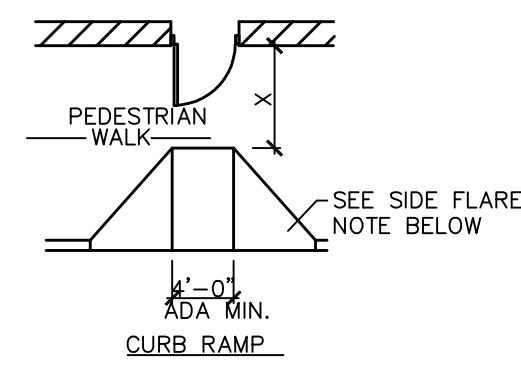
TRENCH & BEDDING DETAILS
N.T.S.



CLEANOUT - TEST TEE
N.T.S.

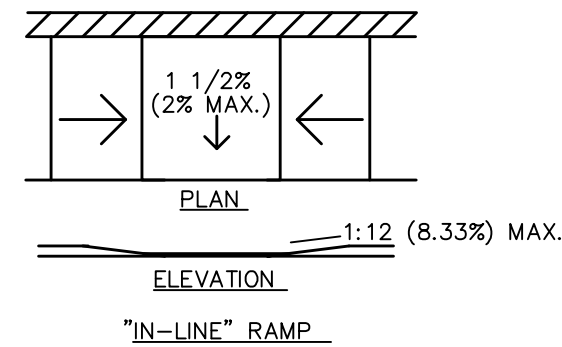
ADJOINING SLOPE SHALL NOT EXCEED 1:20
 SLOPE = Y:X WHERE X IS A LEVEL PLANE
 WALK STREET

MEASUREMENT OF CURB RAMP SLOPE

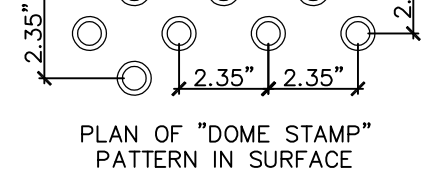
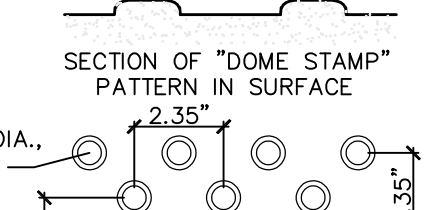
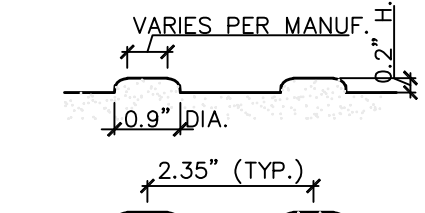
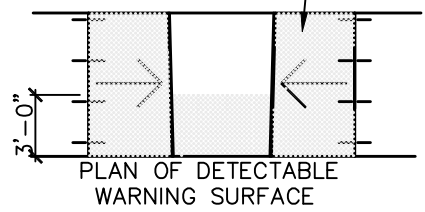
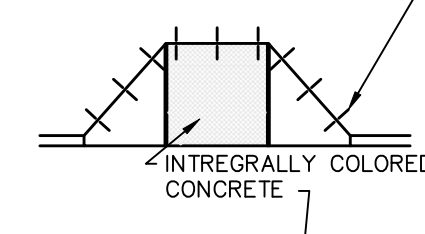


"x" IS 60" MIN. AT AN OUT SWING DOOR WITH A SLOPE OF 1:50 (2%) MAXIMUM. LEVEL SURFACE IS PREFERRED.

SIDE FLARE NOTE: (SEE REFERENCE DIAGRAM ABOVE). SIDE FLARES SHALL HAVE A MAXIMUM SLOPE OF 1:10 (10%), WHERE "x" IS LESS THAN 48". SIDE FLARE SLOPE SHALL BE 1:12 (8.33%) MAXIMUM.



NOTE: ACCESSIBLE RAMPS AND CURB RAMPS WHERE POURING OF A SEPARATE INTEGRALLY COLORED CONCRETE IS REQUIRED, INSTALL SHEAR DOWELS 2'-0" O.C. AND KEYWAYS TO PREVENT HEAVING OF RAMPS W/ ADJACENT SIDEWALK OR CONC. SURFACE.



NOTES: A CURB RAMP(S) MUST BE PROVIDED ALONG AN ACCESSIBLE PATH FROM THE PARKING LOT TO CURBED SIDEWALK.

A CURB RAMP(S) MUST ALSO BE PROVIDED IN THE PARKING LOT AT ALL INTERMEDIATE AND PERIMETER CURBS ALONG THE ACCESSIBLE ROUTE CONNECTING TO PUBLIC SIDEWALKS.

A RAMP IS ANY SLOPE GREATER THAN 1:20 (5%) AND SHALL HAVE A MAXIMUM SLOPE OF 1:12 (8.33%). THE MAXIMUM SLOPE IS 1" OF RISE PER FOOT OF DISTANCE TRAVELED. ALL SLOPED AREAS OF THE RAMP ARE TO HAVE AN INTEGRAL COLOR CONTRASTING ADJACENT CONCRETE.

THE CLEAR WIDTH OF ANY RAMP IS A MINIMUM OF 48".

CURB RAMPS DO NOT REQUIRE HANDRAILS. ANY OTHER RAMP WITH GREATER THAN A 6" RISE SHALL HAVE HANDRAILS ON BOTH SIDES AND CURBED EDGE PROTECTION ON BOTH SIDES. EDGE PROTECTION CONSISTS OF CURBS, WALLS, RAILINGS, OR PROJECTING SURFACES THAT PREVENT PEOPLE FROM SLIPPING OFF THE RAMP. HANDRAIL DETAILS SHALL FOLLOW ACCESSIBLE GUIDELINES.

CURB RAMPS MUST HAVE A DETECTABLE WARNING FEATURE, EXTENDING THE FULL WIDTH AND DEPTH OF THE RAMP. THE DETECTABLE SURFACE MUST CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 INCHES. THE TEXTURE OF THE DETECTABLE WARNING FEATURE MUST CONTRAST WITH THE SURROUNDING SURFACES (EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT). SEE ABOVE.

CURB RAMPS AND DETECTABLE WARNINGS

N.T.S.

PROOF ROLL

A MINIMUM OF TWO (2) PROOF ROLLINGS WILL BE REQUIRED AS DIRECTED BY THE ENGINEER BEFORE PAVING. THE FIRST PROOF ROLLING SHALL BE PERFORMED AFTER THE INSTALLATION OF ALL UNDERGROUND IMPROVEMENTS AND ROUGH GRADING HAS BEEN COMPLETED. AFTER FINE GRADING, JUST PRIOR TO PAVING, THE SUBGRADE SHALL BE PROOF ROLLED AGAIN. A PROOF ROLLING SHALL CONSIST OF TRAVELING THE ENTIRE AREA OF THE PREPARED SUBGRADE WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PROVIDED BY THE CONTRACTOR. MOISTURE CONTENT ADJUSTMENT METHODS USED AT THE TIME OF PROOF ROLLING SHALL CONFORM TO SECTION 203.11 OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS. WHERE THIS OPERATION SHOWS THE SUBGRADE TO BE UNSTABLE OR TO HAVE NON-UNIFORM STABILITY, THE CONTRACTOR SHALL CORRECT THE UNSTABLE AREAS AS DIRECTED BY THE ENGINEER. THE MINIMUM EQUIPMENT SHALL CONSIST OF A SINGLE UNIT, TANDEM AXLE DUMP TRUCK CAPABLE OF BEING LOADED TO 30,000 POUND AXLE LOAD, 60,000 POUND GVW. TIRE PRESSURE SHALL BE MAINTAINED AT 90 PSI OR AS SPECIFIED UNDER SECTION 203.14 OF ODOT SPECIFICATIONS. ANY AREA PERMITTING TIRES TO LEAVE A GROOVE OF ONE (1) INCH OR MORE SHALL BE UNACCEPTABLE FOR PAVING. ANY AREA PERMITTING THE TEST VEHICLE TIRES TO LEAVE A GROOVE OF ZERO (0) TO ONE-HALF (1/2) INCH DEEP SHALL BE ACCEPTABLE. ANY AREA PERMITTING THE TEST VEHICLE TIRES TO LEAVE A GROOVE OF ONE-HALF (1/2) INCH TO ONE (1) INCH DEEP SHALL BE AT THE ENGINEER'S DISCRETION.

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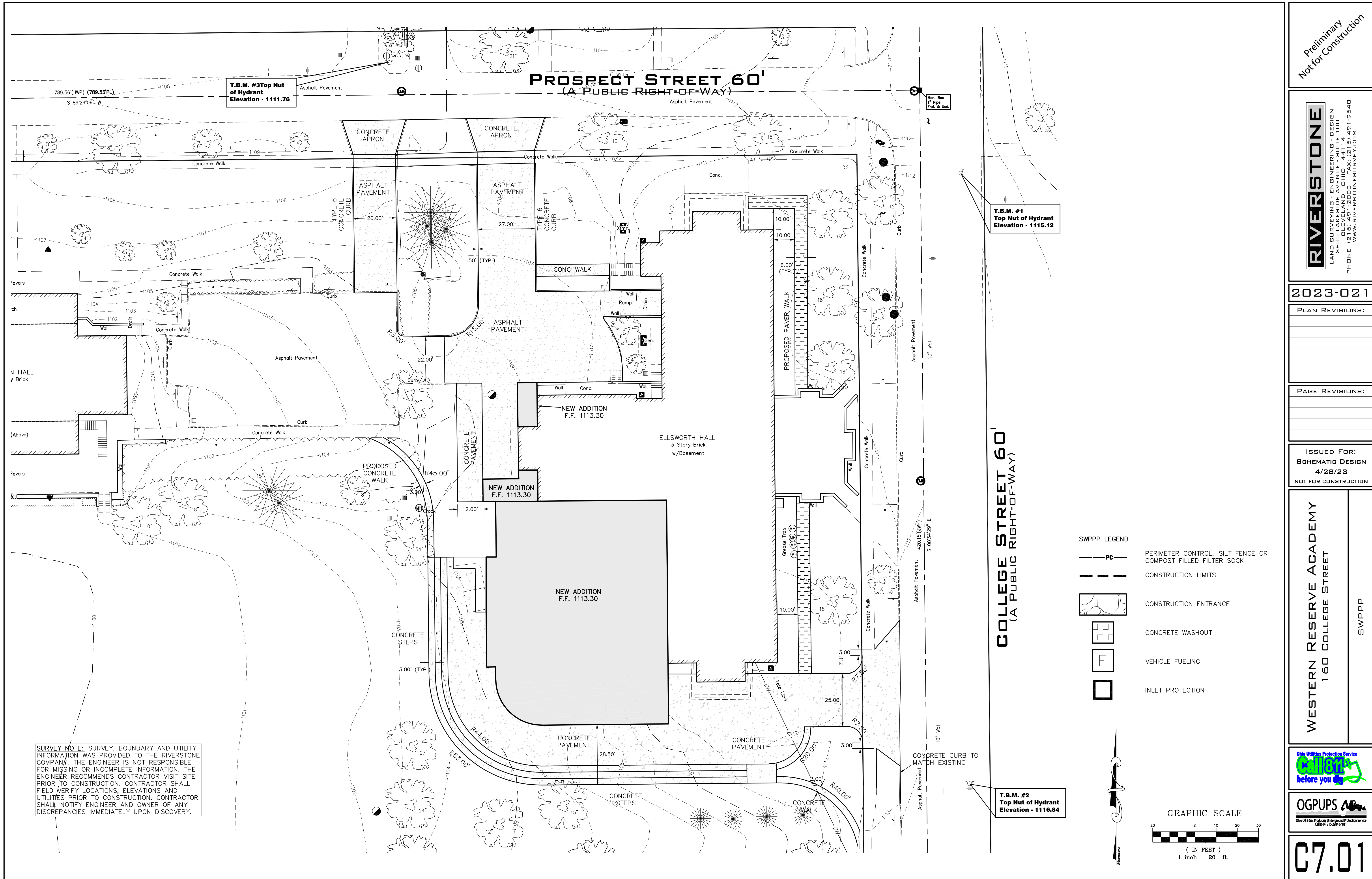
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WESTERN RESERVE ACADEMY
 160 COLLEGE STREET

NOTES & DETAILS



C6.03



T.B.M. #3 Top Nut of Hydrant
Elevation - 1111.76

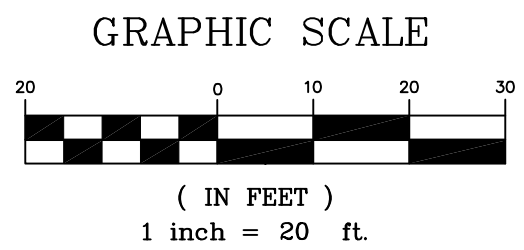
T.B.M. #1
Top Nut of Hydrant
Elevation - 1115.12

COLLEGE STREET 60'
(A PUBLIC RIGHT-OF-WAY)

T.B.M. #2
Top Nut of Hydrant
Elevation - 1116.84

SURVEY NOTE: SURVEY, BOUNDARY AND UTILITY INFORMATION WAS PROVIDED TO THE RIVERSTONE COMPANY. THE ENGINEER IS NOT RESPONSIBLE FOR MISSING OR INCOMPLETE INFORMATION. THE ENGINEER RECOMMENDS CONTRACTOR VISIT SITE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS, ELEVATIONS AND UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER AND OWNER OF ANY DISCREPANCIES IMMEDIATELY UPON DISCOVERY.

- SWPPP LEGEND**
- PERIMETER CONTROL; SILT FENCE OR COMPOST FILLED FILTER SOCK
 - CONSTRUCTION LIMITS
 - CONSTRUCTION ENTRANCE
 - CONCRETE WASHOUT
 - VEHICLE FUELING
 - INLET PROTECTION



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WWW.RIVERSTONEDESIGN.COM

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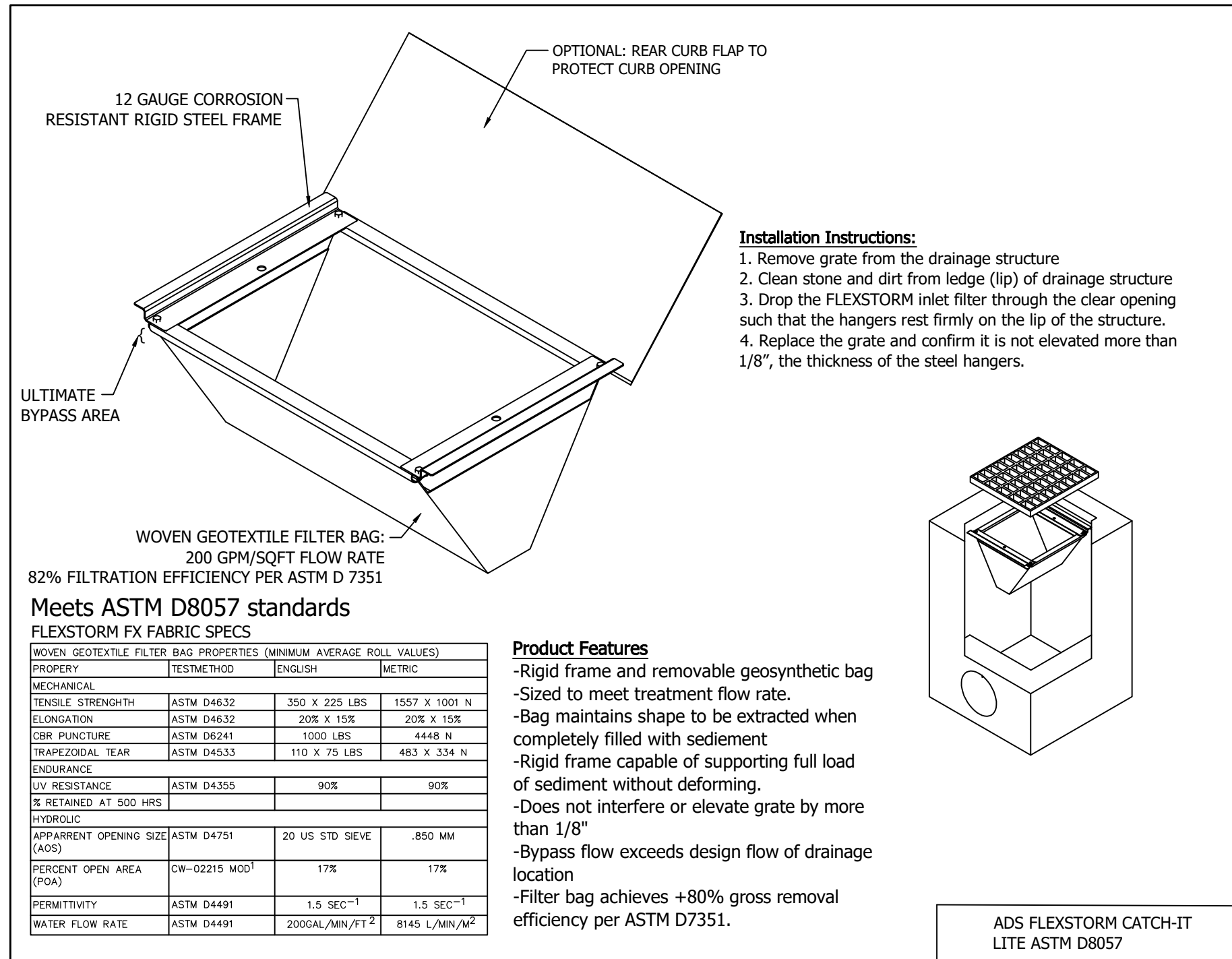
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WESTERN RESERVE ACADEMY
160 COLLEGE STREET

SWPPP



C7.01



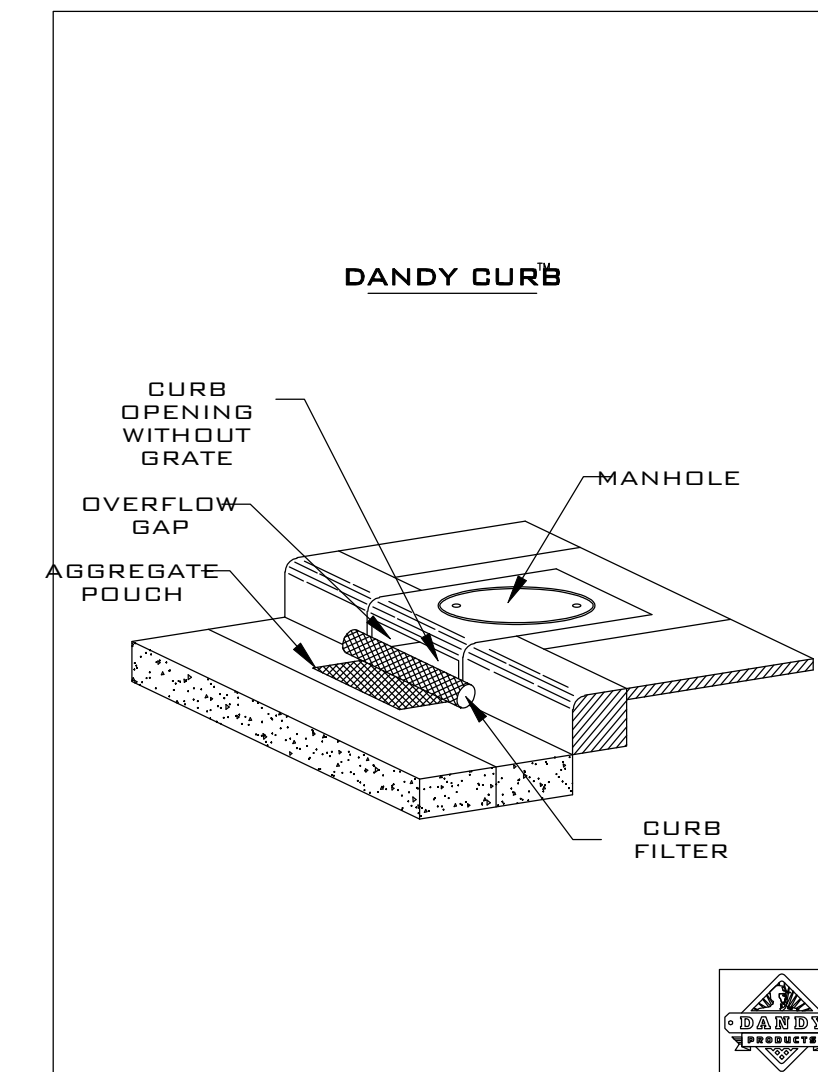
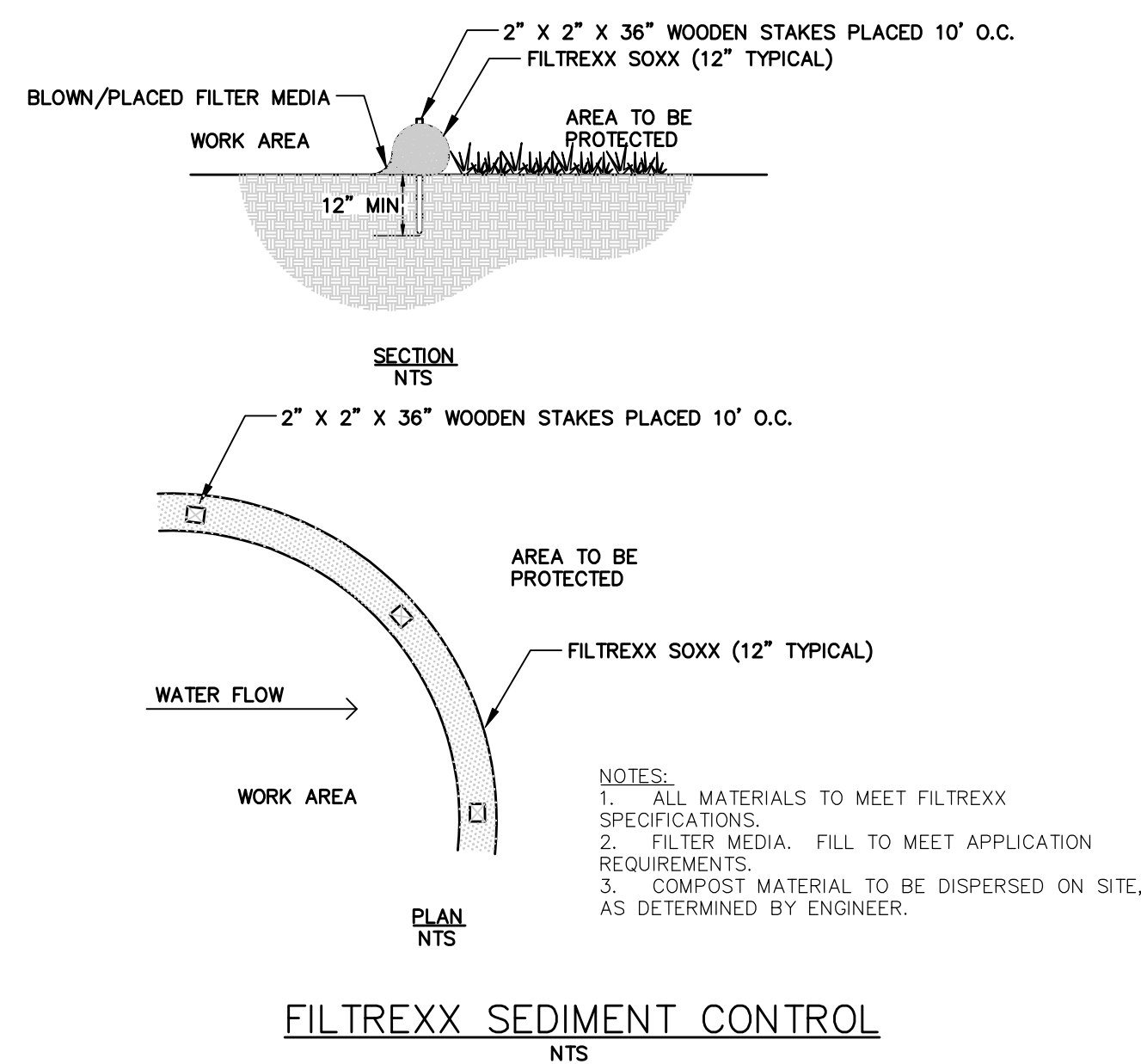
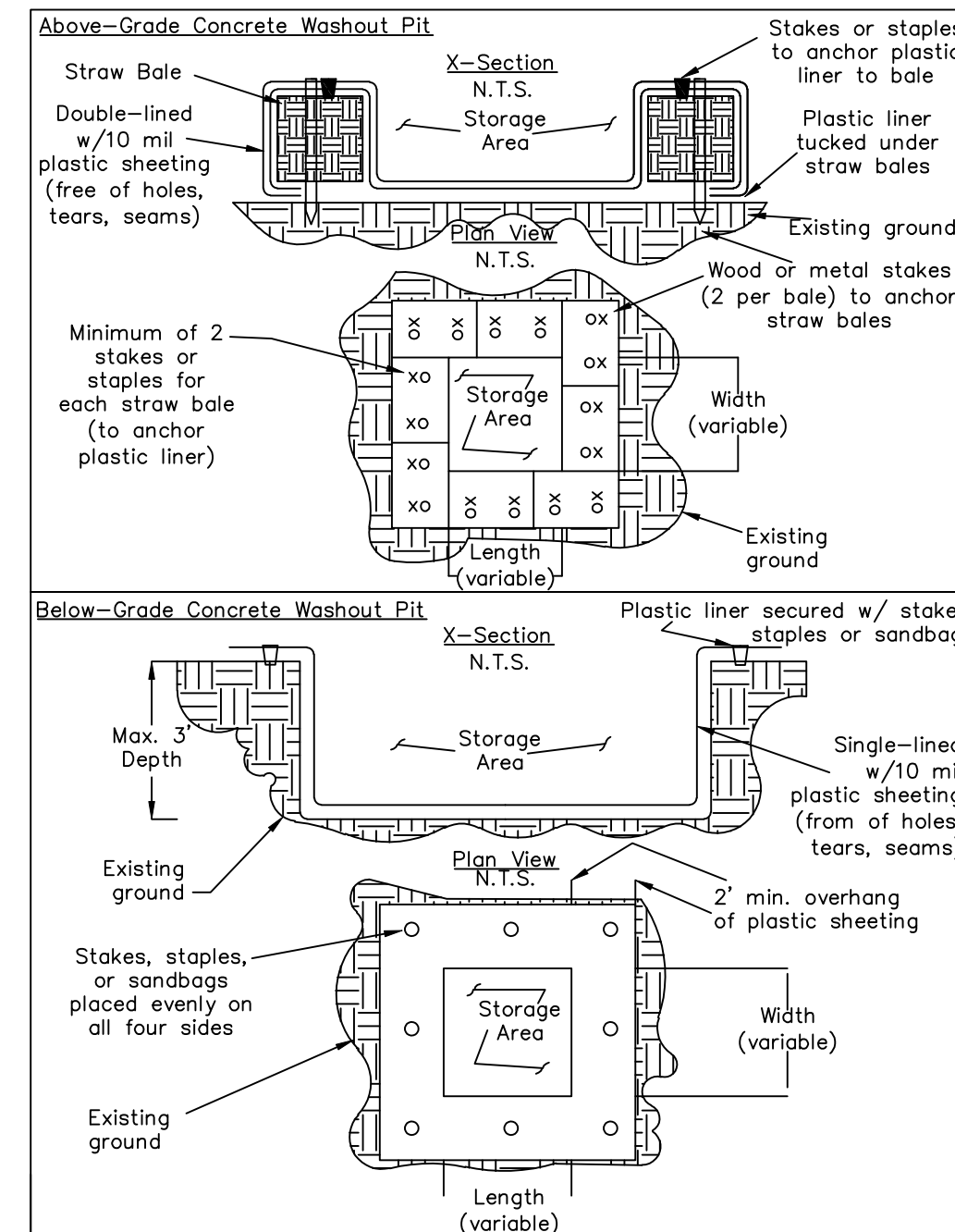
Concrete Washout Areas

- Installation:**
1. Concrete wash water shall not be allowed to flow to streams, ditches, storm drains, or any other water conveyance and washout pits shall be situated a minimum of fifty (50) feet from them.
 2. Field tile or other subsurface drainage structures within 10 ft. of the sump shall be cut and plugged.
 3. Ensure a stable path is provided for concrete trucks to reach the washout area.
 4. A highly visible sign that reads "Concrete Washout Area" shall be erected adjacent to the washout pit.
 5. Surface runoff generated from upslope areas shall be diverted away from below-grade washout pits so as not to flow into them.
 6. A single centralized washout area may be utilized for multiple sublots.
- Maintenance:**
7. The washout pit must be inspected frequently to ensure the liner is intact.
 8. Once 75% of the original volume of the washout pit is filled or the liner is torn, the material must be removed and properly disposed of once it is completely hardened. Once the hardened concrete is removed, the liner must be replaced (if torn). A new pit must be constructed if the original structure is no longer suitable.
- Removal:**
9. Once the washout pit is no longer needed, ensure all washout material has been completely hardened, then remove and properly dispose of all materials. If straw bales were used, they can be spread as much.
 10. Prefabricated containers specifically designed for concrete washout collection may be used subject to prior approval by the Community Engineer. Follow the manufacturer's suggestions for installation, maintenance and removal procedures.

Sizing of Concrete Washout Pits

Below-grade (3-ft depth)			Above-grade (2-ft depth)		
# of concrete trucks expected to be washed out on site*	Width (ft)	Length (ft)	# of concrete trucks expected to be washed out on site*	Width (ft)	Length (ft)
2-3	3	3	2	3	3
4-5	4	4	3-4	4	4
6-7	5	5	5-6	5	5
8-10	6	6	7-8	6	6
11-14	7	7	9-11	7	7
			12-15	8	8

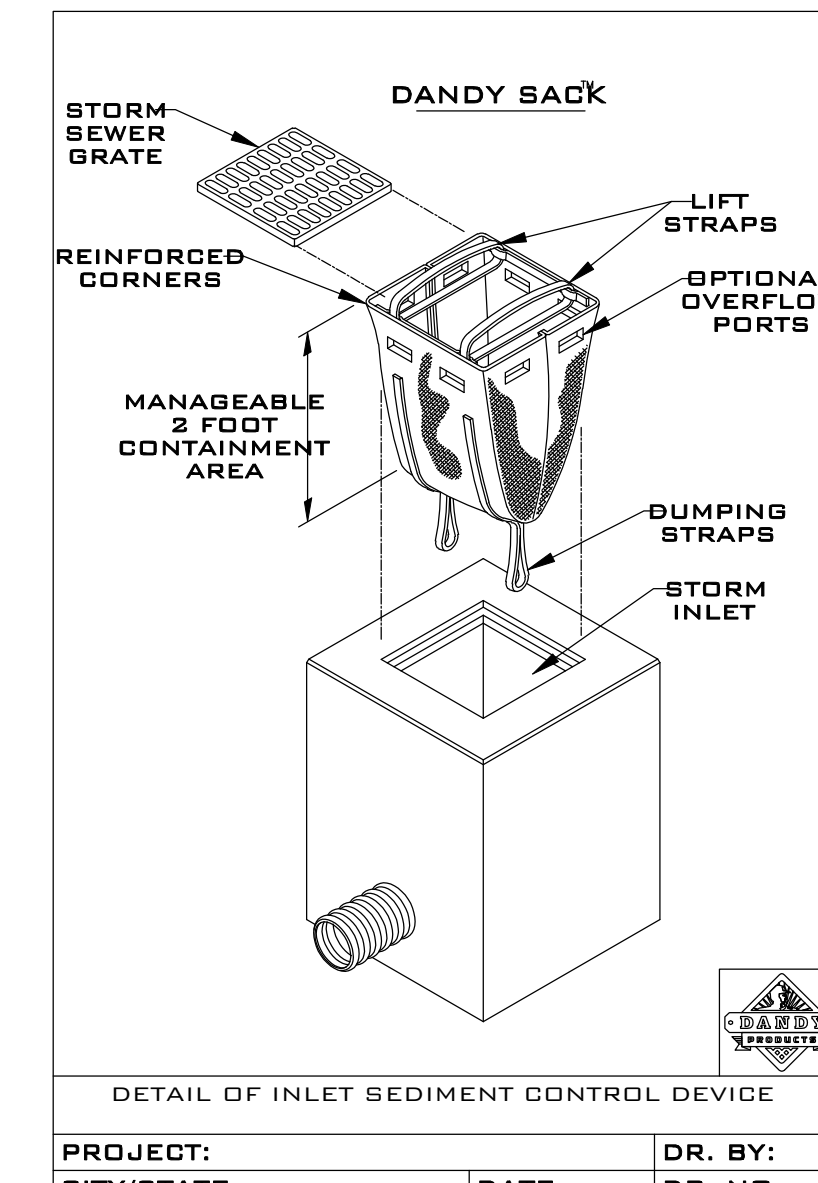
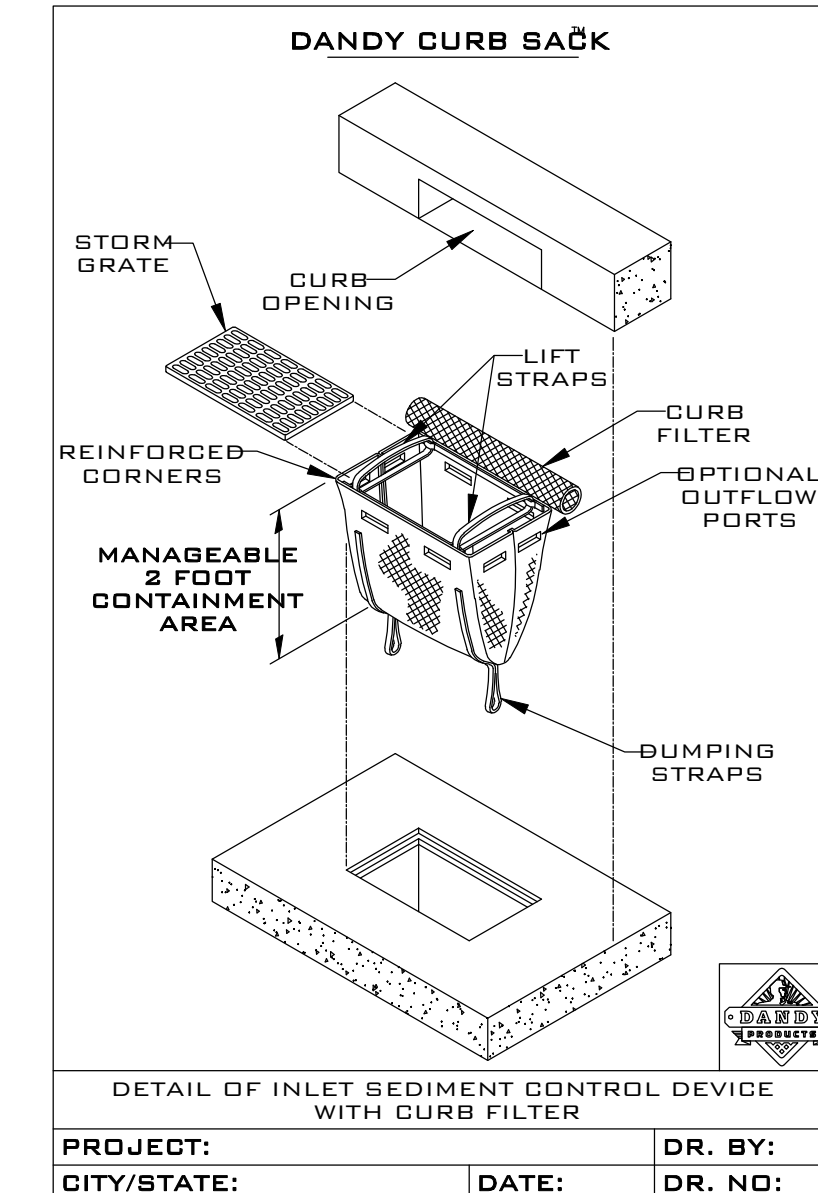
*For small projects using a maximum of only one truckload of concrete or utilizing on-site mixing, rinsing of equipment may take place on the lot without a pit, provided it can be done on a maximum of fifty (50) feet away from any water conveyances



DETAIL OF CURB INLET SEDIMENT CONTROL WITH CURB FILTER

PROJECT: _____ **DR. BY:** _____

CITY/STATE: _____ **DATE:** _____ **DR. NO.:** _____



DANDY CURB SPECIFICATIONS

NOTE: THE DANDY CURB WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOPLAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

DANDY CURB (SAFETY ORANGE)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbf)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4533	kN (lbf)	2.40 (500)
Mullen Burst Strength	ASTM D 3786	kPa (lbf/ft ²)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbf)	0.51 (115) X 0.33 (75)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std. Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m ² (gpm/min/ft ²)	5907 (145)
Permittivity	ASTM D 4491	sec	2.1

*Note: All Dandy Curbs can be ordered with our optional oil absorbents

DANDY CURB SACK SPECIFICATIONS

NOTE: THE DANDY CURB SACK WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOPLAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

REGULAR FLOW DANDY CURB SACK (BLACK)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbf)	1.78 (400) X 1.40 (315)
Grab Tensile Elongation	ASTM D 4632	%	15 X 15
Puncture Strength	ASTM D 4533	kN (lbf)	0.67 (150)
Mullen Burst Strength	ASTM D 3786	kPa (lbf/ft ²)	2506 (300)
Trapezoid Tear Strength	ASTM D 4533	kN (lbf)	0.67 (150) X 0.75 (165)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std. Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m ² (gpm/min/ft ²)	2852 (70)
Permittivity	ASTM D 4491	sec	0.90

H-FLOW DANDY CURB SACK (SAFETY ORANGE)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbf)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4533	kN (lbf)	2.40 (500)
Mullen Burst Strength	ASTM D 3786	kPa (lbf/ft ²)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbf)	0.51 (115) X 0.33 (75)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std. Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m ² (gpm/min/ft ²)	2852 (70)
Permittivity	ASTM D 4491	sec	0.90

*Note: All Dandy Sacks can be ordered with our optional oil absorbent pillows

DANDY SACK SPECIFICATIONS

NOTE: THE DANDY SACK WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOPLAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

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Permittivity	ASTM D 4491	sec	2.1

*Note: All Dandy Sacks can be ordered with our optional oil absorbent pillows

Preliminary
Not for Construction

RIVERSTONE
LAND SURVEYING - ENGINEERING - DESIGN
3800 LAKEVIEW AVENUE - SUITE 100
CLEVELAND, OHIO 44114
PHONE: (216) 491-1964
WWW.RIVERSTONEENGINEERING.COM

2023-021

PLAN REVISIONS:

PAGE REVISIONS:

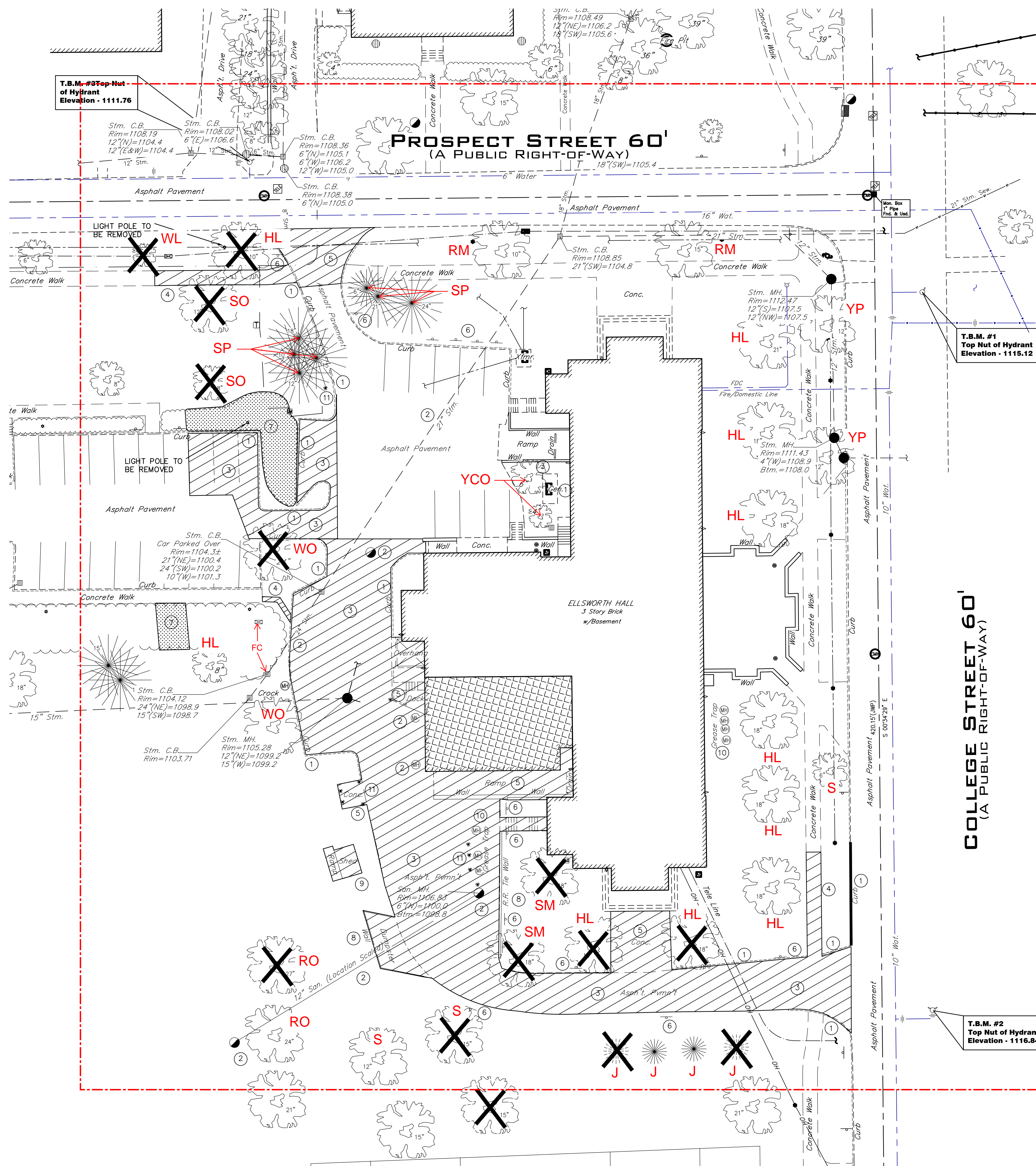
ISSUED FOR:
SCHEMATIC DESIGN
4/28/23
NOT FOR CONSTRUCTION

WESTERN RESERVE ACADEMY
160 COLLEGE STREET
SWPPP

Ohio Utilities Protection Service
Call 811
before you dig

OGPUPS
Ohio Oil & Gas Producers Underground Protection Service
Call 811 715-266-8111

C7.04



GENERAL SITE DEMOLITION NOTES:

CONTRACTOR SHALL COMPLETELY CLEAR SITE. REMOVAL SHALL INCLUDE BUT NOT LIMITED TO ALL PAVEMENTS, SIDEWALKS, CURBS, BUILDINGS, BASEMENTS, FOOTERS, FOUNDATIONS, PORCHES, STEPS, POLES, UTILITIES, BOLLARDS, WALLS, FENCES, TREES, LANDSCAPING AND ALL APPURTENANCES WITHIN THE SITE.

CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL PERMITS NECESSARY FOR SITE DEMOLITION AND SHALL BE RESPONSIBLE FOR ALL FEES.

CONTRACTOR SHALL CALL THE OHIO UTILITIES PROTECTION SERVICE (OUPS) A MINIMUM OF 48 HOURS BEFORE ANY DEMOLITION WORK.

CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL UTILITY DEMOLITION WORK WITH THE APPROPRIATE UTILITIES PRIOR TO DEMOLITION. ALL UTILITY CONNECTIONS SHALL BE REMOVED ACCORDING TO UTILITY COMPANY REQUIREMENTS.

SANITARY AND WATER CONNECTIONS TO REMAIN FOR REUSE SHALL BE LOCATED, INSPECTED AND MARKED IN THE FIELD. CONTRACTOR SHALL NOTIFY ENGINEER OF EXACT LOCATIONS AND ELEVATIONS. ALL OTHER CONNECTIONS NOT PROPOSED TO BE REUSED SHALL BE PLUGGED AND ABANDON PER UTILITY REQUIREMENTS.

SITE DEMOLITION LEGEND:

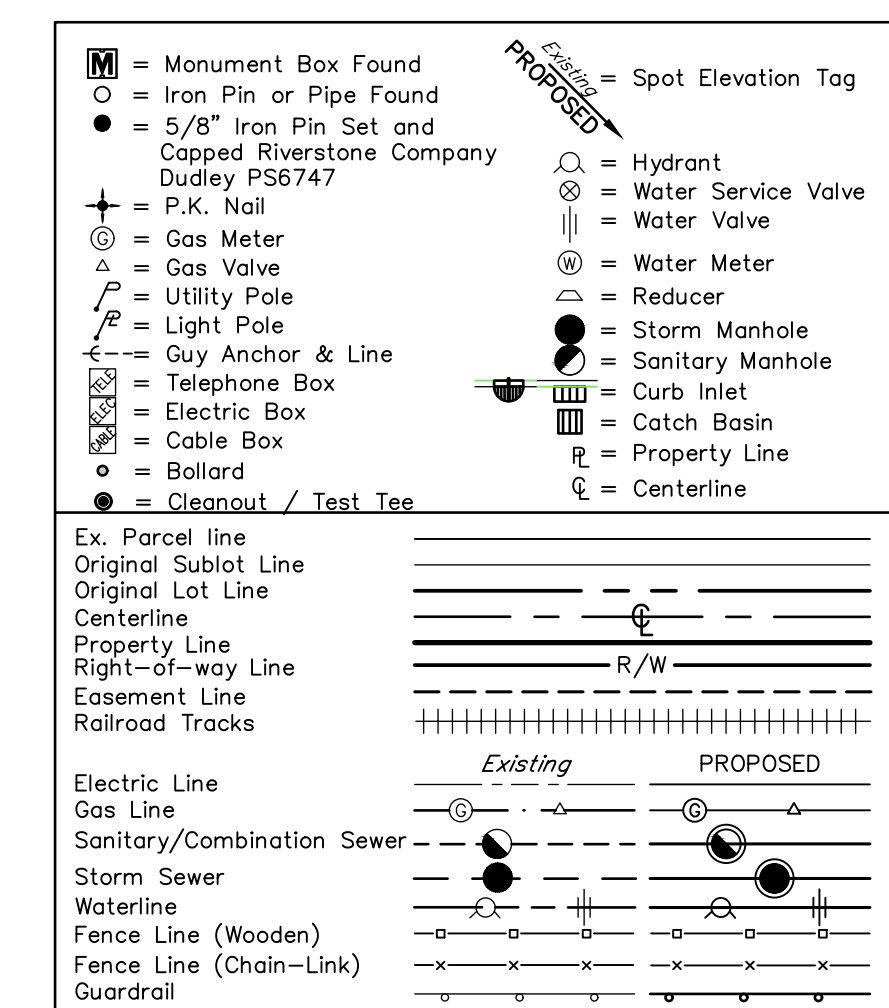
- TREE TO BE REMOVED
- PAVEMENT (CONCRETE, ASPHALT OR GRAVEL) TO BE REMOVED - SAWCUT ALL PAVEMENTS & SIDEWALKS AT NEAREST CONTROL JOINT WHERE EXISTING PAVEMENT & SIDEWALKS SHALL REMAIN.
- BUILDING TO BE REMOVED.
- VEGETATION TO BE REMOVED.

SITE DEMOLITION PLAN KEYNOTES:

- 1 SAWCUT AND REMOVE CURB. CONTRACTOR SHALL SAWCUT AND REMOVE CURB PROVIDING A CLEAN SMOOTH EDGE AND ENSURE THE INTEGRITY OF THE PAVEMENT TO REMAIN.
- 2 PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL LOCATE, EXPOSE, MARK, AND INSPECT EXISTING STORM AND SEWER CONNECTIONS FOR ANY CONFLICT WITH PROPOSED BUILDING ADDITION. MANHOLES AND UTILITY CONNECTIONS BELOW PROPOSED BUILDING ADDITION TO BE REMOVED.
- 3 ASPHALT PAVEMENT TO BE REMOVED. CONTRACTOR SHALL SAWCUT AND REMOVE ASPHALT PAVEMENT. CONTRACTOR SHALL PROVIDE A CLEAN SMOOTH EDGE OF PAVEMENT AND ENSURE THE INTEGRITY OF THE PAVEMENT TO REMAIN.
- 4 SIDEWALK TO BE REMOVED. SAWCUT AT THE NEAREST JOINT AND PROVIDE SMOOTH CLEAN EDGE AND ENSURE INTEGRITY OF PAVEMENT TO REMAIN.
- 5 CONCRETE PAVEMENT TO BE REMOVED. CONTRACTOR SHALL SAWCUT AND REMOVE CONCRETE PAVEMENT, CONTRACTOR SHALL PROVIDE A CLEAN SMOOTH EDGE OF PAVEMENT AND ENSURE THE INTEGRITY OF THE PAVEMENT TO REMAIN.
- 6 PARKING SIGNS TO BE REMOVED.
- 7 VEGETATION AREA TO BE REMOVED.
- 8 RETAINING WALL TO BE REMOVED.
- 9 SHED TO BE REMOVED.
- 10 GREASE TRAPS TO BE REMOVED.
- 11 BOLLARD TO BE REMOVED.

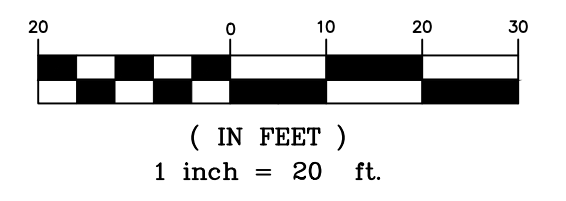
- WL WHITE LINDEN (*Tilia tomentosa*)
- SO SAWTOOTH OAK (*Quercus acutissima*)
- HL HONEY LOCUST (*Gleditsia triacanthos*)
- SP SCOTS PINE (*Pinus sylvestris*)
- EH EASTERN HEMLOCK (*Tsuga canadensis*)
- RM RED MAPLE (*Acer rubrum*)
- YP YELLOW POPLAR (*Liriodendron tulipifera*)
- S SWEET GUM (*Liquidambar*)
- J JUNIPER (*Juniperus*)
- SM SUGAR MAPLE (*Acer saccharum*)
- RO RED OAK (*Quercus coccinea*)
- WO WHITE OAK (*Quercus bicolor*)
- FC FALSE CYPRUS (*Cupressaceae*)
- YCO YELLOW CHESTNUT OAK (*Quercus muehlenbergii*)

LEGEND



Ac.	Acre	L.C.A.	Limited Common Area
Adj.	Adjacent	L.F.	Lined Feet
A.F.N.	Auditor's File Number	M.E.	Match Existing
Asp.	Asphalt	Mos./M.	Measured
B.F.	Basement Floor	MH	Manhole
B.W.	Bottom of Wall	Obs.	Observed
Calc./C.	Calculated	Page	Page
CB	Catch Basin	P.P.N.	Permanent Parcel
C.C.M.R.	Cuyahoga County Map	Prop	Number
C.L.F.	Chain-link Fence	Rec./R.	Record
Ch.	Clean Out	R/W	Right-of-way
C.O.	Comb.	San.	Sanitary
Comb.	Combination	S.F.	Square Feet
Conc.	Concrete	S/L	Sublot
Conn.	Connection	Stm.	Storm
D.H.	Drill Hole	T.B.M.	Temporary Bench Mark
D.I.W.M.	Ductile Iron Water	TBR	To Be Removed
Dr.	Drain	T/C	Top of Curb
Elec	Electric	Tel	Telephone
Elev	Elevation	T.F.	Top of Footer
Engr.	Encroaches	T.T.	Test Tee
Ex.	Existing	TW	Top of Wall
F.F.	Finished Floor	Typ.	Typical
GUT	Gutter	Vol.	Volume
Invt	Invert	Wat	Water

GRAPHIC SCALE



SURVEY NOTE: SURVEY, BOUNDARY AND UTILITY INFORMATION WAS PROVIDED TO THE RIVERSTONE COMPANY BY APEX LAND SURVEYING. THE ENGINEER IS NOT RESPONSIBLE FOR MISSING OR INCOMPLETE INFORMATION. THE ENGINEER RECOMMENDS CONTRACTOR VISIT SITE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS, ELEVATIONS AND UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER AND OWNER OF ANY DISCREPANCIES IMMEDIATELY UPON DISCOVERY.



RIVERSTONE JOB# 2023-021

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f: (216) 491-9640

Civil Engineer:
Riverstone
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t: (216) 491-2000
f: (216) 491-9640

Landscape Architect:
DEU Landscape Architecture
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Cleveland, OH 44115
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Structural Engineer:
I.A. Lewin and Associates
4110 Mayfield Road St. B
South Euclid, OH 44121
t: (216) 291-3131
f: (216) 291-2605

MEP Engineer:
McHenry & Associates
25001 Emery Road, Suite 200
Warrensville Heights, OH 44128
t: (216) 292-4696

Seal:

PROGRESS SET



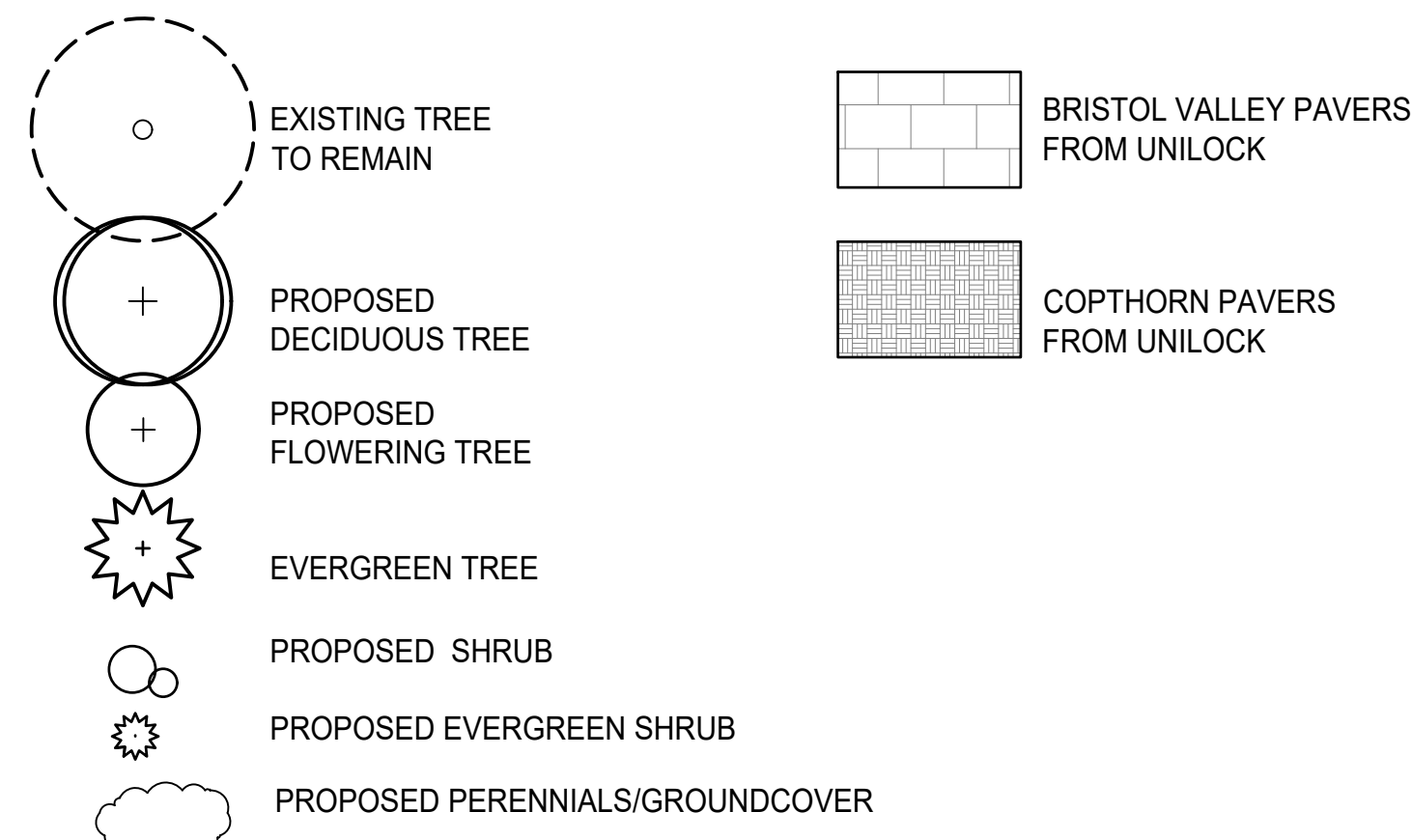
6555 Carnegie Avenue, Suite 200
Cleveland, Ohio 44103
t: 216.752.8750
f: 216.752.8437
www.bialosky.com

Project No: 22-44
Drawn / Checked: Riverstone / Riverstone

Issue: DD SET 08.18.2023

DEMOLITION PLAN
C2.02

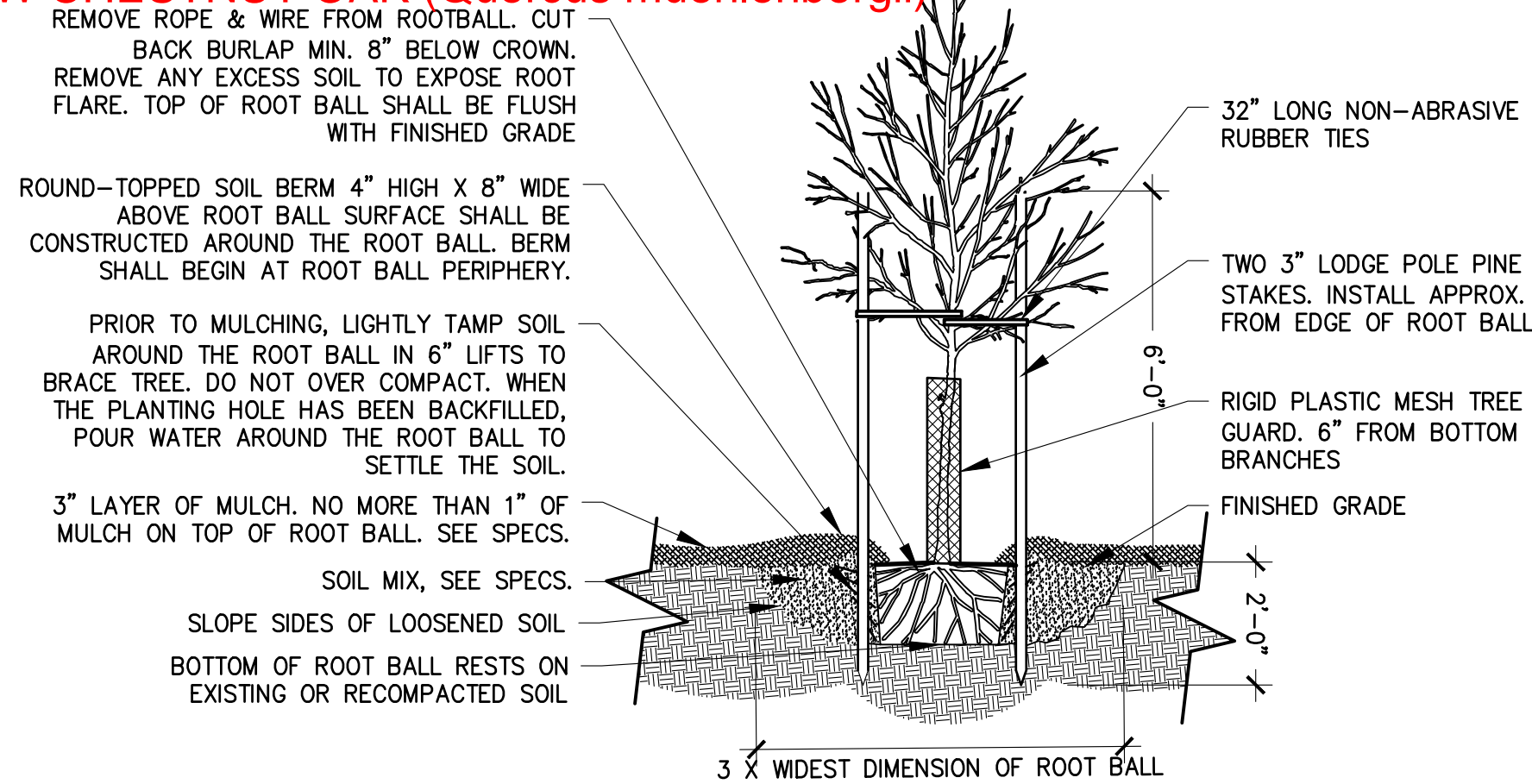
KEY



EXISTING TREES

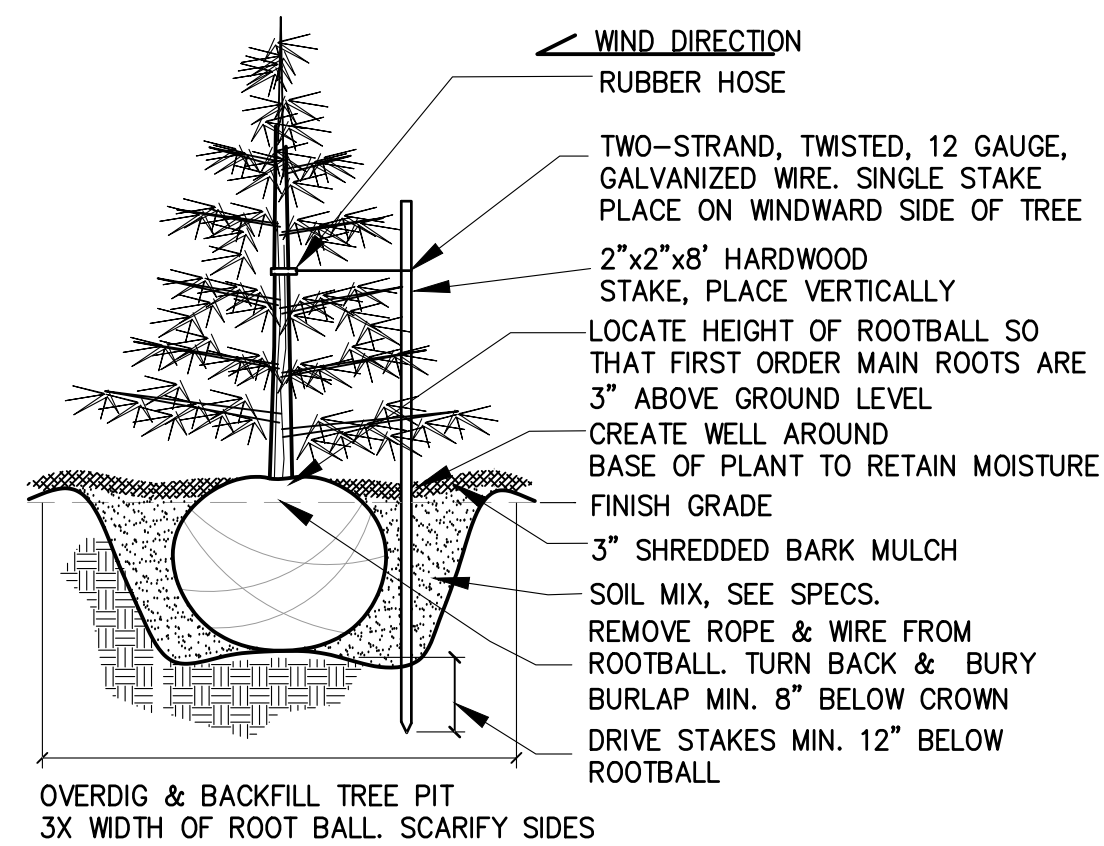
- WL WHITE LINDEN (*Tilia tomentosa*)
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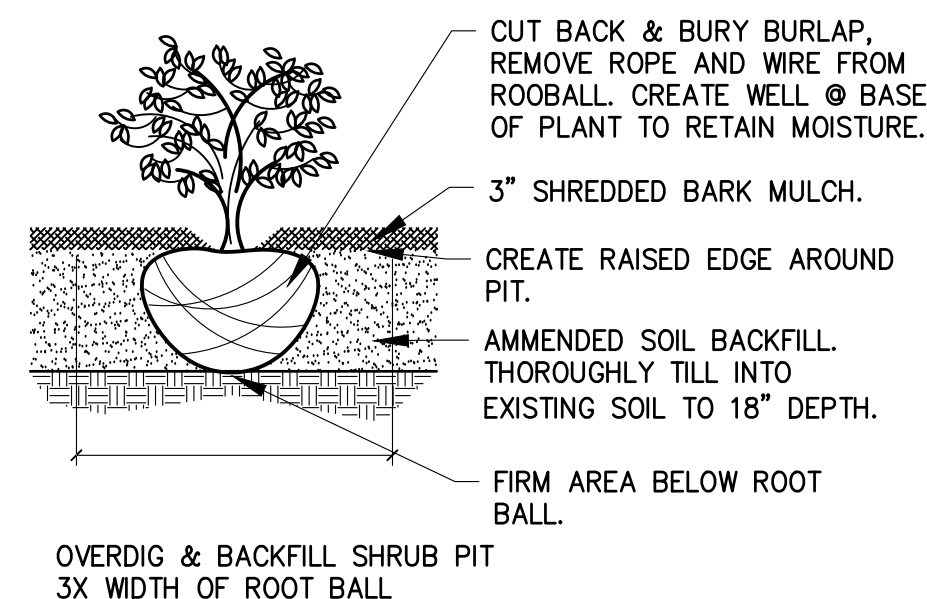
TREE PLANTING & STAKING

Scale: 3/8" : 1'-0"



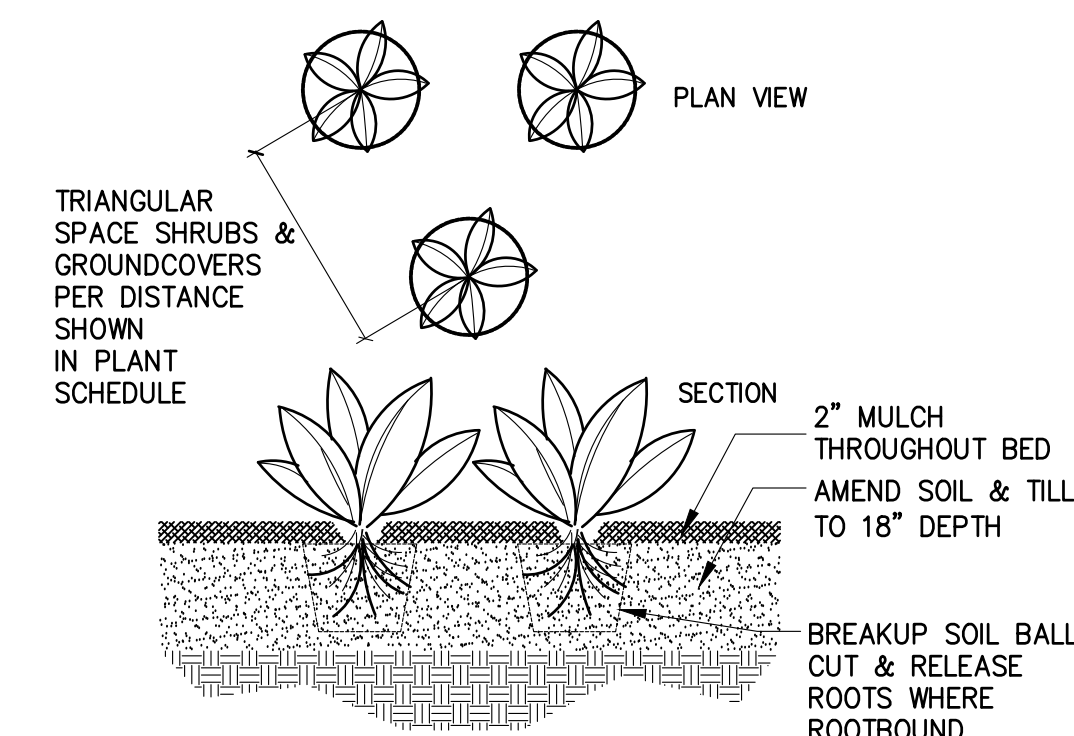
EVERGREEN TREE PLANTING & STAKING

Scale: 3/4" : 1'-0"



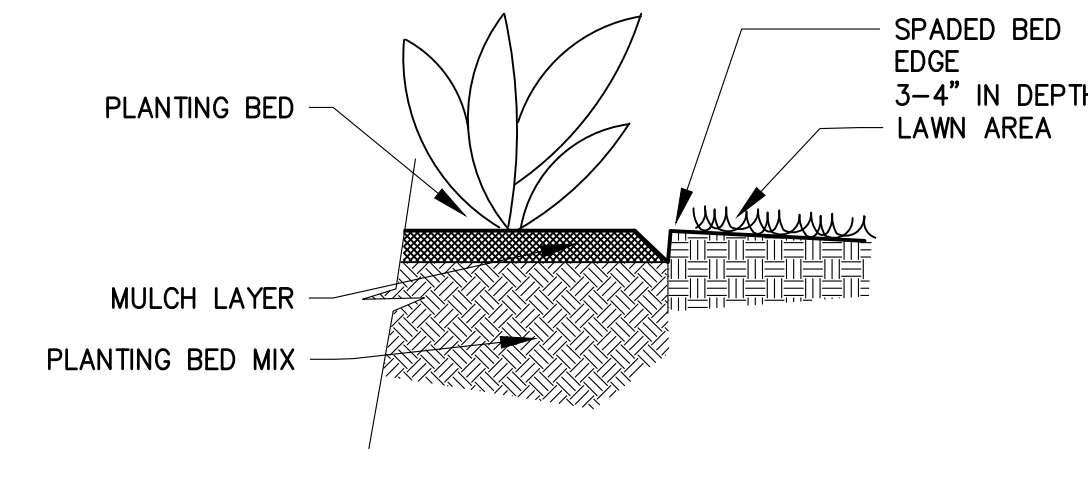
SHRUB PLANTING

Scale: 3/4" : 1'-0"



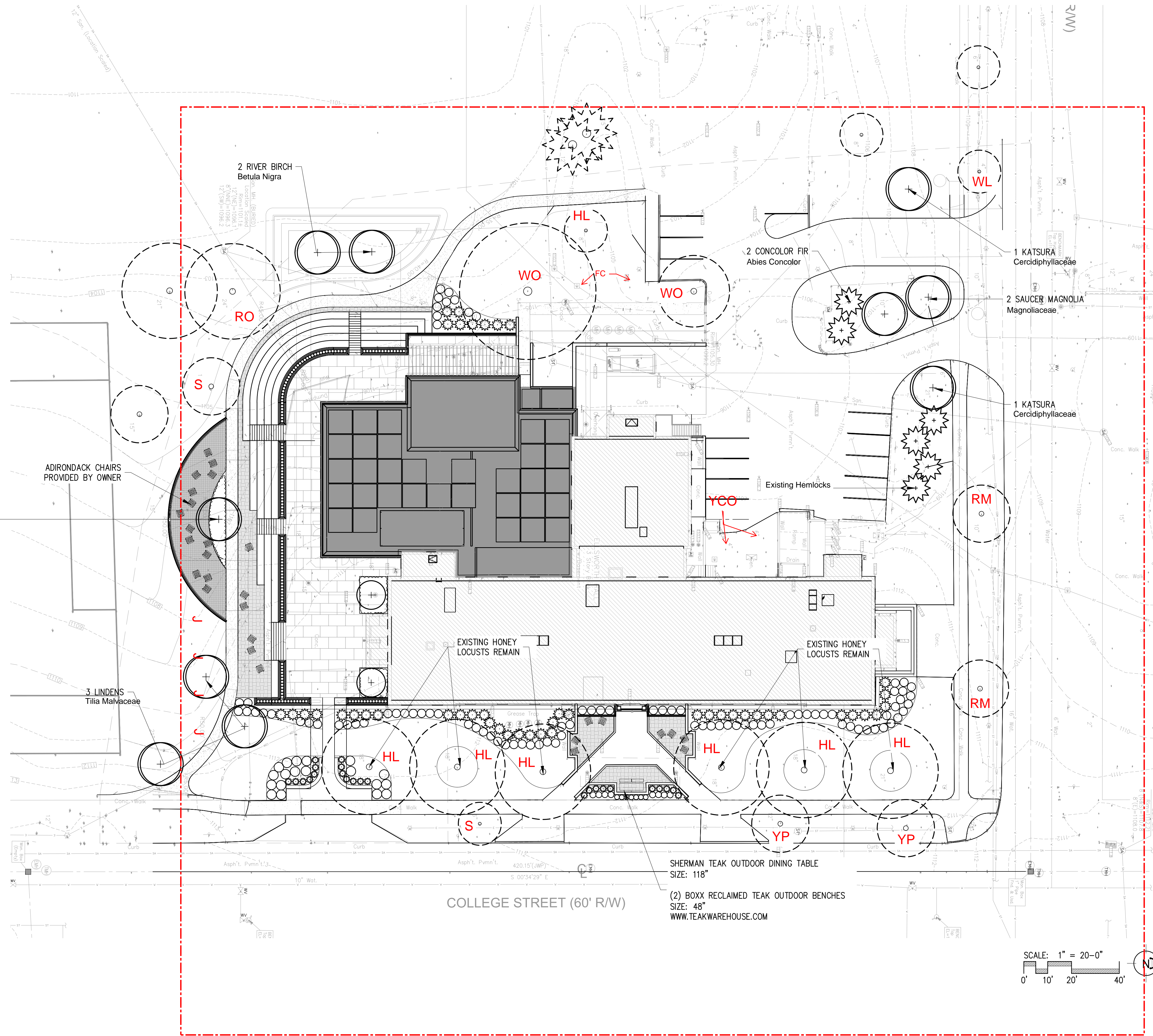
GROUNDCOVER/PERENNIAL PLANTING

Scale: 3/4" : 1'-0"

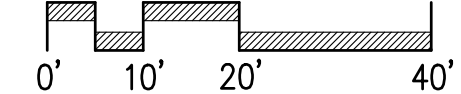


PLANTING BED EDGING

Scale: 3/4" : 1'-0"



SCALE: 1" = 20'-0"



NOTES

- CONTRACTOR TO VERIFY CONDITIONS AND DIMENSIONS IN THE FIELD AND NOTIFY THE OWNER OR ARCHITECT OF DISCREPANCIES. CONTRACTOR IS RESPONSIBLE FOR PROVIDING PLANT QUANTITIES DETAILED ON PLAN. SCHEDULE PROVIDED FOR REFERENCE ONLY.
- PROVIDE A MIN. 3" DIAMETER MULCH BED AROUND EACH INDIVIDUAL TREE UNLESS TREES ARE INCORPORATED IN A PLANTING BED.
- ANY PLANT MATERIAL SUBSTITUTIONS TO BE VERIFIED AND APPROVED BY OWNER OR CONSULTANT PRIOR TO INSTALLATION.

Project: WRA Ellsworth Hall

178 College Street, Hudson, OH 44236

Food Service Consultant:
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1100 Washington Ave. Suite 302
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f: (412) 276-9093

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t: (216) 491-2000
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Landscape Architect:
DERU Landscape Architecture
812 Huron Road East, Suite 411
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f: (216) 291-2605

MEP Engineer:
McHenry & Associates
25001 Emery Road, Suite 200
Warrensville Heights, OH 44128
t: (216) 292-4696

Seal:

PROGRESS SET

BIALOSKY CLEVELAND

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Cleveland, Ohio 44103
t: 216.752.8750
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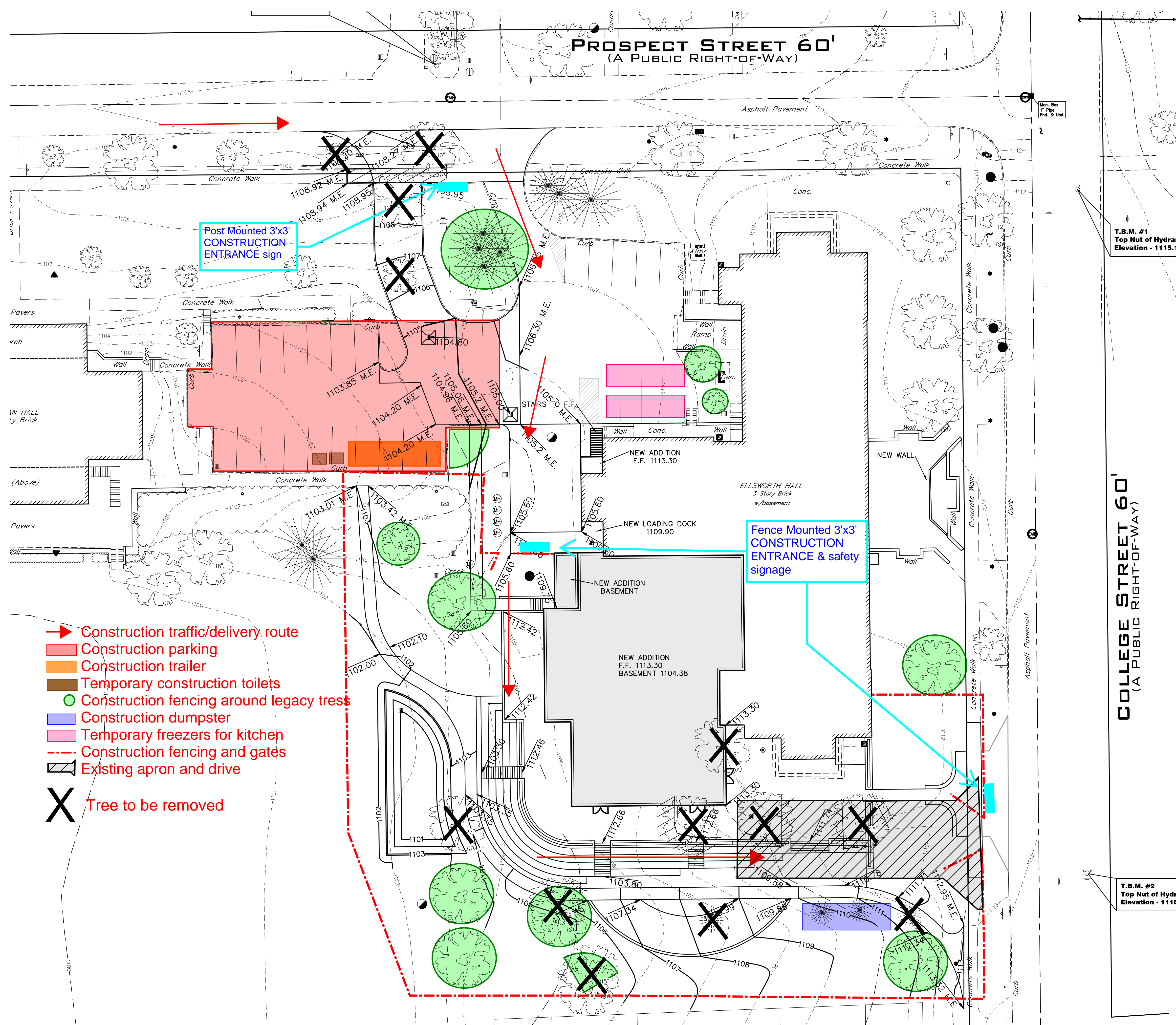
Project No: 22-44
Drawn / Checked: Author / Checker

Issue: DD SET 08.18.2023
TREE MARKUP 09.18.2023

LANDSCAPE PLAN
L100

2 WORKING DAYS BEFORE YOU DIG
CALL TOLL FREE 811
WWW.OUPS.ORG/IDIG
OHIO UTILITIES PROTECTION SERVICE

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- ➔ Construction traffic/delivery route
- Construction parking
- Construction trailer
- Temporary construction toilets
- Construction fencing around legacy trees
- Construction dumpster
- Temporary freezers for kitchen
- Construction fencing and gates
- Existing apron and drive
- X Tree to be removed

COLLEGE STREET 60'
(A PUBLIC RIGHT-OF-WAY)

LEGEND

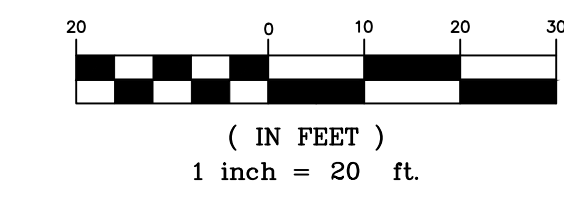
⊠	Monument Box Found	○	Spot Elevation Tag
○	Iron Pin or Pipe Found	○	Hydrant
●	5/8" Iron Pin Set and Capped	⊕	Water Service Valve
⊕	Dudley P58747	⊕	Water Valve
+	P.K. Nail	⊕	Reducer
⊕	Gas Meter	⊕	Water Meter
⊕	Gas Valve	⊕	Sanitary Manhole
⊕	Utility Pole	⊕	Storm Manhole
⊕	Light Pole	⊕	Sanitary Inlet
⊕	Guy Anchor & Line	⊕	Catch Basin
⊕	Telephone Box	⊕	Property Line
⊕	Electric Box	⊕	Centerline
⊕	Cable Box		
⊕	Bollard		
⊕	Clearcut / Test Tee		

---	Original Parcel Line	---	Proposed
---	Original Sublot Line	---	Proposed
---	Original Lot Line	---	Proposed
---	Centerline	---	Proposed
---	Property Line	---	Proposed
---	Right-of-way Line	---	Proposed
---	Easement Line	---	Proposed
---	Railroad Tracks	---	Proposed

---	Electric Line	---	Proposed
---	Gas Line	---	Proposed
---	Sanitary/Combination Sewer	---	Proposed
---	Storm Sewer	---	Proposed
---	Waterline	---	Proposed
---	Fence Line (Wooden)	---	Proposed
---	Fence Line (Chain-Link)	---	Proposed
---	Guardrail	---	Proposed

Ac.	Acres	L.C.A.	Limited Common Area
Adj.	Adjacent	L.F.	Lined Feet
A.F.N.	Auditor's File Number	M.E.	Match Existing
Asp.	Asphalt	M/.	Measured
B.F.	Basement Floor	MH	Manhole
BW	Bottom of Wall	Obs.	Observed
Calc./C.	Calculated	Pa.	Page
CB	Catch Basin	P.P.N.	Permanent Parcel
C.C.M.R.	Cuyahoga County Map	Prop.	Proposed
Records	Records	Rec./R.	Record
C.L.F.	Chain-link Fence	R/W	Right-of-way
Ch.	Clears	S.F.	Square Feet
C.O.	Clean Out	S/L	Sublot
Comb.	Combination	Sq.	Square
Conc.	Concrete	S/L	Sublot
Conn.	Connection	Stm.	Storm
D.H.	Drill Hole	T.B.M.	Temporary Bench Mark
D.I.W.M.	Ductile Iron Water	TBR	To Be Removed
Man	Man	T/C	Top of Curb
Elec	Electric	T/F	Top of Footing
Elev	Elevation	T.T.	Test Tee
Engr.	Encroaches	T/W	Top of Wall
Ex.	Existing	Typ.	Typical
F.F.	Finished Floor	Vol.	Volume
GUT	Gutter	Wat	Water
Inv	Invert		

GRAPHIC SCALE



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RIVERSTONE
LAND SURVEYING - ENGINEERING - DESIGN
3800 LAKESIDE AVENUE - SUITE 100
CLEVELAND - OHIO - 44114
PHONE: (216) 491-2000 FAX: (216) 491-9640
WWW.RIVERSTONESURVEY.COM

RIVERSTONE JOB# 2023-021

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f: (412) 276-9093

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MEP Engineer:
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25001 Emery Road, Suite 200
Warrensville Heights, OH 44128
t: (216) 292-4696

Seal:

PROGRESS SET

BIALOSKY
CLEVELAND

6555 Carnegie Avenue, Suite 200
Cleveland, Ohio 44103
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www.bialosky.com

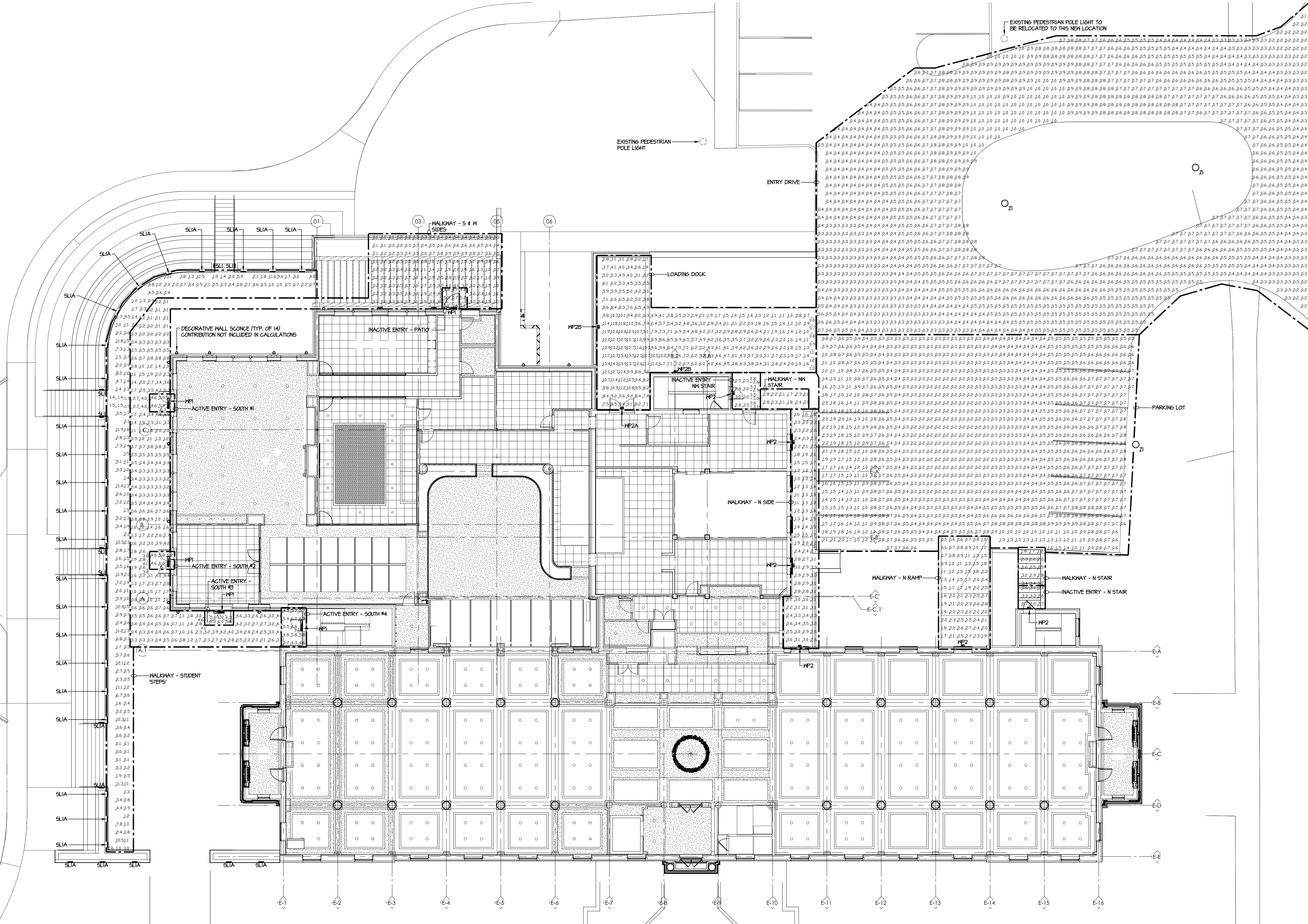
Project No: 22-44
Drawn / Checked: Riverstone / Riverstone

Issue: DD SET 08.18.2023

GRADING PLAN
C5.01

SCHEDULE						
LABEL	QTY	MANUFACTURER	CATALOG	DESCRIPTION	LUMEN OUTPUT	WATTAGE
SL1	6	HYDREL	HSL1 9INCH LED 30K MVOLT L	11.5" WIDE RECESSED LED STEP LIGHT	297	8
SL1A	30	HYDREL	HSL13 12INCH LED 30K MVOLT L	15" WIDE RECESSED LED STEP LIGHT	383	11
WP1	5	LUMINAIRE LED	BLD 24IN 10W 30K DP	WALL/MULLION MOUNT LED FIXTURE WITH EXTRUDED ALUMINUM HOUSING	973	11
WP2	6	LITHONIA LIGHTING	WDGE2 LED P1 30K 80CRI TTFM MVOLT	LED WALL PACK WITH FORWARD THROW MEDIUM OPTIC	1186	11
WP2A	1	LITHONIA LIGHTING	WDGE2 LED P3 30K 80CRI TTFM MVOLT	SAME AS TYPE WP2, BUT WITH HIGHER LUMEN OUTPUT	3015	32
WP2B	2	LITHONIA LIGHTING	WDGE2 LED P3 30K 80CRI T2M MVOLT	SAME AS TYPE WP2A, BUT WITH TYPE II MEDIUM OPTIC	3062	32
Z1	3	STRESSCRETE	K54-C-K13-LAR-V-100(MOG) MH-120277-#6-BK	PEDESTRIAN SCALE LIGHT POLE	9000	100

STATISTICS				
Description	Avg	Max	Min	Max/Min
Active Entry - South #1	5.6 fc	6.3 fc	4.6 fc	1.4:1
Active Entry - South #2	5.6 fc	6.3 fc	4.6 fc	1.4:1
Active Entry - South #3	6.0 fc	6.7 fc	5.3 fc	1.3:1
Active Entry - South #4	5.5 fc	7.0 fc	3.7 fc	1.9:1
Entry Drive	0.6 fc	1.0 fc	0.1 fc	10.0:1
Inactive Entry - N Stair	3.1 fc	3.7 fc	2.6 fc	1.4:1
Inactive Entry - NW Stair	3.0 fc	3.5 fc	2.5 fc	1.4:1
Inactive Entry - Patio	5.0 fc	5.7 fc	4.4 fc	1.3:1
Loading Dock	5.8 fc	14.2 fc	0.6 fc	23.7:1
Parking Lot	0.6 fc	2.3 fc	0.2 fc	11.5:1
Walkway - N Stair	2.6 fc	3.4 fc	1.7 fc	2.0:1
Walkway - N Ramp	1.7 fc	2.8 fc	0.5 fc	5.6:1
Walkway - N Side	2.2 fc	3.5 fc	1.1 fc	3.2:1
Walkway - NW Stair	2.2 fc	2.8 fc	1.6 fc	1.8:1
Walkway - S & W Sides	1.4 fc	5.3 fc	0.1 fc	53.0:1
Walkway - Student Steps	2.8 fc	13.1 fc	0.0 fc	-



1 SITE LIGHTING PHOTOMETRIC PLAN
3/32" = 1'-0"

Sept 07, 2023 12:58:39 DWG Name: D:\00-100-002-Active\2023\Bialosky\WRA_Ellsworth_Hall_Renovation\ES101.dwg Uploaded By: kshenr

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Issue:

SITE LIGHTING PHOTOMETRIC PLAN
ES101
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