

22 FRIARS DRIVE ADDITION

SP# 02-22 CUP# 01-22

STAFF REPORT

February 23, 2022

SITE: 22 Friars Drive; Tax Map 209 Lot 004-000

ZONING: Industrial (I)

PURPOSE OF PLAN: Show proposed building additions and site improvements

PLANS UNDER REVIEW:

Map 298, Lot 4, Site Plan, Proposed Building Additions, 22 Friars Drive, Hudson, New Hampshire; prepared by Hayner/Swanson, Inc., 3 Congress Street, Nashua, NH 03062 and 131 Middlesex Turnpike, Burlington, MA 01803; prepared for Integra Biosciences Corp., 2 Wentworth Drive, Hudson, New Hampshire 03051; consisting of 15 sheets plus a cover sheet, with Notes 1-26 on Sheet 2; dated January 27, 2022.

ATTACHMENTS:

- A. Project Narrative, prepared by Hayner/Swanson Inc., dated January 28, 2022.
- B. Traffic Memorandum, prepared by Stephen G. Pernaw & Company, Inc. for the Applicant, dated January 28, 2022.
- C. Waiver Request Memorandum, prepared by Hayner/Swanson, Inc.
- D. Zoning Determination #21-136, dated August 25, 2021.
- E. Department Comments

APPLICATION TRACKING:

- February 1, 2022 – Application received.
- February 14, 2022 – Meeting with Conservation Commission.
- February 23, 2022 – Public hearing scheduled by the Planning Board.
- February 26, 2022 – Site Walk scheduled by Conservation Commission.

WAIVER REQUESTS:

1. § 275-8.C.(2)(g), required number of parking spaces.
2. § 275-8.C(6)(a), required number of loading spaces.

COMMENTS & RECOMMENDATIONS:

BACKGROUND

From Applicant’s Narrative (**Attachment A**): “The lot currently contains an existing partial 2-story, 32,969 square foot manufacturing building along with associated parking and loading areas that was built in the 1990’s. Integra Biosciences, Crop. Manufactures liquid handling and media preparation tools and equipment used in research, diagnostics, and quality control laboratories. Access to the site is provided via a cub cut on Friars Drive. The site is currently serviced by municipal sewer and water, underground gas, telecommunications and electric utilities... wetlands associated with a perennial watercourse that flows west into the Merrimack River borders the property on the north and east sides... In 1997, two (2) proposed additions to this site measuring [17,800 square feet] were approved by the Hudson Planning Board... but they were never constructed.”

The submitted plan is proposing to build a 48,177-square-foot expansion of a mix of additional warehouse, manufacturing, and loading dock spaces, bringing the total building floor area from 32,210 to 80,387 square feet. The Applicant’s Traffic Memorandum provides a good breakdown of this proposed expansion:

	<u>Existing</u>	<u>Proposed</u>	<u>Change</u>
Warehousing	11,520	46,260	34,740
Manufacturing	7,448	20,885	13,437
Offices	<u>13,242</u>	<u>13,242</u>	<u>0</u>
Total GFA (sf)	32,210	80,387	48,177

Resuming on the Applicant’s Narrative, “Associated site improvements included a revamped parking area, new loading docks, new landscaping and site lighting. A total of 93 parking spaces are proposed for this use... The project impacts 14,716 square feet of wetland buffer along the east side of the site... With regard to stormwater, there are no formal drainage or stormwater management practices located on the site. The site currently sheet drains in a northwesterly direction into an existing stormwater basin and man-made pond, both of which are located on the abutting property... The proposed stormwater design includes two (2) sub-surface recharge areas in the back of the property that will provide recharge, where no currently exists, and attenuation of peak rates of post-development runoff.”

STAFF COMMENTS FOR CONDITIONAL USE PERMIT

1. The Applicant is seeking a Conditional Use Permit to allow a parking/circulation area of approximately 14,716 SF to be developed within the 50’ wetland buffer. It is currently under review by the Conservation Commission.

STAFF COMMENTS FOR SITE PLAN

2. **Use (§ 334-21, § 334-10):** As noted in the Zoning Determination (**Attachment D**), the proposed use would be classified as E-2: “Research laboratories manufacture of equipment, electronic industry, assembly of electrical appliances” on the Table of Permitted Use, which is a permitted use in the Industrial District.

3. **Dimensional Requirements (§ 334-27, § 334-14):** The submitted plan is conforming to all dimensional requirements, including the 50' maximum building height. Nevertheless, as noted by the Zoning Administrator, the Applicant should verify the height requirement complies with the height definition in § 334-14.
4. **Waiver for Parking Space Requirement [§ 275-8 C (2)]:** The Applicant is requesting a waiver to reduce the number of required parking spaces, from 134 to 93. The Applicant stated that its two work shifts and a flexible arrival/departure time policy will spread out the parking demand. See **Attachment C** for rationales.
5. **Waiver for Loading Space Requirement [§ 275-8 C (6)]:** The Applicant is requesting a waiver to reduce the number of required loading spaces, from 9 to 5. The Applicant stated that 5 spaces at the loading dock will be adequate. See **Attachment C** for rationales.
6. **Parking Space Dimensions [§ 275-8 C (4)]:** The submitted plan shows the typical parking space to be 9' x 20', which is allowable via a vote by the Planning Board.
7. **Elimination of Turnaround:** Currently, there is a cul-de-sac in the front yard of this property. This was established as a temporary turnaround until such a time when Friars Drive was completed. Now that Friars Drive is near completion, the Applicant proposes eliminating the turnaround.
8. **Stormwater Management:** In the submitted plan, stormwater runoff from the east side of the site will be diverted into an underground basin while stormwater runoff from the west side of the site and the building roof will be diverted into an above-ground retention basin located in a drainage easement on the abutting lot 209-002-000. Staff awaits peer review comments.
9. **Traffic Impact:** The traffic memorandum submitted by the Applicant concluded that the traffic increases generated by the proposed building expansion will not significantly impact traffic operations at nearby intersections on the corridor, especially when split between the four access points to the industrial park area. See **Attachment B** for details. Currently under peer review.
10. **Architectural Covenants and Restrictions on Deed:** The deed document (HCRD Book 5874 Page 191) submitted as part of the site plan application contains a series of architectural covenants and restrictions, including the following:
 - a. No structure erected on the within conveyed property shall be a building having tin siding.
 - b. All loading docks and overhead doors shall face the northerly boundary line of the within conveyed property and shall not face towards Friars Drive, except that loading docks and overhead doors may face the easterly and westerly sides of the within conveyed property as long as they are screened from Friars Drive.

c. Restirctions on signage and lighting.

The Applicant should provide more detail as to the status of these restrictions. They appear to be created by PressTek, who apparently had an interest in the aesthetics of the area when they occupied several sites here.

DEPARTMENT COMMENTS

See **Attachment E** for comments from town departments.

1. Engineering: Requesting information regarding 1) additional water demand, and 2) additional sewer discharge.
2. Fire Chief: comments related to markings, hydrant location and building code requirements.
3. Zoning Administrator: Verify that the height requirement complies with section §334-14: "... Height is measured from the average elevation of the finished grade within five feet of the structure to the highest point of the roof,..."

RECOMMENDATIONS

The February 23, 2022 meeting should serve as in introduction to the application. The Conditional Use Permit requires a recommendation from the Conservation Commission, who have met once on this project at the time of this report. The Commission has scheduled a site walk for Saturday, February 26, 2022 at 9:00AM. The Board may wish to make the site walk a joint meeting.

DRAFT MOTIONS

ACCEPT the site plan application:

I move to accept the site plan application for the "Map 298, Lot 4, Site Plan, Proposed Building Additions, 22 Friars Drive, Hudson, New Hampshire", 22 Friars Drive, Map 209 Lot 004.

Motion by: _____ Second: _____ Carried/Failed: _____

CONTINUE the public hearing to a date certain:

I move to continue the site plan application for the "Map 298, Lot 4, Site Plan, Proposed Building Additions, 22 Friars Drive, Hudson, New Hampshire", 22 Friars Drive, Map 209 Lot 004, to date certain, _____, 2022.

Motion by: _____ Second: _____ Carried/Failed: _____

To GRANT a waiver:

I move to grant a waiver from § 275-8 C (2), to reduce the number of required parking spaces, from 134 to 93, based on the Board’s discussion, the testimony of the Applicant’s representative,

and in accordance with the language included in the submitted Waiver Request Form for said waiver.

Motion by: _____ Second: _____ Carried/Failed: _____

To GRANT a waiver:

I move to grant a waiver from § 275-8 C (6), to reduce the number of required loading space, from 9 to 5, based on the Board’s discussion, the testimony of the Applicant’s representative, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

Motion by: _____ Second: _____ Carried/Failed: _____

SCHEDULE a site walk:

I move to schedule a site walk for the “Map 298, Lot 4, Site Plan, Proposed Building Additions, 22 Friars Drive, Hudson, New Hampshire”, 22 Friars Drive, Map 209 Lot 004-000, to date certain, February 26, 2022 at 9:00AM.

Motion by: _____ Second: _____ Carried/Failed: _____

PROJECT NARRATIVE – SITE PLAN

**Proposed Building Additions
22 Friars Drive
Map 209, Lot 4
Hudson, New Hampshire
28 January 2022**

The subject site under consideration for this application is located at 22 Friars Drive, Hudson, NH. The parcel is known to the Hudson Assessors Department as Map 209, Lot 4. The lot measures 5.6+/- acres and is located in the I - Industrial zoning district and within the Sagamore Industrial Park. The site is abutted by Friars Drive to the south, commercial properties to the west and across Friars Drive and undeveloped land to the west and east.

The lot currently contains an existing partial 2-story, 32,969 square foot manufacturing building along with associated parking and loading areas that was built in the 1990's. Integra Biosciences, Corp. manufactures liquid handling and media preparation tools and equipment used in research, diagnostics and quality control laboratories. Access to the site is provided via a curb cut on Friars Drive. The site is currently serviced by municipal sewer and water, underground gas, telecommunications and electric utilities. NRCS soil mapping shows that this site contains Hinckley and Windsor sandy soils with deep depths to groundwater. Based upon inspection by the project's certified wetland scientist, wetlands associated with a perennial watercourse that flows west into the Merrimack River borders the property on the north and east sides. The total area of wetlands on the subject site is 21,391 square feet (0.49 acres).

In 1997, two (2) proposed additions to this site measuring 4,300 square feet (manufacturing) and 13,500 square feet (warehouse) were approved by the Hudson Planning Board. These additions brought the total area of the building to 46,469 square feet, but they were never constructed.

It is being proposed to construct several building additions, totaling 48,270 square feet, upon this site as follows:

- A 1-story, 34,340 square foot warehouse addition (50-feet in height) on the north and east sides of the existing building
- A 7,617 square foot second floor above the current manufacturing space located in the middle section of the existing building
- A 2-story manufacturing addition on the west side of the building that measures 5,820 square feet
- A small building addition (400 square feet +/-) on the west side of the existing warehouse that will provide an additional loading dock door
- Raising the roof of the current warehouse to 50-feet in height

Associated site improvements include a revamped parking area, new loading docks, new landscaping and site lighting. A total of 93 parking spaces are proposed for this use. To the best of our knowledge the utilities present on the site have adequate capacity to service this intended use. The project impacts 14,716 square feet of wetland buffer along the east side of the site. The majority of which was previously impacted by the original construction of this site. With regard to stormwater, there are no formal drainage or stormwater management practices located on the site. The site currently sheet drains in a northwesterly direction into an existing stormwater basin and man-made pond, both of which are located on the abutting property. An easement currently exists providing drainage rights for this property. The redevelopment of this site adds approximately 40,120 square feet of new impervious surface area. The proposed stormwater design includes two (2) sub-surface recharge areas in the back of the property that will provide recharge, where no currently exists, and attenuation of peak rates of post-development runoff. Upon project completion, the site will contain approximately 42.0% open space, where 35% is the minimum required. The site development associated with the overall construction of this project disturbs approximately 170,850 square feet of contiguous area.

It is anticipated that construction would begin in the spring of 2022 and would be completed in the fall of 2023.

The hours of operation for this facility are Monday-Friday, 16 hours per day. The currently facility contains approximately 80 employees (68-first shift, 12-second shift). Upon completion of the proposed addition, this facility will add approximately 55 new employees (15-first shift, 40-second shift). Given the size of the existing building, the type of business and the number of working shifts for this facility, impacts to traffic, utilities and to local schools are not anticipated.

MEMORANDUM

Ref: 2173A

To: James Petropulos, P.E.
Hayner/Swanson, Inc.

From: Stephen G. Pernaw, P.E., PTOE

Subject: 22 Friars Drive Expansion
Hudson, New Hampshire

Date: January 28, 2022

As requested, Pernaw & Company, Inc. has conducted this trip generation analysis for the proposed expansion of the INTEGRA Biosciences Corporation facility located on the north side of Friars Drive in Hudson, New Hampshire. The site is situated in an industrial park that is accessible to NH3A via Friars Drive, Executive Drive, Hampshire Drive, and Wentworth Drive. The Friars Drive intersection with NH3A is restricted to right-turn arrivals and right-turn departures. The purpose of this memorandum is to summarize the results of our trip generation analyses, as well as our research of available traffic count data for this area. To summarize:

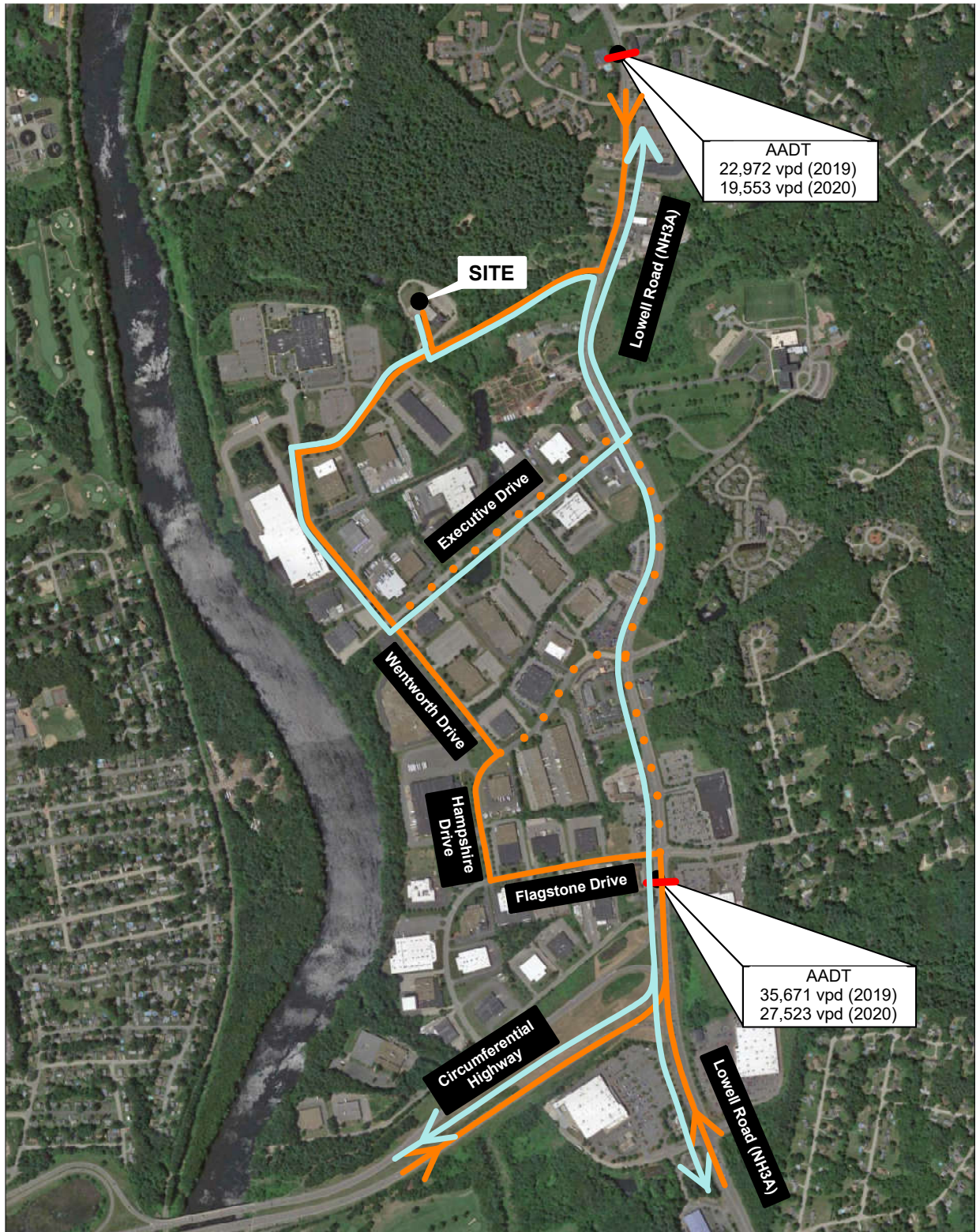
Proposed Development – According to the site plan excerpt provided (see Attachment 1), this project involves the expansion of the existing building from 32,210 sf to 80,387 sf (+48,177 sf) that includes an additional +34,340 sf of warehouse space, an additional +13,437 sf of manufacturing space, and 400 sf of additional loading dock space on the west side of the building. Access to the site will be improved by eliminating the offset cul-de-sac on Friars Drive, and realigning the site driveway to intersect at a 90-degree approach angle. A new exit-only driveway will also be constructed approximately 250-feet east of the main site driveway.

The following tabulation summarizes the proposed changes to the site.

	<u>Existing</u>	<u>Proposed</u>	<u>Change</u>
Warehousing	11,520	46,260	34,740
Manufacturing	7,448	20,885	13,437
Offices	<u>13,242</u>	<u>13,242</u>	<u>0</u>
Total GFA (sf)	32,210	80,387	48,177

INTEGRA Biosciences manufactures liquid handling and media preparation tools and equipment that are used in research, diagnostics and laboratories. Their products include pipettes, aspiration systems, peristaltic pumps and media sterilizers for various types of laboratories. Figure 1 shows the location of the subject site with respect to the area roadway system, as well as the primary travel routes to/from the subject site. Figure 1 also shows the location of the recent traffic counts conducted by the NHDOT.

Pernaw & Company, Inc.



2173A



Figure 1

Site Location

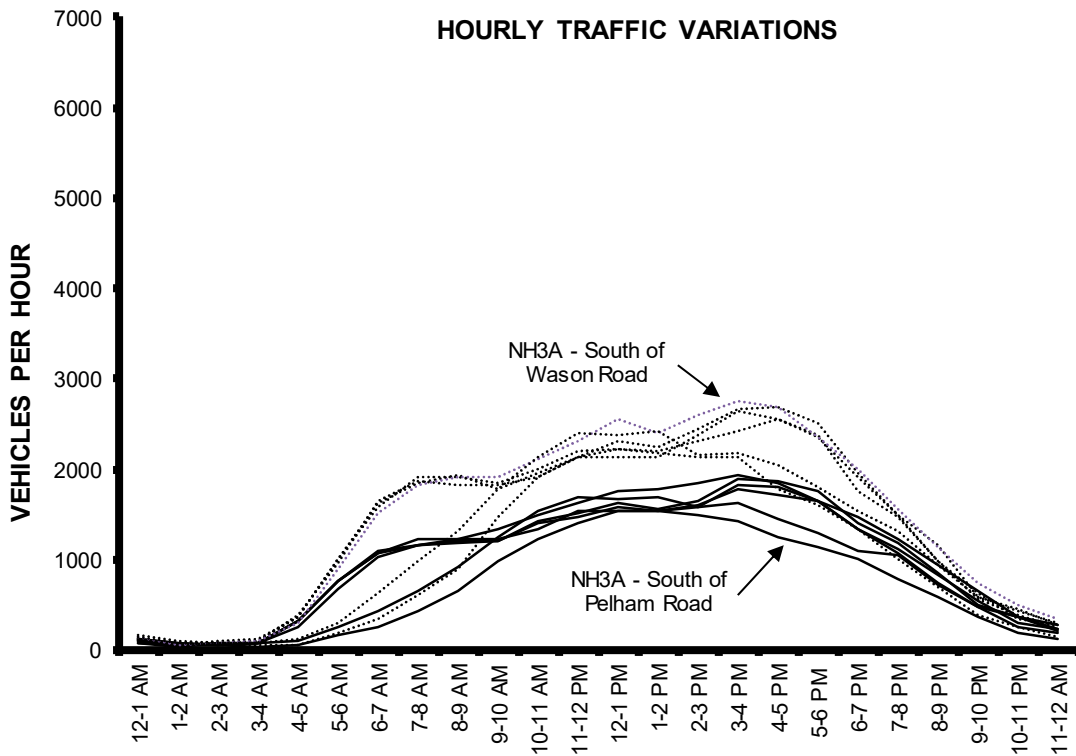
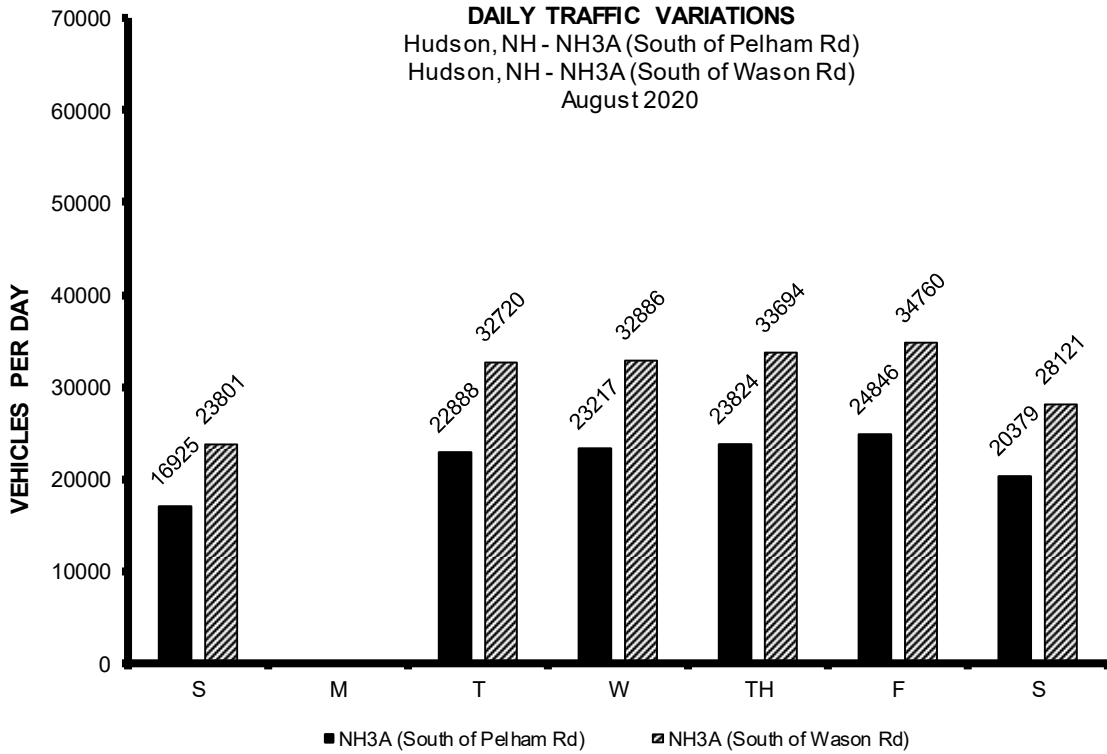
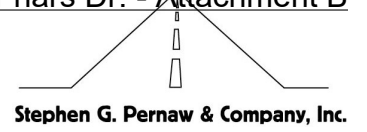
Traffic Evaluation, Proposed INTEGRA Expansion, Hudson, New Hampshire



Existing Traffic Volumes – Research at the New Hampshire Department of Transportation (NHDOT) revealed that a short-term automatic traffic recorder count was conducted on Lowell Road (NH3A) south of Pelham Road in August 2020. This count location is located approximately 0.5 miles north of Executive Drive. The NHDOT data shows this section of Lowell Road carried an Annual Average Daily Traffic (AADT) volume of 19,553 vehicles per day (vpd) in 2020, down from 22,972 vpd in 2019.

A similar traffic count was conducted on Lowell Road south of Wason Road during the same months/years. This count station is located approximately 0.7 miles south of Executive Drive. The AADT volume on this section of NH3A was 27,523 vpd in 2020, down from 35,671 in 2019. The raw data from the 2020 August counts are summarized graphically on Page 4 and shows the daily and hourly variations in traffic demand on the corridor. This data shows that hourly traffic volumes in the area typically reach peak levels during the morning and late afternoon on weekdays; thus, reflecting typical commuting patterns. The detail sheets pertaining to these counts are attached (see Attachments 2 - 5).

The 2020 AADT volumes at both count stations clearly show the effects of the ongoing pandemic when compared to the 2019 AADT volumes.



Trip Generation - To estimate the quantity of vehicle-trips associated with the existing and proposed facilities, Pernaw & Company, Inc. considered the standard trip generation rates and equations published by the Institute of Transportation Engineers¹ (ITE). Land Use Code LUC 150 (Warehousing), LUC 140 (Manufacturing) and LUC 715 (Single-Tenant Office Building) are the most applicable categories for the subject site, and the gross floor areas were utilized as the independent variables in all cases.

Table 1 shows that the proposed building expansion project will increase site traffic minimally: +13 vehicle-trips during the peak hour periods. The computations pertaining to these analyses and a summary are attached (see Attachments 6 - 21).

Table 1		Trip Generation Summary (Average Weekday Conditions)		
		Existing Site (32,210 sf)	Expanded Site (80,387 sf)	Net Change (48,117 sf)
Weekday (24 Hours)				
Entering	133 veh	193 veh	+60 trips	
Exiting	<u>133 veh</u>	<u>193 veh</u>	<u>+60 trips</u>	
Total	266 trips	386 trips	+120 trips	
AM Peak Hour				
Entering	44 veh	54 veh	+10 trips	
Exiting	<u>10 veh</u>	<u>13 veh</u>	<u>+3 trips</u>	
Total	54 trips	67 trips	+13 trips	
PM Peak Hour				
Entering	13 veh	16 veh	+3 trips	
Exiting	<u>44 veh</u>	<u>54 veh</u>	<u>+10 trips</u>	
Total	57 trips	70 trips	+13 trips	

All vehicle-trips associated with the proposed building expansion will be “primary” type trips, or new trips to the area.

¹ Institute of Transportation Engineers, *Trip Generation*, 11th Edition (Washington, D.C., 2021)

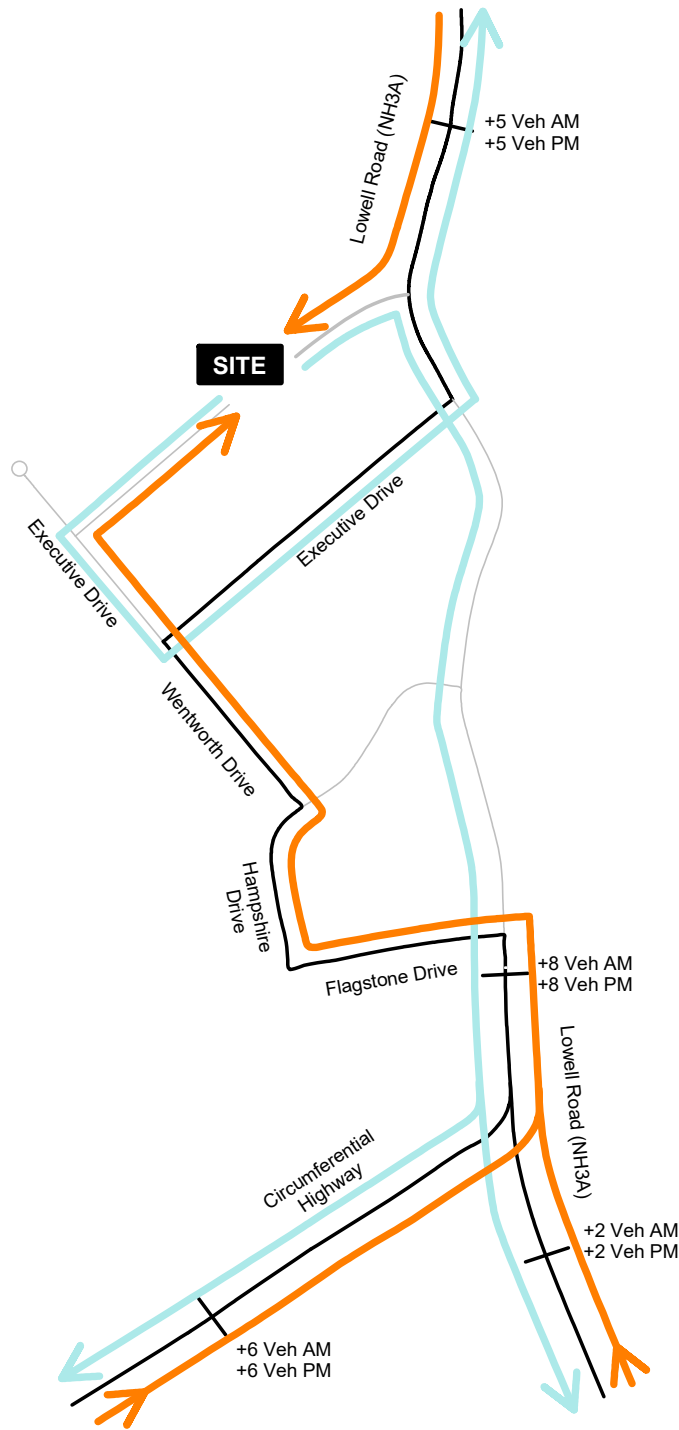


Trip Distribution - To identify the likely travel routes that will be utilized by the additional employees, “journey to work” data from the latest census was utilized. Based on that information, as well as our familiarity of the study area, site traffic is expected to be distributed accordingly:

Trip Distribution Patterns	
To / From points north via NH3A	38%
To / From points south via NH3A	15%
To / From points west Circumferential Hwy	<u>47%</u>
	100%

The distribution of the site-generated traffic is summarized schematically on Figure 2 for the AM and PM weekday peak hour periods and shows the net traffic increases as a result of the proposed INTEGRA expansion project. Attachment 22 provides the derivation of the trip distribution patterns.

Lowell Road (north of Executive Drive) is expected to accommodate approximately +5 additional vehicles during the AM and PM peak hour periods as a result of the proposed building expansion. Similarly, Lowell Road south of the Circumferential Highway is estimated to carry only +2 additional vehicles and the Circumferential Highway is expected to carry +6 additional vehicles during the peak hour periods as a result of the proposed expansion project.



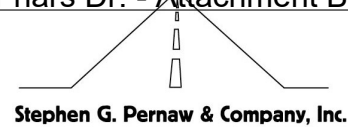
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Figure 2

Site Generated Traffic Volumes

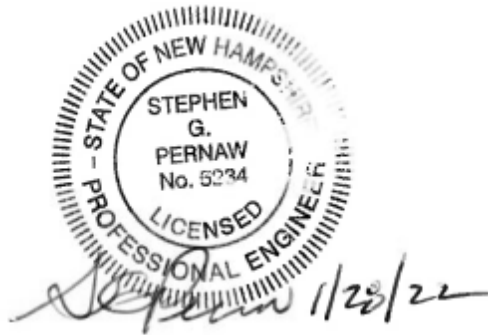
Traffic Evaluation, Proposed INTEGRA Expansion, Hudson, New Hampshire



Findings & Conclusions:

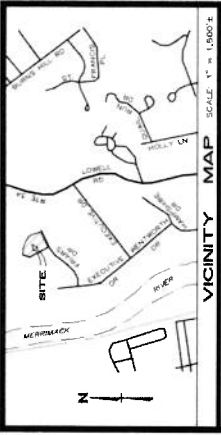
1. Traffic counts conducted by the NHDOT in August 2019 on Lowell Road (NH3A) revealed that the section south of Pelham Road (north of the industrial park area) carried approximately 22,972 vehicles per day. The section south Wason Road (south of the industrial park area) carried approximately 35,671 vehicles per day. At both count stations the highest hourly traffic volumes occurred from 7:00 to 8:00 AM or 8:00 to 9:00 AM in the morning, and from 3:00 to 4:00 PM or 4:00 to 5:00 PM in the evening on weekdays.
2. According to the trip generation equations published by Institute of Transportation Engineers, the proposed expansion project will generate approximately +13 additional vehicle-trips (10 arrivals, 3 departures) during the AM peak hour period and +13 additional vehicle-trips (3 arrivals, 10 departures) during the PM peak hour period. This translates into approximately one additional vehicle every four to five minutes, on average, during the worst-case peak hour periods.
3. Traffic increases of this order of magnitude, when split between the four access points to the industrial park area, and again between points north and south on Lowell Road will not significantly impact traffic operations at nearby intersections on the corridor.

Attachments





ATTACHMENTS



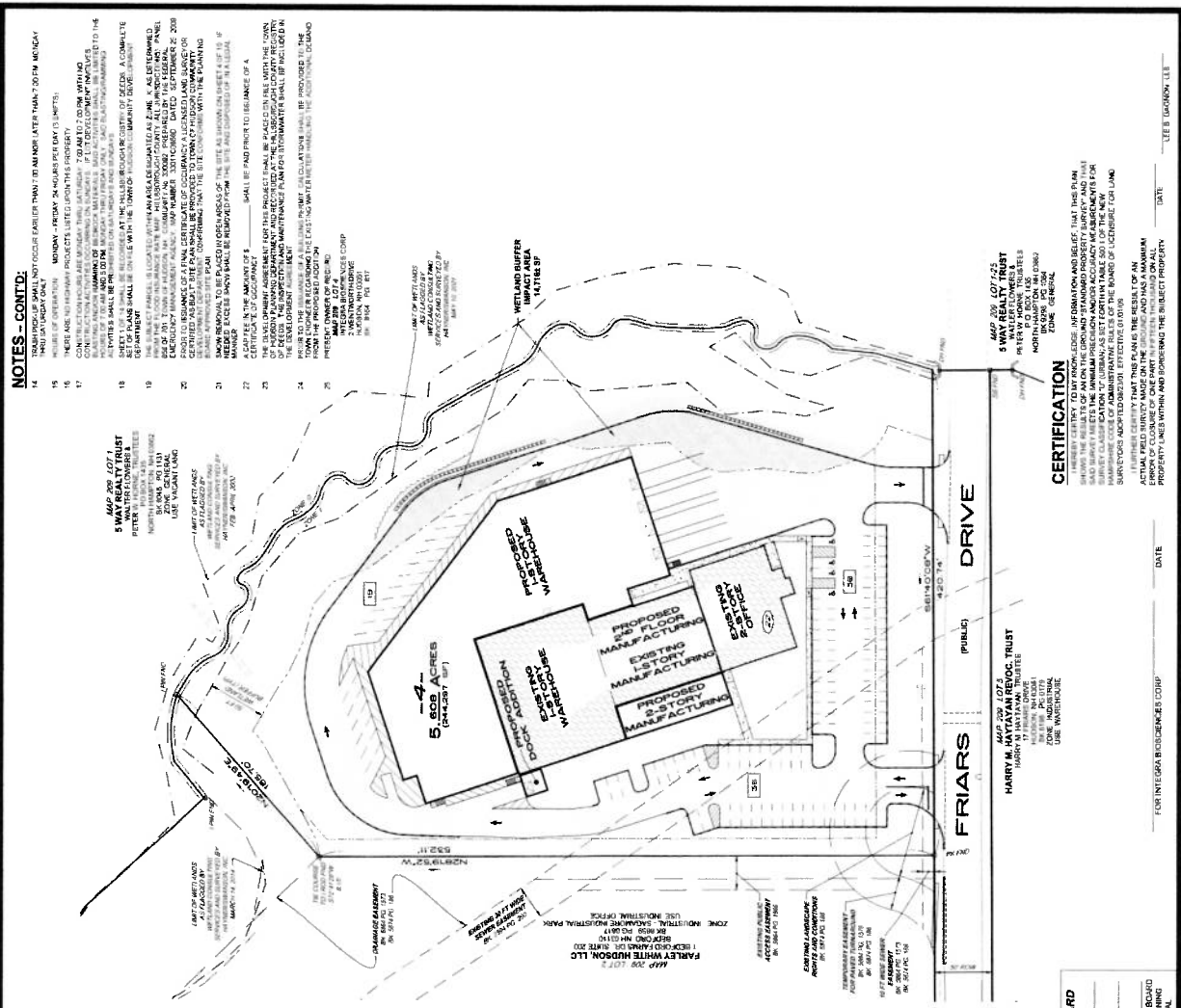
- VICINITY MAP** SCALE: 1" = 1,500'
- NOTES:**
1. LOT AREA (MAP 200, LOT 4) 5.808 ACRES (254,237 SF)
 2. FREED ZONING - INDUSTRIAL (MAP 200, LOT 4)
 3. LOT AREA (MAP 200, LOT 4) 5.808 ACRES (254,237 SF)
 4. MANUFACTURING DISTRICTS (INDUSTRIAL)
 5. TO KNOW PROPOSED BUILDING ADDITIONS AND WITH ACCOMPANYING LOT AND SITE INFORMATION
 6. REQUIRED 1 SPACED BY 16 FEET OF INDUSTRIAL - 12 SPACES PROVIDED - 12 SPACES PROVIDED - 12 SPACES PROVIDED - 12 SPACES PROVIDED
 7. OPEN SPACES PROVIDED - 35% PROVIDED - 47% PROVIDED
 8. BUILDING MAXIMUM HEIGHT - 36 FT PROVIDED - 36 FT PROVIDED
 9. ALL BUILDINGS SUBJECT TO ALL DIMENSIONS OF THE ZONING ORDINANCE IN THE TOWN OF HUDSON, NEW HAMPSHIRE, AS APPLIED TO THIS SITE. ALL BUILDINGS MUST BE SET BACK FROM THE FRONT AND SIDE LINES OF THE LOT AS SPECIFIED IN THE ZONING ORDINANCE. ALL BUILDINGS MUST BE SET BACK FROM THE REAR LINE OF THE LOT AS SPECIFIED IN THE ZONING ORDINANCE.
 10. ALL BUILDINGS SUBJECT TO ALL DIMENSIONS OF THE ZONING ORDINANCE IN THE TOWN OF HUDSON, NEW HAMPSHIRE, AS APPLIED TO THIS SITE. ALL BUILDINGS MUST BE SET BACK FROM THE FRONT AND SIDE LINES OF THE LOT AS SPECIFIED IN THE ZONING ORDINANCE. ALL BUILDINGS MUST BE SET BACK FROM THE REAR LINE OF THE LOT AS SPECIFIED IN THE ZONING ORDINANCE.
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MASTER SITE PLAN
 (MAP 200, LOT 4)
PROPOSED BUILDING ADDITIONS
 22 FRIARS DRIVE
 HUDSON, NEW HAMPSHIRE
 PREPARED FOR/RECORD OWNER:
INTEGRA BIOSCIENCES CORP.
 2 WENTWORTH DRIVE HUDSON, NEW HAMPSHIRE 03051 (803) 876-5800

Scale: 1" = 100'
 Date: 27 JANUARY 2022

HESI
 HERRING SURVEYING & ENGINEERING, INC.
 Civil Engineers & Surveyors
 47 Camp Road, Suite 100
 Hudson, New Hampshire 03051
 (603) 887-6577

Sheet 1 of 15
 Date: 1/27/22



NOTES - CONT:

14. THE PROPERTY IS SUBJECT TO THE TOWN OF HUDSON, NEW HAMPSHIRE, ZONING ORDINANCE, AS APPLIED TO THIS SITE.
15. THE PROPERTY IS SUBJECT TO THE TOWN OF HUDSON, NEW HAMPSHIRE, ZONING ORDINANCE, AS APPLIED TO THIS SITE.
16. THE PROPERTY IS SUBJECT TO THE TOWN OF HUDSON, NEW HAMPSHIRE, ZONING ORDINANCE, AS APPLIED TO THIS SITE.
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24. THE PROPERTY IS SUBJECT TO THE TOWN OF HUDSON, NEW HAMPSHIRE, ZONING ORDINANCE, AS APPLIED TO THIS SITE.
25. THE PROPERTY IS SUBJECT TO THE TOWN OF HUDSON, NEW HAMPSHIRE, ZONING ORDINANCE, AS APPLIED TO THIS SITE.

PLANNING BOARD:

DATE OF MEETING: _____

APPROVED BY: _____

CERTIFICATION:

I, THE SURVEYOR, HEREBY CERTIFY THAT THE INFORMATION AND BELIEF THAT THIS PLAN BEARS TRUTH TO THE BEST OF MY KNOWLEDGE AND ACCORDANCE WITH THE PROFESSIONAL CODE OF ETHICS OF THE SURVEYING PROFESSION. I AM A LICENSED SURVEYOR IN THE STATE OF NEW HAMPSHIRE. I HAVE CONDUCTED THIS SURVEY IN ACCORDANCE WITH THE PROFESSIONAL CODE OF ETHICS OF THE SURVEYING PROFESSION AND THE RULES AND REGULATIONS OF THE BOARD OF SURVEYING AND MAPPING. THIS PLAN IS THE RESULT OF AN INDEPENDENT SURVEY OF THE PROPERTY DESCRIBED HEREIN. I HAVE NOT BEEN ADVISED BY ANY OTHER PARTY OF ANY FACTS THAT WOULD AFFECT THE ACCURACY OF THIS PLAN. I HAVE NOT BEEN ADVISED OF ANY FACTS THAT WOULD AFFECT THE ACCURACY OF THIS PLAN.

DATE: _____

SURVEYOR: _____

BUILDING INFORMATION

USE	EXISTING	PROPOSED	TOTAL
OFFICES	13,100 SF	13,100 SF	26,200 SF
MANUFACTURING	17,437 SF	17,437 SF	34,874 SF
WAREHOUSE	11,250 SF	11,250 SF	22,500 SF
DOCK BAY/STORAGE	600 SF	600 SF	1,200 SF
TOTAL	42,387 SF	42,387 SF	84,774 SF

PLANNING BOARD:

DATE OF MEETING: _____

APPROVED BY: _____

CERTIFICATION:

I, THE SURVEYOR, HEREBY CERTIFY THAT THE INFORMATION AND BELIEF THAT THIS PLAN BEARS TRUTH TO THE BEST OF MY KNOWLEDGE AND ACCORDANCE WITH THE PROFESSIONAL CODE OF ETHICS OF THE SURVEYING PROFESSION. I AM A LICENSED SURVEYOR IN THE STATE OF NEW HAMPSHIRE. I HAVE CONDUCTED THIS SURVEY IN ACCORDANCE WITH THE PROFESSIONAL CODE OF ETHICS OF THE SURVEYING PROFESSION AND THE RULES AND REGULATIONS OF THE BOARD OF SURVEYING AND MAPPING. THIS PLAN IS THE RESULT OF AN INDEPENDENT SURVEY OF THE PROPERTY DESCRIBED HEREIN. I HAVE NOT BEEN ADVISED BY ANY OTHER PARTY OF ANY FACTS THAT WOULD AFFECT THE ACCURACY OF THIS PLAN. I HAVE NOT BEEN ADVISED OF ANY FACTS THAT WOULD AFFECT THE ACCURACY OF THIS PLAN.

DATE: _____

SURVEYOR: _____



Transportation Data Management System

List View All DIRs

Record	1	of 1	Goto Record	go
Location ID	82229073	MPO ID		
Type	SPOT	HPMS ID		
On NHS	Yes	On HPMS	Yes	
LRS ID	S0000003A_	LRS Loc Pt.		
SF Group	04	Route Type		
AF Group	04	Route	NH 3A	
GF Group	E	Active	Yes	
Class Dist Grp	Default	Category	3	
Seas Class Grp	Default			
WIM Group	Default			
QC Group	Default			
Funct'l Class	Other Principal Arterial	Milepost		
Located On	Lowell Rd			
Loc On Alias	NH 3A (LOWELL RD) SOUTH OF PELHAM RD			
More Detail				
STATION DATA				

Directions: 2-WAY

AADT

Year	AADT	DHV-30	K %	D %	PA	BC	Src
2020	19,553	1,936	10		17,794 (91%)	1,759 (9%)	
2019	22,972 ³		9		21,042 (92%)	1,930 (8%)	Grown from 2018
2018	22,700 ³		9		20,929 (92%)	1,771 (8%)	Grown from 2017
2017	22,255	1,958	9		20,653 (93%)	1,602 (7%)	
2016	22,063 ³				20,122 (91%)	1,941 (9%)	Grown from 2015

1-5 of 21

Travel Demand Model										
Model Year	Model AADT	AM PHV	AM PPV	MD PHV	MD PPV	PM PHV	PM PPV	NT PHV	NT PPV	

VOLUME COUNT			
Date	Int	Total	
Sun 8/16/2020	60	16,925	
Sat 8/15/2020	60	20,379	
Fri 8/14/2020	60	24,846	
Thu 8/13/2020	60	23,824	
Wed 8/12/2020	60	23,217	
Tue 8/11/2020	60	22,888	
Thu 8/17/2017	60	25,944	
Wed 8/16/2017	60	25,637	
Tue 8/15/2017	60	25,098	

VOLUME TREND	
Year	Annual Growth
2020	-15%
2019	1%
2018	2%
2017	1%
2016	2%
2015	3%
2014	-2%
2011	0%



Transportation Data Management System



Excel Version

Weekly Volume Report		
Location ID:	82229073	Type: SPOT
Located On:	Lowell Rd	:
Direction:	2-WAY	
Community:	HUDSON	Period: Mon 8/10/2020 - Sun 8/16/2020
AADT:	19553	

Start Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Avg	Graph
12:00 AM		75	76	89	102	126	124	99	0.4%
1:00 AM		40	63	50	54	79	72	60	0.3%
2:00 AM		70	67	61	57	58	52	61	0.3%
3:00 AM		86	85	88	70	69	44	74	0.3%
4:00 AM		322	319	313	258	95	52	227	1.0%
5:00 AM		760	770	758	673	245	156	560	2.5%
6:00 AM		1074	1082	1102	1036	440	258	832	3.8%
7:00 AM		1219	1154	1155	1167	660	440	966	4.4%
8:00 AM		1219	1201	1177	1220	917	644	1,063	4.8%
9:00 AM		1238	1201	1209	1340	1249	986	1,204	5.5%
10:00 AM		1337	1407	1434	1502	1531	1233	1,407	6.4%
11:00 AM		1537	1475	1519	1631	1683	1402	1,541	7.0%
12:00 PM		1545	1589	1634	1755	1671	1531	1,621	7.4%
1:00 PM		1536	1538	1555	1776	1686	1541	1,605	7.3%
2:00 PM		1614	1587	1657	1845	1585	1494	1,630	7.4%
3:00 PM		1777	1814	1886	1936	1622	1425	1,743	7.9%
4:00 PM		1706	1809	1863	1843	1440	1260	1,654	7.5%
5:00 PM		1647	1642	1749	1638	1292	1143	1,519	6.9%
6:00 PM		1329	1347	1409	1476	1094	1015	1,278	5.8%
7:00 PM		1069	1110	1175	1218	1042	782	1,066	4.8%
8:00 PM		750	832	854	939	717	576	778	3.5%
9:00 PM		483	531	500	652	479	371	503	2.3%
10:00 PM		265	291	375	373	375	194	312	1.4%
11:00 PM		190	227	212	285	224	130	211	1.0%
Total	0	22,888	23,217	23,824	24,846	20,379	16,925		
24hr Total		22888	23217	23824	24846	20379	16925	22,013	
AM Pk Hr		11:00	11:00	11:00	11:00	11:00	11:00		
AM Peak		1537	1475	1519	1631	1683	1402	1,541	
PM Pk Hr		3:00	3:00	3:00	3:00	1:00	1:00		
PM Peak		1777	1814	1886	1936	1686	1541	1,773	
% Pk Hr		7.76%	7.81%	7.92%	7.79%	8.27%	9.10%	8.11%	



Transportation Data Management System

List View All DIRs

Record 1 of 1 Goto Record

Location ID	82229039	MPO ID	
Type	SPOT	HPMS ID	
On NHS	Yes	On HPMS	Yes
LRS ID	S0000003A_	LRS Loc Pt.	
SF Group	04	Route Type	
AF Group	04	Route	NH 3A
GF Group	E	Active	Yes
Class Dist Grp	Default	Category	3
Seas Clss Grp	Default		
WIM Group	Default		
QC Group	Default		
Funct'l Class	Other Principal Arterial	Milepost	
Located On	Lowell Rd		
Loc On Alias	NH 3A (LOWELL RD) SOUTH OF WASON RD		
More Detail			
STATION DATA			

Directions: 2-WAY NB SB

AADT

Year	AADT	DHV-30	K %	D %	PA	BC	Src
2020	27,523	2,750	10	55	25,046 (91%)	2,477 (9%)	
2019	35,671 ³		10	55	32,675 (92%)	2,996 (8%)	Grown from 2018
2018	35,248 ³		10	55	32,500 (92%)	2,748 (8%)	Grown from 2017
2017	34,557	3,428	10	55	32,067 (93%)	2,490 (7%)	
2016	32,569 ³				29,703 (91%)	2,866 (9%)	Grown from 2015

1-5 of 17

Travel Demand Model

Model Year	Model AADT	AM PHV	AM PPV	MD PHV	MD PPV	PM PHV	PM PPV	NT PHV	NT PPV
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VOLUME COUNT

Date	Int	Total
Sun 8/16/2020	60	23,801
Sat 8/15/2020	60	28,121
Fri 8/14/2020	60	34,760
Thu 8/13/2020	60	33,694
Wed 8/12/2020	60	32,886
Tue 8/11/2020	60	32,720
Thu 8/17/2017	60	39,774
Wed 8/16/2017	60	39,950
Tue 8/15/2017	60	39,326

VOLUME TREND

Year	Annual Growth
2020	-23%
2019	1%
2018	2%
2017	6%
2016	2%
2015	3%
2014	-4%
2011	1%



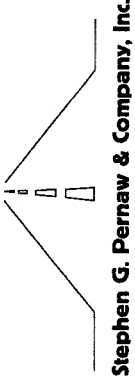
Transportation Data Management System



Excel Version

Weekly Volume Report			
Location ID:	82229039	Type:	SPOT
Located On:	Lowell Rd	:	
Direction:	2-WAY		
Community:	HUDSON	Period:	Mon 8/10/2020 - Sun 8/16/2020
AADT:	27523		

Start Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Avg	Graph
12:00 AM		113	94	112	148	167	133	128	0.4%
1:00 AM		62	84	62	58	102	85	76	0.2%
2:00 AM		92	81	82	81	76	56	78	0.3%
3:00 AM		114	102	106	90	76	55	91	0.3%
4:00 AM		372	361	388	297	120	56	266	0.9%
5:00 AM		1007	1015	952	888	292	192	724	2.3%
6:00 AM		1580	1628	1644	1519	620	338	1,222	3.9%
7:00 AM		1916	1842	1871	1818	974	598	1,503	4.8%
8:00 AM		1905	1944	1820	1913	1325	902	1,635	5.3%
9:00 AM		1844	1777	1829	1905	1784	1478	1,770	5.7%
10:00 AM		1998	1956	1923	2117	2128	1906	2,005	6.5%
11:00 AM		2195	2142	2137	2321	2398	2134	2,221	7.2%
12:00 PM		2233	2135	2315	2556	2375	2228	2,307	7.4%
1:00 PM		2202	2143	2248	2396	2414	2178	2,264	7.3%
2:00 PM		2317	2370	2440	2595	2149	2130	2,334	7.5%
3:00 PM		2426	2642	2660	2750	2172	2126	2,463	7.9%
4:00 PM		2545	2548	2681	2682	2041	1788	2,381	7.7%
5:00 PM		2383	2366	2511	2347	1802	1607	2,169	7.0%
6:00 PM		1768	1915	1953	2005	1544	1339	1,754	5.7%
7:00 PM		1468	1486	1488	1563	1318	1008	1,389	4.5%
8:00 PM		975	987	1153	1146	937	688	981	3.2%
9:00 PM		573	638	589	733	581	388	584	1.9%
10:00 PM		380	348	462	492	438	252	395	1.3%
11:00 PM		252	282	268	340	288	136	261	0.8%
Total	0	32,720	32,886	33,694	34,760	28,121	23,801		
24hr Total		32720	32886	33694	34760	28121	23801	30,997	
AM Pk Hr		11:00	11:00	11:00	11:00	11:00	11:00		
AM Peak		2195	2142	2137	2321	2398	2134	2,221	
PM Pk Hr		4:00	3:00	4:00	3:00	1:00	12:00		
PM Peak		2545	2642	2681	2750	2414	2228	2,543	
% Pk Hr		7.78%	8.03%	7.96%	7.91%	8.58%	9.36%	8.27%	



Attachment

**Trip Generation Derivation
(Average Weekday Conditions)**

	Existing Site (32,210 sf)			Expanded Site (80,387 sf)			Total (80,387 sf)	Net Change
	Warehouse (11,520 sf)	Manufacture (7,448 sf)	Office (13,242 sf)	Warehouse (46,260 sf)	Manufacture (20,885 sf)	Office (13,242 sf)		
Weekday (24 Hours)								
Entering	28 veh	18 veh	87 trips	56 veh	50 veh	87 trips	193 veh	+60 trips
Exiting	28 veh	18 veh	87 trips	56 veh	50 veh	87 trips	193 veh	+60 trips
Total	56 trips	36 trips	174 trips	112 trips	100 trips	174 trips	386 trips	+120 trips
AM Peak Hour								
Entering	19 veh	4 veh	21 trips	22 veh	11 veh	21 trips	54 veh	+10 trips
Exiting	6 veh	1 veh	3 trips	7 veh	3 veh	3 trips	13 veh	+3 trips
Total	25 trips	5 trips	24 trips	29 trips	14 trips	24 trips	67 trips	+13 trips
PM Peak Hour								
Entering	8 veh	2 veh	3 trips	9 veh	4 veh	3 trips	16 veh	+3 trips
Exiting	20 veh	4 veh	20 trips	23 veh	11 veh	20 trips	54 veh	+10 trips
Total	28 trips	6 trips	23 trips	32 trips	15 trips	23 trips	70 trips	+13 trips

¹ ITE Land Use Code 150 - Warehousing (Trip Equation Method)

² ITE Land Use Code 140 - Manufacturing (Trip Rate Method)

³ ITE Land Use Code 715 - Single Tenant Office Building (Trip Rate Method)

Graph Look Up

Query Filter

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE: 150

LAND USE GROUP: (100-199) Industrial

LAND USE: 150 - Warehousing

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

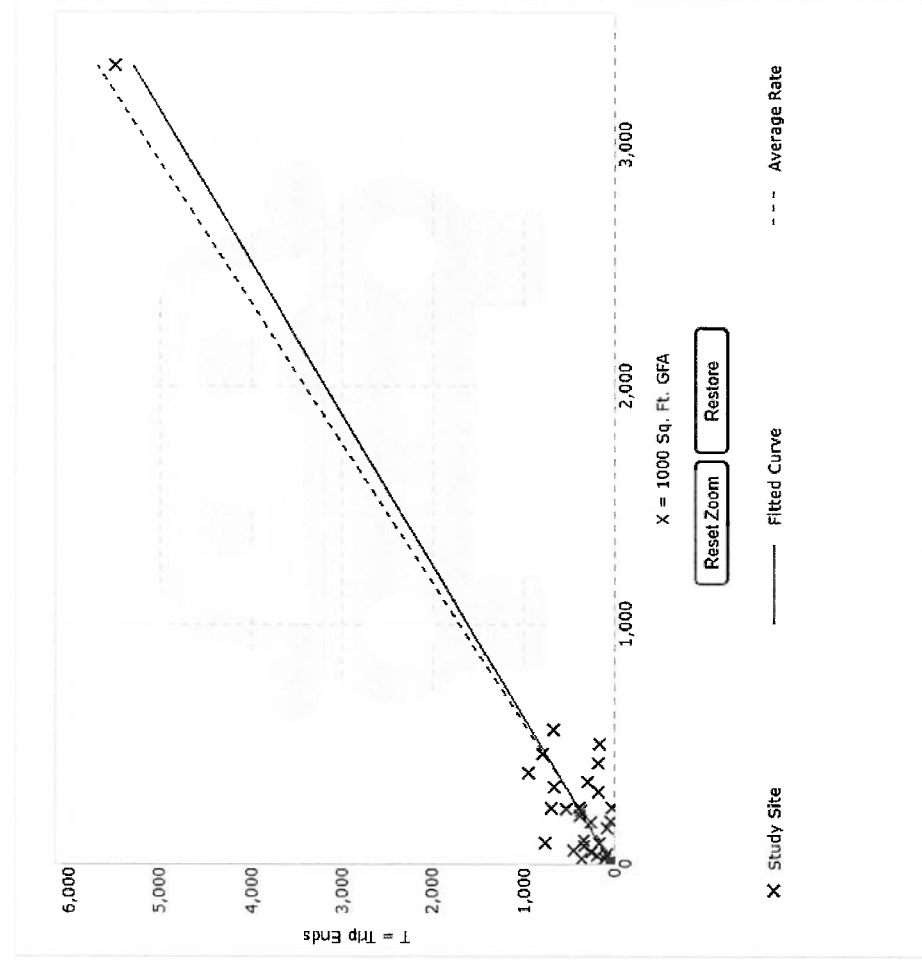
TIME PERIOD: Weekday

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIP: Vehicle
11.52

Calculate

Data Plot and Equation



DATA STATISTICS

Land Use: Warehousing (150) [Click for Description and Data File](#)

Independent Variable: 1000 Sq. Ft. GFA

Time Period: Weekday

Setting/Location: General Urban/Suburban

Trip Type: Vehicle

Number of Studies: 31

Avg. 1000 Sq. Ft. GFA: 292

Average Rate: 1.71

Range of Rates: 0.15 - 16.93

Standard Deviation: 1.48

Fitted Curve Equation: $T = 1.58(X) + 38.29$

R²: 0.92

Directional Distribution: 50% entering, 50% exiting

Calculated Trip Ends: Average Rate 20 (Total), 10 (Entry), 10 (Exit)
Fitted Curve: 56 (Total), 28 (Entry), 28 (Exit)

Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

Query Filter

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY: Trip Generation Manual, 11th Ed
150

LAND USE GROUP: (100-199) Industrial

LAND USE: 150 - Warehousing

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

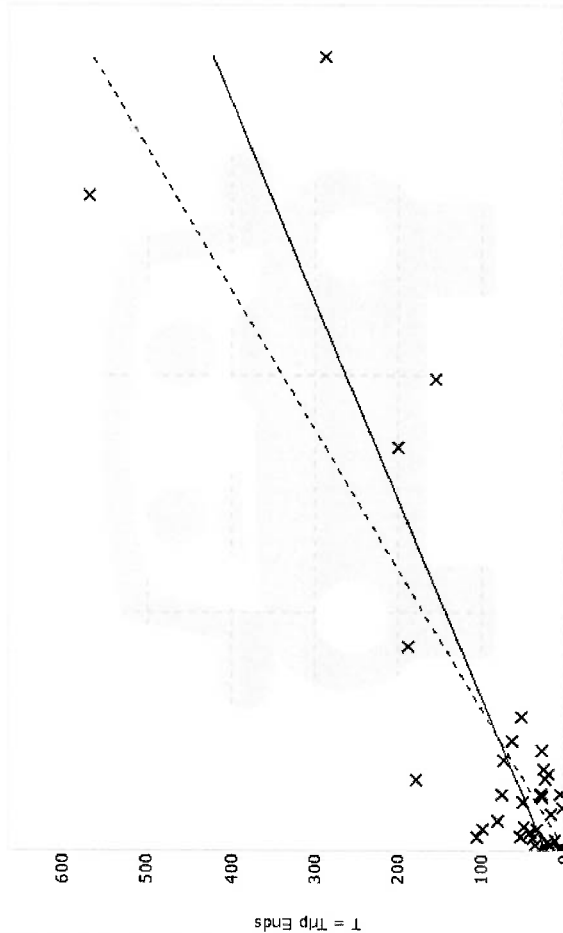
INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 11.52 Calculate

Data Plot and Equation



Reset Zoom Restore

X Study Site Fitted Curve Average Rate

DATA STATISTICS

Land Use: Warehousing (150) [Click for Description and Data File](#)

Independent Variable: 1000 Sq. Ft. GFA

Time Period: Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Trip Type: Vehicle

Number of Studies: 36

Avg. 1000 Sq. Ft. GFA: 448

Average Rate: 0.17

Range of Rates: 0.02 - 1.93

Standard Deviation: 0.19

Fitted Curve Equation: $T = 0.12(X) + 23.62$

R²: 0.69

Directional Distribution: 77% entering, 23% exiting

Calculated Trip Ends: Average Rate: 2 (Total), 2 (Entry), 0 (Exit)
Fitted Curve: 25 (Total), 19 (Entry), 6 (Exit)

Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

Query **Filter**

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE: 150

LAND USE GROUP: (100-199) Industrial

LAND USE: 150 - Warehousing

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

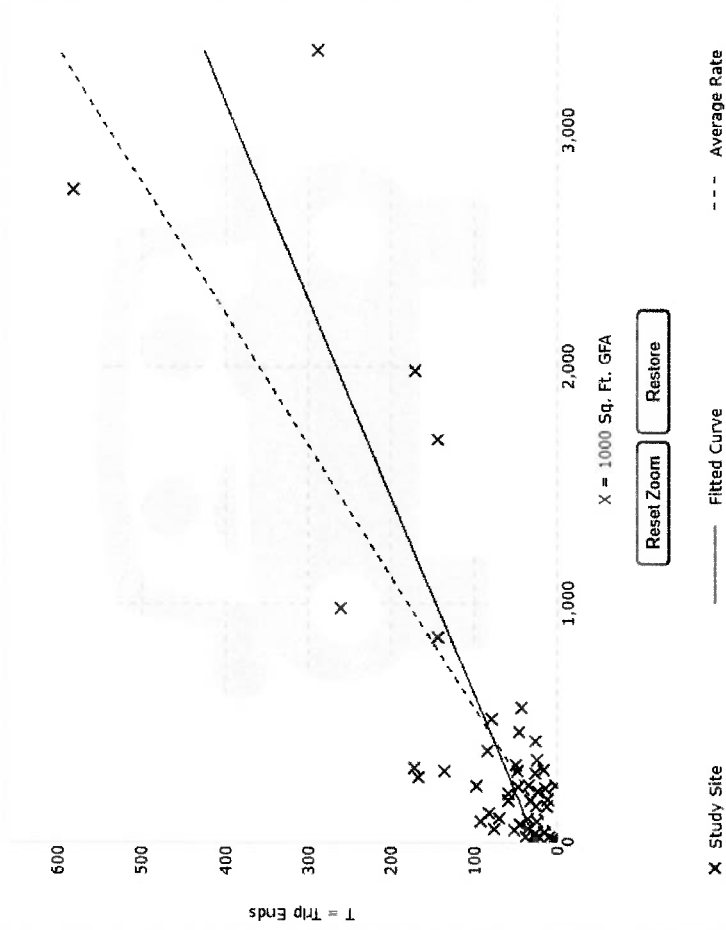
INDEPENDENT VARIABLE (IV): 1000 Sq Ft GFA

TIME PERIOD: Weekday Peak Hour of Adjacent Street Traffic

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 1152 **Calculate**

Data Plot and Equation



DATA STATISTICS

Land Use: Warehousing (50) [Click for Description and Data Table](#)

Independent Variable: 1000 Sq Ft GFA

Time Period: Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Trip Type: Vehicle

Number of Studies: 49

Avg. 1000 Sq. Ft. GFA: 400

Average Rate: 0.18

Range of Rates: 0.01 - 1.80

Standard Deviation: 0.18

Fitted Curve Equation: $T = 0.12(X) + 26.48$

R²: 0.65

Directional Distribution: 28% entering, 72% exiting

Calculated Trip Ends: Average Rate 2 (Total), 1 (Entry), 1 (Exit)
Fitted Curve 28 (Total), 8 (Entry), 20 (Exit)

Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

LAND USE GROUP: (100-199) Industrial

LAND USE: 150 - Warehousing

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

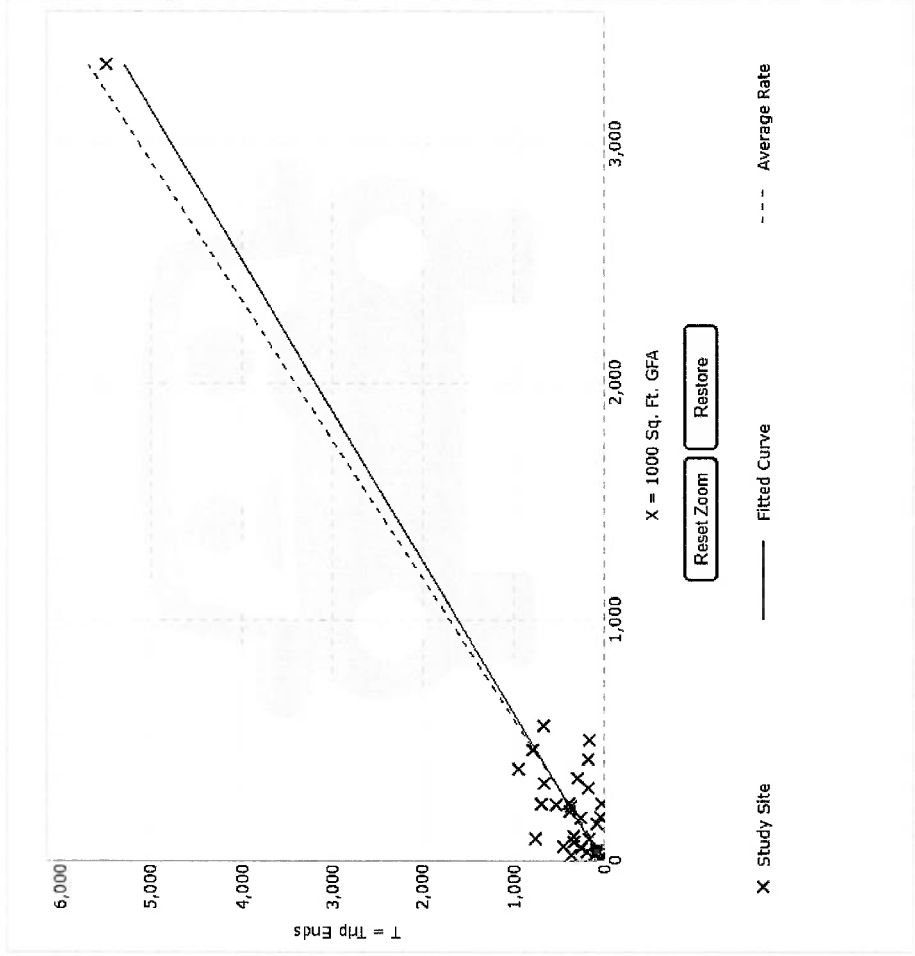
INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

Data Plot and Equation



DATA STATISTICS

Land Use: Warehousing (150) [Click for Description and Data Plots](#)

Independent Variable: 1000 Sq. Ft. GFA

Time Period: Weekday

Setting/Location: General Urban/Suburban

Trip Type: Vehicle

Number of Studies: 31

Avg. 1000 Sq. Ft. GFA: 292

Average Rate: 1.71

Range of Rates: 0.15 - 16.93

Standard Deviation: 1.48

Fitted Curve Equation: $T = 1.58(X) - 38.29$

R^2 : 0.92

Directional Distribution: 50% entering, 50% exiting

Calculated Trip Ends: Average Rate: 79 (Total), 39 (Entry), 40 (Exit)

Fitted Curve: 111 (Total), 55 (Entry), 56 (Exit)

Use the mouse wheel to Zoom Out or Zoom In.
 Hover the mouse pointer on data points to view X and T values.

Graph Look Up

Query **Filter**

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE: 150

LAND USE GROUP: (100-199) Industrial

LAND USE: 150 - Warehousing

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

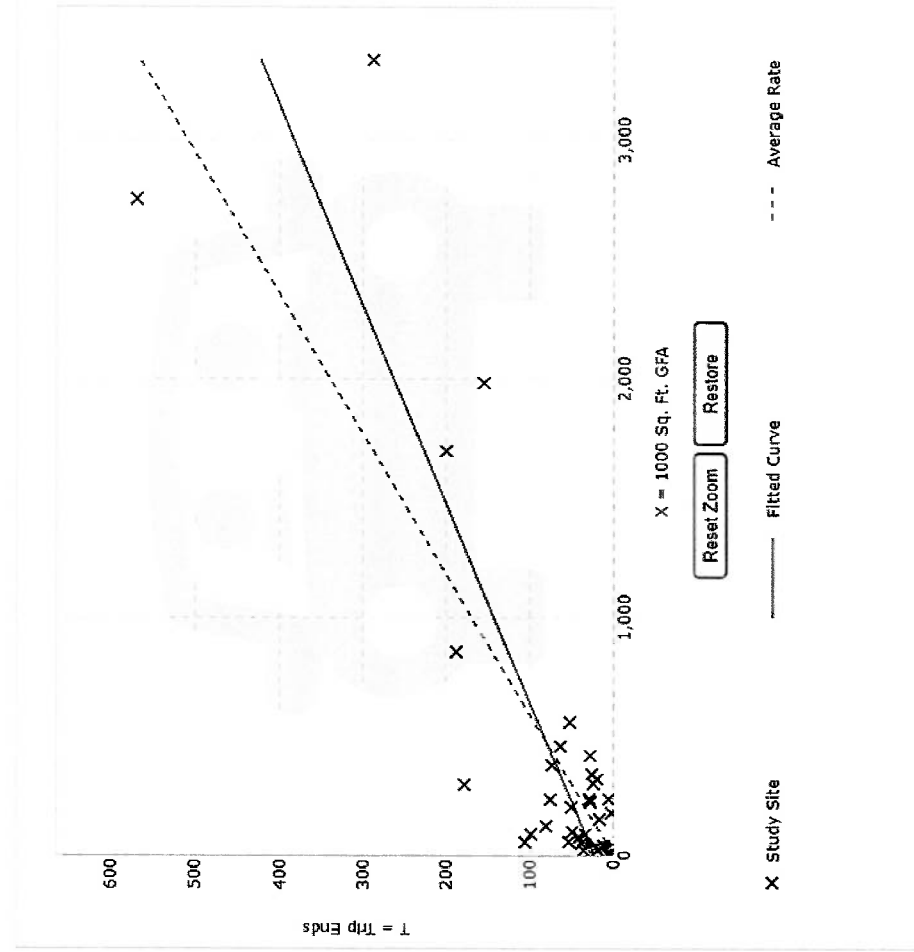
INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIP S: 46.26 **Calculate**

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use: Warehousing (150) [Click for Description and Data PLOTS](#)

Independent Variable: 1000 Sq. Ft. GFA

Time Period: Weekday

Peak Hour of Adjacent Street Traffic: One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Trip Type: Vehicle

Number of Studies: 49

Avg. 1000 Sq. Ft. GFA: 400

Average Rate: 0.18

Range of Rates: 0.01 - 1.80

Standard Deviation: 0.18

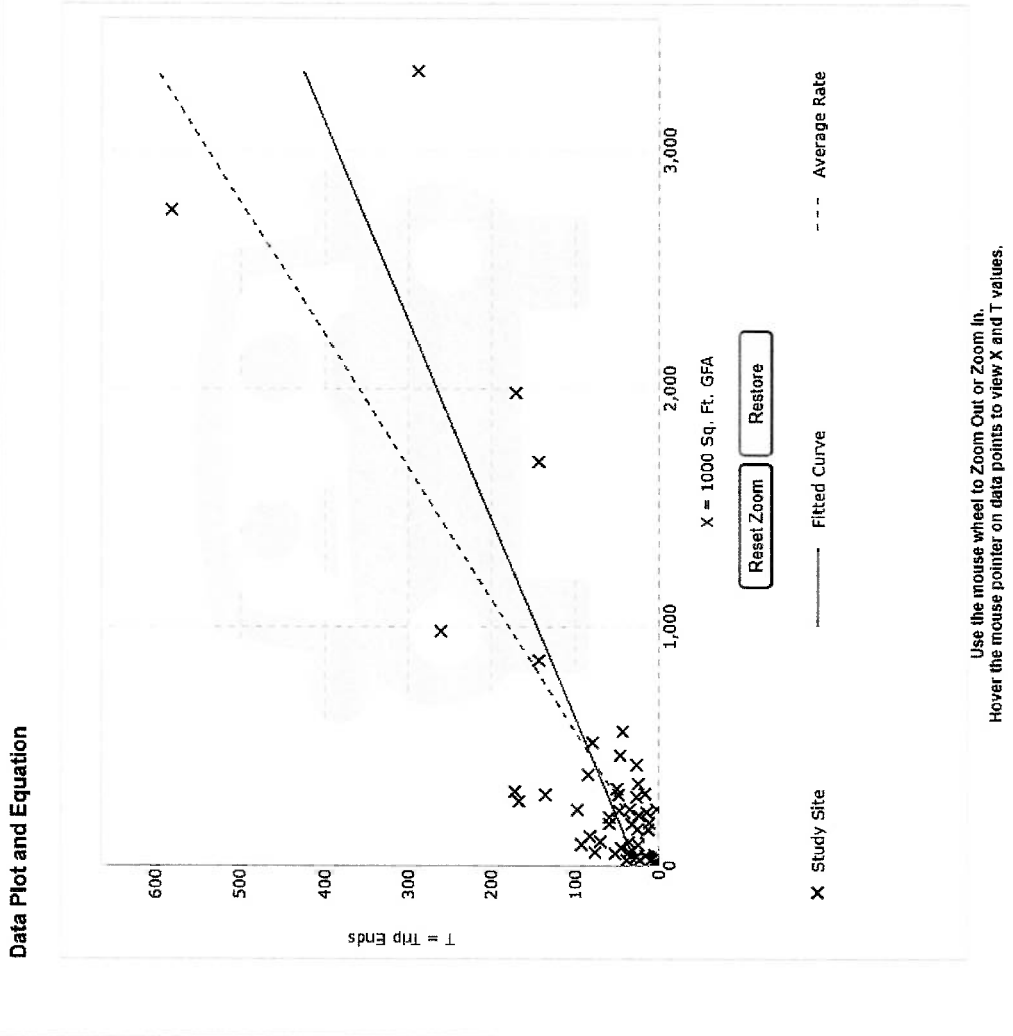
Fitted Curve Equation: $T = 0.12(X) + 26.48$

R²: 0.65

Directional Distribution: 28% entering, 72% exiting

Calculated Trip Ends: Average Rate: 8 (Total), 2 (Entry), 6 (Exit)

Fitted Curve: 32 (Total), 9 (Entry), 23 (Exit)



Query **Filter**

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE: 150

LAND USE GROUP: (100-199) Industrial

LAND USE: 150 - Warehousing

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 46.26 **Calculate**

Use the mouse wheel to Zoom Out or Zoom In.
 Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use: Manufacturing (140) [Click for Description and Data Plots](#)

Independent Variable: 1000 Sq. Ft. GFA

Time Period: Weekday

Setting/Location: General Urban/Suburban

Trip Type: Vehicle

Number of Studies: 53

Avg. 1000 Sq. Ft. GFA: 208

Average Rate: 4.75

Range of Rates: 0.83 - 49.50

Standard Deviation: 3.20

Fitted Curve Equation: $T = 3.77(X) + 201.98$

R^2 : 0.68

Directional Distribution: 50% entering, 50% exiting

Calculated Trip Ends: Average Rate: 35 (Total), 17 (Entry), 18 (Exit)
Fitted Curve: 230 (Total), 115 (Entry), 115 (Exit)

Data Plot and Equation

X Study Site ——— Fitted Curve - - - Average Rate

Reset Zoom Restore

Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

Query Filter

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE: 140

LAND USE GROUP: (100-199) Industrial

LAND USE: 140 - Manufacturing

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 7.45 Calculate

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

LAND USE GROUP: (100-199) Industrial

LAND USE: 140 - Manufacturing

LAND USE SUBCATEGORY: All Sites

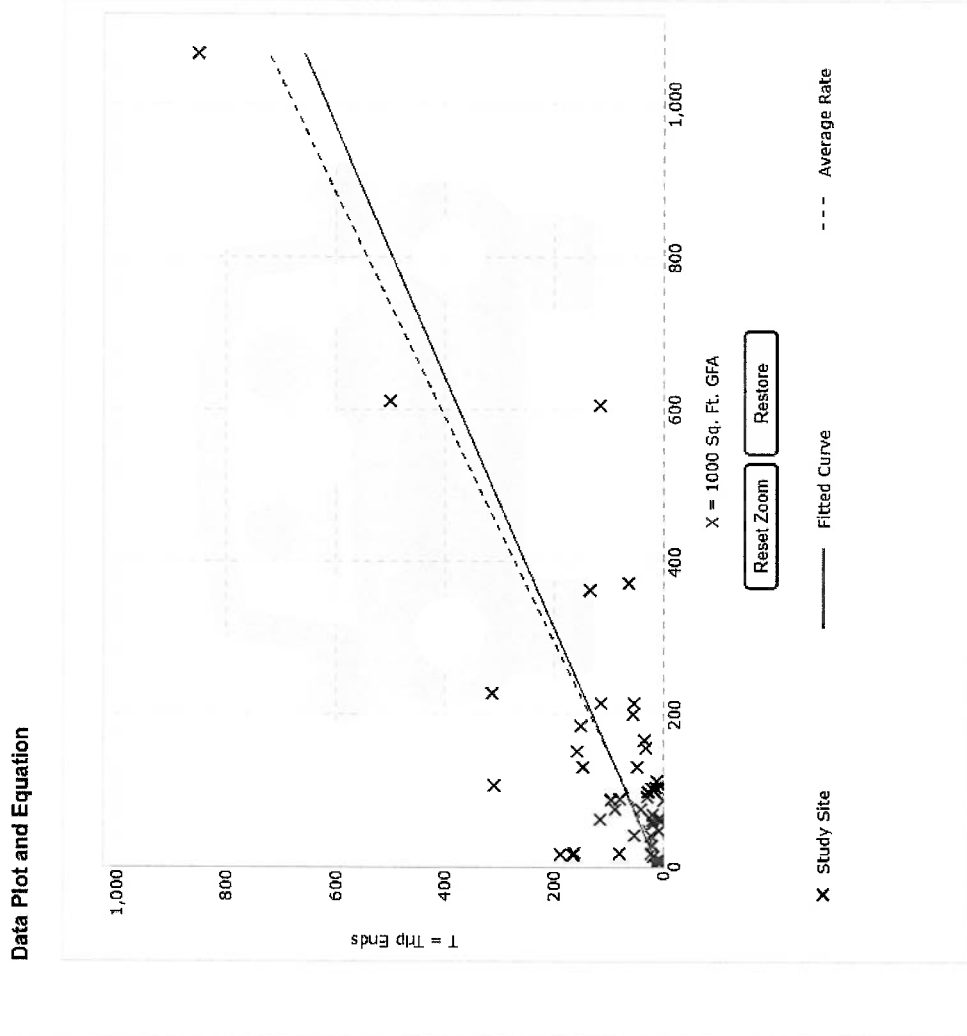
SETTING/LOCATION: General Urban/Suburban

INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:



DATA STATISTICS

Land Use: Manufacturing (140) [Click for Description and Data Plots](#)

Independent Variable: 1000 Sq. Ft. GFA

Time Period: Weekday
 Peak Hour of Adjacent Street Traffic
 One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Trip Type: Vehicle

Number of Studies: 48

Avg. 1000 Sq. Ft. GFA: 138

Average Rate: 0.68

Range of Rates: 0.01 - 11.93

Standard Deviation: 1.03

Fitted Curve Equation: $T = 0.61(X) + 9.54$

R^2 : 0.62

Directional Distribution: 76% entering, 24% exiting

Calculated Trip Ends: Average Rate: 5 (Total), 4 (Entry), 1 (Exit)
 Fitted Curve: 14 (Total), 11 (Entry), 3 (Exit)

Use the mouse wheel to Zoom Out or Zoom In.
 Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use: Manufacturing (140) [Click for Description and Data Table](#)

Independent Variable: 1000 Sq Ft. GFA

Time Period: Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Trip Type: Vehicle

Number of Studies: 55

Avg. 1000 Sq. Ft. GFA: 142

Average Rate: 0.74

Range of Rates: 0.07 - 11.37

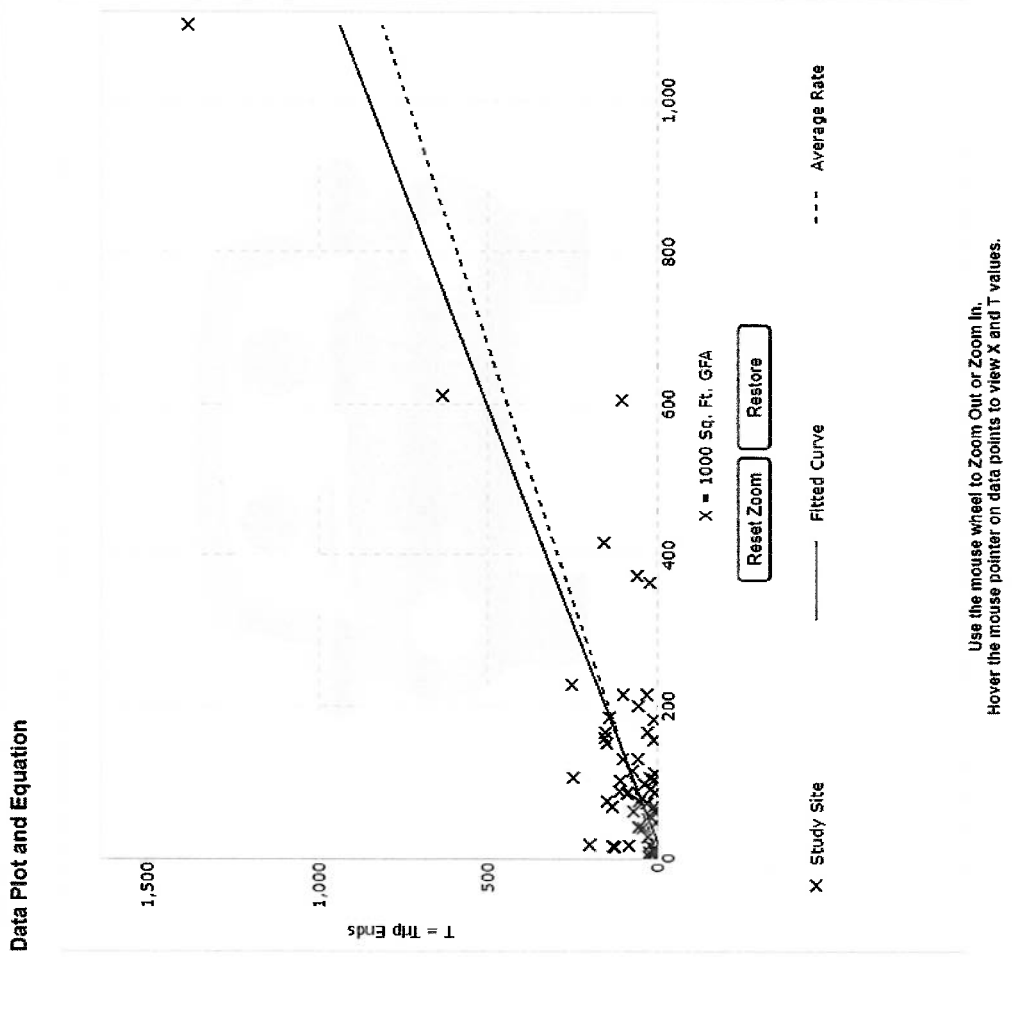
Standard Deviation: 0.93

Fitted Curve Equation: $T = 0.87(X) - 17.50$

R²: 0.64

Directional Distribution: 31% entering, 69% exiting

Calculated Trip Ends: Average Rate: 6 (Total), 2 (Entry), 4 (Exit)
Fitted Curve: Not Available



Query **Filter**

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE: 140

LAND USE GROUP: (100-199) Industrial

LAND USE: 140 - Manufacturing

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIP S: 7.45 **Calculate**

Trip ends are not estimated for some methods as it yields negative values

Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE: 140

LAND USE GROUP: (100-199) Industrial

LAND USE: 140 - Manufacturing

LAND USE SUBCATEGORY: All Sites

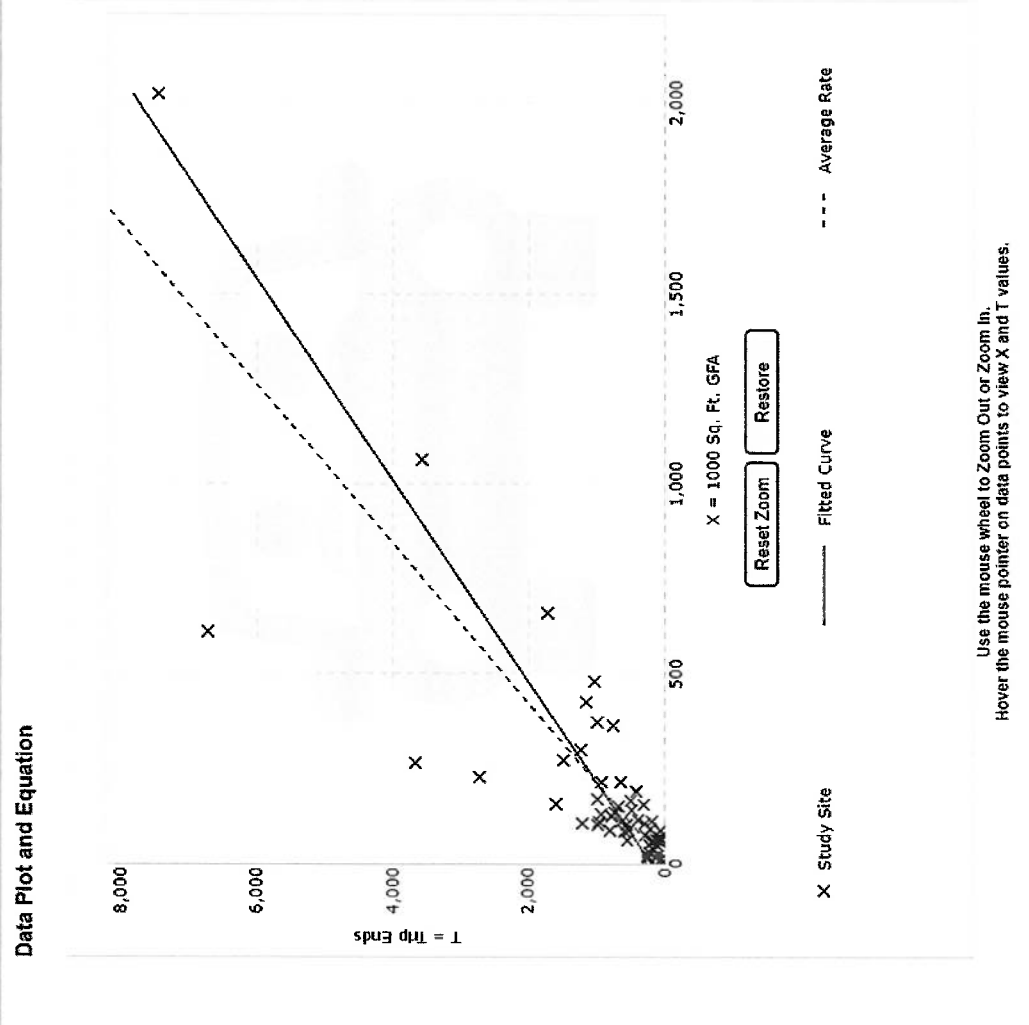
SETTINGS/LOCATION: General Urban/Suburban

INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 20.89



DATA STATISTICS

[Land Use: Manufacturing \(40\)](#) [Click for Description and Data Plots](#)

Independent Variable:
 1000 Sq. Ft. GFA

Time Period:
 Weekday

Setting/Location:
 General Urban/Suburban

Trip Type:
 Vehicle

Number of Studies:
 53

Avg. 1000 Sq. Ft. GFA:
 208

Average Rate:
 4.75

Range of Rates:
 0.83 - 49.50

Standard Deviation:
 3.20

Fitted Curve Equation:
 $T = 3.77(X) + 201.98$

$R^2:$
 0.68

Directional Distribution:
 50% entering, 50% exiting

Calculated Trip Ends:
 Average Rate: 99 (Total), 49 (Entry), 50 (Exit)
 Fitted Curve: 281 (Total), 140 (Entry), 141 (Exit)

Use the mouse wheel to Zoom Out or Zoom In.
 Hover the mouse pointer on data points to view X and T values.

Query Filter

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE: 140

LAND USE GROUP: (100-199) Industrial

LAND USE: 140 - Manufacturing

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

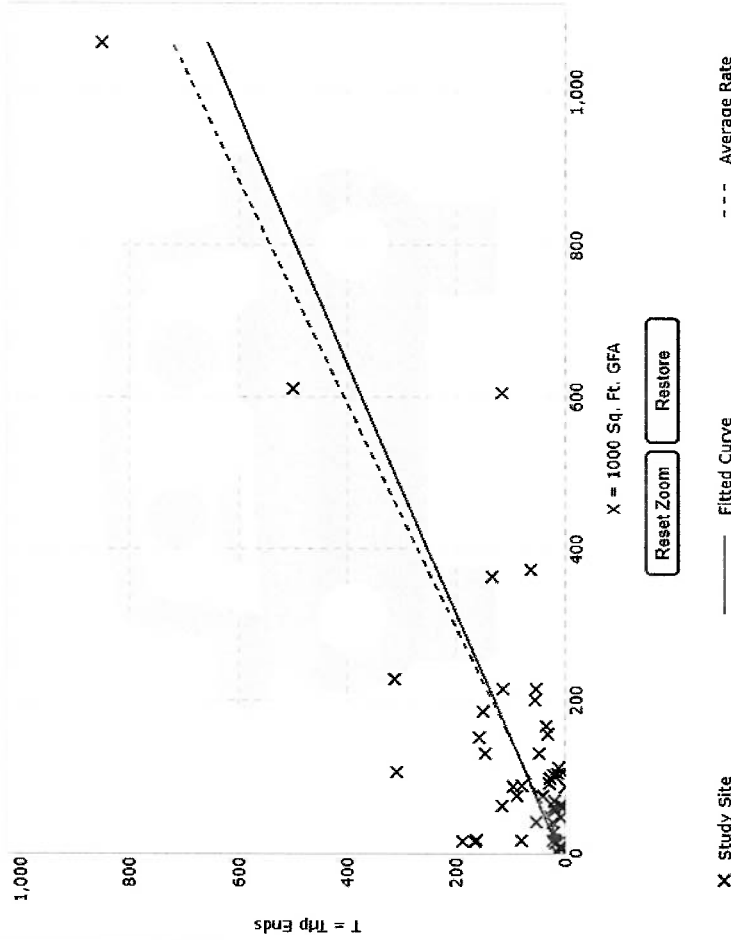
INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 20.89 Calculate

Data Plot and Equation



DATA STATISTICS

Land Use: Manufacturing (140) Click for Description and Data

Independent Variable: 1000 Sq. Ft. GFA

Time Period: Weekday

Peak Hour of Adjacent Street Traffic: One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Trip Type: Vehicle

Number of Studies: 48

Avg. 1000 Sq. Ft. GFA: 138

Average Rate: 0.68

Range of Rates: 0.01 - 11.93

Standard Deviation: 1.03

Fitted Curve Equation: $T = 0.61(X) + 9.54$

R²: 0.62

Directional Distribution: 76% entering, 24% exiting

Calculated Trip Ends: Average Rate: 14 (Total), 11 (Entry), 3 (Exit) Fitted Curve: 22 (Total), 17 (Entry), 5 (Exit)

Use the mouse wheel to Zoom Out or Zoom In. Hover the mouse pointer on data points to view X and T values.

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

LAND USE GROUP: (100-199) Industrial

LAND USE: 140 - Manufacturing

LAND USE SUBCATEGORY: All Sites

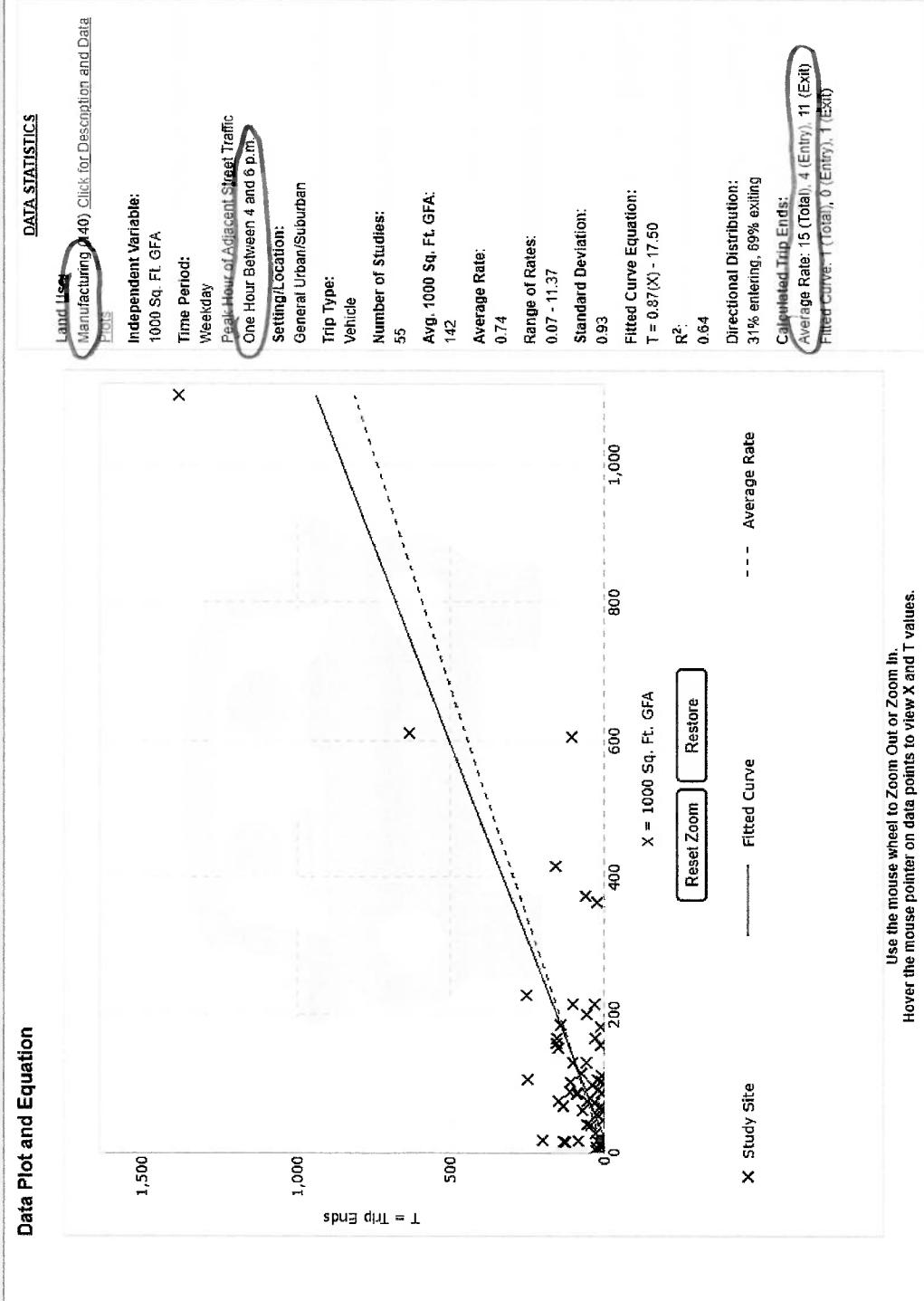
SETTING/LOCATION: General Urban/Suburban

INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:



DATA STATISTICS

Land Use: Manufacturing (140) [Click for Description and Data Points](#)

Independent Variable: 1000 Sq. Ft. GFA

Time Period: Weekday
 Peak Hour of Adjacent Street Traffic
 One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Trip Type: Vehicle

Number of Studies: 55

Avg. 1000 Sq. Ft. GFA: 142

Average Rate: 0.74

Range of Rates: 0.07 - 11.37

Standard Deviation: 0.93

Fitted Curve Equation:
 $T = 0.87(X) - 17.50$

$R^2: 0.64$

Directional Distribution:
 31% entering, 69% exiting

Calculated Trip Ends:
 Average Rate: 15 (Total), 4 (Entry), 11 (Exit)

Fitted Curve: 1 (Total), 0 (Entry), 1 (Exit)

Use the mouse wheel to Zoom Out or Zoom In.
 Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use: Single Tenant Office Building (715) [Click for Description and Data Plus](#)

Independent Variable: 1000 Sq. Ft. GFA

Time Period: Weekday

Setting/Location: General Urban/Suburban

Trip Type: Vehicle

Number of Studies: 12

Avg. 1000 Sq. Ft. GFA: 110

Average Rate: 13.07

Range of Rates: 7.01 - 35.68

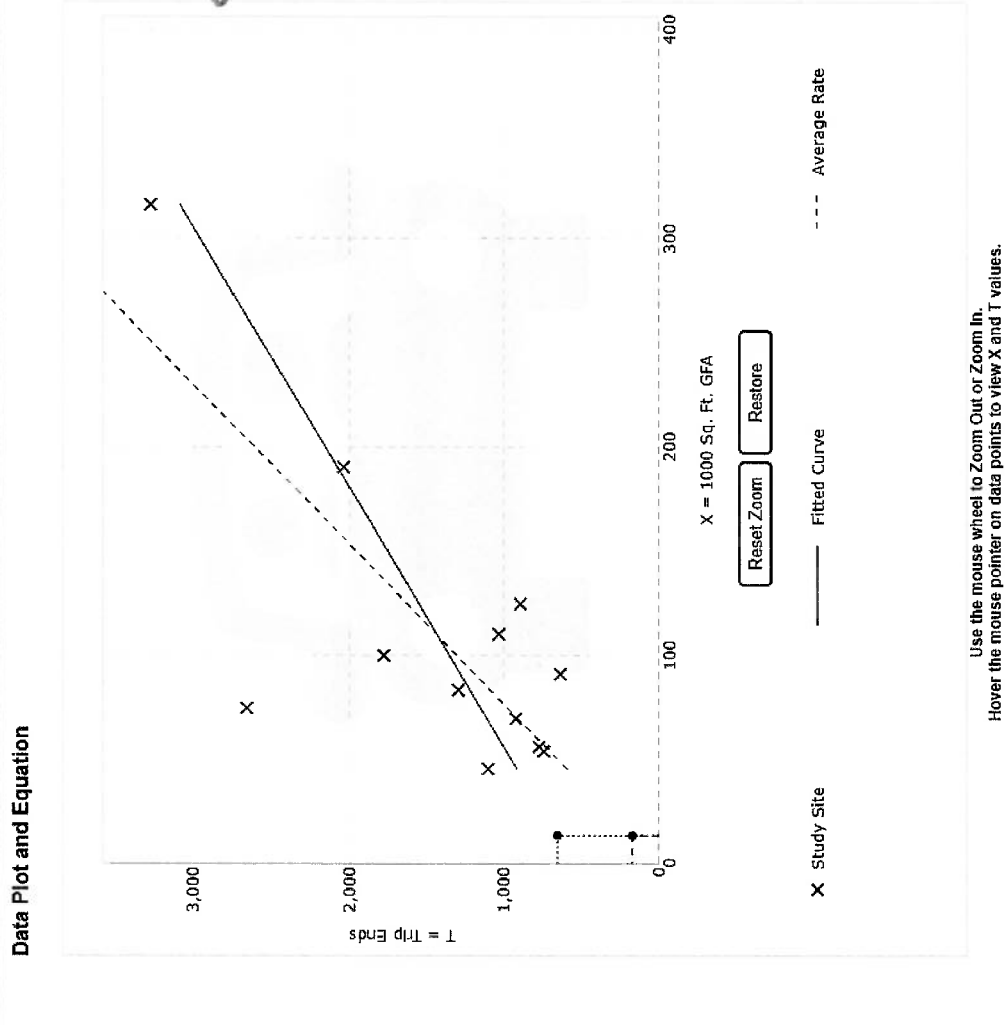
Standard Deviation: 7.01

Fitted Curve Equation: $T = 8.04(X) + 550.49$

R²: 0.53

Directional Distribution: 50% entering, 50% exiting

Calculated Trip Ends: Average Rate: 173 (Total), 86 (Entry), 87 (Exit)
Fitted Curve: 657 (Total), 328 (Entry), 329 (Exit)



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

Query Filter

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE: 715

LAND USE GROUP: (700-799) Office

LAND USE: 715 - Single Tenant Office Building

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 13.24 Calculate

DATA STATISTICS

Land Use: **Single Tenant Office Building (715)** [Click for Description and Data Plots](#)

Independent Variable: **1000 Sq Ft. GFA**

Time Period: **Weekday**

Peak Hour of Adjacent Street Traffic: **One Hour Between 7 and 9 a.m.**

Setting/Location: **General Urban/Suburban**

Trip Type: **Vehicle**

Number of Studies: **41**

Avg. 1000 Sq. Ft. GFA: **164**

Average Rate: **1.85**

Range of Rates: **0.75 - 4.37**

Standard Deviation: **0.65**

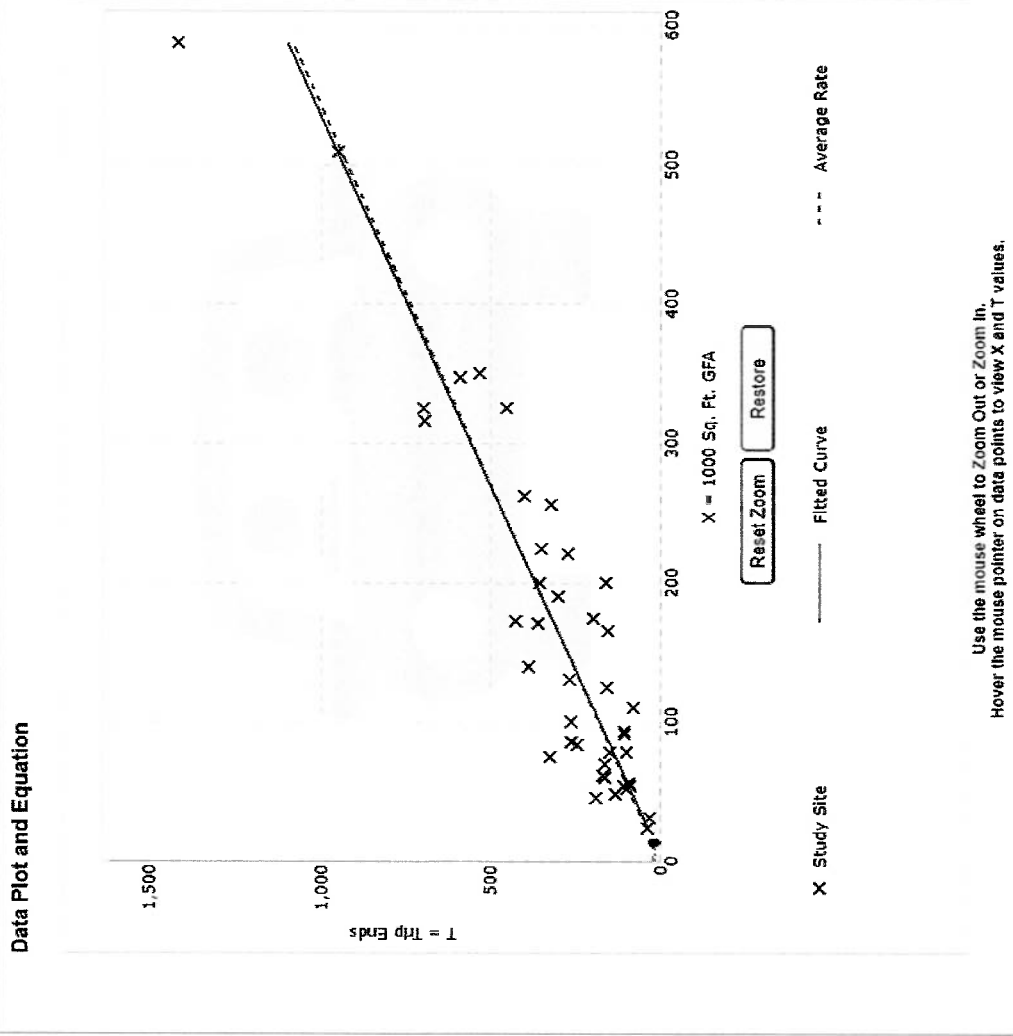
Fitted Curve Equation: **T = 1.89(X) - 7.67**

R²: **0.84**

Directional Distribution: **89% entering, 11% exiting**

Calculated Trip Ends: **Average Rate: 24 (Total), 21 (Entry), 3 (Exit)**

Fitted Curve: **17 (Total), 15 (Entry), 2 (Exit)**



Query Filter

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE: 715

LAND USE GROUP: (700-799) Office

LAND USE: 715 - Single Tenant Office Building

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 13.24 Calculate

Use the mouse wheel to Zoom Out or Zoom In.
 Hover the mouse pointer on data points to view X and T values.

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

LAND USE GROUP: (700-799) Office

LAND USE: 715 - Single Tenant Office Building

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

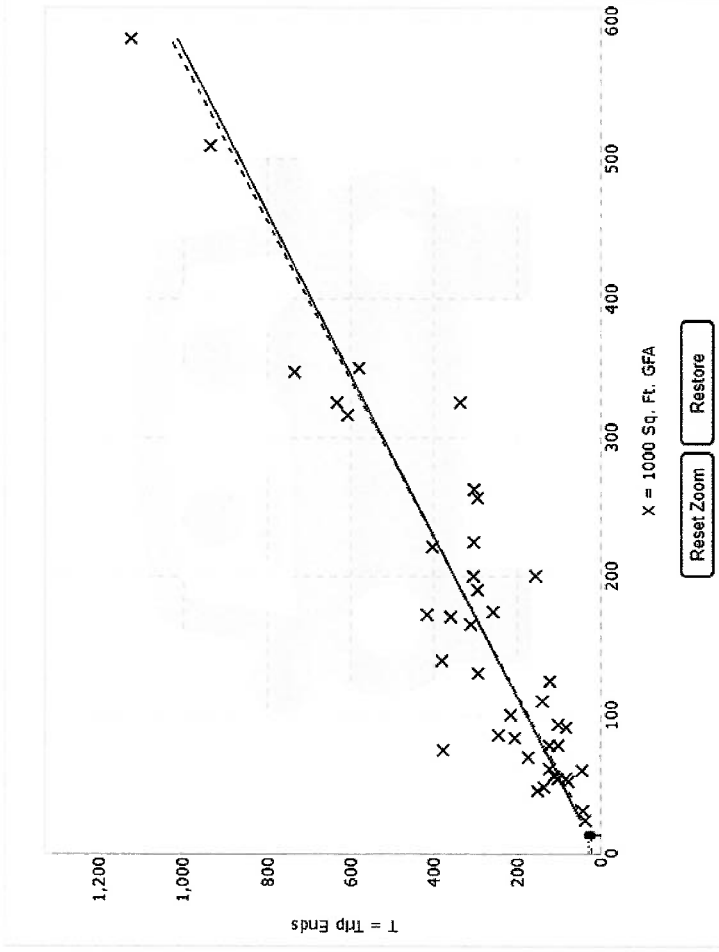
INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

Data Plot and Equation



DATA STATISTICS

Land Use: Single Tenant Office Building (715) [Click for Description and Data Plots](#)

Independent Variable: 1000 Sq. Ft. GFA

Time Period: Weekday
 Peak Hour of Adjacent Street Traffic
 One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Trip Type: Vehicle

Number of Studies: 41

Avg. 1000 Sq. Ft. GFA: 164

Average Rate: 176

Range of Rates: 0.77 - 5.07

Standard Deviation: 0.61

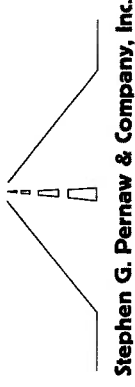
Fitted Curve Equation: $T = 1.72(X) + 7.89$

R^2 : 0.85

Directional Distribution: 15% entering, 85% exiting

Calculated Trip Ends:
 Average Rate: 23 (Total), 3 (Entry), 20 (Exit)
 Filled Curve: 31 (Total), 5 (Entry), 26 (Exit)

Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.



TRIP DISTRIBUTION ANALYSIS
Home Destination Report - Where Workers Live Who are Employed in the Selection Area - by County Subdivisions

Hudson, NH Workers

Total All Jobs

Jobs Counts by County Subdivisions Where Workers are Employed - All Jobs

	Count	Gateway %			Gateway Allocation		
		NH3A - N	NH3A - S	Circ Hwy	NH3A - N	NH3A - S	Circ Hwy
Nashua city (Hillsborough, NH)	1,742	0.20		0.80	348	0	1394
Hudson town (Hillsborough, NH)	1,636	0.50	0.50		818	818	0
Manchester city (Hillsborough, NH)	659	0.10		0.90	66	0	593
Merrimack town (Hillsborough, NH)	454	0.10		0.90	45	0	409
Londonderry town (Rockingham, NH)	361	1.00			361	0	0
Lowell city (Middlesex, MA)	357		0.10	0.90	0	36	321
Derry town (Rockingham, NH)	333	1.00			333	0	0
Litchfield town (Hillsborough, NH)	277	1.00			277	0	0
Pelham town (Hillsborough, NH)	204	0.75	0.25		153	51	0
Milford town (Hillsborough, NH)	195			1.00	0	0	195
Total	6218				2401	905	2912
					38.6%	14.6%	46.8%
							100%

38	15	47
----	----	----

WAIVER REQUEST MEMORANDUM

WAIVER REQUEST #1:

Site Plan Regulation: Hudson Site Plan Regulation Chapter 275-8 C (2) – Required number of Parking Spaces.

Waiver Request: A waiver is requested from **Chapter 275-8 C (2)** in order to allow 93 parking spaces on a lot where 134 spaces are required per the regulation.

Basis of Waiver:

For Industrial lots, the Hudson Site Plan regulations parking requirement is: *one for each 600 square feet of gross floor space or 0.75 space per employee of the combined employment of the two largest consecutive shifts, whichever is larger.* Currently, Integra Biosciences building measures 32,210 square feet and the site contains 101 parking spaces. The total number of employees at this facility is 80, spread over two shifts that operate 16 hours per day for 5 days per week (Monday thru Friday). The proposed additions, which measure 48,177 square feet and will displace the existing parking lot on the east side of the site. It is being proposed to replace these spaces by expanding the parking areas on the south and west sides of the property along with adding parking behind the proposed warehouse addition. When complete, the post-construction number of employees will be 135, again over two shifts. In calculating the required number of spaces, the larger amount per the Hudson Code is the 1 space per 600 square feet criteria which yields a requirement of 134 spaces. The proposed site plan shows a total of 93 spaces being provided, which meets the needs of Integra.

Integra Biosciences has occupied this site since the 1990's. Based on their past experience with this site and with the "flexible arrival/departure" times they afford their employees, they feel strongly that they have ample parking today and upon completion of the proposed building expansions.

Waiver Request Form Standards

The hardship reason for granting this waiver is that there is no reasonable way to add forty-one (41) more parking spaces on this property in order to comply with the Site Plan Regulation. As stated above, the combination of two shifts using 'flexible arrival and departure' times allows this site to function properly without needing the required number of spaces.

Granting this waiver will not be contrary to the spirit and intent of the Town's Land Use Regulations because the spirit and intent of Chapter 275-8 C (2) is that adequate parking is provided for the intended use. As has been stated above, given the past history of this site and the way this business uses two working shifts, adequate parking is provided.

Chapter 276-7 Waivers

The requirements of Chapter 275-8 C (2) are unnecessary.

The purpose of Chapter 275-8 C (2) is to ensure adequate number of parking spaces are provided for a particular use. Given the above stated reasons, it is Integra's opinion that ample parking is provided for this business operation.

Granting the waiver will not violate the purposes or general standards of the Land Use Regulations.

This waiver will not violate the public safety purposes of Chapter 275-8 C (2), in that the plan represents good planning principles and is balanced with regard to parking, building and open spaces.

Granting the waiver shall result in a general benefit to the Town and surrounding properties.

Granting the waiver will support the Integra Biosciences building addition which will create approximately 55 new jobs, increase annual tax revenue and is the type of development specifically contemplated by the Town's Master Plan. As a result, the waiver will result in a general benefit to the Town.

WAIVER REQUEST #2:

Site Plan Regulation: Hudson Site Plan Regulation Chapter 275-8 C (6) – Required number of Loading Spaces.

Waiver Request: A waiver is requested from **Chapter 275-8 C (6)** in order to allow 5 loading spaces on a lot where 9 spaces are required per this code.

Basis of Waiver:

The Hudson Site Plan regulations loading requirement is: *one for each 5000 square feet of gross floor space plus 1 space for every additional 10,000 square feet of gross floor area.* Currently there are two loading docks to the existing building. It is being proposed to expand this structure in the back part of the site and building thereby displacing the existing loading docks and maneuver area. The proposed addition will include four (4) recessed loading dock doors to service the entire operation on the east side of the building and one (1) new dock door on the west side of the existing warehouse.

Waiver Request Form Standards

The hardship reason for granting this waiver is that providing 9 loading spaces is entirely unnecessary for this use. As stated above, Integra has operated upon this property since the 1990's. They know and understand their loading needs. Strict enforcement of the loading requirement would pose a hardship to the applicant since it would mean that the building addition could not be constructed as envisioned and the business would need to look elsewhere for a facility.

Integra believes that the above request is reasonable and meets the spirit and intent of the Town of Hudson Site Plan Regulations since the number loading docks and their intended location is sufficient for this business.

Chapter 276-7 Waivers

The requirements of Chapter 275-8 C (6) are unnecessary.

As indicated above, the purpose of Chapter 275-8 C (6) is to ensure that the correct number of loading spaces is provided for the intended use. The subject site will be served by five (5) docks as described above.

Granting the waiver will not violate the purposes or general standards of the Land Use Regulations.

The general standards of the Hudson Site Plan regulations are to address public safety concerns related to the building and site expansion of this property. The reduction of 9 loading dock spaces to 5 spaces does not create a public safety concern.

Granting the waiver shall result in a general benefit to the Town and surrounding properties.

Granting the waiver will allow Integra to grow their business at their current location.

Conclusion:

When the Site Plan regulations are applied to this particular property, they impose unreasonable requirements with no benefit to the public. The property is a manufacturing site with few visitors. The applicant knows their parking demands. Because the site plan calculations require two alternative calculations, there is an unnecessarily large parking requirement by one calculation. The existing site is currently overparked. The same argument can be made for the required number of loading spaces.

Strict application of these rules does not benefit the public. However, requiring strict compliance may prevent the proposed additions. Rules are established to address all possible scenarios. Here, the use is known. Strict application of the rules is not necessary to accomplish reasonable planning goals. Even after the addition, the site will be safe, accessible and aesthetically consistent with other properties in the park. To require strict compliance would not advance any planning principles. Rather it would go against good planning for industrial parks – i.e. enabling reasonable expansion and use of existing infrastructure in a way that is consistent with the existing area.

This proposed site plan balances the needs of the community to enable growth and expansion in a safe and reasonable manner without imposing requirements that have no benefit under the circumstances.



TOWN OF HUDSON

Land Use Division



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6008 • Fax: 603-594-1142

Zoning Determination #21-136

August 25, 2021

Integra Biosciences Corp
c/o Gary Nelson
2 Wentworth Dr
Hudson, NH 03051

Re: 22 Friars Dr Map 209 Lot 004-000
District: Industrial (I)

Your request: Are you able to build an addition (expansion) of the similar uses currently ongoing?

Zoning Review / Determination:

Our records show this is a developed lot of record, with an existing site plan. Your proposed use in the expansion is for: *“associated warehousing and the manufacture of liquid handling and media preparation tools and equipment used in research diagnostics and quality control laboratories, similar to uses currently ongoing on site.”* I would classify that use as I-2: *“Research laboratories manufacture of equipment, electronic industry, assembly of electrical appliances.”*, and is a permitted use in the Table of Permitted Principal Uses §334-21.

Prior to any construction of the addition, you would need Site Plan Review approval from the Planning Board.

Sincerely,

Bruce Buttrick
Zoning Administrator/Code Enforcement Officer
(603) 816-1275
bbuttrick@hudsonnh.gov

cc: Public Folder
B. Groth – Town Planner
E. Coughlin – Hayner Swanson
File

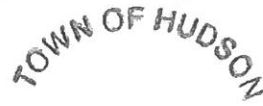
NOTE: this determination may be appealed to the Hudson Zoning Board of Adjustment within 30 days of the receipt of this letter.

#21-136



COMMUNITY DEVELOPMENT DEPARTMENT

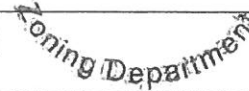
12 School Street
Hudson, NH 03051
(603)886-6005
www.hudsonnh.gov



AUG 19 2021



Town of Hudson



REQUEST FOR ZONING and/or PLANNING INFORMATION / DETERMINATION

Date of request 08/19/2021

Property Location 22 Friars Drive

Map 209 Lot 4

Zoning District if known I - Industrial

Type of Request

- Zoning District Determination
- Use Determination
- Set-Back Requirements
- Process for Subdivision/ Site Plan if required
- Other

Description of request / determination: (Please attach all relevant documentation)

This request is for confirmation that the proposed building expansion is an allowed use in the I - Industrial zone. The building addition will be used to meet Integra's warehousing requirements, and for the manufacturing of liquid handling and media preparation tools and equipment used in research, diagnostics and quality control laboratories. This use is similar to the on-going business within the current building.

Applicant Contact Information:

Name: Integra Biosciences Corp. Gary Nelson
Address: 2 Wentworth Dr., Hudson, NH 03051
Phone Number: 603-578-5800

unofficial

For Office use

ATTACHMENTS: TAX CARD GIS

NOTES: _____

ZONING DETERMINATION LETTER SENT DATE: _____

Dubowik, Brooke

From: Dhima, Elvis
Sent: Tuesday, February 8, 2022 10:30 AM
To: Dubowik, Brooke
Subject: RE: Dept Sign Off - 22 Friars Drive Building Addition CU# 01-22

Brooke

Please see below

1. Applicant shall provide information regarding the additional water demand
2. Applicant shall provide information regarding the addition sewer discharge

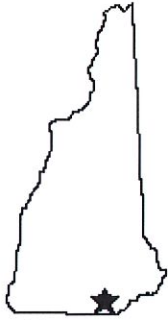
Thanks

E

Elvis Dhima, P.E.
Town Engineer

12 School Street
Hudson, NH 03051
Phone: (603) 886-6008
Mobile: (603) 318-8286





TOWN OF HUDSON

FIRE DEPARTMENT

39 FERRY STREET, HUDSON, NEW HAMPSHIRE 03051



Emergency 911
Business 603-886-6021
Fax 603-594-1164

Robert M. Buxton
Chief of Department

TO: Brian Groth
Town Planner

FR: Robert M. Buxton 
Fire Chief

DT: February 4, 2022

RE: 22 Friars Drive (Map 209, Lot 004)

The following is a list of site plan concerns for this project. This review was completed utilizing plans submitted by Hayner/Swanson dated January 27, 2022..

1. Please provide the markings for fire apparatus access in accordance with **NFPA 1**.
2. The project shall obtain site addressing from the Hudson Fire Department.
3. The expansion of the site shows work to the current utilities. Currently the site has three fire hydrants on site; the proposed plan set does not clearly depict the relocation of all three hydrants. Location of the hydrants shall be located in a location approved by the Hudson Fire Department.
4. Please make sure that the proposed snow storage area shown on the plan does not impede parking or travel paths.

****The following life safety and fire protection concerns provided are for informational purposes to the applicant and Planning Board for this project. Final determinations on these issues occur after further review of the project.**

- A. The proposed building will require an approved sprinkler system. The Hudson Fire Department upon review of the building plans shall conduct this review. This requirement is in accordance with the **International Building Code (IBC) and Hudson Town Code (HTC), current revision, Chapter 210, Article VI**. Any fire protection system shall be monitored by an approved fire alarm system.
- B. The fire alarm system shall be connected to the Hudson Fire Department's municipal fire alarm system or a substantially equivalent system in accordance with the **Hudson Town Code, Chapter 210**. A site plan detailing the aerial or underground layout to the municipal fire alarm connection must be provided before the utilities are completed for this project.
- C. Any required fire alarm system component must remain accessible and visible at all times.

D. A blasting permit will be required for any blasting on the site in accordance with the **Hudson Town Code, Chapter 202.**

cc: Project Engineer
File



TOWN OF HUDSON

Land Use Division



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6008 • Fax: 603-594-1142

Site Plan Review #02-22

February 8, 2022

Re: Map 209 Lot 004
Address: 22 Friars Dr
Zoning district: (I) Industrial
Proposal: review for several additions/renovations totaling 48,270 SqFt.

Submitted plans reviewed: 1 of 15 dated 27 January 2022 and Project Narrative dated 28 January 2022.

1) Verify that the height requirement complies with section §334-14: *"....Height is measured from the average elevation of the finished grade within five feet of the structure to the highest point of the roof,....."*

Sincerely,

Bruce Buttrick,
Zoning Administrator/Code Enforcement Officer

cc: B. Groth - Town Planner
file

NOTE: this determination may be appealed to the Hudson Zoning Board of Adjustment within 30 days of the receipt of this letter.

SITE PLAN APPLICATION

Date of Application: JAN. 31, 2022 Tax Map #: 209 Lot #: 004
Site Address: 22 FRIARS DRIVE
Name of Project: PROPOSED BUILDING ADDITIONS
Zoning District: INDUSTRIAL General SP#: _____
Z.B.A. Action: none (For Town Use Only)

PROPERTY OWNER:

Name: INTEGRA BIOSCIENCES CORP.
Address: 2 WENTWORTH DRIVE
Address: HUDSON, NH 03051
Telephone # 603-578-5800
Email: _____

DEVELOPER:

SAME AS OWNER

PROJECT ENGINEER:

Name: WAYNER/SWANSON, INC.
Address: 3 CONGRESS ST.
Address: NASHUA, NH 03062
Telephone # 603-883-2057
Email: jpetropulos@wayner-swanson.com

SURVEYOR:

WAYNER/SWANSON, INC.
3 CONGRESS ST.
NASHUA, NH 03062
603-883-2057
lagnone@wayner-swanson.com

PURPOSE OF PLAN:

TO SHOW PROPOSED BUILDING ADDITIONS AND SITE IMPROVEMENTS

(For Town Use Only)

Routing Date: _____ Deadline Date: _____ Meeting Date: _____

_____ I have no comments _____ I have comments (attach to form)

(Initials) Title: _____ Date: _____

Department: _____

Zoning: ___ Engineering: ___ Assessor: ___ Police: ___ Fire: ___ DPW: ___ Consultant: ___

SITE DATA SHEET

PLAN NAME: Proposed Building Additions

PLAN TYPE: SITE PLAN

LEGAL DESCRIPTION: MAP 209 LOT 004

DATE: 27 January 2022

Location by Street: 22 FRIARS DRIVE

Zoning: INDUSTRIAL

Proposed Land Use: MANUFACTURING / WAREHOUSE

Existing Use: MANUFACTURING / OFFICES / WAREHOUSE

Surrounding Land Use(s): Industrial

Number of Lots Occupied: 1

Existing Area Covered by Building: 25,589 SF (footprint)

Existing Buildings to be removed: NONE

Proposed Area Covered by Building: 64,147 SF (footprint)

Open Space Proposed: 42%

Open Space Required: 35%

Total Area: S.F.: 244,297 Acres: 5.608

Area in Wetland: 21,391 Area Steep Slopes: -

Required Lot Size: 30,000 SF

Existing Frontage: 420.74'

Required Frontage: 150'

Building Setbacks:	Required*	Proposed
Front:	<u>50'</u>	<u>117' +/-</u>
Side:	<u>15'</u>	<u>45' +/-</u>
Rear:	<u>15'</u>	<u>98' +/-</u>

SITE DATA SHEET

(Continued)

Flood Zone Reference: # 33011C0656D

Width of Driveways: 30'

Number of Curb Cuts: 2

Proposed Parking Spaces: 93* (WAIVER REQUESTED)

Required Parking Spaces: 134

Basis of Required Parking (Use): INDUSTRIAL

Dates/Case #/Description/Stipulations
of ZBA, Conservation Commission,
NH Wetlands Board Actions:
(Attach stipulations on separate sheet)

CONSERVATION COMMISSION - PENDING

Waiver Requests

Town Code Reference:

Regulation Description:

<u>275-8(c)(2)</u>	<u>REQUIRED # OF SPACES (PARKING)</u>
<u>275-8(c)(6)</u>	<u>REQUIRED # OF LOADING SPACES</u>

(For Town Use Only)

Data Sheets Checked By: _____ Date: _____

MAP 209, LOT 4
SITE PLAN

PROPOSED BUILDING ADDITIONS

22 FRIARS DRIVE
HUDSON, NEW HAMPSHIRE

INDEX OF PLANS

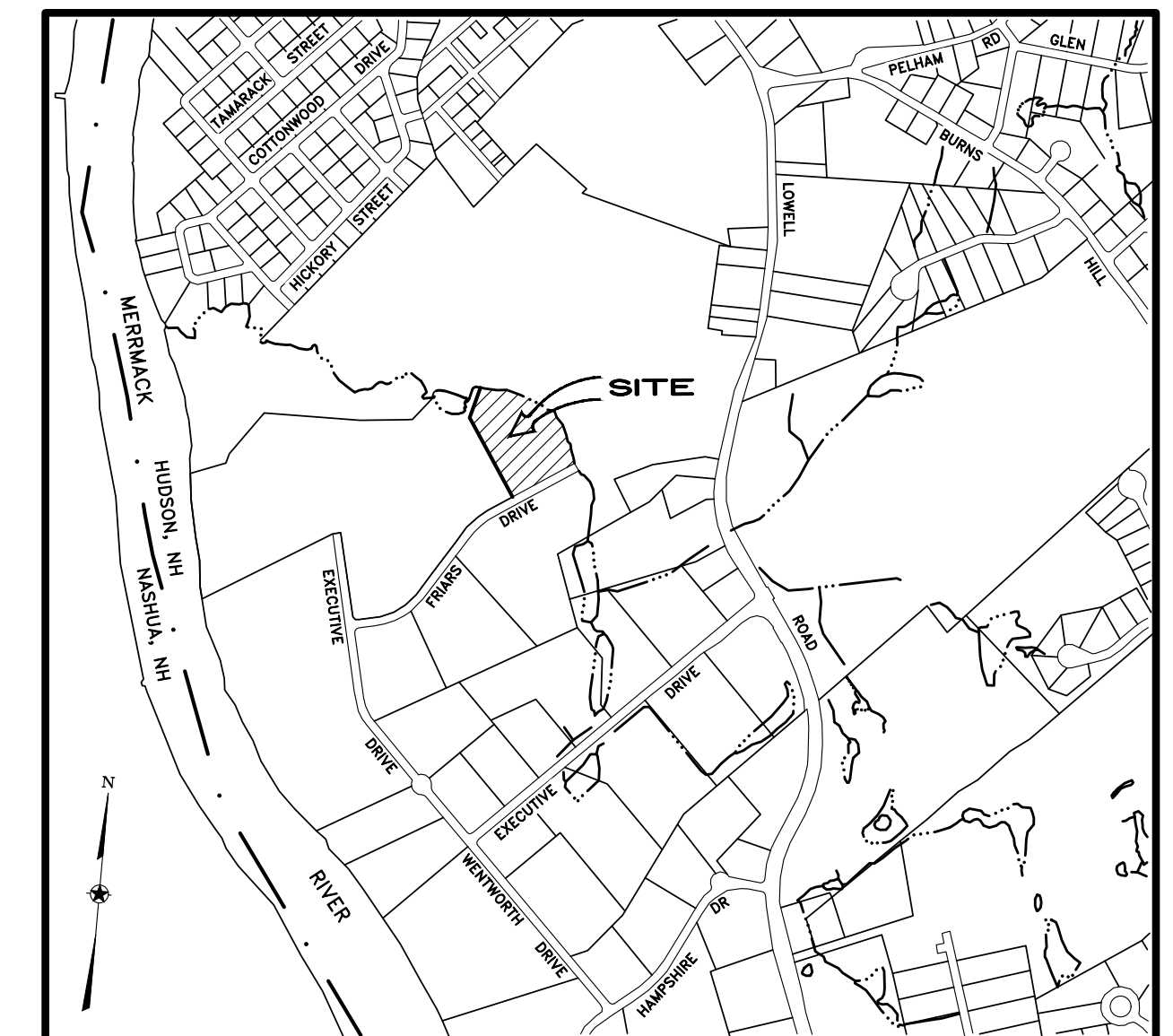
SHEET No.	TITLE	
1 OF 15	MASTER SITE PLAN	1"= 50'
2 OF 15	EXISTING CONDITIONS PLAN	1"= 40'
3 OF 15	SITE DEMOLITION/CONSTRUCTION PLAN	1"= 30'
4 OF 15	SITE GRADING & UTILITY PLAN	1"= 30'
5 OF 15	SITE LAYOUT PLAN	1"= 30'
6 OF 15	EROSION CONTROL PLAN	1" = 30'
7-8 OF 15	UTILITY PROFILES	1"=20' H 1"= 4' V
9-11 OF 15	DETAIL SHEETS - GENERAL SITE	
12 OF 15	DETAIL SHEET - EROSION CONTROL	
13 OF 15	PHOTOMETRIC SITE LIGHTING PLAN	1"= 30'
14-15 OF 15	LANDSCAPE PLANS	1"= 30'

PREPARED FOR/RECORD OWNER

INTEGRA BIOSCIENCES CORP.

2 WENTWORTH DRIVE
HUDSON, NEW HAMPSHIRE 03051
(603) 578-5800
www.integra-bioscience.com

27 JANUARY 2022



VICINITY PLAN
SCALE: 1" = 1,000'

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL

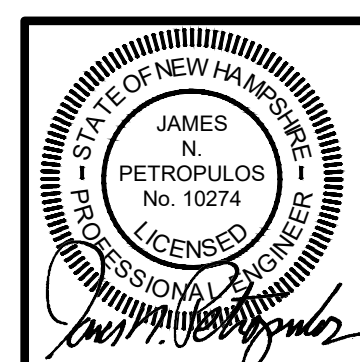
APPROVED BY THE HUDSON, NH PLANNING BOARD

DATE OF MEETING: _____

CHAIRMAN: _____ SIGNATURE DATE: _____

SECRETARY: _____ SIGNATURE DATE: _____

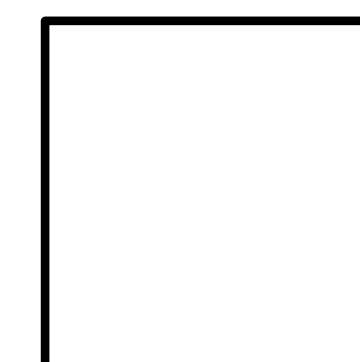
SITE PLANS ARE VALID FOR TWO (2) YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

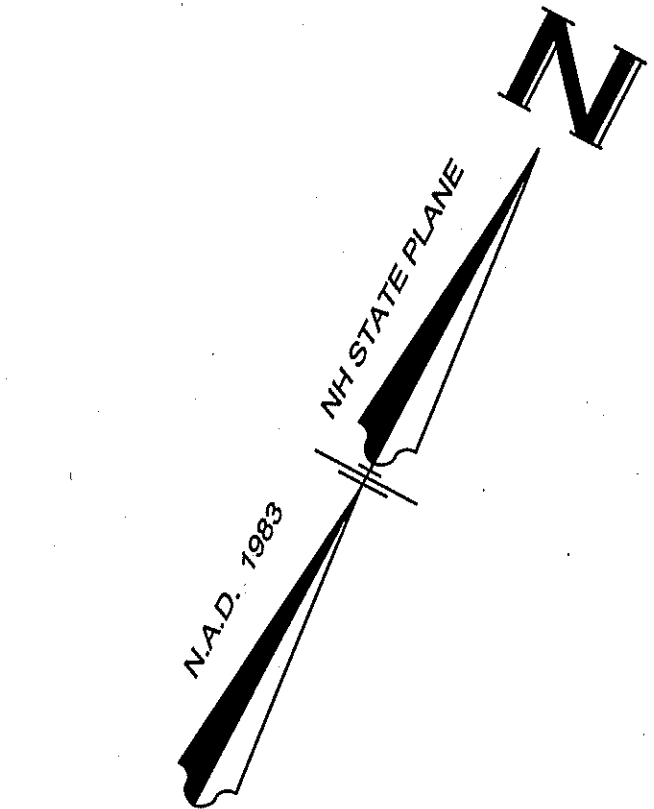


HSI Hayner/Swanson, Inc.

Civil Engineers/Land Surveyors
3 Congress Street
Nashua, NH 03062
(603) 883-2057

131 Middlesex Turnpike
Burlington, MA 01803
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www.hayner-swanson.com





ZONING NOTE
 THE ZONING/BUILDING SETBACKS DEPICTED ON THIS PLAN ARE THOSE WE HAVE INTERPRETED FROM THE LATEST ZONING ORDINANCE OF THE MUNICIPALITY AND, AS SUCH, ARE ONLY OPINIONS EXPRESSED BY HAYNERSWANSON, INC. THE FINAL INTERPRETATION OF THE ORDINANCE CAN ONLY BE MADE BY THE APPROPRIATE ZONING AUTHORITY. SINCE BUILDING ORIENTATION, PROPOSED USES, AND OTHER FACTORS CAN AFFECT THE SETBACKS, PRIOR TO ANY DEVELOPMENT OF THIS PROPERTY, THE BUILDER/OWNER MUST CONSULT WITH THE TOWN OF HUDSON TO INSURE THE CORRECT APPLICATION OF THE ZONING ORDINANCE.

**MAP 209 LOT 1
 5 WAY REALTY TRUST**
 WALTER FLOWERS &
 PETER W. HORNE, TRUSTEES
 P.O. BOX 1435
 NORTH HAMPTON, NH 03862
 BK 6046 PG 1131
 ZONE: GENERAL
 USE: VACANT LAND

PLAN REFERENCES:

- SUBDIVISION PLAN LAND OF PRESSTEK INC., HUDSON, NH PREPARED FOR PRESSTEK PARK, SCALE: 1"=100' DATED: FEBRUARY 26, 1997 BY TFMORAN INC. RECORDED: HCRD - PLAN No. 28965.
- SOUTHEASTERN CONTAINER INC. - ADDITION No. 2 SUBDIVISION/CONSOLIDATION PLAN SCALE: 1"=100' DATED: MAY 1, 1994 BY ALLAN H. SWANSON, INC. RECORDED: HCRD - PLAN No. 28916.
- SUBDIVISION PLAN OF LAND OF DIGITAL ENGINEERING CORPORATION PREPARED FOR PRESSTEK/INDUSTRIAL PLANT SCALE: 1"=100' DATED: JULY 25, 1996 BY TFMORAN INC. RECORDED: HCRD - PLAN No. 28169.
- SUBDIVISION PLAN LAND OF PRESSTEK INC. PREPARED FOR PRESSTEK PARK SCALE: 1"=100' DATED: FEBRUARY 26, 1997 BY TFMORAN INC. RECORDED: HCRD - PLAN No. 28865.
- SITE PLAN (MAP 209, LOTS 2 & 3, [27 SHEETS], PARKING LOT ADDITIONS, 65 EXECUTIVE DRIVE & FRIARS DRIVE, HUDSON, NEW HAMPSHIRE, PREPARED FOR: FARLEY WHITE INTERESTS, RECORD OWNER: PRESSTEK, LLC, SCALE: AS SHOWN, DATED: 17 MARCH 2014 WITH REVISIONS THRU 04/30/14 AND PREPARED BY THIS OFFICE. RECORDED: HCRD - PLAN No. 39110, (SHEET 1 OF 27).
- SITE LAYOUT PLAN, FRIARS COURT, MAP 209 LOT 1 FOR DAKOTA PARTNERS, INC. DATED: APRIL 25, 2019 PREPARED BY THE DUBAY GROUP, LLC. RECORDED: HCRD - PLAN No. 40569.
- SUBDIVISION PLAN, FRIARS COURT, MAP 209 LOT 1 FOR DAKOTA PARTNERS, INC. DATED: APRIL 29, 2019 PREPARED BY THE DUBAY GROUP, LLC. RECORDED: HCRD - PLAN No. 40568.
- SITE PLAN, MATRIX TECHNOLOGIES CORPORATION, FRIARS DRIVE, HUDSON NEW HAMPSHIRE, PREPARED BY MAYNARD AND PAQUETTE, INC. DATED: JUNE 26, 1996. RECORDED: HCRD - PLAN No. 28867.
- TOWN OF HUDSON PROPOSED EASEMENT ON LANDS OF: PROVINCE OF ST. MARY'S CAPUCHIN FRIARY, HUDSON NH DATED: DECEMBER 8, 1977 RECORDED: HCRD - PLAN No. 11023.

EASEMENTS, RIGHTS AND RESTRICTIONS:

- THE PROPERTY IS SUBJECT TO TERMS AND CONDITIONS AS SET FORTH IN BK. 5874 PG. 188.
- THE PROPERTY HAS BENEFICIAL RIGHTS OF STORM DRAINAGE EASEMENT AS DEFINED IN BK. 5874 PG. 188.
- THE PROPERTY IS SUBJECT TO THE 30 FT WIDE SEWER EASEMENT AS DESCRIBED IN BK 2594, PG 290.
- THE PROPERTY IS SUBJECT TO THE 10 FT WIDE SEWER EASEMENT AS DESCRIBED IN BK 5864, PG 1573 & BK 5874, PG 188.
- THE PROPERTY IS SUBJECT TO A DEVELOPMENT AGREEMENT WITH THE TOWN OF HUDSON IN BK. 5864 PG. 1554.
- THE PROPERTY IS SUBJECT TO THE TEMPORARY EASEMENT FOR PAVED TURNAROUND AS DESCRIBED IN BK 5864, PG 1570 & BK 5874, PG 188.
- THE PROPERTY IS SUBJECT TO A DEVELOPMENT AGREEMENT WITH THE TOWN OF HUDSON AS DEFINED IN BK. 5864 PG. 1577.
- THE PROPERTY IS SUBJECT TO THE LANDSCAPE RIGHTS AND CONDITIONS AS DESCRIBED IN BK 5874, PG 188.
- REVISED WATER LINE EASEMENT LOCATE WITHIN FRIARS DRIVE AS AMENDED BY BK. 5863 PG. 1430.
- AMENDED SEWER EASEMENT PARTIALLY LOCATED WITHIN FRIARS DRIVE DEFINED IN BK. 5865 PG. 1019.

EASEMENTS, RIGHTS AND RESTRICTIONS LISTED ABOVE OR DEPICTED ON THIS PLAN ARE THOSE THAT WERE FOUND AT THE REGISTRY OF DEEDS FOR THE PURPOSES OF THE DETERMINATION AND LOCATION OF THE PROPERTY LINES OF THE SURVEYED PREMISES, EASEMENTS, RIGHTS AND RESTRICTIONS INCLUDING BUT NOT LIMITED TO UNWRITTEN RIGHTS MAY AFFECT THE PROPERTY. THE SURVEYOR MAKES NO GUARANTEE TO TITLE, RIGHTS OR OWNERSHIP OF PROPERTY.

WAIVERS REQUESTED/APPROVED:

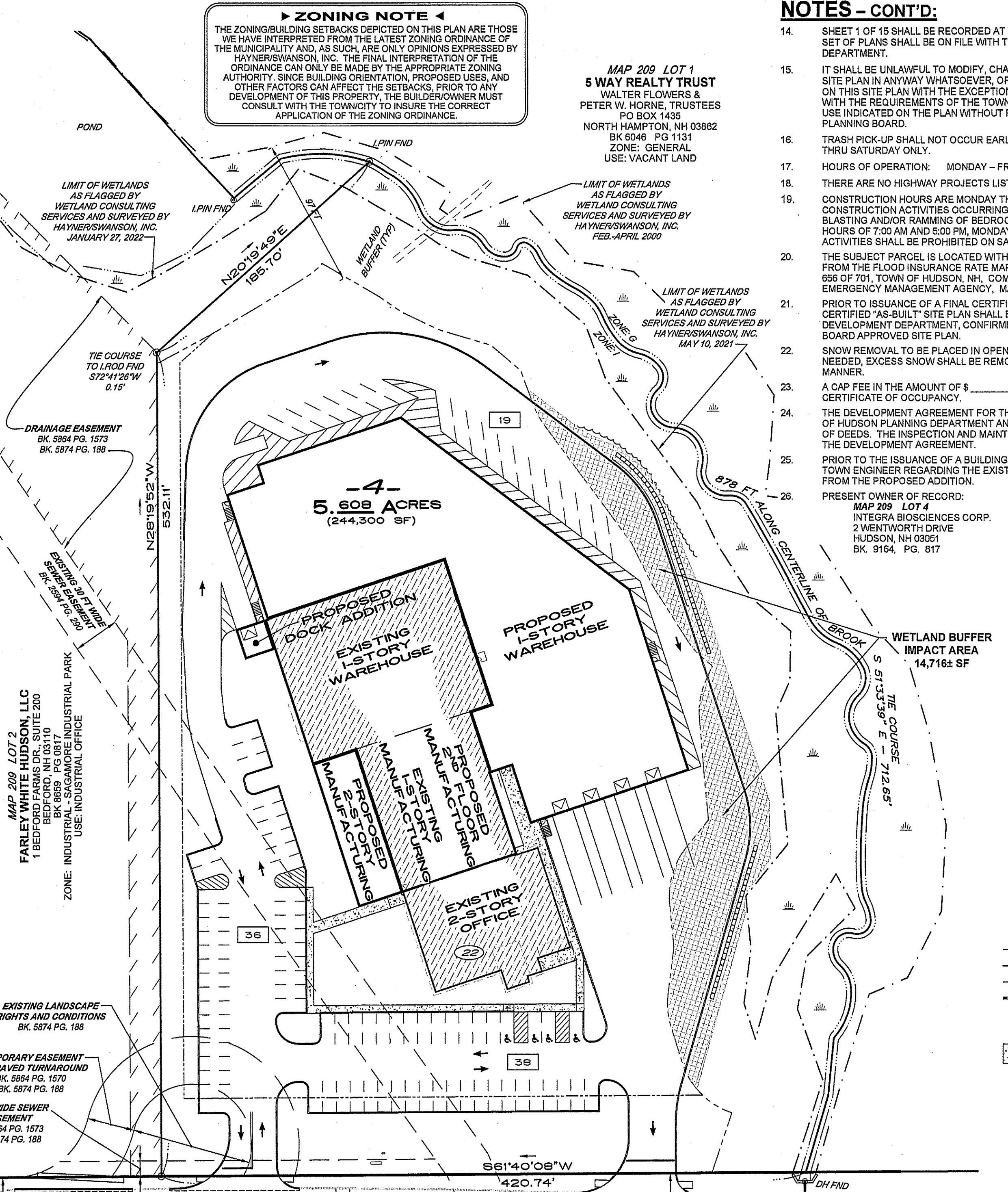
- SPR 275 - 8c (2) REQUIRED PARKING SPACES
- SPR 275 - 8c (6) REQUIRED LOADING SPACES

DRIVEWAY SIGHT DISTANCES:

WEST DRIVEWAY: LOOKING WEST - 400+ FT LOOKING EAST - 400+ FT
 EAST DRIVEWAY: LOOKING WEST - 400+ FT LOOKING EAST - 400+ FT

BUILDING INFORMATION			
USE	EXISTING	PROPOSED	TOTAL
OFFICES	13,242 SF	—	13,242 SF
MANUFACTURING	7,448 SF	13,437 SF	20,885 SF
WAREHOUSE	11,520 SF	34,340 SF	45,860 SF
DOCK ADDITION	—	400 SF	400 SF
TOTAL	32,210 SF	48,177 SF	80,387 SF

APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____
 CHAIRMAN: _____ SIGNATURE DATE: _____
 SECRETARY: _____ SIGNATURE DATE: _____
 SITE PLANS ARE VALID FOR TWO (2) YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.



NOTES - CONT'D:

- SHEET 1 OF 15 SHALL BE RECORDED AT THE HILLSBOROUGH REGISTRY OF DEEDS. A COMPLETE SET OF PLANS SHALL BE ON FILE WITH THE TOWN OF HUDSON COMMUNITY DEVELOPMENT DEPARTMENT.
- IT SHALL BE UNLAWFUL TO MODIFY, CHANGE, OR ALTER ANY STRUCTURE OR USE SHOWN ON THIS SITE PLAN IN ANYWAY WHATSOEVER, OR CONVERT OR ALTER ANY STRUCTURE OR USE SHOWN ON THIS SITE PLAN WITH THE EXCEPTION OF DECKS AND PORCHES (PROVIDED THEY CONFORM WITH THE REQUIREMENTS OF THE TOWN OF HUDSON ZONING BY-LAWS), OR CHANGE THE ABOVE USE INDICATED ON THE PLAN WITHOUT RECEIVING APPROVAL FROM THE TOWN OF HUDSON PLANNING BOARD.
- TRASH PICK-UP SHALL NOT OCCUR EARLIER THAN 7:00 AM NOR LATER THAN 7:00 PM, MONDAY THRU SATURDAY ONLY.
- HOURS OF OPERATION: MONDAY - FRIDAY 24 HOURS PER DAY (3 SHIFTS).
- THERE ARE NO HIGHWAY PROJECTS LISTED UPON THIS PROPERTY.
- CONSTRUCTION HOURS ARE MONDAY THRU SATURDAY, 7:00 AM TO 7:00 PM, WITH NO CONSTRUCTION ACTIVITIES OCCURRING ON SUNDAYS. IF LOT DEVELOPMENT INVOLVES BLASTING AND/OR RAMMING OF BEDROCK MATERIALS, SAID ACTIVITIES SHALL BE LIMITED TO THE HOURS OF 7:00 AM AND 5:00 PM, MONDAY THRU FRIDAY ONLY. SAID BLASTING/RAMMING ACTIVITIES SHALL BE PROHIBITED ON SATURDAYS AND SUNDAYS.
- THE SUBJECT PARCEL IS LOCATED WITHIN AN AREA DESIGNATED AS ZONE "X" AS DETERMINED FROM THE FLOOD INSURANCE RATE MAP, HILLSBOROUGH COUNTY (ALL JURISDICTIONS), PANEL 696 OF 701, TOWN OF HUDSON, NH, COMMUNITY No. 330392, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, MAP NUMBER: 3301100696D, DATED: SEPTEMBER 25, 2009.
- PRIOR TO ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY A LICENSED LAND SURVEYOR CERTIFIED "AS-BUILT" SITE PLAN SHALL BE PROVIDED TO THE TOWN OF HUDSON COMMUNITY DEVELOPMENT DEPARTMENT, CONFIRMING THAT THE SITE CONFORMS WITH THE PLANNING BOARD APPROVED SITE PLAN.
- SNOW REMOVAL TO BE PLACED IN OPEN AREAS OF THE SITE AS SHOWN ON SHEET 4 OF 10. IF NEEDED, EXCESS SNOW SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.
- A CAP FEE IN THE AMOUNT OF \$ _____ SHALL BE PAID PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- THE DEVELOPMENT AGREEMENT FOR THIS PROJECT SHALL BE PLACED ON FILE WITH THE TOWN OF HUDSON PLANNING DEPARTMENT AND RECORDED AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS. THE INSPECTION AND MAINTENANCE PLAN FOR STORMWATER SHALL BE INCLUDED IN THE DEVELOPMENT AGREEMENT.
- PRIOR TO THE ISSUANCE OF A BUILDING PERMIT, CALCULATIONS SHALL BE PROVIDED TO THE TOWN ENGINEER REGARDING THE EXISTING WATER METER HANDLING THE ADDITIONAL DEMAND FROM THE PROPOSED ADDITION.
- PRESENT OWNER OF RECORD:
 MAP 209 LOT 4
 INTEGRA BIOSCIENCES CORP.
 2 WENTWORTH DRIVE
 HUDSON, NH 03051
 BK. 9164, PG. 617

LEGEND

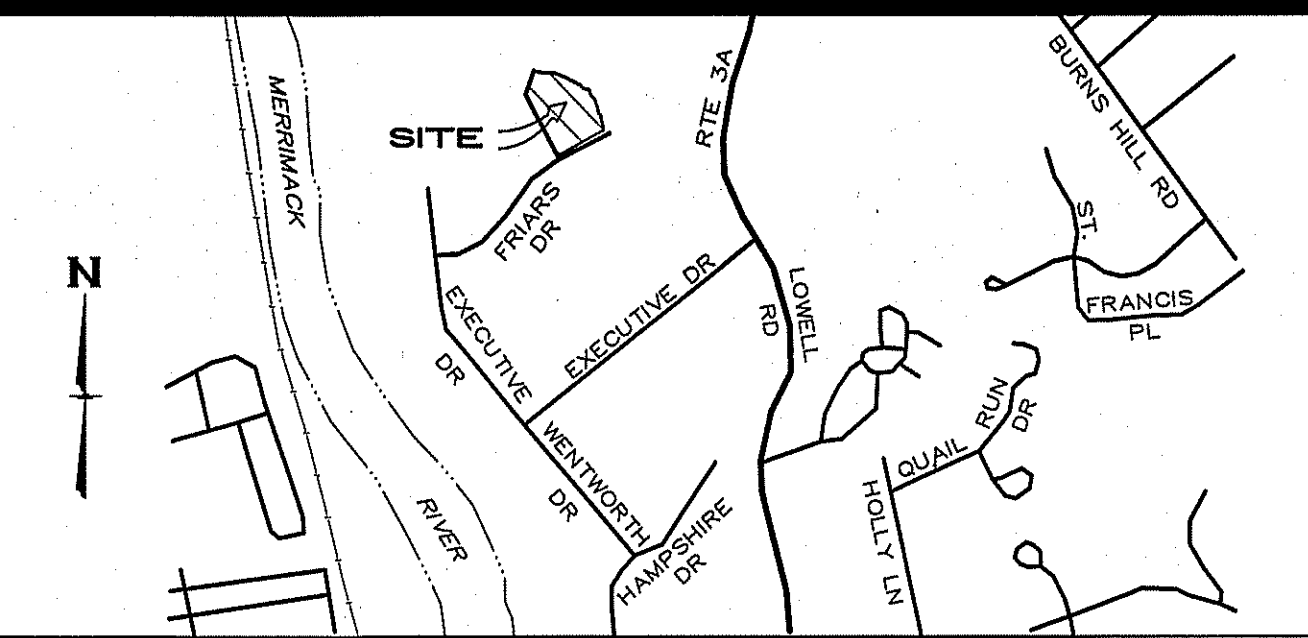
- SB STONE BOUND
- IPIN IRON PIN
- BUILDING SETBACK LINE
- - - - WETLAND FLAGGING LIMIT
- - - - WETLAND BUFFER LINE
- - - - SLOPE GRANITE CURBING
- ⊕ HANDICAP PARKING SPACE
- 10 STREET ADDRESS
- 36 CONCRETE
- 36 PROPOSED PARKING SPACE COUNT



CERTIFICATION

PURSUANT TO RSA 676:18, III AND RSA 672:14
 I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.
 I FURTHER CERTIFY, TO MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THIS PLAN SHOWS THE RESULTS OF AN ON THE GROUND "STANDARD PROPERTY SURVEY" AND THAT SAID SURVEY MEETS THE MINIMUM PRECISION AND/OR ACCURACY MEASUREMENTS FOR SURVEY CLASSIFICATION "U" (URBAN) AS SET FORTH IN TABLE 500.1 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS ADOPTED 08/23/01, EFFECTIVE 01/01/09.
 I FURTHER CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE ON THE GROUND AND HAS A MAXIMUM ERROR OF CLOSURE OF ONE PART IN FIFTEEN THOUSAND ON ALL PROPERTY LINES WITHIN AND BORDERING THE SUBJECT PROPERTY.

DATE: 1/31/2022
 DATE: 1/31/22

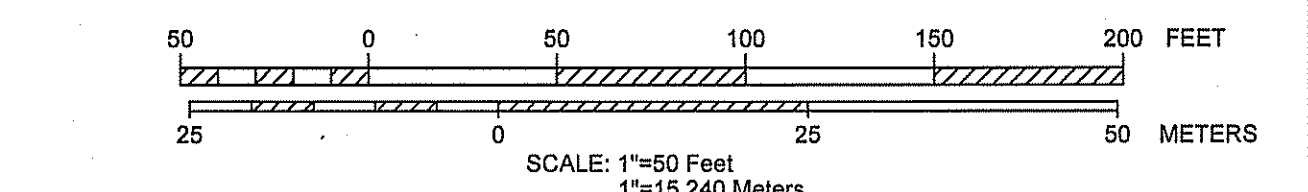


NOTES:

- LOT AREA: (MAP 209, LOT 4) 5.608 ACRES (244,300 SF)
 - PRESENT ZONING: I - INDUSTRIAL
 MINIMUM LOT REQUIREMENTS:
 - LOT AREA 30,000 SF
 - LOT FRONTAGE 150 FT
 MINIMUM BUILDING SETBACKS REQUIREMENTS:
 - FRONT YARD 50 FT
 - SIDE YARD 15 FT
 - REAR YARD 15 FT
 MAXIMUM BUILDING HEIGHT: 50 FT
 - LOT NUMBERS REFER TO THE TOWN OF HUDSON ASSESSORS MAP 209.
 - SITE IS CURRENTLY SERVICED BY MUNICIPAL WATER AND MUNICIPAL SEWER, GAS AND OVERHEAD ELECTRIC AND TELECOMMUNICATION UTILITIES.
 - PURPOSE OF PLAN:
 TO SHOW PROPOSED BUILDING ADDITIONS ALONG WITH ACCOMPANYING LOADING AND SITE IMPROVEMENTS.
 - PARKING:
 REQUIRED: 1 SPACE/600 SF X 80,387 SF (INDUSTRIAL) = 134 SPACES
 PROVIDED: (INCLUDES 4 ACCESSIBLE SPACES) = 83 SPACES *
 * WAIVER REQUESTED
 - LOADING:
 REQUIRED: 9 SPACES
 PROVIDED: 5 SPACES
 - OPEN SPACE:
 REQUIRED: 35 %
 PROVIDED: 42 %
 - BUILDING HEIGHT:
 MAXIMUM: 50 FT
 PROPOSED:
 • EXISTING 2-STORY OFFICE: 30 FT±
 • PROPOSED 2-STORY MANUFACTURING: 30 FT±
 • EXISTING WAREHOUSE: (TO BE RAISED TO 50 FT)
 • PROPOSED WAREHOUSE: 50 FT
 - SURVEY CONTROL:
 HORIZONTAL DATUM: NAD83/86"
 PROJECTION: NH STATE PLANE
 VERTICAL DATUM: NGVD29"
 SCALE FACTOR APPLIED: 1.000000
 UNITS: US SURVEY FEET
- * VERTICAL AND HORIZONTAL DATUM WAS VERIFIED USING GPS (KEYNET NETWORK) BY TAKING OBSERVATIONS ON SITE AND ON NGS (FORMERLY USGS) "DISK D-28" LOCATED ON THE NORTHERLY SIDE OF RTE 101A APPROXIMATELY 4.5 MILES WEST OF THE NASHUA LIBRARY.
- ALL SIGNS ARE SUBJECT TO ALL REQUIREMENTS OF THE ZONING ORDINANCE AS DETERMINED DURING THE SIGN PERMIT APPLICATION PROCESS.
 - SITE IMPROVEMENTS DEPICTED ON THE PLAN SHALL CONFORM WITH TITLE III OF THE AMERICANS WITH DISABILITIES ACT (LATEST EDITION).
 - SITE LIGHTING SHALL BE SHOWN ON THE PLAN, DIRECTED ONTO THE SITE, AND SHALL CONFORM WITH ALL APPLICABLE TOWN OF HUDSON ZONING REGULATIONS.

MASTER SITE PLAN
 (MAP 209, LOT 4)
PROPOSED BUILDING ADDITIONS
 22 FRIARS DRIVE
 HUDSON, NEW HAMPSHIRE

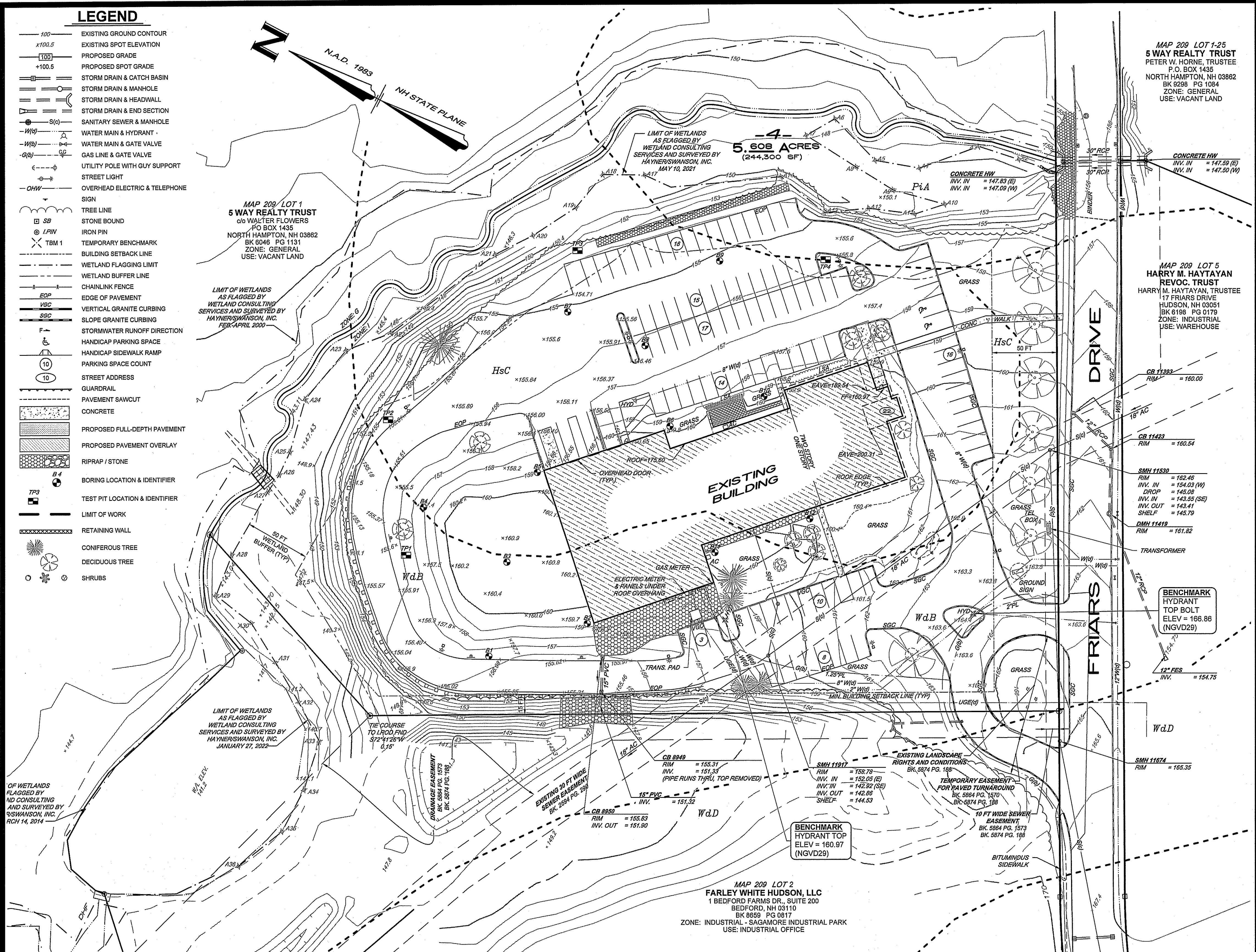
PREPARED FOR/RECORD OWNER:
INTEGRA BIOSCIENCES CORP.
 2 WENTWORTH DRIVE HUDSON, NEW HAMPSHIRE 03051 (603) 578-5800



27 JANUARY 2022

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 Civil Engineers/Land Surveyors
 3 Congress Street 131 Middlesex Turnpike
 Nashua, NH 03062 Burlington, MA 01803
 (603) 883-2057 (781) 203-1501
 www.haynerswanson.com

FIELD BOOK: 1234	DRAWING NAME: 5734 SITE-FG51	5734	1 OF 15
DRAWING LOC: J:\5000\5734\DWG\5734 SITE 2021	File Number	Sheet	



- LEGEND**
- 100' EXISTING GROUND CONTOUR
 - x100.5 EXISTING SPOT ELEVATION
 - 100' PROPOSED GRADE
 - +100.5 PROPOSED SPOT GRADE
 - STORM DRAIN & CATCH BASIN
 - STORM DRAIN & MANHOLE
 - STORM DRAIN & HEADWALL
 - STORM DRAIN & END SECTION
 - SANITARY SEWER & MANHOLE
 - W(0) WATER MAIN & HYDRANT
 - W(0) WATER MAIN & GATE VALVE
 - G(0) GAS LINE & GATE VALVE
 - UTILITY POLE WITH GUY SUPPORT
 - STREET LIGHT
 - OHW OVERHEAD ELECTRIC & TELEPHONE SIGN
 - TREE LINE
 - STONE BOUND
 - SB IRON PIN
 - LFIN TEMPORARY BENCHMARK
 - TBM 1 TEMPORARY SETBACK LINE
 - WETLAND FLAGGING LIMIT
 - WETLAND BUFFER LINE
 - CHAINLINK FENCE
 - EDP EDGE OF PAVEMENT
 - VGC VERTICAL GRANITE CURBING
 - SGC SLOPE GRANITE CURBING
 - F- STORMWATER RUNOFF DIRECTION
 - HANDICAP PARKING SPACE
 - HANDICAP SIDEWALK RAMP
 - PARKING SPACE COUNT
 - STREET ADDRESS
 - GUARDRAIL
 - PAVEMENT SAWCUT
 - CONCRETE
 - PROPOSED FULL-DEPTH PAVEMENT
 - PROPOSED PAVEMENT OVERLAY
 - RIPRAP / STONE
 - B 4 BORING LOCATION & IDENTIFIER
 - TP3 TEST PIT LOCATION & IDENTIFIER
 - LIMIT OF WORK
 - RETAINING WALL
 - CONIFEROUS TREE
 - DECIDUOUS TREE
 - SHRUBS

MAP 209 LOT 1
5 WAY REALTY TRUST
 c/o WALTER FLOWERS
 P.O. BOX 1435
 NORTH HAMPTON, NH 03862
 BK 6046 PG 1131
 ZONE: GENERAL
 USE: VACANT LAND

LIMIT OF WETLANDS
 AS FLAGGED BY
 WETLAND CONSULTING
 SERVICES AND SURVEYED BY
 HAYNER/SWANSON, INC.
 FEB/APRIL 2000

LIMIT OF WETLANDS
 AS FLAGGED BY
 WETLAND CONSULTING
 SERVICES AND SURVEYED BY
 HAYNER/SWANSON, INC.
 JANUARY 27, 2022

LIMIT OF WETLANDS
 AS FLAGGED BY
 WETLAND CONSULTING
 SERVICES AND SURVEYED BY
 HAYNER/SWANSON, INC.
 MAY 10, 2021

MAP 209 LOT 2
FARLEY WHITE HUDSON, LLC
 1 BEDFORD FARMS DR., SUITE 200
 BEDFORD, NH 03110
 BK 8859 PG 0817
 ZONE: INDUSTRIAL - SAGAMORE INDUSTRIAL PARK
 USE: INDUSTRIAL OFFICE

MAP 209 LOT 1-25
5 WAY REALTY TRUST
 PETER W. HORNE, TRUSTEE
 P.O. BOX 1435
 NORTH HAMPTON, NH 03862
 BK 9298 PG 1084
 ZONE: GENERAL
 USE: VACANT LAND

MAP 209 LOT 5
HARRY M. HAYTAYAN REVOC. TRUST
 HARRY M. HAYTAYAN, TRUSTEE
 17 FRIARS DRIVE
 HUDSON, NH 03051
 BK 6198 PG 0179
 ZONE: INDUSTRIAL
 USE: WAREHOUSE

- SURVEY NOTES:**
- TOPOGRAPHY SHOWN IS BASED ON AERIAL PHOTOGRAPHY BY EASTERN TOPOGRAPHIC USING PHOTOGRAPHIC IMAGERY FROM 2008. HORIZONTAL AND VERTICAL CONTROLLED BY HAYNER/SWANSON, INC. IN MARCH 2014 THRU AUGUST 2020 AND FIELD VERIFIED IN AREAS OF PROPOSED IMPROVEMENTS BY CONVENTIONAL METHODS.
 - UTILITIES SHOWN ARE APPROXIMATE BASED ON RECORD PLANS AND OBSERVED EVIDENCE.
 - IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE ACCURACY OF THE EXISTING TOPOGRAPHY PRIOR TO EARTHWORK OPERATIONS. NO CLAIM FOR EXTRA WORK DUE TO TOPOGRAPHIC INACCURACY SHALL BE CONSIDERED AFTER EARTHWORK HAS COMMENCED.
 - SURVEY CONTROL:
 HORIZONTAL DATUM: NAD83/2011 PROJECTION: NH STATE PLANE
 VERTICAL DATUM: NGVD29* SCALE FACTOR APPLIED: 1.000000
 UNITS: US SURVEY FEET
 * VERTICAL DATUM WAS VERIFIED USING GPS (KEYNET NETWORK) BY TAKING OBSERVATIONS ON SITE AND ON NGS (FORMERLY USGS) "DISK D-28" LOCATED ON THE NORTHERLY SIDE OF RTE 101A APPROXIMATELY 4.5 MILES WEST OF THE NASHUA LIBRARY.
 - THE CONTRACTOR SHALL ONLY USE BENCHMARKS AS PROVIDED BY THE ENGINEER.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 1-888-344-7233 AT LEAST 72 HOURS BEFORE DIGGING.
 - TEST PITS AS SHOWN ARE APPROXIMATE. TEST PITS WERE PERFORMED UNDER THE SUPERVISION OF HAYNER/SWANSON, INC., NASHUA, NH.
 - THIS SITE CONTAINS WINDSOR (HsC, WdC), HINCKLEY (HsC) AND PIPESTONE (PiA) SOILS AS DETERMINED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) NATURAL RESOURCES CONSERVATION SERVICE (NRCS) WEB SOIL SURVEY.

- UTILITY QUALITY LEGEND**
- SUBSURFACE UTILITIES AS DEPICTED ON THIS PLAN ARE IDENTIFIED BY QUALITY LEVELS DEFINED BY CIVIL ENGINEERING STANDARD GUIDELINE FOR COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA*
- LEVEL A (a) PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES OBTAINED BY ACTUAL EXPOSURE AND SUBSEQUENT MEASUREMENTS OF SUBSURFACE UTILITIES.
 - LEVEL B (b) INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES. (IE DIGSAFE)
 - LEVEL C (c) INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGEMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D INFORMATION.
 - LEVEL D (d) INFORMATION DERIVED FROM EXISTING RECORDS OR ORAL RECOLLECTIONS.

UTILITY NOTE

THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND PLOTTED FROM EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTIONS OF THE UTILITIES.

SOIL SURVEY STAFF, NATURAL RESOURCES CONSERVATION SERVICE, UNITED STATES DEPT. OF AGRICULTURE, WEB SOIL SURVEY. AVAILABLE ONLINE AT <http://websoildurvey.nrcs.usda.gov/> ACCESSED 09/01/20

SOILS DATA

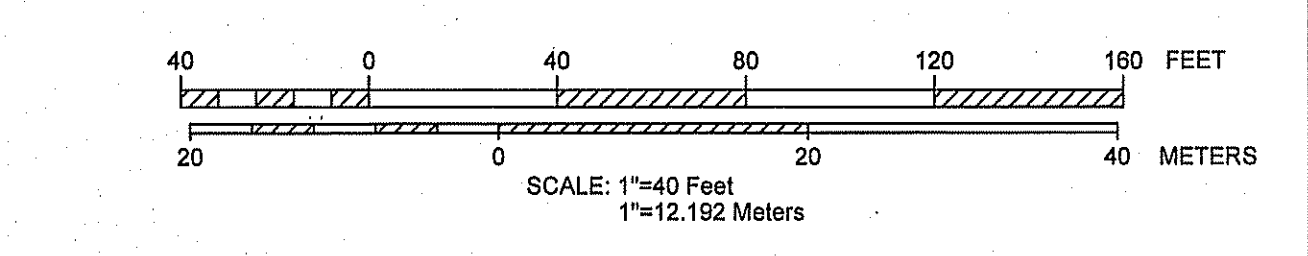
HsC	HINCKLEY LOAMY SAND
Wd.B	WINDSOR LOAMY SAND
Pi.A	PIPESTONE LOAMY SAND
- - -	SOIL BOUNDARY

EXISTING CONDITIONS PLAN
 (MAP 209, LOT 4)

PROPOSED BUILDING ADDITIONS

22 FRIARS DRIVE
 HUDSON, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
INTEGRA BIOSCIENCES CORP.
 2 WENTWORTH DRIVE HUDSON, NEW HAMPSHIRE 03051 (603) 578-5800



27 JANUARY 2022

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PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD

DATE OF MEETING: _____

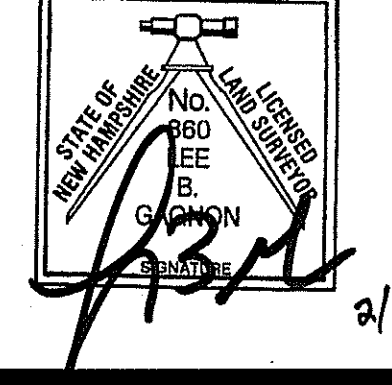
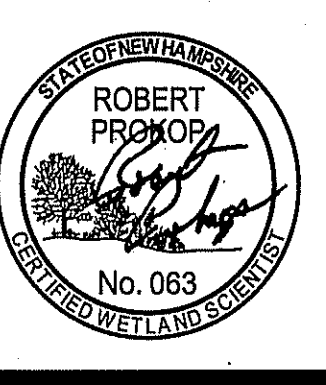
CHAIRMAN: _____ SIGNATURE DATE: _____

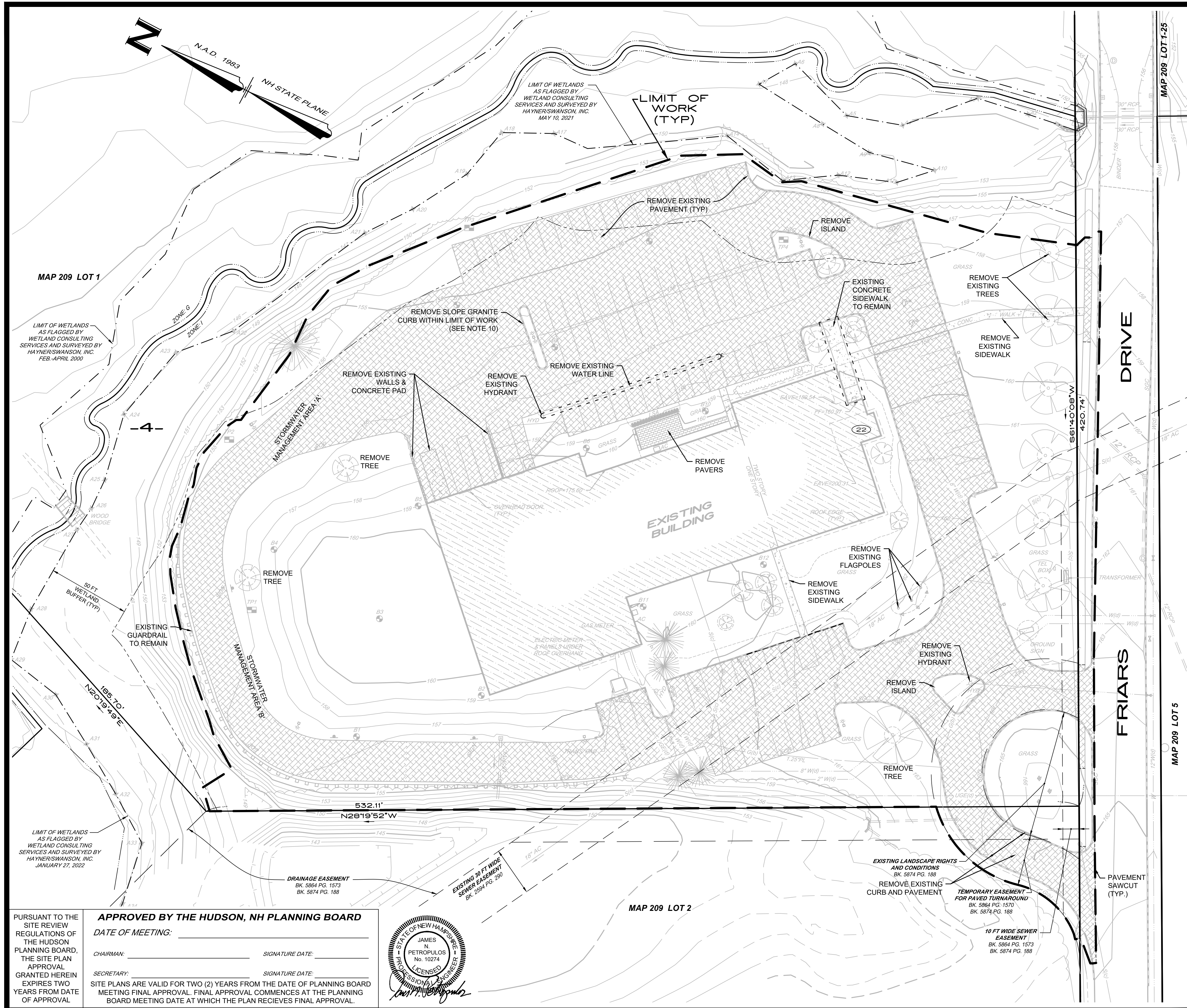
SECRETARY: _____ SIGNATURE DATE: _____

SITE PLANS ARE VALID FOR TWO (2) YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

THIS IS TO CERTIFY THAT THE WETLANDS HAVE BEEN DELINEATED IN ACCORDANCE WITH THE U.S. ARMY CORPS OF ENGINEERS JANUARY 2012 REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST (REGION 2).

WETLAND DELINEATION PREPARED BY:
 WETLAND CONSULTING SERVICES
 ROBERT PROKOP
 CERTIFIED WETLAND SCIENTIST (#063)





SITE DEMOLITION NOTES:

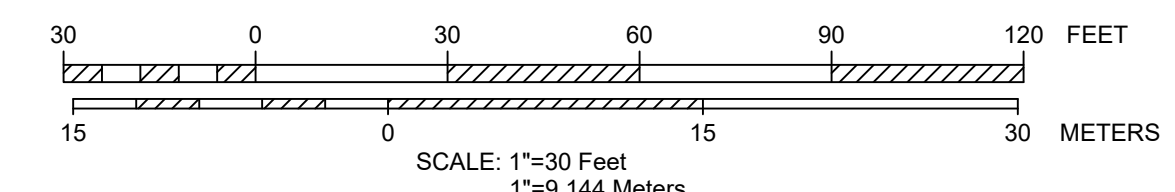
- THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES, OF ALL STRUCTURES, PADS, WALLS, FOUNDATIONS, PARKING, DRIVES, DRAINAGE, STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE GEOTECHNICAL SPECIFICATIONS.
- 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 SITE DEMOLITION AND DISPOSAL.
- 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.
- 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 ON-SITE LOCATIONS OF EXISTING UTILITIES.
- 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. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. THE CONTRACTOR SHALL GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK.
- 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. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. THE CONTRACTOR SHALL PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN THE ROAD RIGHT OF WAY DURING CONSTRUCTION.
- PRIOR TO SITE DEMOLITION OCCURRING, ALL APPROPRIATE EROSION CONTROL DEVICES ARE TO BE INSTALLED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE TOWN OF HUDSON PRIOR TO THE START OF DEMOLITION OR CONSTRUCTION. A DEMOLITION APPROVAL PERMIT SHALL BE OBTAINED FROM THE TOWN OF HUDSON PRIOR TO THE ANY BUILDING DEMOLITION.
- FOR WORK WITHIN A PUBLIC STREET THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE TOWN ENGINEERING DEPARTMENT.
- THE CONTRACTOR SHALL REMOVE AND STOCKPILE EXISTING SLOPE AND VERTICAL GRANITE CURB IN A LOCATION PROVIDED BY THE OWNER'S REPRESENTATIVE. CURB THAT IS IN GOOD CONDITION AND ACCEPTABLE TO THE OWNER'S REPRESENTATIVE MAY BE REUSED IN LOCATIONS SHOWN ON THE SITE GRADING & UTILITY PLAN. SURPLUS OR UNACCEPTABLE CURB SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROPERTY.



No.	DATE	REVISION	BY

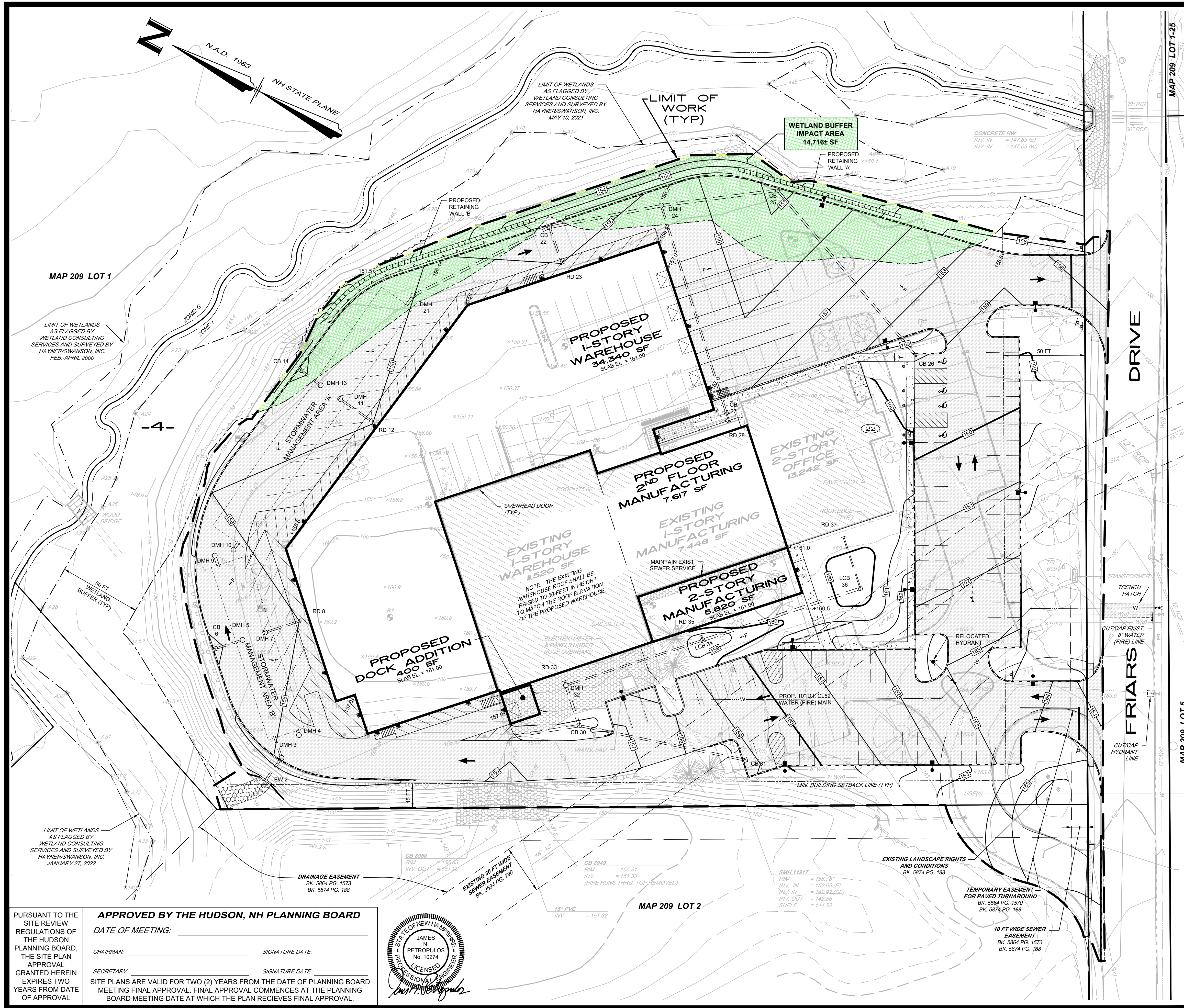
SITE DEMOLITION/CONSTRUCTION PLAN
 (MAP 209, LOT 4)
PROPOSED BUILDING ADDITIONS
 22 FRIARS DRIVE
 HUDSON, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
INTEGRA BIOSCIENCES CORP.
 2 WENTWORTH DRIVE HUDSON, NEW HAMPSHIRE 03051 (603) 578-5800



27 JANUARY 2022

HSI Hayner/Swanson, Inc.
 Civil Engineers/Land Surveyors
 3 Congress Street 131 Middlesex Turnpike
 Nashua, NH 03062 Burlington, MA 01803
 (603) 883-2057
 www.haynerswanson.com



CONSTRUCTION NOTES:

- ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF HUDSON, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, LATEST ADDITION, ARE HEREBY INCORPORATED BY REFERENCE.
- ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, PUBLIC WORKS DEPT., HUDSON, NEW HAMPSHIRE. ALL DRAINAGE PIPES SHALL BE ADS N-12 (SOIL TIGHT), CATCH BASINS SHALL BE TYPE B, AND HAVE 3 FT SUMPS UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES. SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 1-888-344-7233 AT LEAST 72 HOURS BEFORE DIGGING.
- WATER (DOMESTIC), SANITARY SEWER, GAS, ELECTRIC AND TELECOMMUNICATION UTILITIES SHALL BE EXTENDED FROM THE EXISTING BUILDING TO THE PROPOSED ADDITIONS.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND MAINTAINED THROUGH THE CONSTRUCTION PROCESS UNTIL STABILIZATION OCCURS.
- STUMPS SHALL BE DISPOSED OF OFF-SITE IN A LEGAL MANNER.
- DIMENSIONS TO CURB AND GUTTERS INDICATE EDGE OF PAVING UNLESS OTHERWISE NOTED.
- EXISTING PAVEMENT SHALL BE SAW-CUT AS NECESSARY. CONTRACTOR SHALL ENSURE A SMOOTH TRANSITION BETWEEN NEW AND EXISTING PAVEMENT.

TOWN OF HUDSON CONTACTS

PLANNING DEPARTMENT
 HUDSON PLANNING DEPT.
 12 SCHOOL STREET
 HUDSON, NH 03051
 ATT: BRIAN GROTH, AICP
 LAND USE DIRECTOR
 (603) 886-6008

ENGINEERING DEPARTMENT
 HUDSON ENGINEERING DEPT.
 12 SCHOOL STREET
 HUDSON, NH 03051
 ATT: ELVIS DHIMA, P.E.
 TOWN ENGINEER
 (603) 886-6008

FIRE DEPARTMENT
 HUDSON FIRE DEPARTMENT
 12 SCHOOL STREET
 HUDSON, NH 03051
 ATT: ROBERT BUXTON, FIRE CHIEF
 (603) 886-6021

UTILITY CONTACTS

GAS:
 LIBERTY UTILITIES
 130 ELM STREET
 MANCHESTER, NH 03103
 ATT: ANDREW MORGAN
 (603) 327-5357

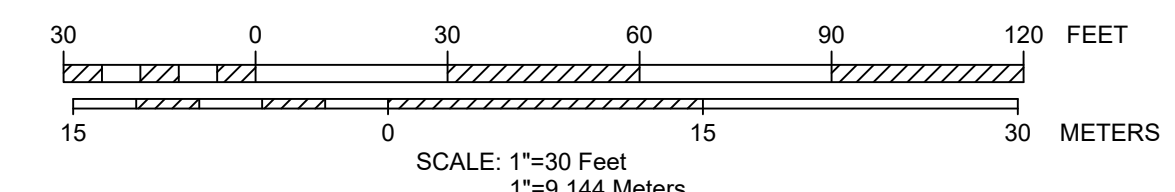
TELEPHONE:
 CONSOLIDATED COMMUNICATIONS
 257 DANIEL WEBSTER HIGHWAY
 MERRIMACK, NH 03054
 ATT: HEATHER ARUJJO
 (603) 296-5998

POWER:
 EVERSOURCE
 370 AMHERST STREET
 NASHUA, NH 03060
 ATT: MARC GAGNON
 (603) 862-5894

No.	DATE	REVISION	BY

SITE GRADING & UTILITY PLAN
 (MAP 209, LOT 4)
PROPOSED BUILDING ADDITIONS
 22 FRIARS DRIVE
 HUDSON, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
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 2 WENTWORTH DRIVE HUDSON, NEW HAMPSHIRE 03051 (603) 578-5800



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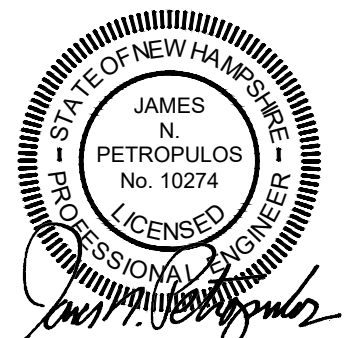
3 Congress Street
 Nashua, NH 03062
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 131 Middlesex Turnpike
 Burlington, MA 01803
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 www.haynerswanson.com

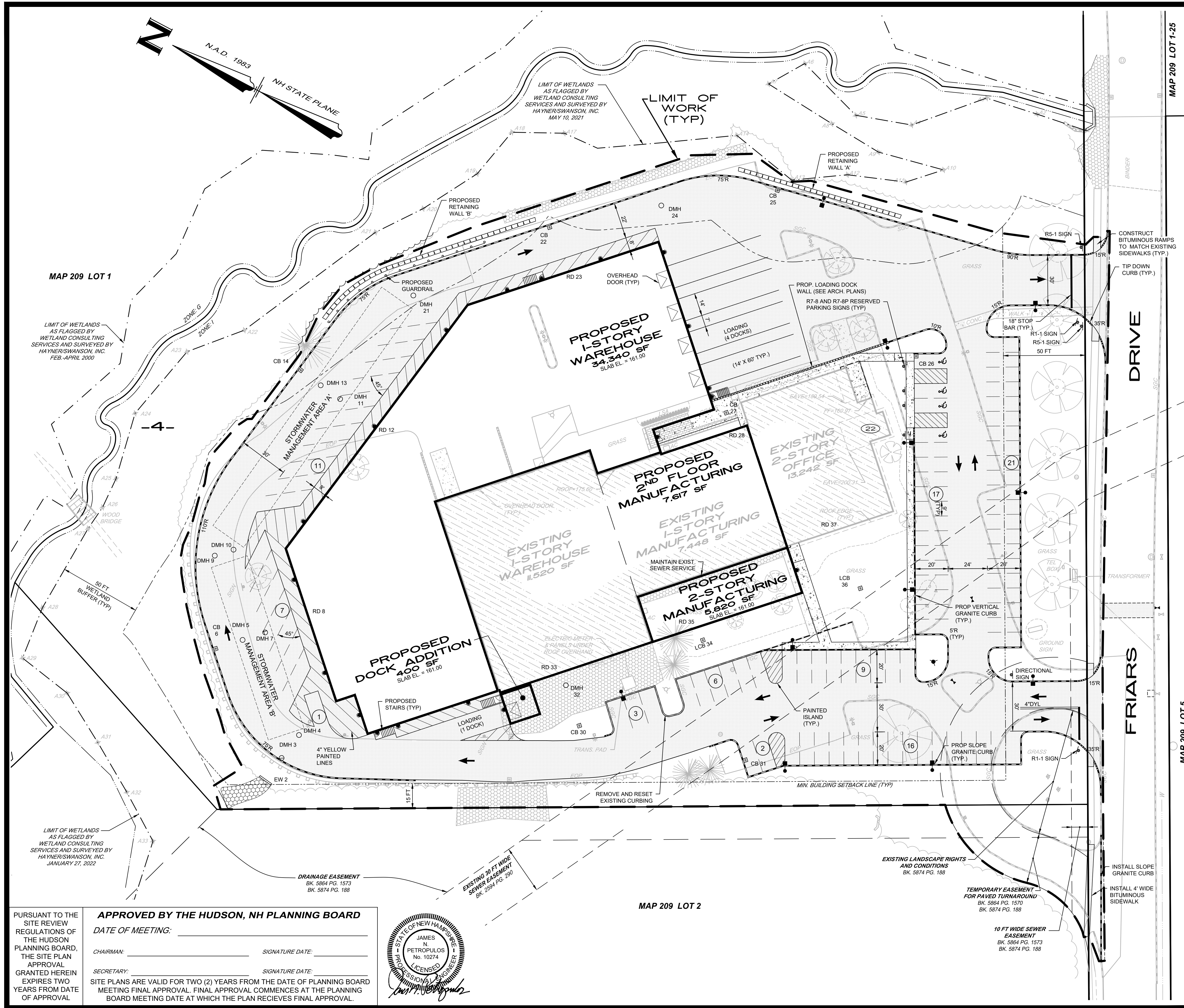
PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____
 CHAIRMAN: _____ SIGNATURE DATE: _____
 SECRETARY: _____ SIGNATURE DATE: _____

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 CHAIRMAN: _____ SIGNATURE DATE: _____
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SIGN LEGEND		
TEXT	IDENTIFICATION NUMBER	SIZE WIDTH/HEIGHT
SEE MUTCD FOR TEXT DIMENSIONS	TEXT DIMENSIONS	
	R1-1	30"X30"
SEE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS		
	R5-1	30"X30"
SEE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS		
	R7-8	12"X18"
SEE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS		
	R7-8P	18"X9"
SEE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS		

No.	DATE	REVISION	BY

SITE LAYOUT PLAN
(MAP 209, LOT 4)

PROPOSED BUILDING ADDITIONS

**22 FRIARS DRIVE
HUDSON, NEW HAMPSHIRE**

PREPARED FOR/RECORD OWNER:
INTEGRA BIOSCIENCES CORP.
2 WENTWORTH DRIVE HUDSON, NEW HAMPSHIRE 03051 (603) 578-5800

SCALE: 1"=30 Feet
1"=9.144 Meters

27 JANUARY 2022

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131 Middlesex Turnpike Burlington, MA 01803
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FIELD BOOK: 1234	DRAWING NAME: 5734 SITE-FQ31	5734	5 OF 15
DRAWING LOC.: J:\5000\5734\DWG\5734 SITE 2021		File Number	Sheet

PURSUANT TO THE REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL.

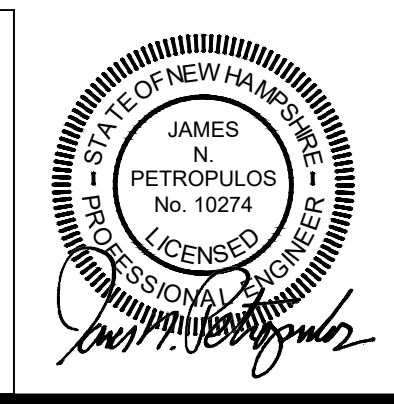
APPROVED BY THE HUDSON, NH PLANNING BOARD

DATE OF MEETING: _____

CHAIRMAN: _____ SIGNATURE DATE: _____

SECRETARY: _____ SIGNATURE DATE: _____

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CONSTRUCTION SEQUENCE:

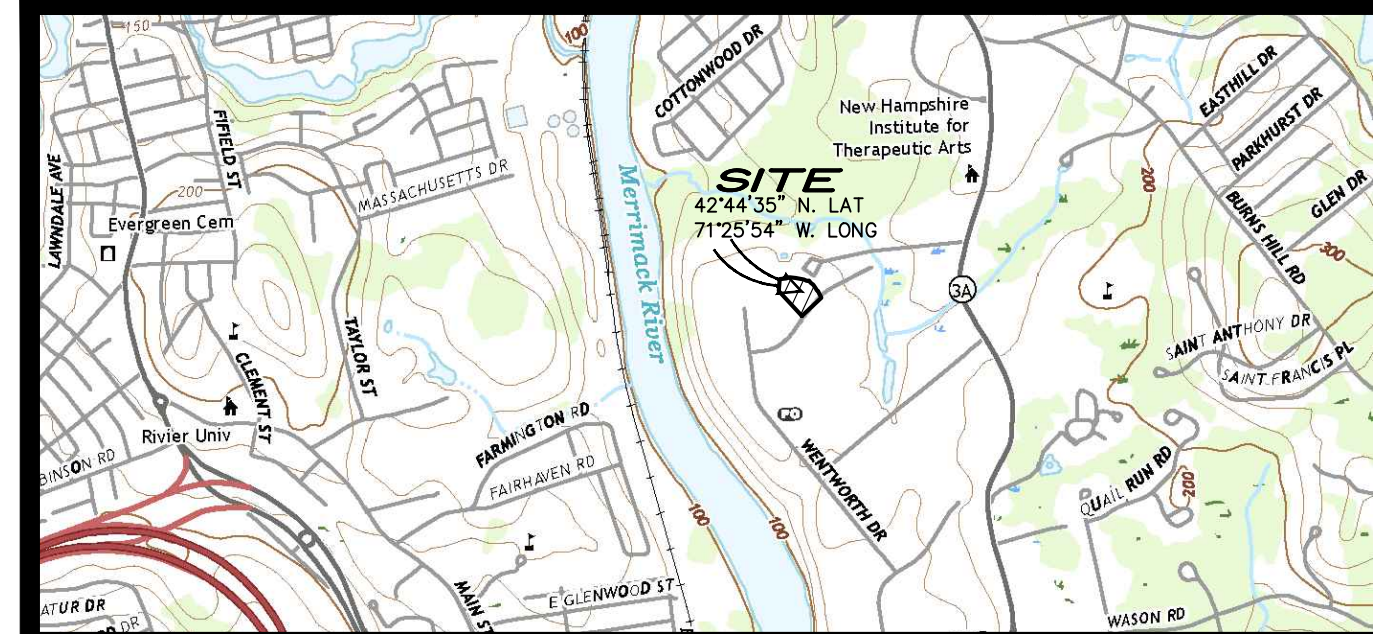
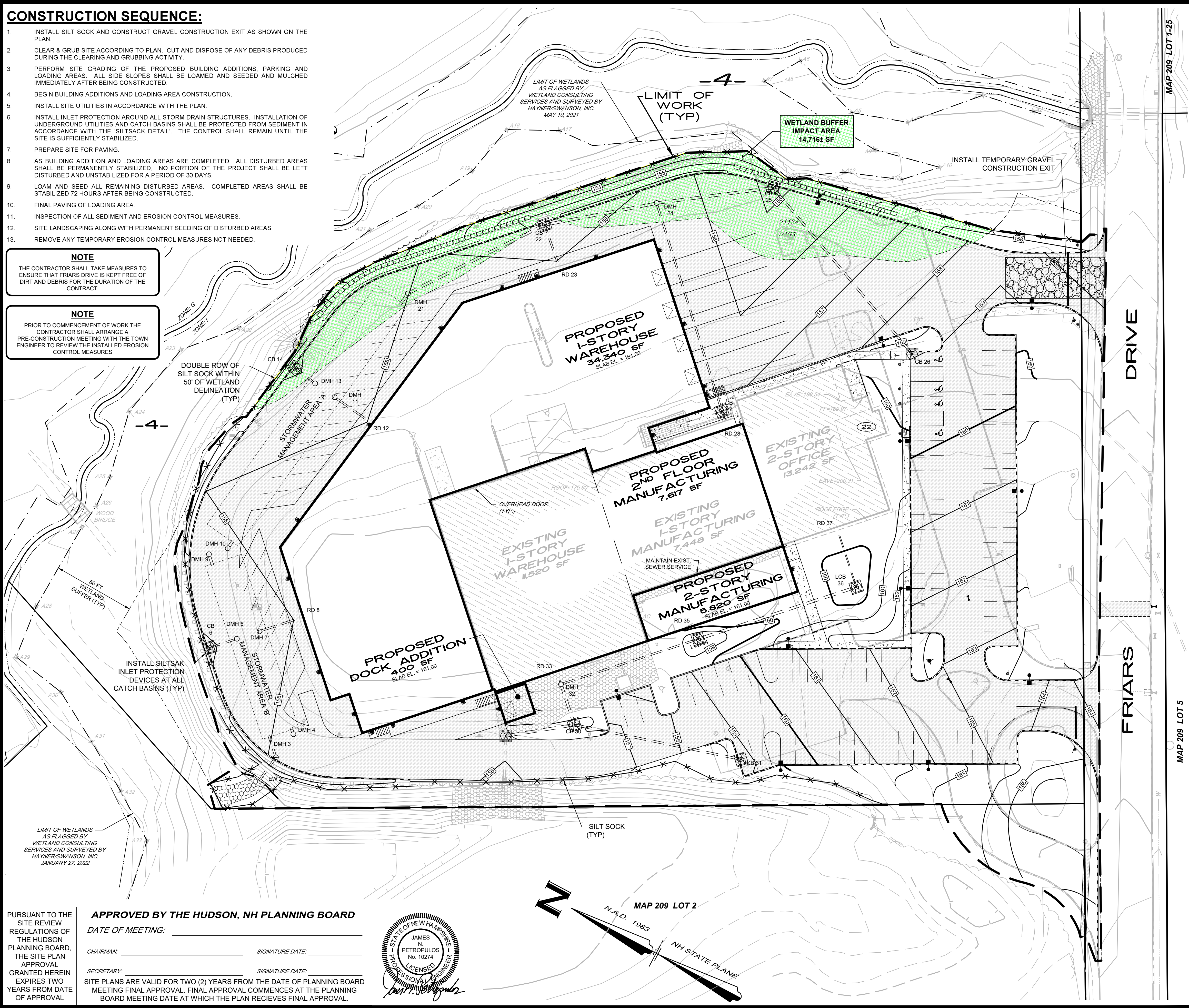
1. INSTALL SILT SOCK AND CONSTRUCT GRAVEL CONSTRUCTION EXIT AS SHOWN ON THE PLAN.
2. CLEAR & GRUB SITE ACCORDING TO PLAN. CUT AND DISPOSE OF ANY DEBRIS PRODUCED DURING THE CLEARING AND GRUBBING ACTIVITY.
3. PERFORM SITE GRADING OF THE PROPOSED BUILDING ADDITIONS, PARKING AND LOADING AREAS. ALL SIDE SLOPES SHALL BE LOAMED AND SEEDED AND MULCHED IMMEDIATELY AFTER BEING CONSTRUCTED.
4. BEGIN BUILDING ADDITIONS AND LOADING AREA CONSTRUCTION.
5. INSTALL SITE UTILITIES IN ACCORDANCE WITH THE PLAN.
6. INSTALL INLET PROTECTION AROUND ALL STORM DRAIN STRUCTURES. INSTALLATION OF UNDERGROUND UTILITIES AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT IN ACCORDANCE WITH THE 'SILTSACK DETAIL'. THE CONTROL SHALL REMAIN UNTIL THE SITE IS SUFFICIENTLY STABILIZED.
7. PREPARE SITE FOR PAVING.
8. AS BUILDING ADDITION AND LOADING AREAS ARE COMPLETED, ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED. NO PORTION OF THE PROJECT SHALL BE LEFT DISTURBED AND UNSTABILIZED FOR A PERIOD OF 30 DAYS.
9. LOAM AND SEED ALL REMAINING DISTURBED AREAS. COMPLETED AREAS SHALL BE STABILIZED 72 HOURS AFTER BEING CONSTRUCTED.
10. FINAL PAVING OF LOADING AREA.
11. INSPECTION OF ALL SEDIMENT AND EROSION CONTROL MEASURES.
12. SITE LANDSCAPING ALONG WITH PERMANENT SEEDING OF DISTURBED AREAS.
13. REMOVE ANY TEMPORARY EROSION CONTROL MEASURES NOT NEEDED.

NOTE

THE CONTRACTOR SHALL TAKE MEASURES TO ENSURE THAT FRIARS DRIVE IS KEPT FREE OF DIRT AND DEBRIS FOR THE DURATION OF THE CONTRACT.

NOTE

PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION MEETING WITH THE TOWN ENGINEER TO REVIEW THE INSTALLED EROSION CONTROL MEASURES



VICINITY MAP

GENERAL NOTES:

1. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH THE PROJECT SHALL OBTAIN A COPY OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND SHALL COMPLY WITH THE TERMS OF SWPPP AND NPDES PERMIT.
2. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY SITE CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
3. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
4. STOCKPILE AREAS SHALL BE SURROUNDED BY SILT SOCK AND RE-SEEDING IF THEY ARE LEFT UNTOUCHED FOR MORE THAN FOURTEEN (14) DAYS.
5. ALL MEASURES STATED ON THIS EROSION CONTROL PLAN, AND IN THE STORMWATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETE PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT.
6. SILT SOCK SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED.
7. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
8. ALL SEEDING AREAS SHALL BE CHECK REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED AND RESEED AS NEEDED.
9. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXIT AS CONDITIONS DEMAND.
10. THE TOWN OF HUDSON RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES DURING CONSTRUCTION IF NEEDED.

LEGEND

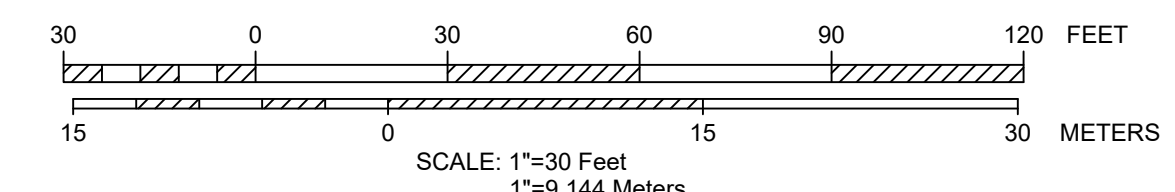
- 100 — EXISTING GROUND CONTOUR
- 100 — PROPOSED GRADE
- F — RUNOFF DIRECTION
- X — SILT SOCK PERIMETER BARRIER
- ⊗ — SILT-SACK INLET PROTECTION DEVICES
- ▨ — GRAVEL CONSTRUCTION EXIT
- ⊞ — TEMPORARY STONE CHECK DAM

No.	DATE	REVISION	BY

EROSION CONTROL PLAN
(MAP 209, LOT 4)

PROPOSED BUILDING ADDITIONS
22 FRIARS DRIVE
HUDSON, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
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2 WENTWORTH DRIVE HUDSON, NEW HAMPSHIRE 03051 (603) 578-5800

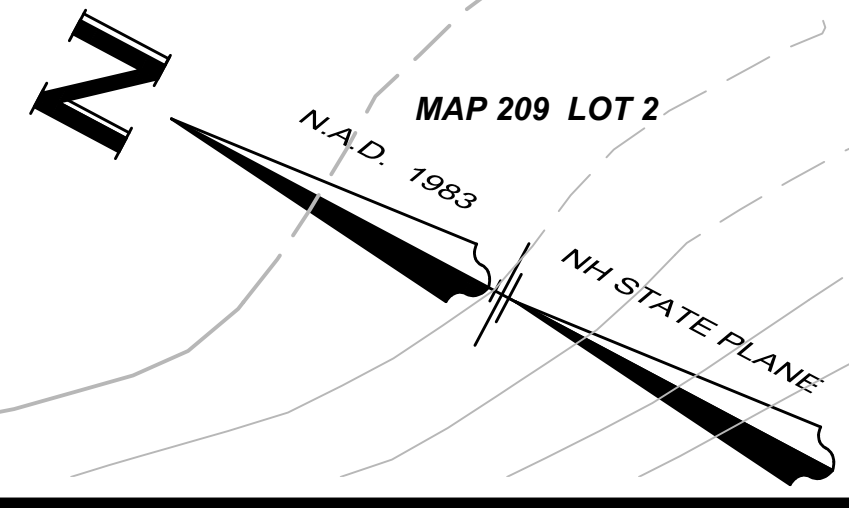
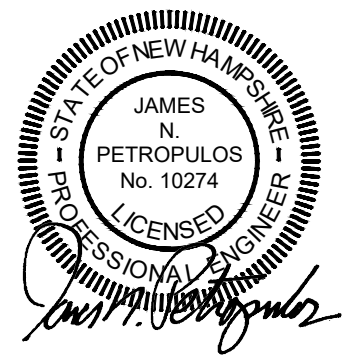


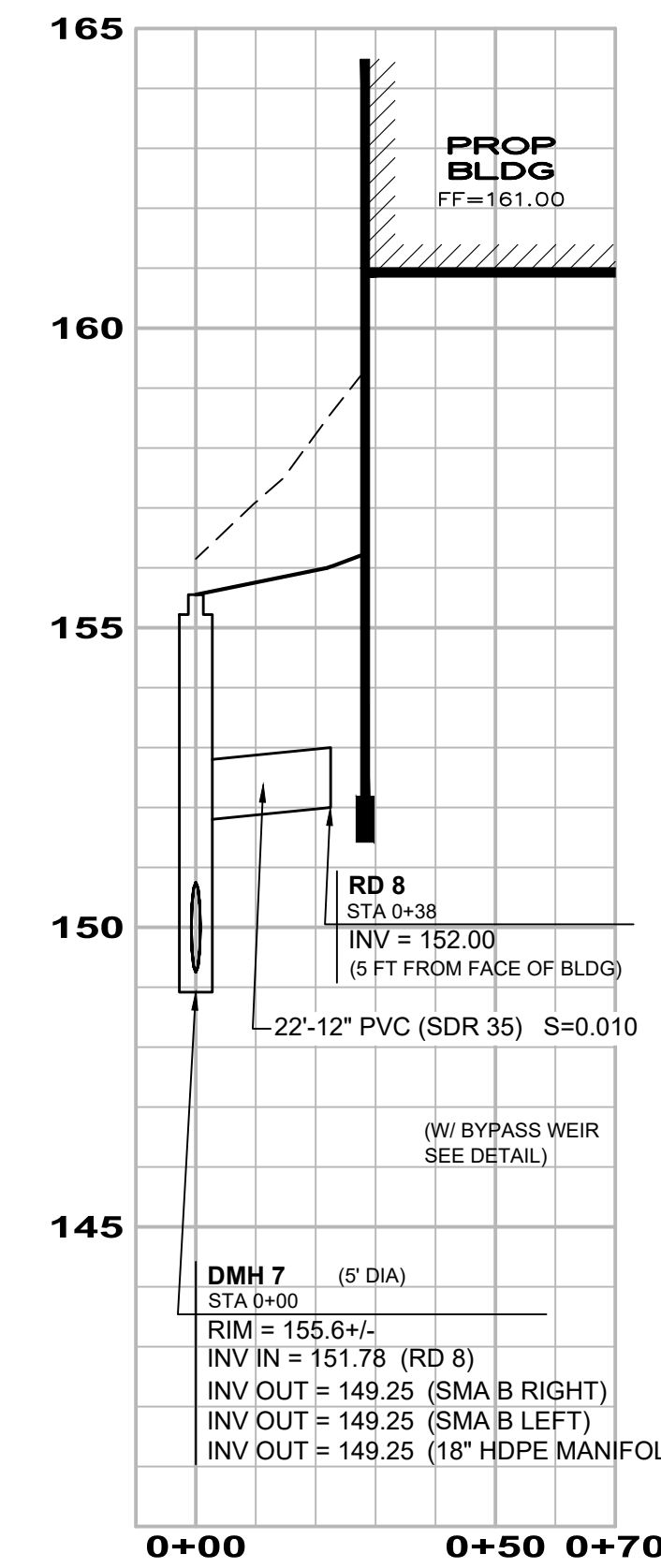
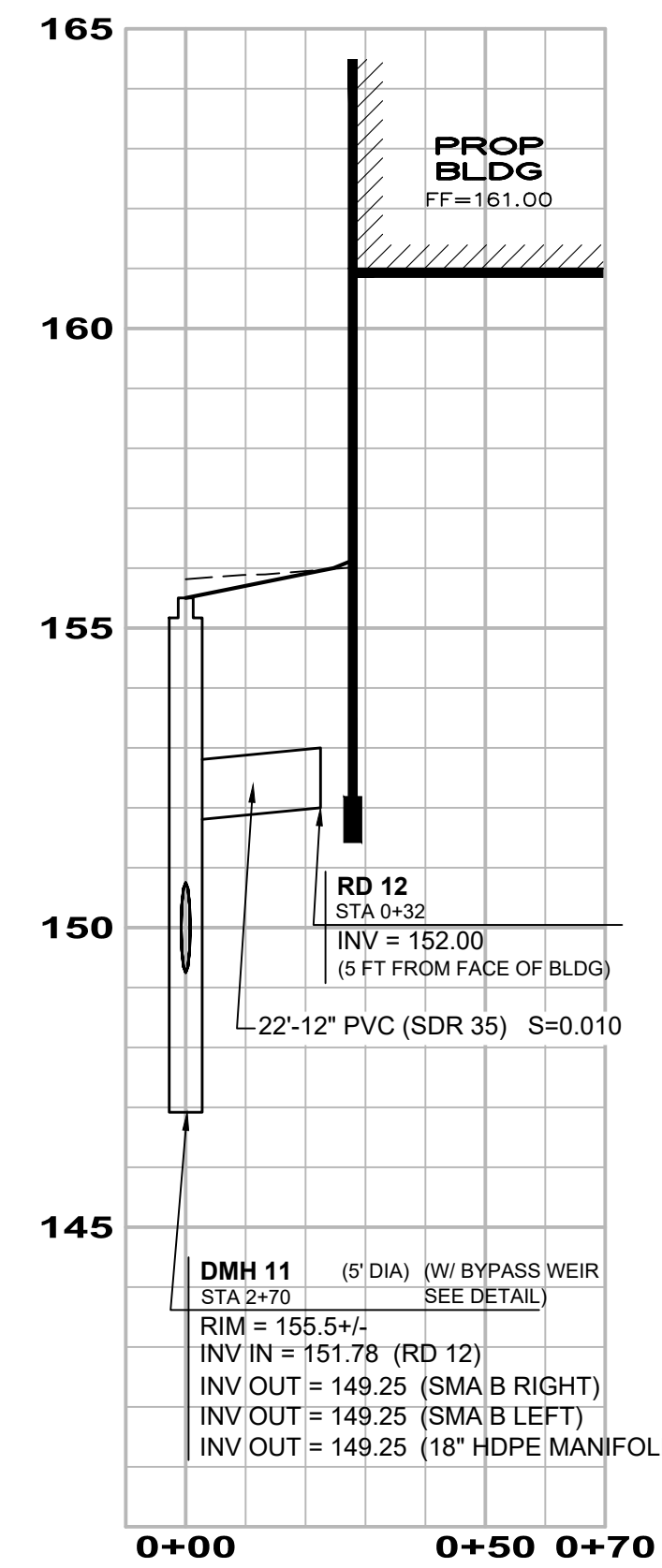
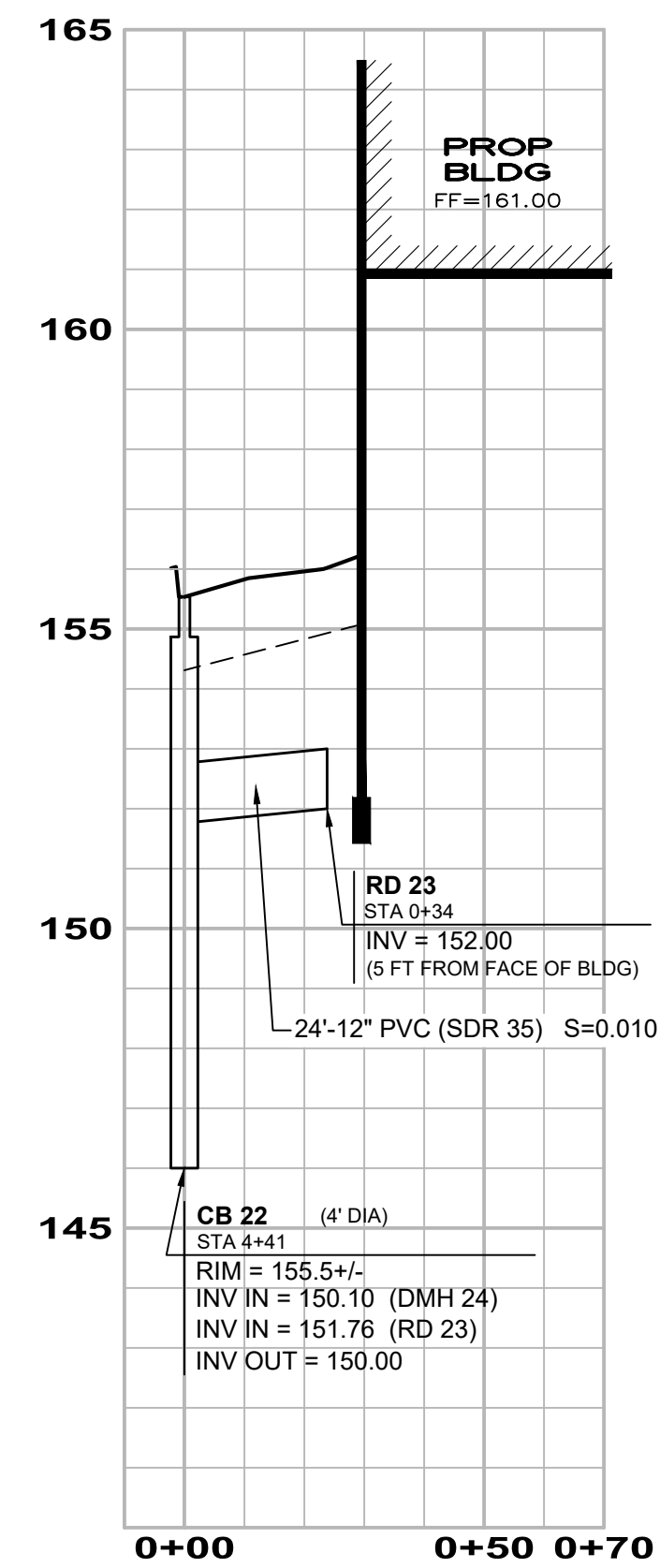
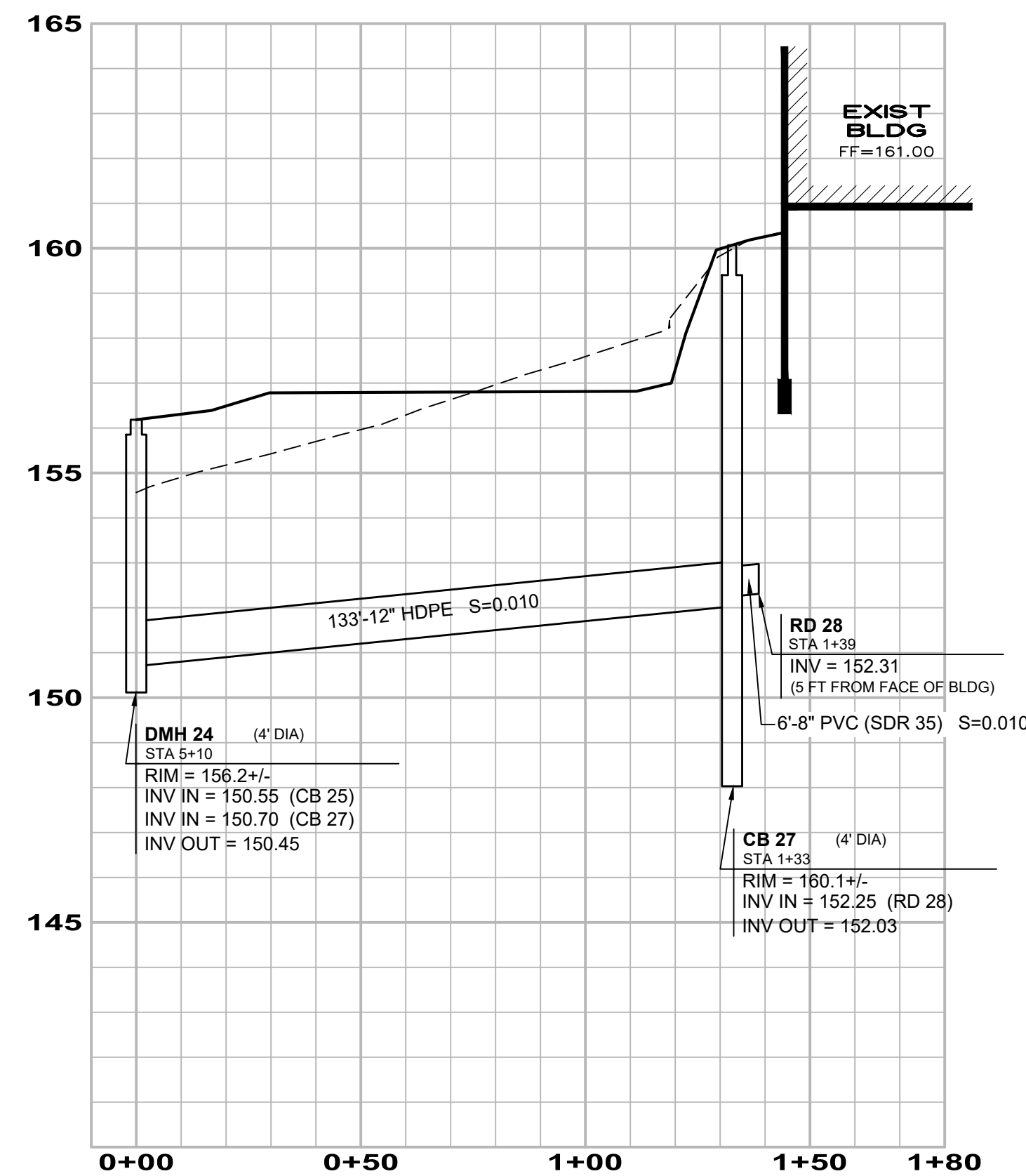
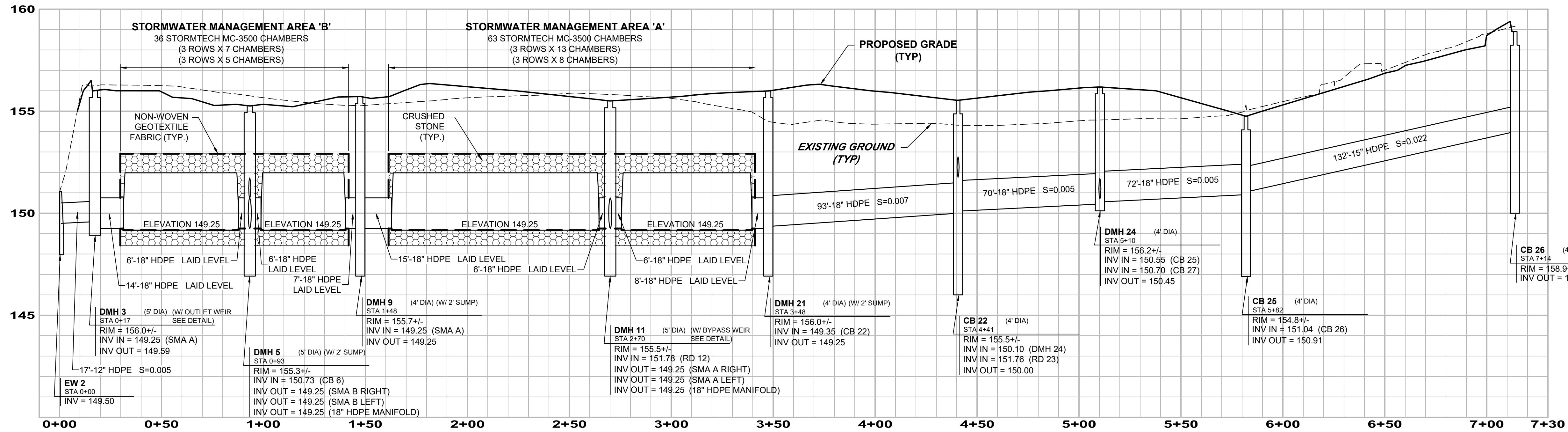
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131 Middlesex Turnpike Burlington, MA 01803 (781) 203-1501
www.haynerswanson.com

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL

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- NOTES**
- STRUCTURE DIAMETERS AS SHOWN ON DRAINAGE PROFILES ARE CONSIDERED TO BE MINIMUM INSIDE DIMENSIONS. ALL STRUCTURES SHALL BE A MINIMUM INSIDE DIAMETER OF 48" UNLESS OTHERWISE INDICATED. LARGER STRUCTURES MAY BE NECESSARY DUE TO ALIGNMENT AND/OR PIPE SIZES. STRUCTURE MANUFACTURER SHALL DETERMINE FINAL SIZE.
 - PIPE LENGTHS ARE MEASURED FROM CENTERLINE OF STRUCTURE TO CENTERLINE OF STRUCTURE.
 - EXTERIOR FOUNDATION WALLS AND FOOTINGS AS SHOWN ARE APPROXIMATE.
 - VERTICAL DATUM IS NGVD29 (SEE NOTE 4 ON SHEET 2).

No.	DATE	REVISION	BY

UTILITY PROFILES
(MAP 209, LOT 4)

PROPOSED BUILDING ADDITIONS

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2 WENTWORTH DRIVE HUDSON, NEW HAMPSHIRE 03051 (603) 578-5800

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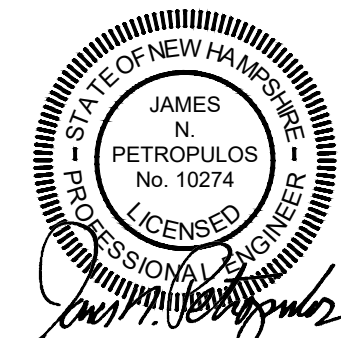
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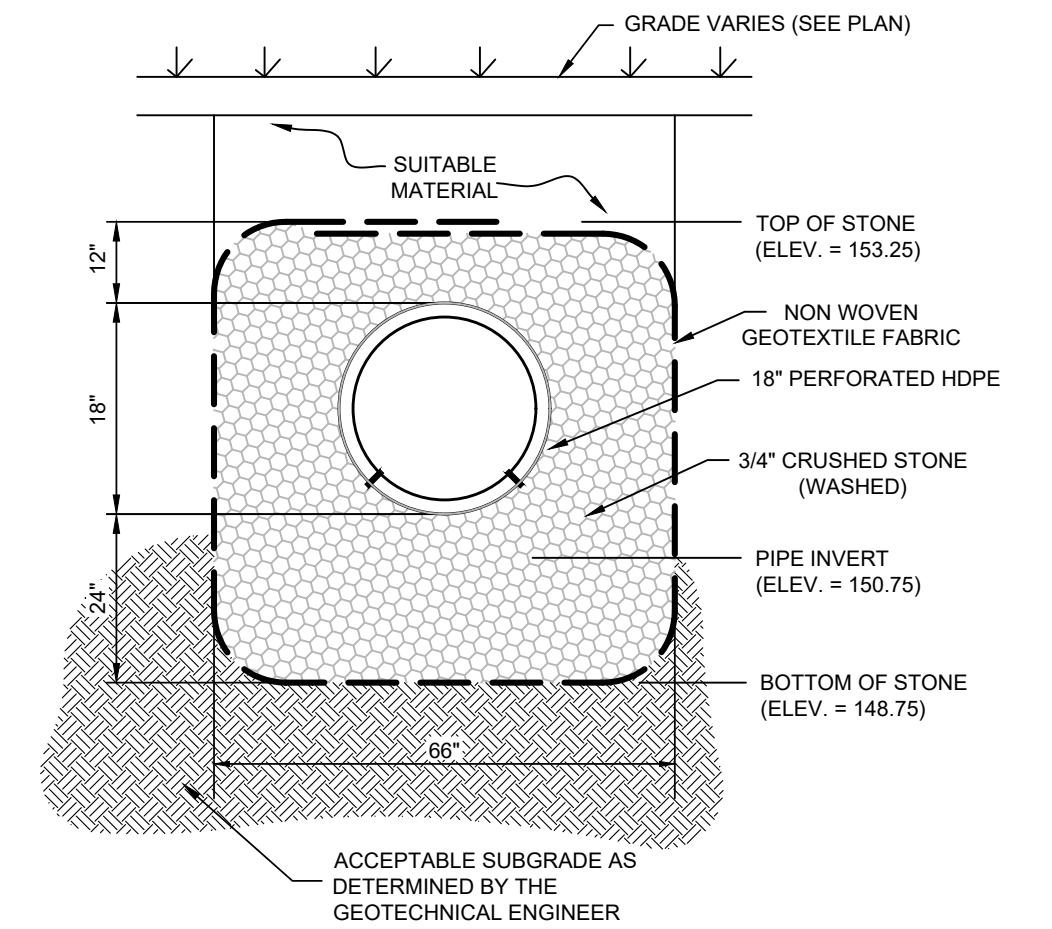
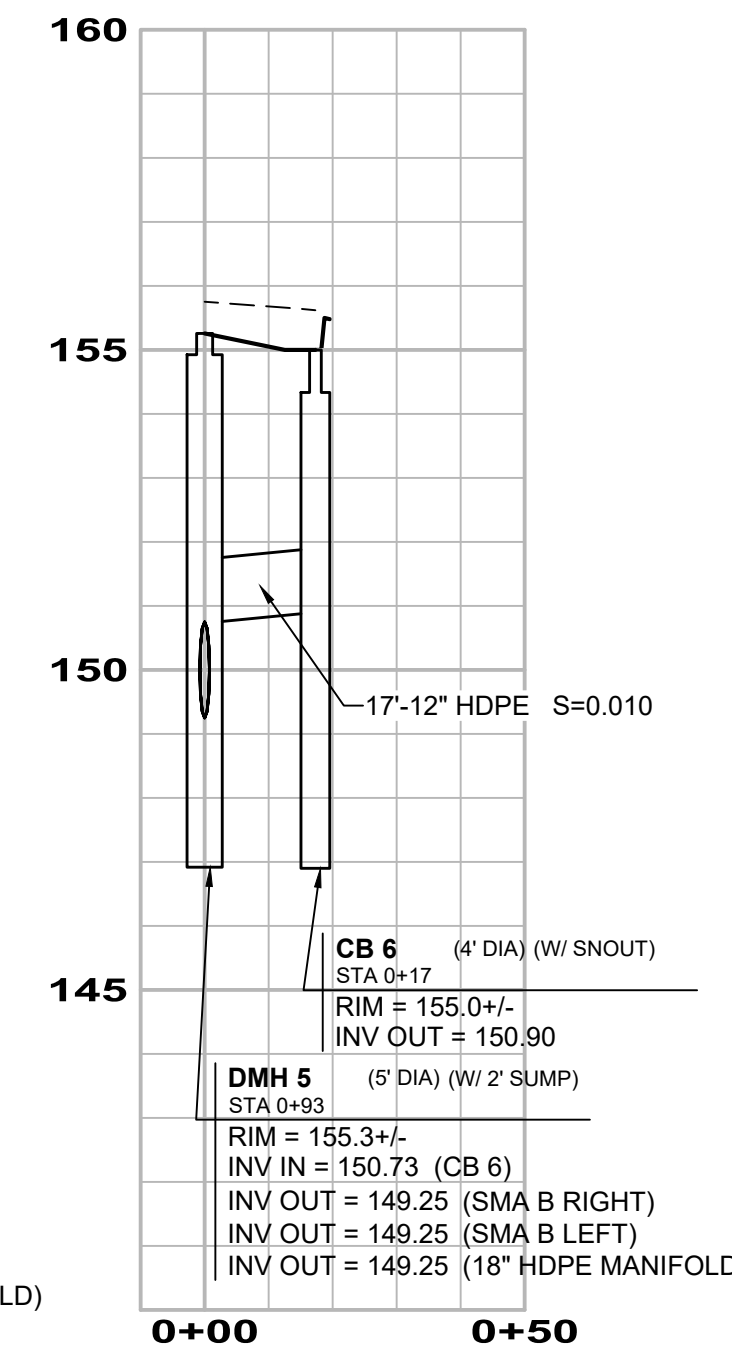
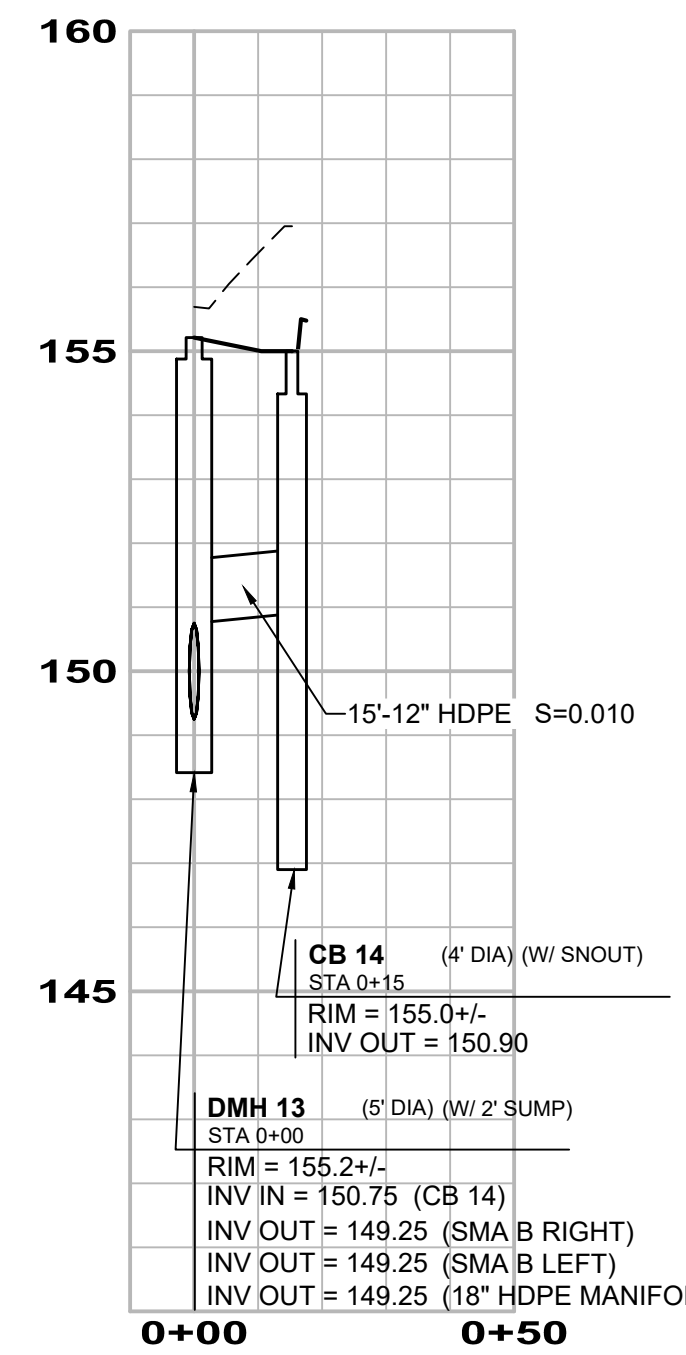
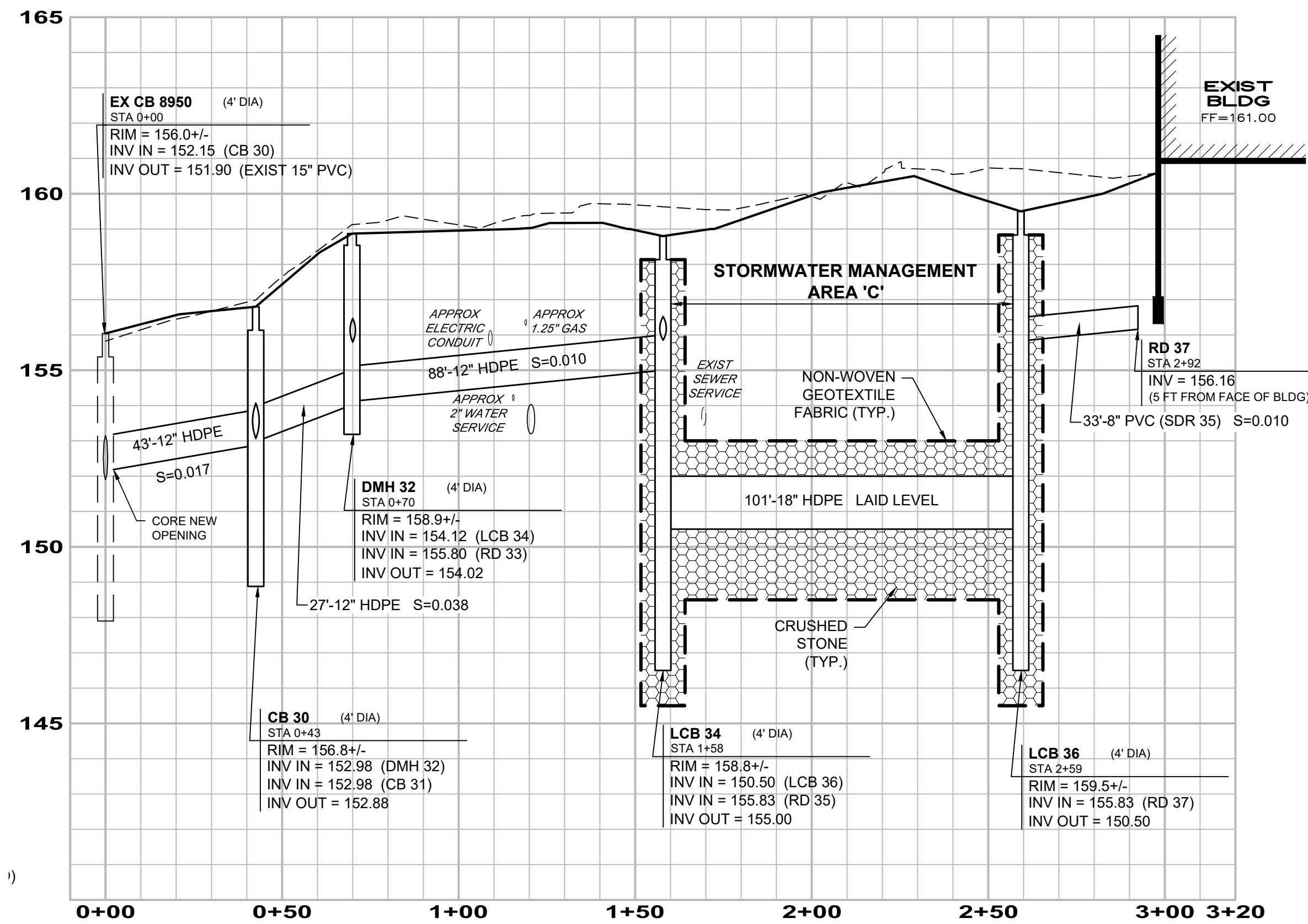
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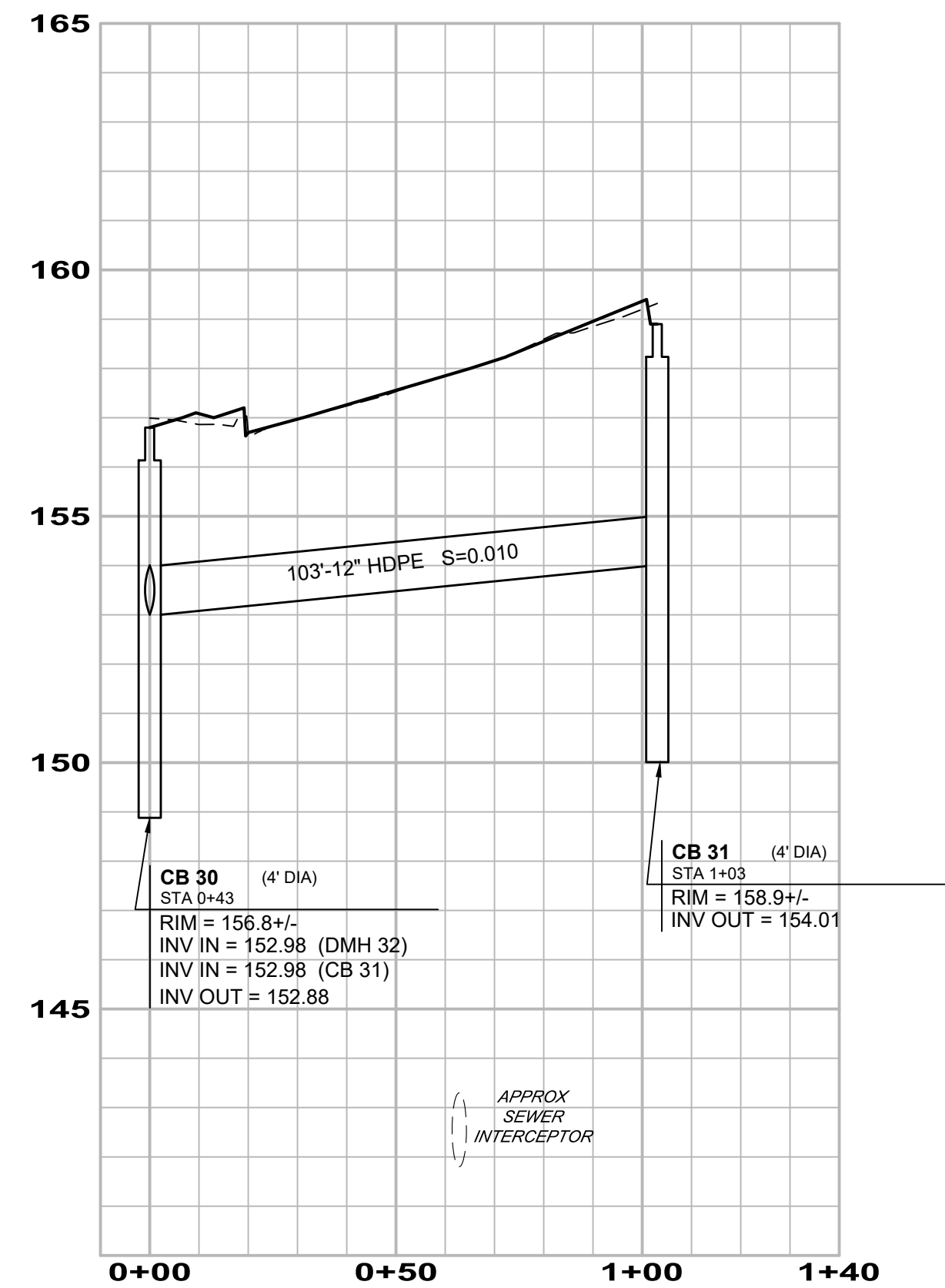
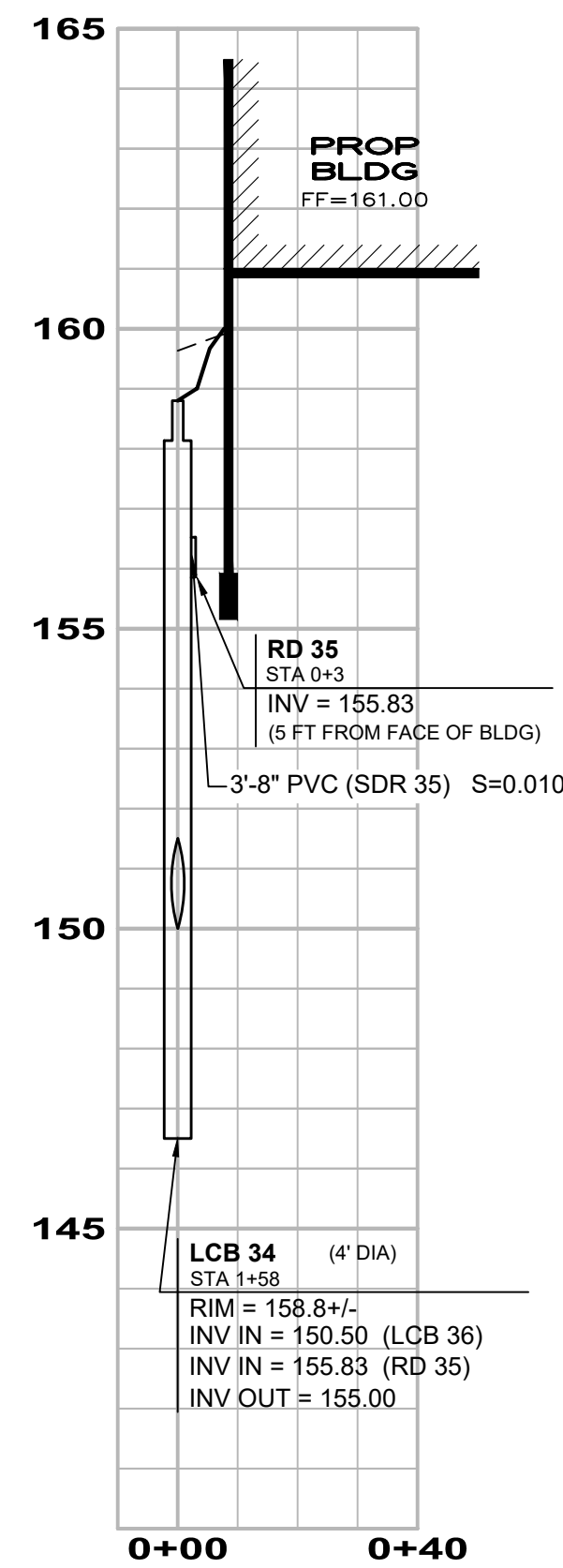
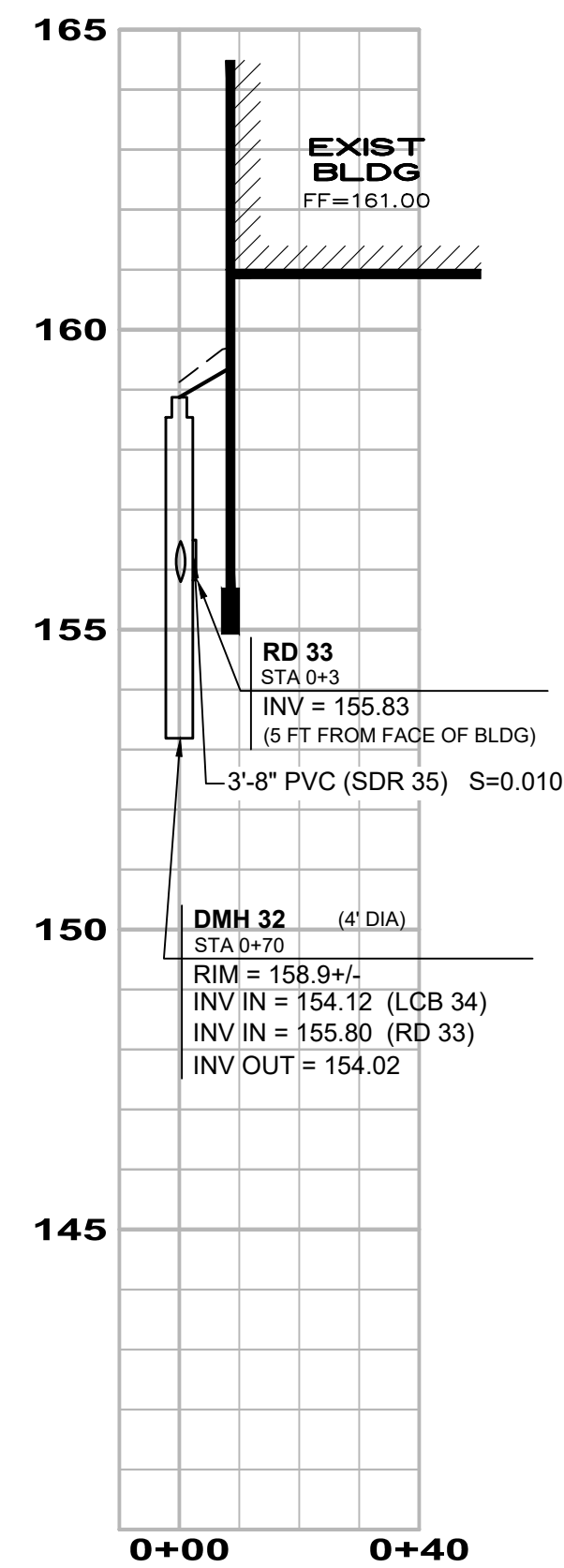
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**STORMWATER MANAGEMENT AREA 'C'
INFILTRATION TRENCH DETAIL**



- NOTES**
- STRUCTURE DIAMETERS AS SHOWN ON DRAINAGE PROFILES ARE CONSIDERED TO BE MINIMUM INSIDE DIMENSIONS. ALL STRUCTURES SHALL BE A MINIMUM INSIDE DIAMETER OF 48" UNLESS OTHERWISE INDICATED. LARGER STRUCTURES MAY BE NECESSARY DUE TO ALIGNMENT AND/OR PIPE SIZES. STRUCTURE MANUFACTURER SHALL DETERMINE FINAL SIZE.
 - PIPE LENGTHS ARE MEASURED FROM CENTERLINE OF STRUCTURE TO CENTERLINE OF STRUCTURE.
 - EXTERIOR FOUNDATION WALLS AND FOOTINGS AS SHOWN ARE APPROXIMATE.
 - VERTICAL DATUM IS NGVD29 (SEE NOTE 4 ON SHEET 2).
 - THE CONTRACTOR SHALL VERIFY THE EXACT SIZE, LOCATION AND ELEVATION OF THE EXISTING SEWER SERVICE PIPE. THE INFORMATION SHALL BE PROVIDED TO THE ENGINEER PRIOR TO CONSTRUCTION.

No.	DATE	REVISION	BY

**UTILITY PROFILES
(MAP 209, LOT 4)**

PROPOSED BUILDING ADDITIONS

22 FRIARS DRIVE
HUDSON, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
INTEGRA BIOSCIENCES CORP.
2 WENTWORTH DRIVE HUDSON, NEW HAMPSHIRE 03051 (603) 578-5800

27 JANUARY 2022

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL

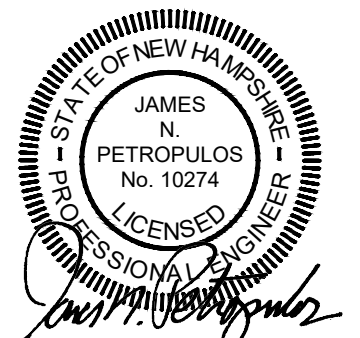
APPROVED BY THE HUDSON, NH PLANNING BOARD

DATE OF MEETING: _____

CHAIRMAN: _____ SIGNATURE DATE: _____

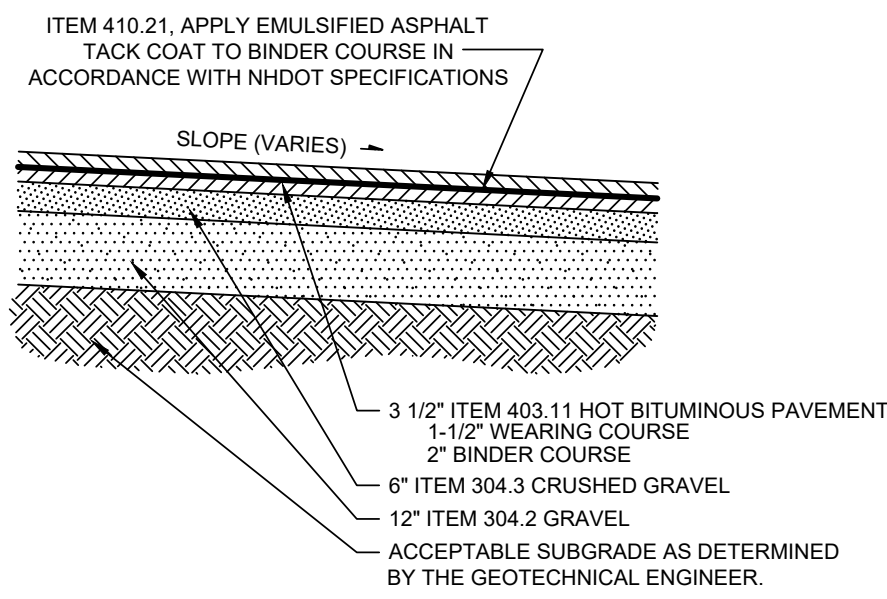
SECRETARY: _____ SIGNATURE DATE: _____

SITE PLANS ARE VALID FOR TWO (2) YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

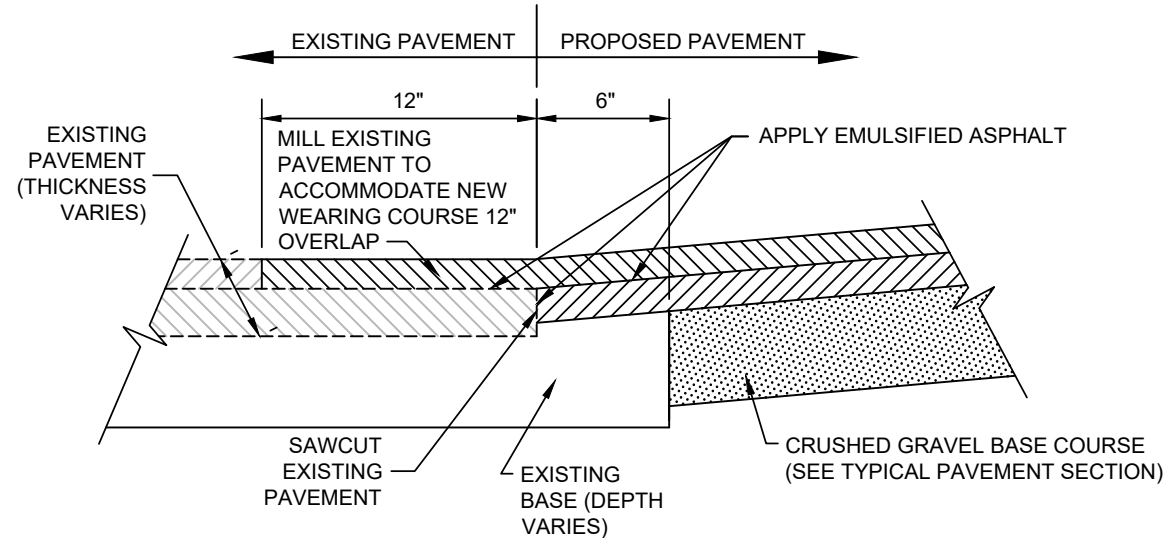


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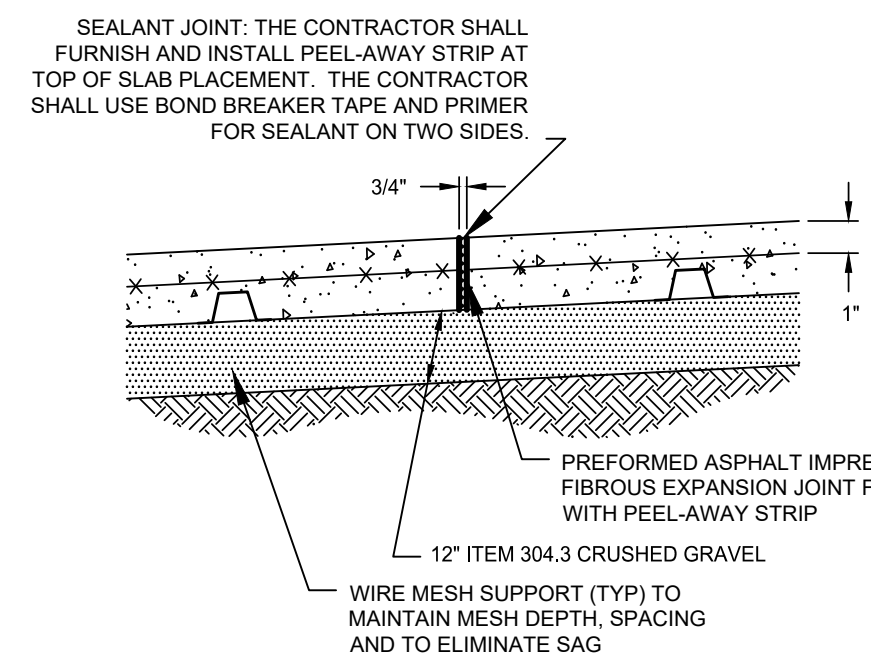
FIELD BOOK: 1234	DRAWING NAME: 5734 SITE-FY21	5734	8 OF 15
DRAWING LOC.: J:\5000\5734\DWG\5734 SITE 2021		File Number	Sheet



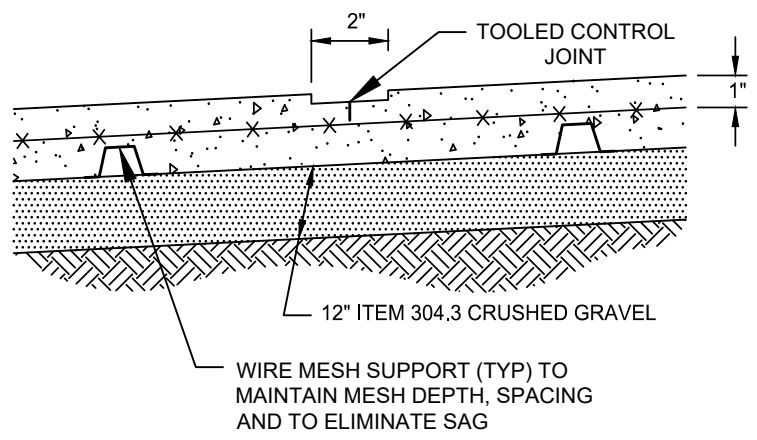
TYPICAL PAVEMENT SECTION
NOT TO SCALE



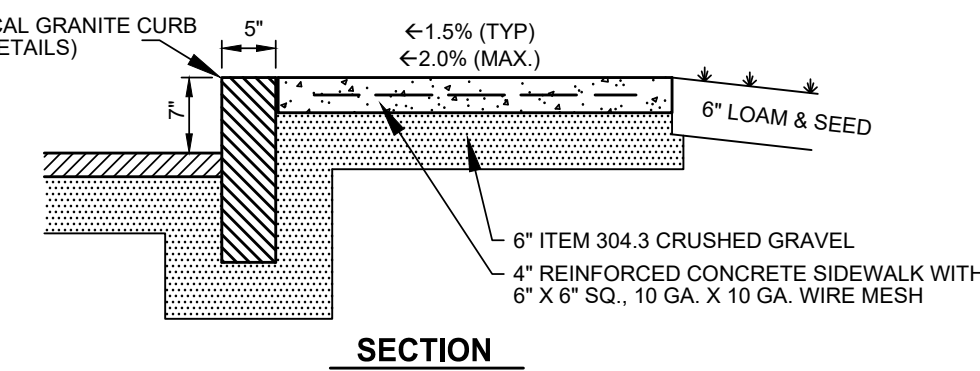
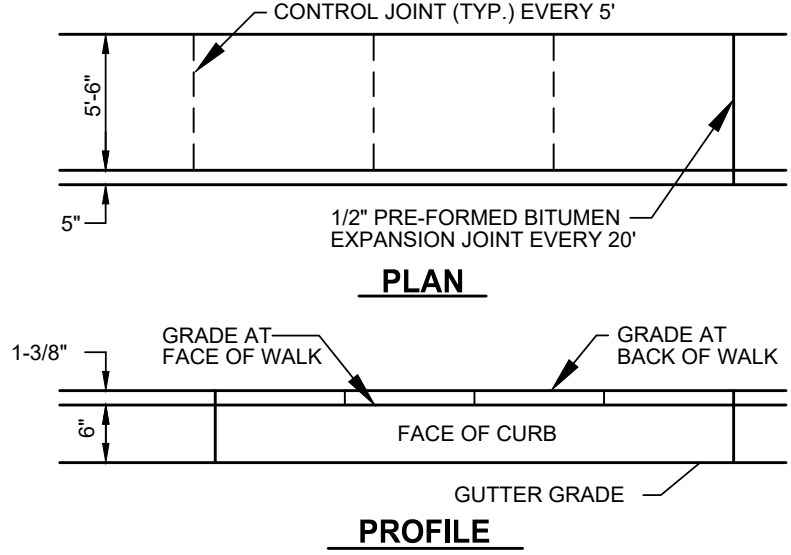
SAWCUT PAVEMENT DETAIL
NOT TO SCALE



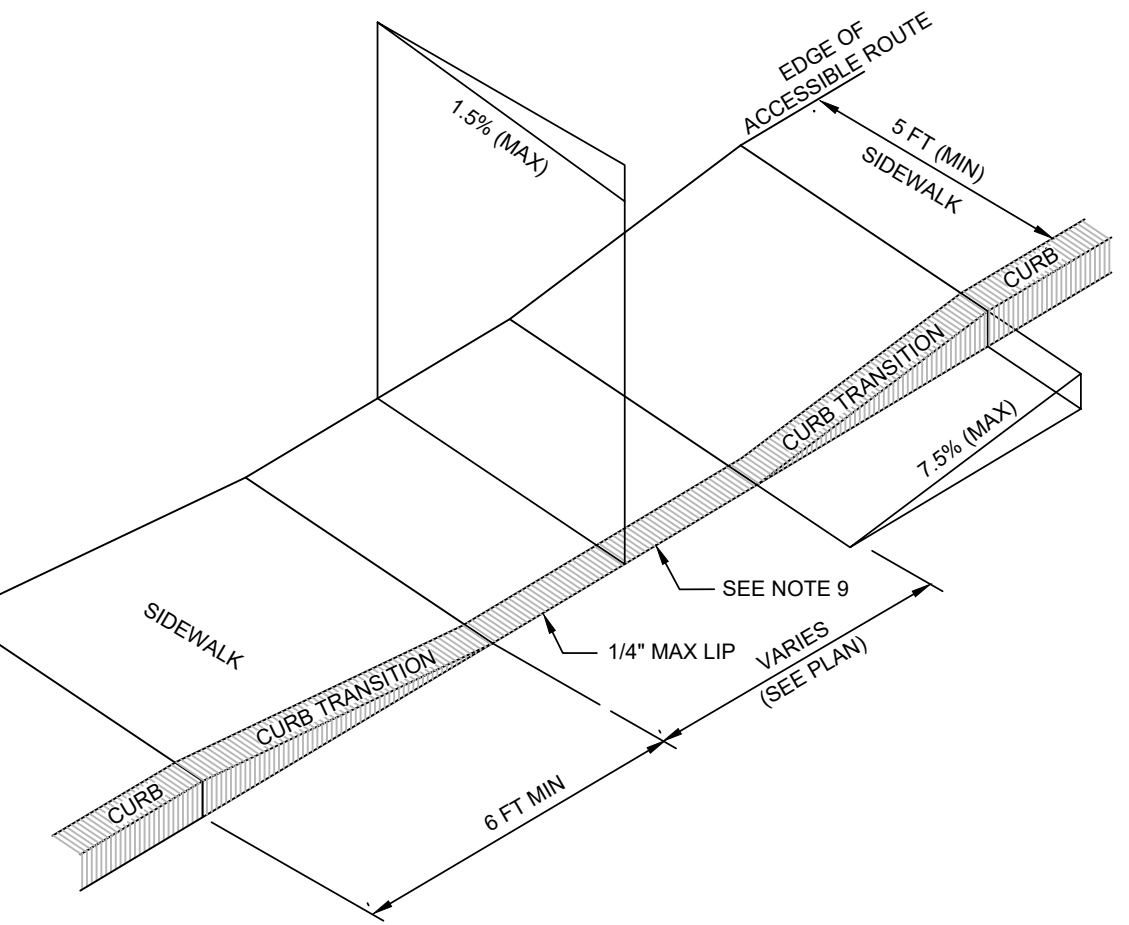
SIDEWALK EXPANSION JOINT DETAIL
NOT TO SCALE



CONCRETE CONTROL JOINT DETAIL
NOT TO SCALE

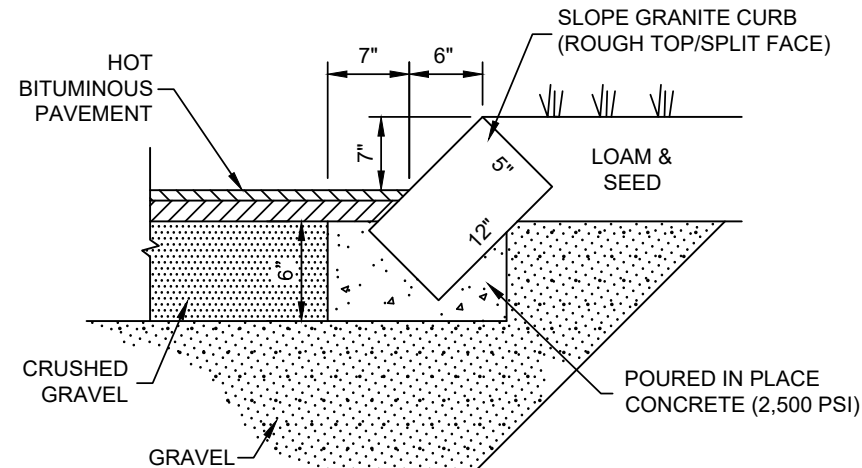


VERTICAL GRANITE CURB AND REINFORCED CONCRETE SIDEWALK DETAIL
NOT TO SCALE

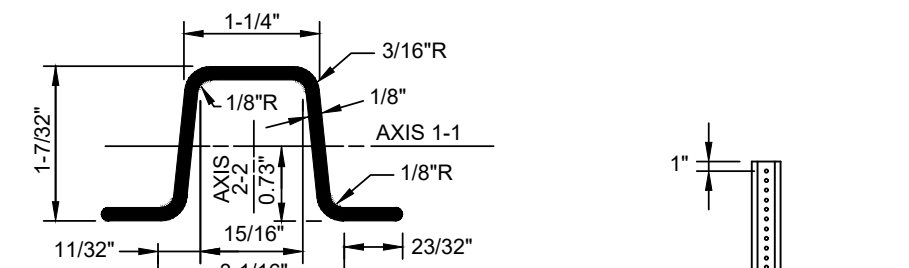


- NOTES:**
1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5% (1% MIN).
 2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
 3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE CURB RAMPS SHALL BE 7.5%.
 4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.)
 5. CURB TREATMENT VARIES. SEE PLANS FOR CURB TYPE.
 6. BASE OF RAMP SHALL BE GRADED TO PREVENT PONDING.
 7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
 8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5 FT IN WIDTH (EXCLUDING CURB) A 5 FT X 5 FT PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
 9. ELIMINATE ALL CURBING AT RAMP (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS PAVEMENT.

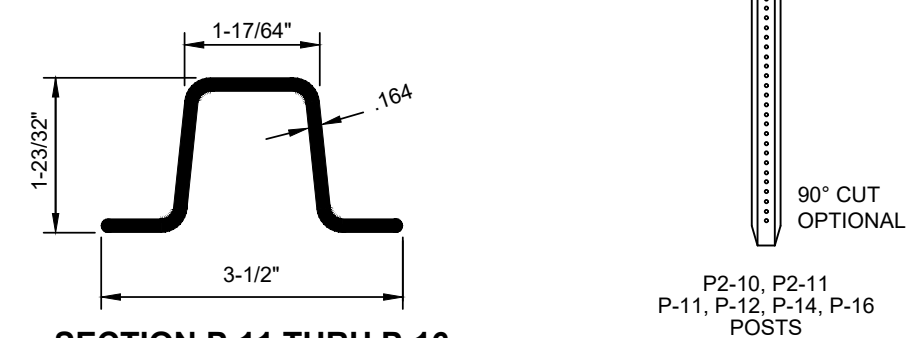
HANDICAP ACCESSIBLE CURB RAMP DETAIL
NOT TO SCALE



SLOPE GRANITE CURB DETAIL
NOT TO SCALE



SECTION P2-10, P2-11
LENGTH: P2-10, 10'-0", P2-11, 11'-0"
WEIGHT PER LINEAR FOOT: 3.00 LBS
HOLES: 3/8" DIA. 1" C-C FULL LENGTH
STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASTM A-5761 (GRADE 1070-1080).
FINISH: SHALL BE PAINTED WITH TWO COATS OF BAKED ON OR AIR DRIED, PAINT OF WEATHER RESISTANT QUALITY. ALL FABRICATION SHALL BE COMPLETE BEFORE PAINTING. PAINT SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT.

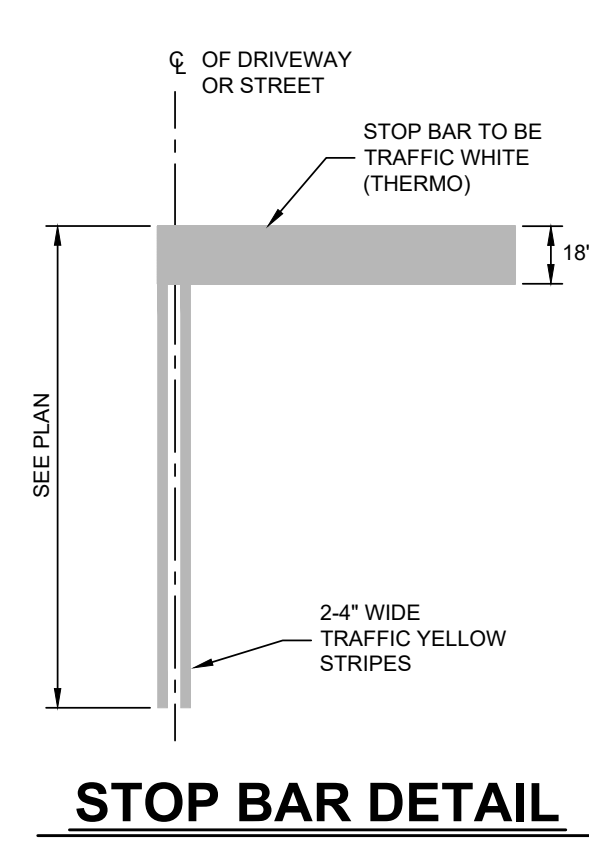


SECTION P-11 THRU P-16
LENGTH: P-11, 11'-0", P-12, 12'-0", P-14, 14'-0", P-16, 16'-0"
WEIGHT PER LINEAR FOOT: 3.00 LBS
STEEL: SAME AS FOR P2-10, P2-11
FINISH: SAME AS FOR P2-10, P2-11
DIMENSIONS SHOWN ARE NOMINAL. ALTERNATE SECTIONS MUST BE APPROVED PRIOR TO USE.

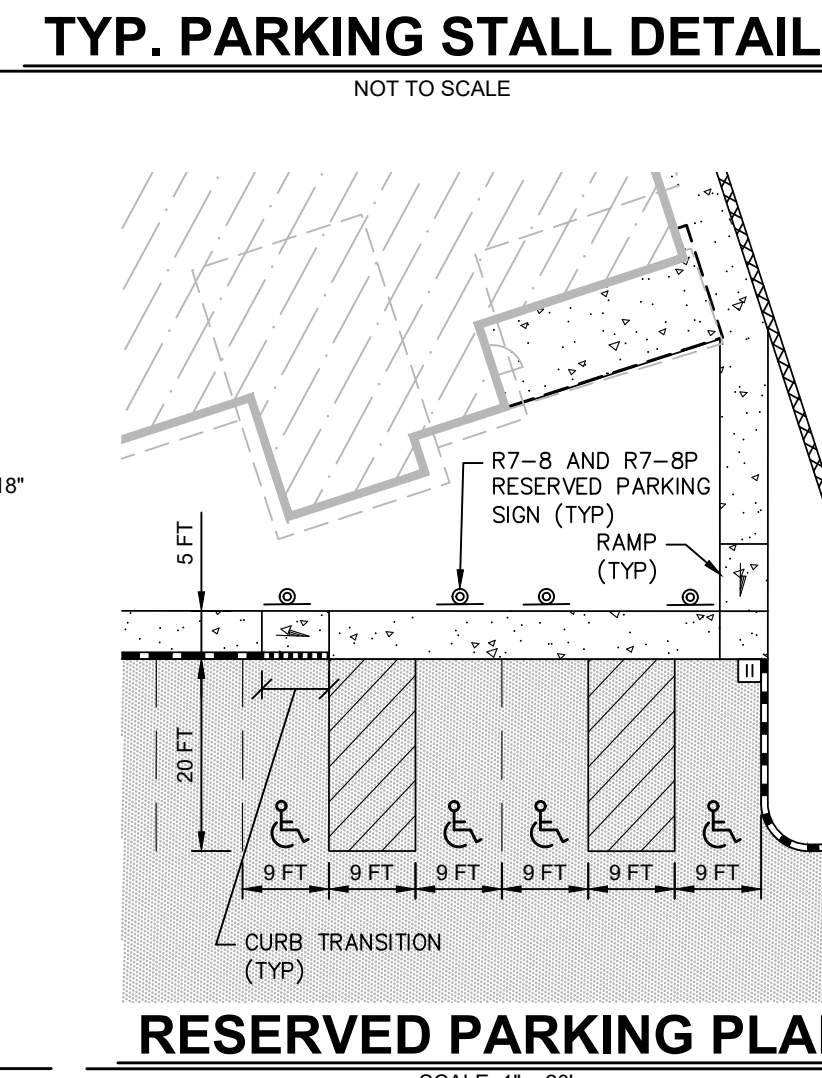
TRAFFIC SIGN SUPPORT DETAIL
NOT TO SCALE



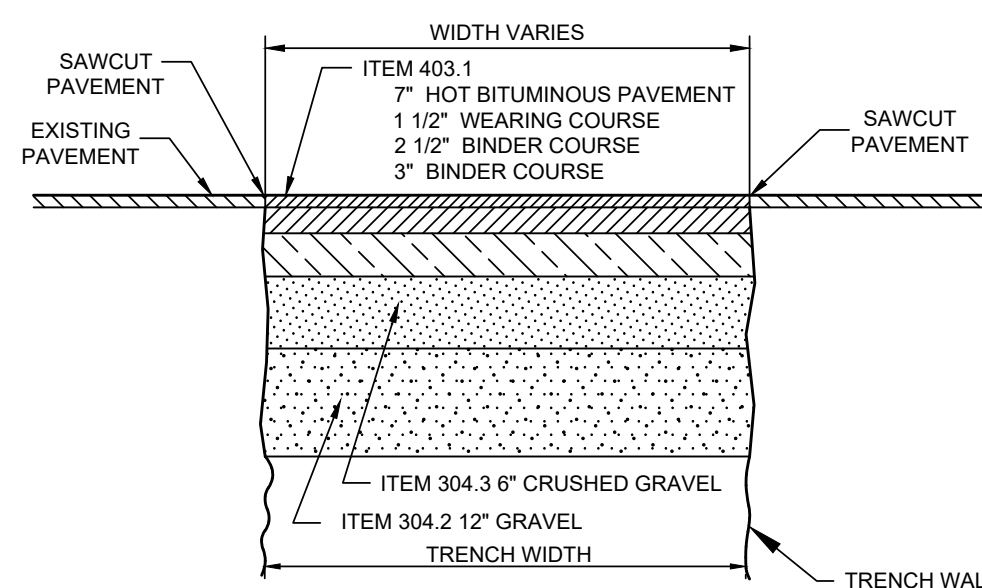
ACCESSIBLE PARKING SIGN DETAIL
NOT TO SCALE



STOP BAR DETAIL
NOT TO SCALE

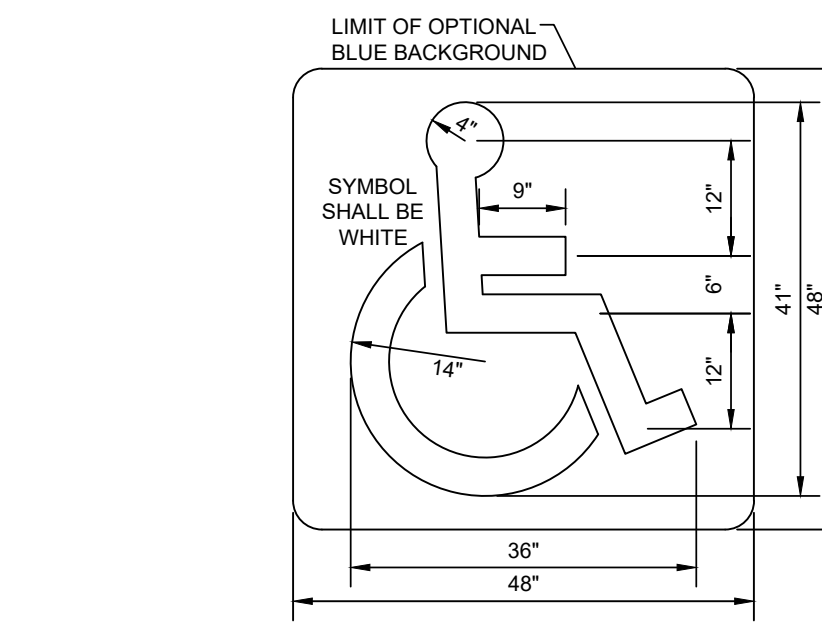


RESERVED PARKING PLAN
SCALE: 1" = 20'

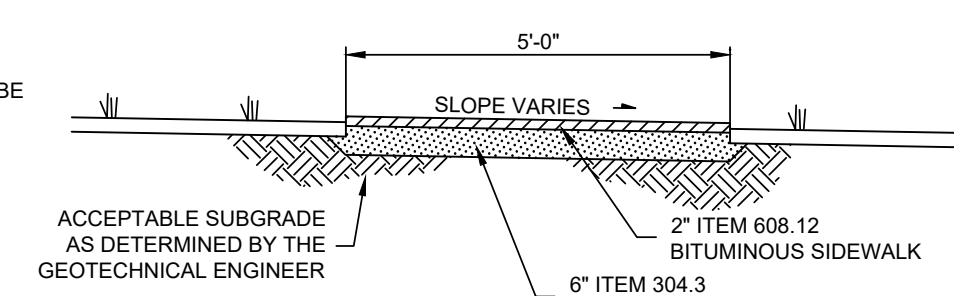


- NOTES:**
1. THE CONTRACTOR SHALL SAWCUT PAVEMENT FOR TRENCH CONSTRUCTION PER THE PLAN
 2. THE CONTRACTOR SHALL INSTALL UTILITIES IN ACCORDANCE WITH THE PLANS, DETAILS AND UTILITY COMPANY/MUNICIPAL STANDARDS.
 3. THE CONTRACTOR SHALL BACKFILL TRENCHES AS SHOWN ON THE DETAIL AND BINDER COURSE PAVEMENT THE DISTURBED TRENCH SURFACES. THE BINDER SURFACES SHALL BE FLUSH WITH THE SURROUNDING PAVEMENT AND SHALL REMAIN FOR 90 DAYS.
 4. AFTER 90 DAYS THE CONTRACTOR SHALL MILL 1.5 INCHES OF ASPHALT OVER THE ENTIRE WIDTH OF MYRTLE STREET AS SHOWN ON THE PLAN AND THEN FILL WITH 1.5 INCHES OF WEARING COURSE PAVEMENT.

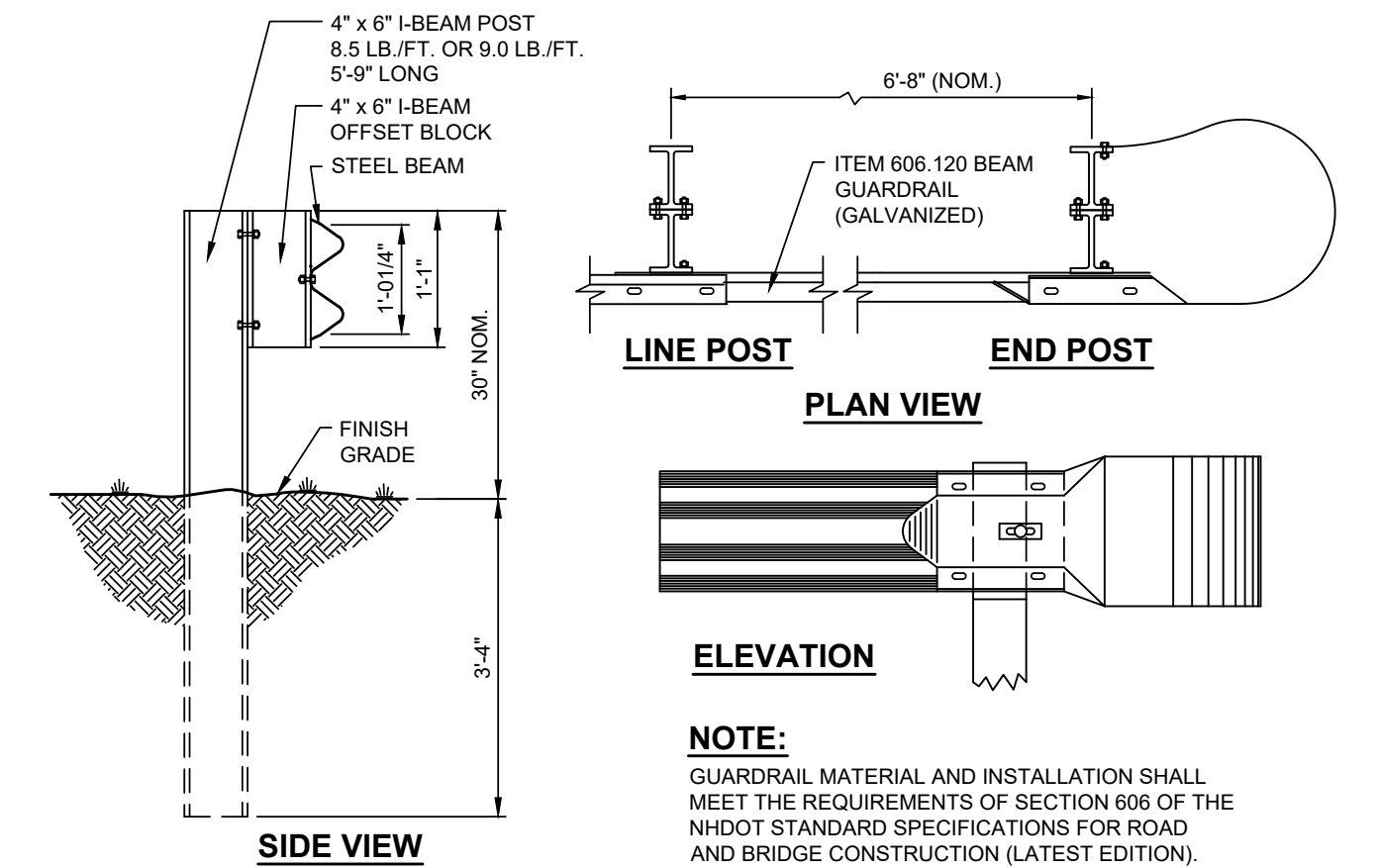
TRENCH PATCH DETAIL
NOT TO SCALE



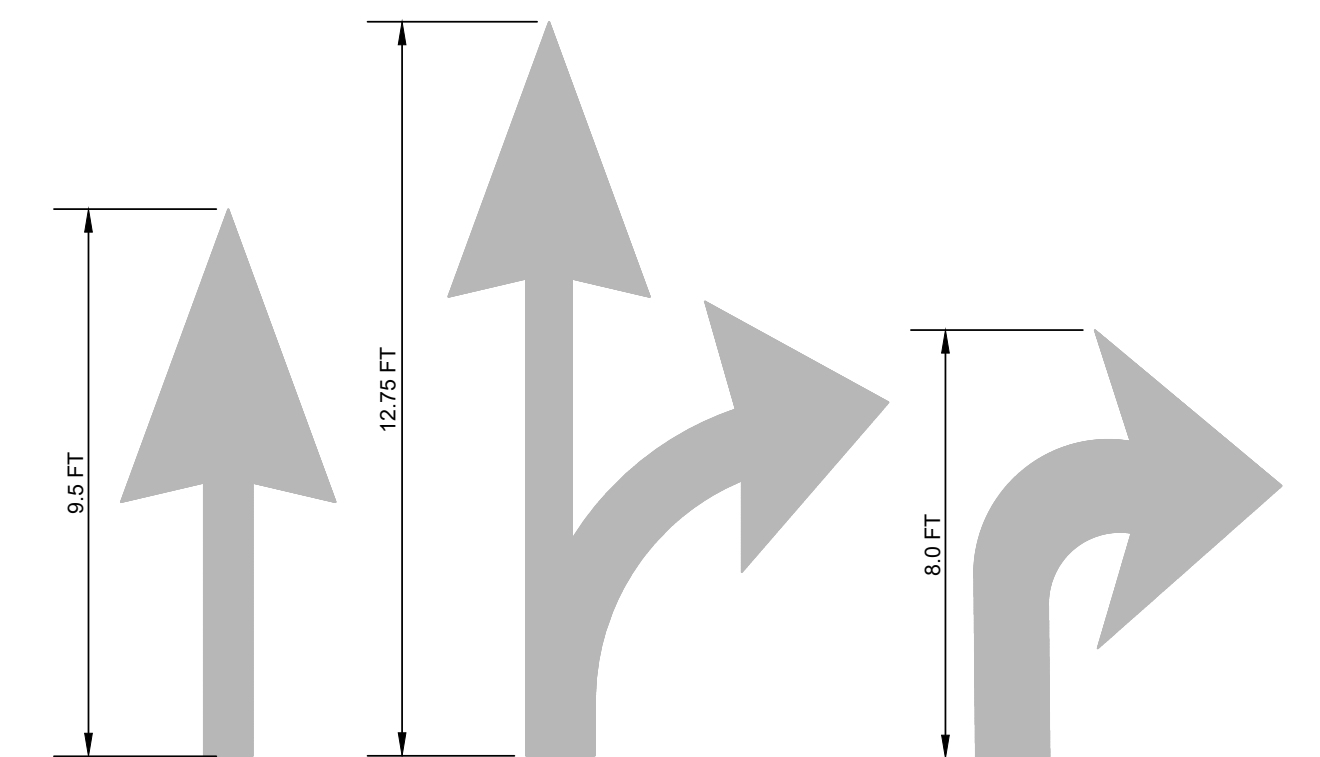
ACCESSIBLE PARKING SPACE PAVEMENT MARKING
NOT TO SCALE



TYPICAL SECTION BITUMINOUS SIDEWALK
NOT TO SCALE



STEEL POST GUARDRAIL DETAIL
NOT TO SCALE



- NOTE:**
1. ALL FLOW ARROWS TO BE SOLID WHITE REFLECTIVE THERMOPLASTIC AS PER DIMENSIONS SHOWN.
 2. REVERSE ARROWS FOR OPPOSITE DIRECTIONS OF FLOW.

PAINTED TRAFFIC ARROWS DETAIL
NOT TO SCALE

No.	DATE	REVISION	BY

DETAIL SHEET - GENERAL SITE
(MAP 209, LOT 4)
PROPOSED BUILDING ADDITIONS
22 FRIARS DRIVE
HUDSON, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
INTEGRA BIOSCIENCES CORP.
2 WENTWORTH DRIVE HUDSON, NEW HAMPSHIRE 03051 (603) 578-5800

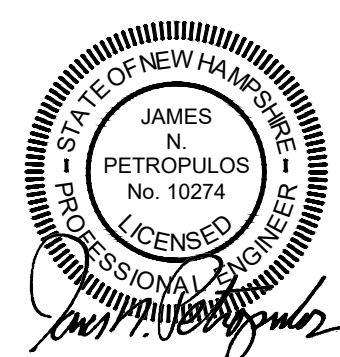
SCALE AS SHOWN

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PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL

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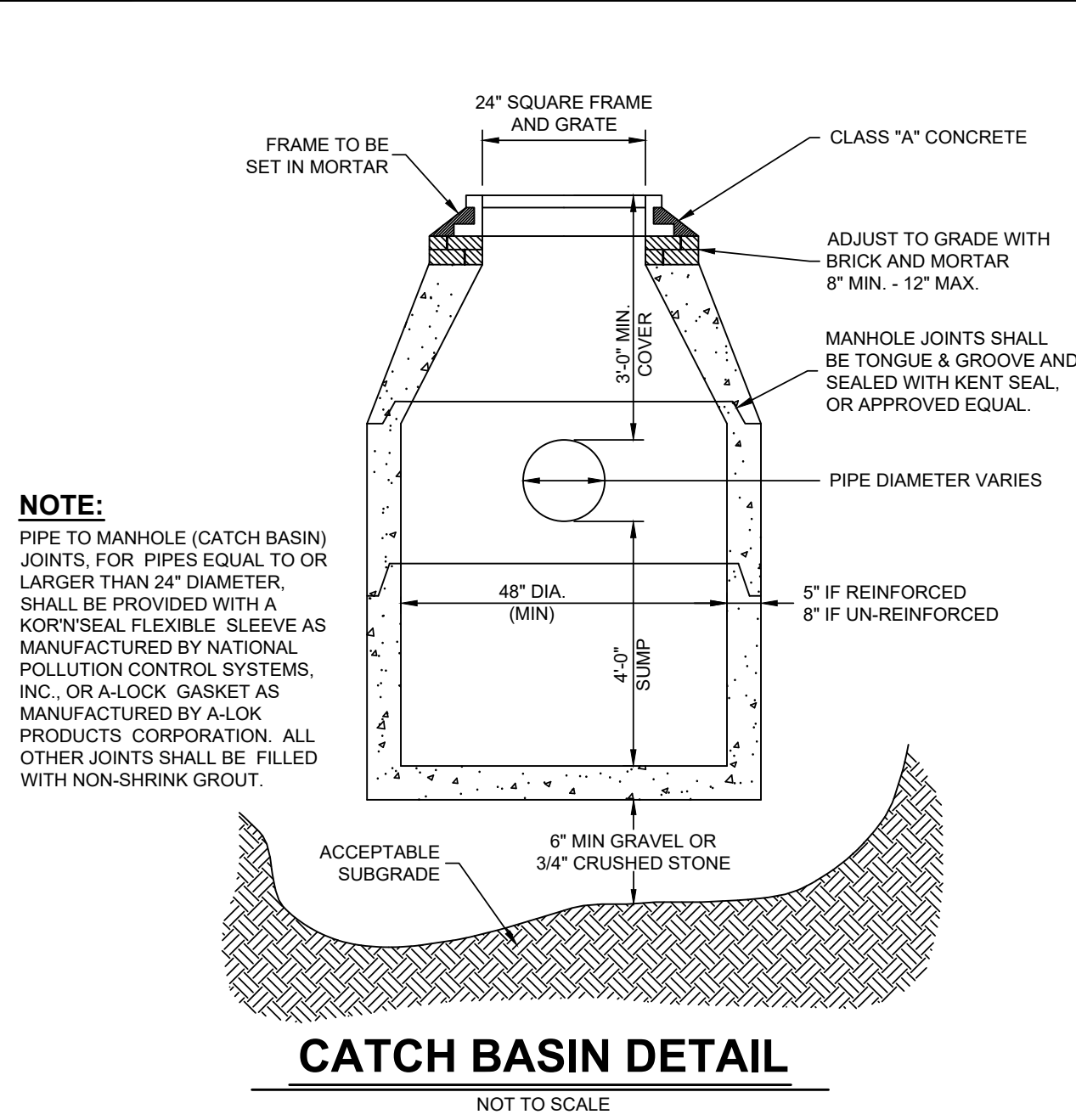


SLOPE GRANITE CURB DETAIL
NOT TO SCALE

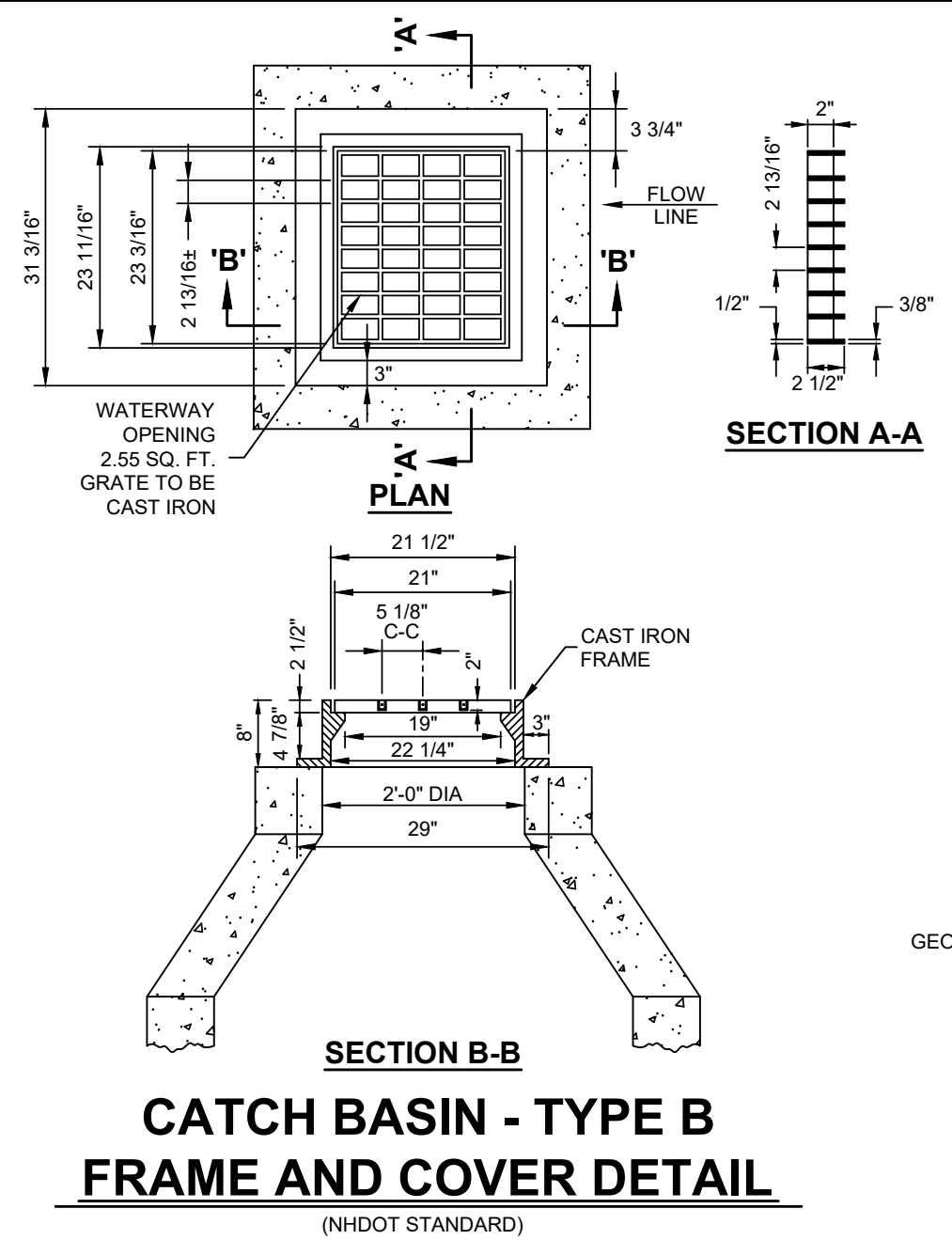
TRENCH PATCH DETAIL
NOT TO SCALE

ACCESSIBLE PARKING SPACE PAVEMENT MARKING
NOT TO SCALE

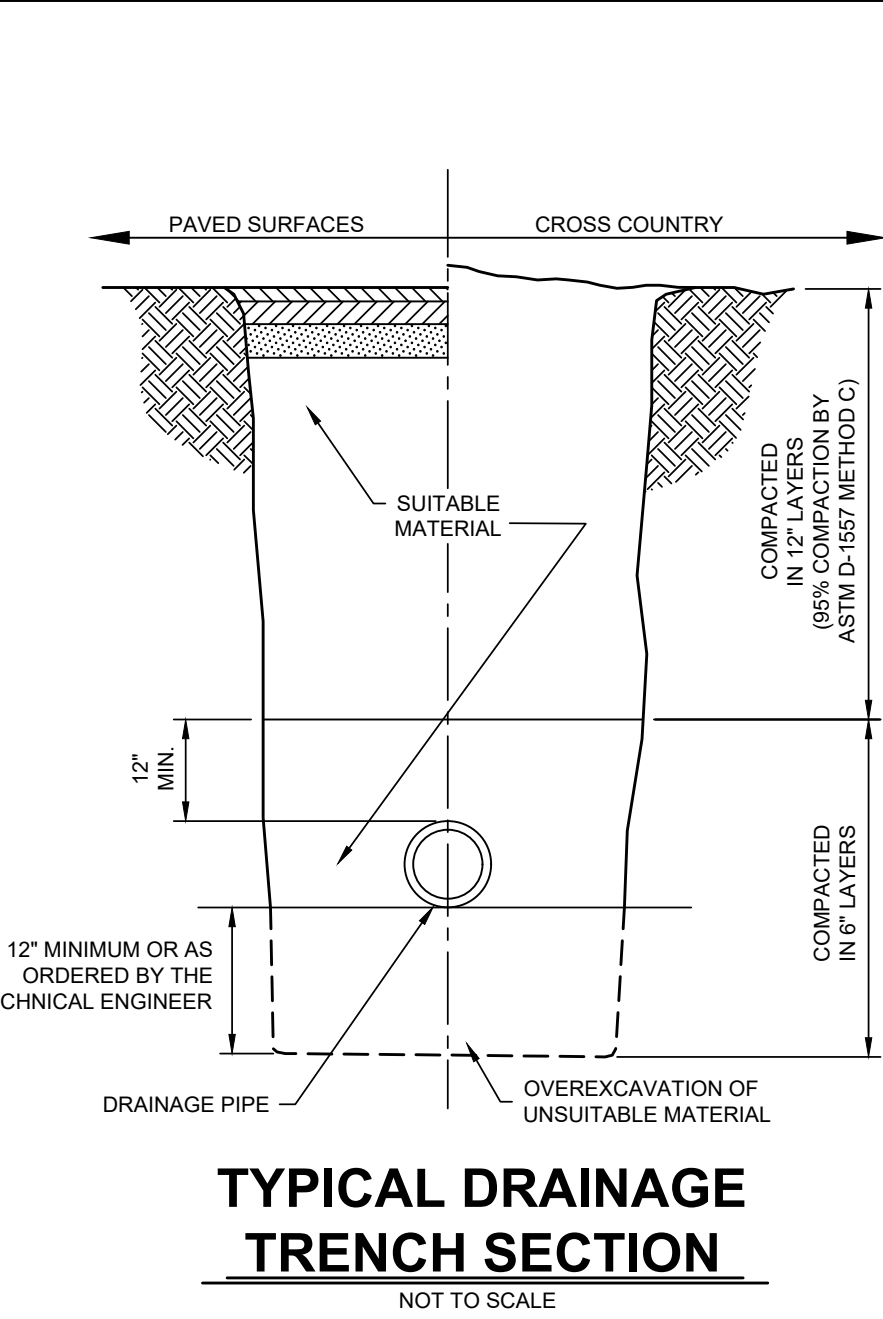
TYPICAL SECTION BITUMINOUS SIDEWALK
NOT TO SCALE



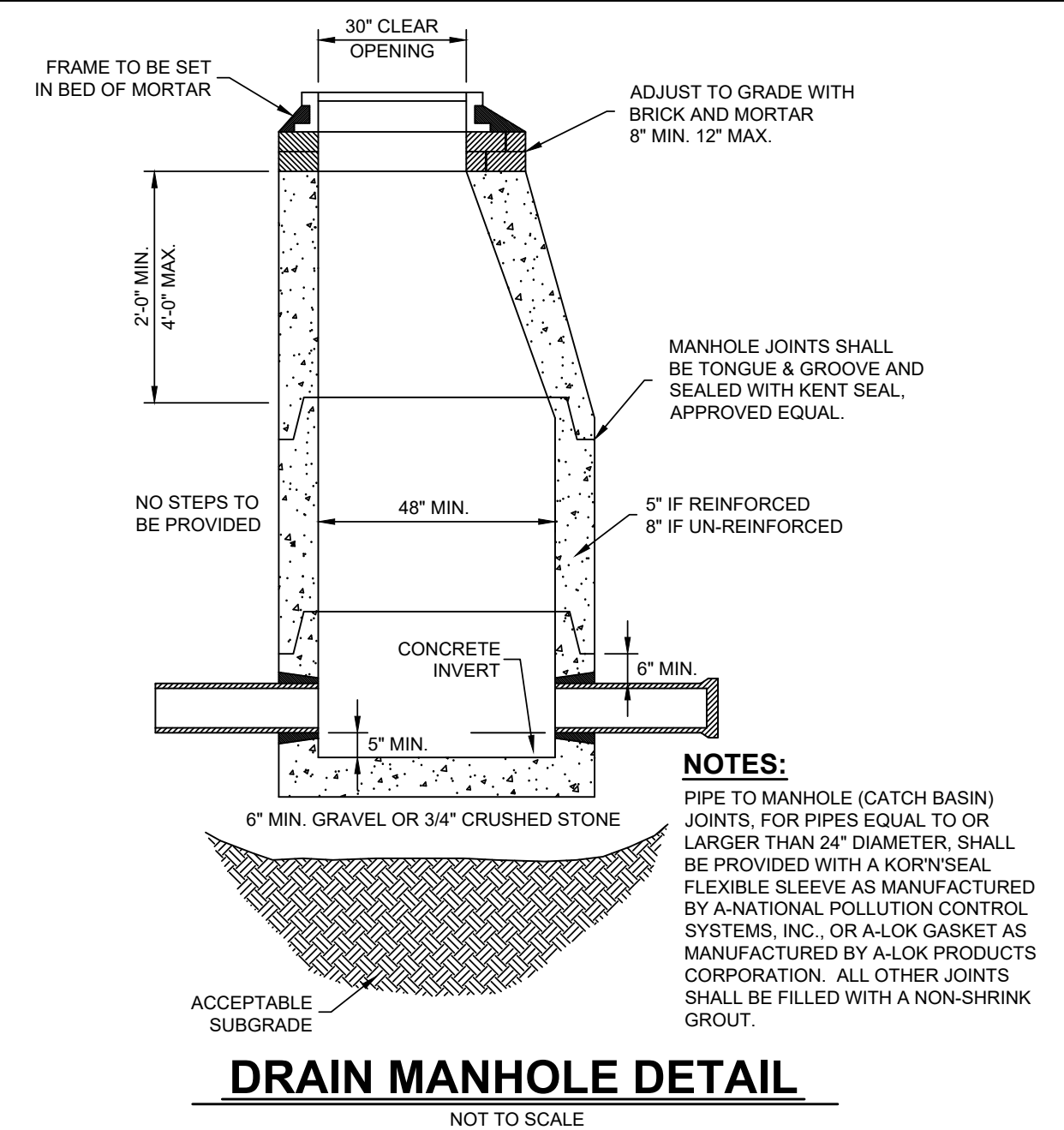
CATCH BASIN DETAIL
NOT TO SCALE



CATCH BASIN - TYPE B FRAME AND COVER DETAIL
(NHDOT STANDARD)
NOT TO SCALE

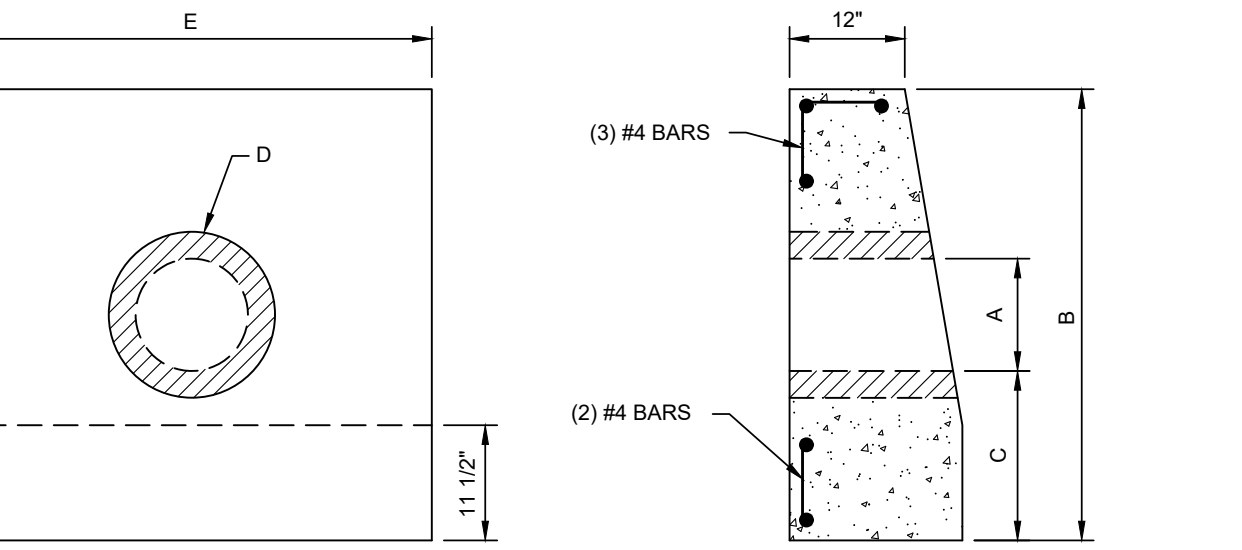


TYPICAL DRAINAGE TRENCH SECTION
NOT TO SCALE

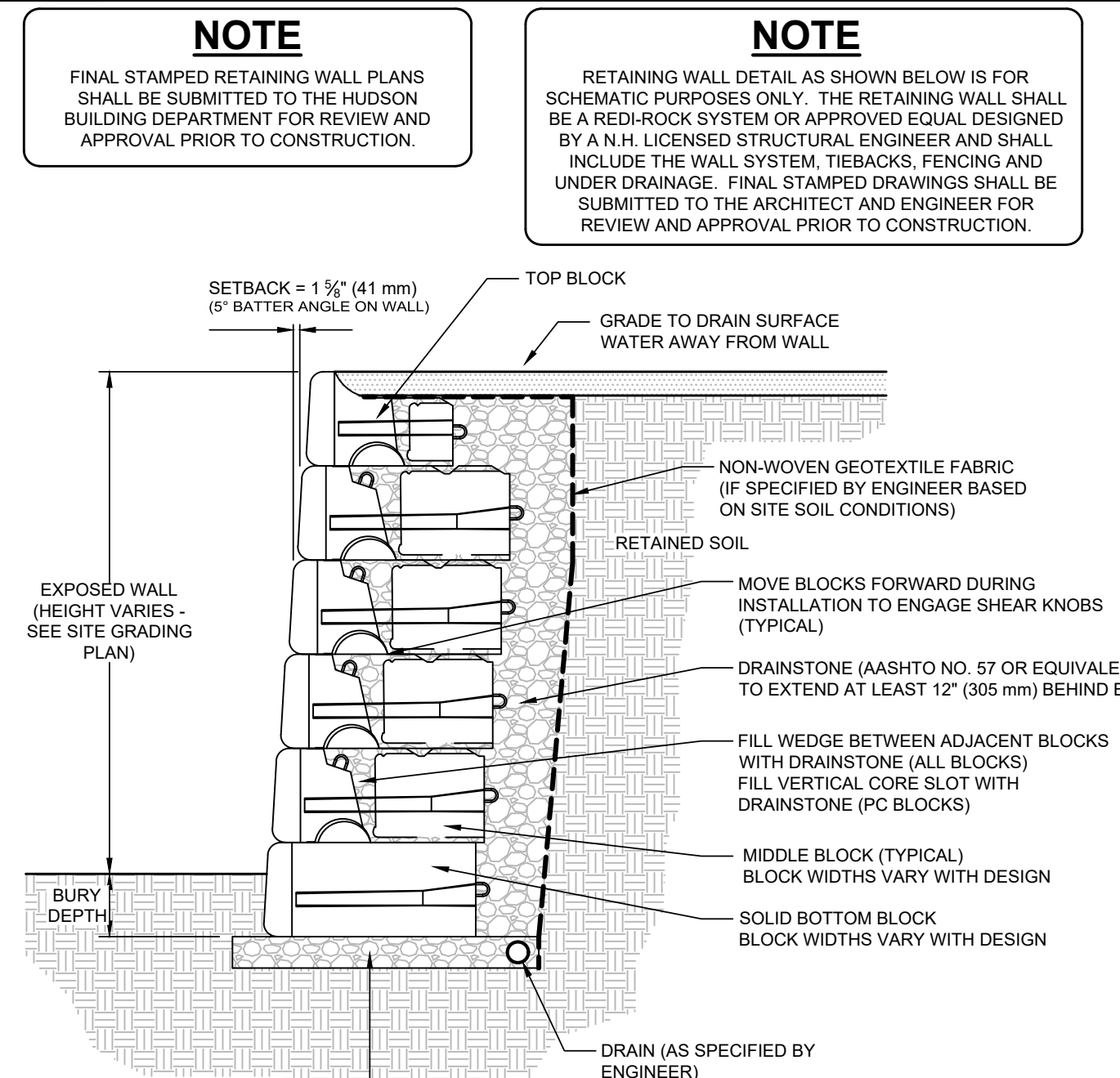


DRAIN MANHOLE DETAIL
NOT TO SCALE

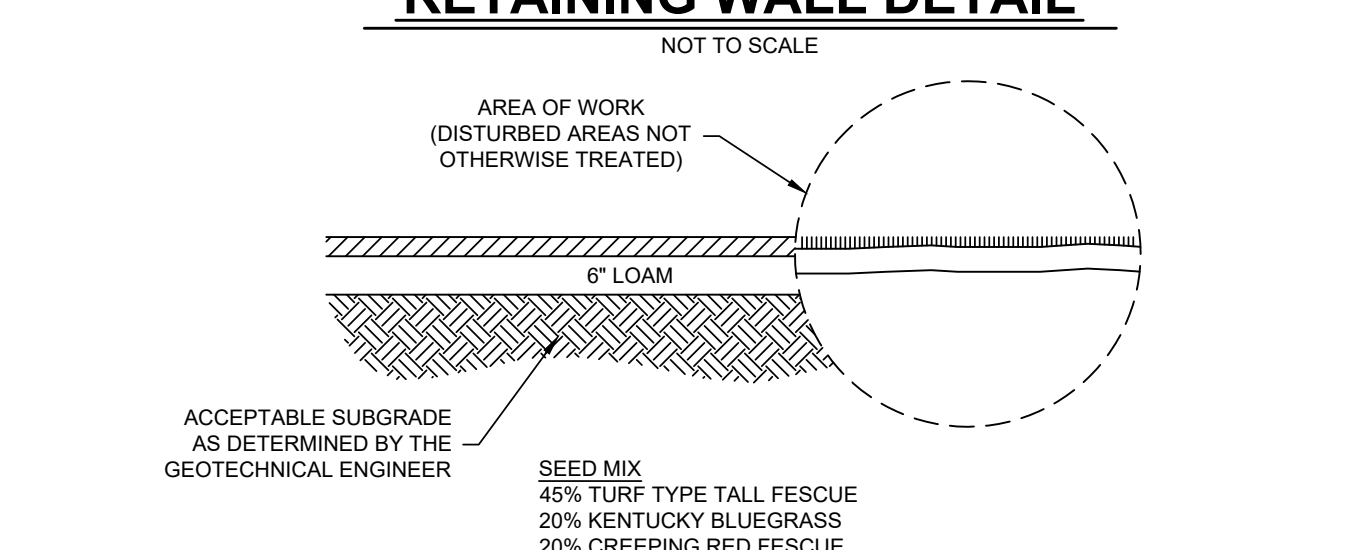
DIA A	B	C	DIA D	E	WEIGHT PER SECTION
12"	4'-0"	18"	18"	4'-3"	3,000 LBS
15"	4'-3"	18"	22"	6'-0"	4,500 LBS
18"	4'-6"	18"	26"	7'-0"	5,530 LBS
24"	4'-6"	15"	34"	7'-0"	5,035 LBS



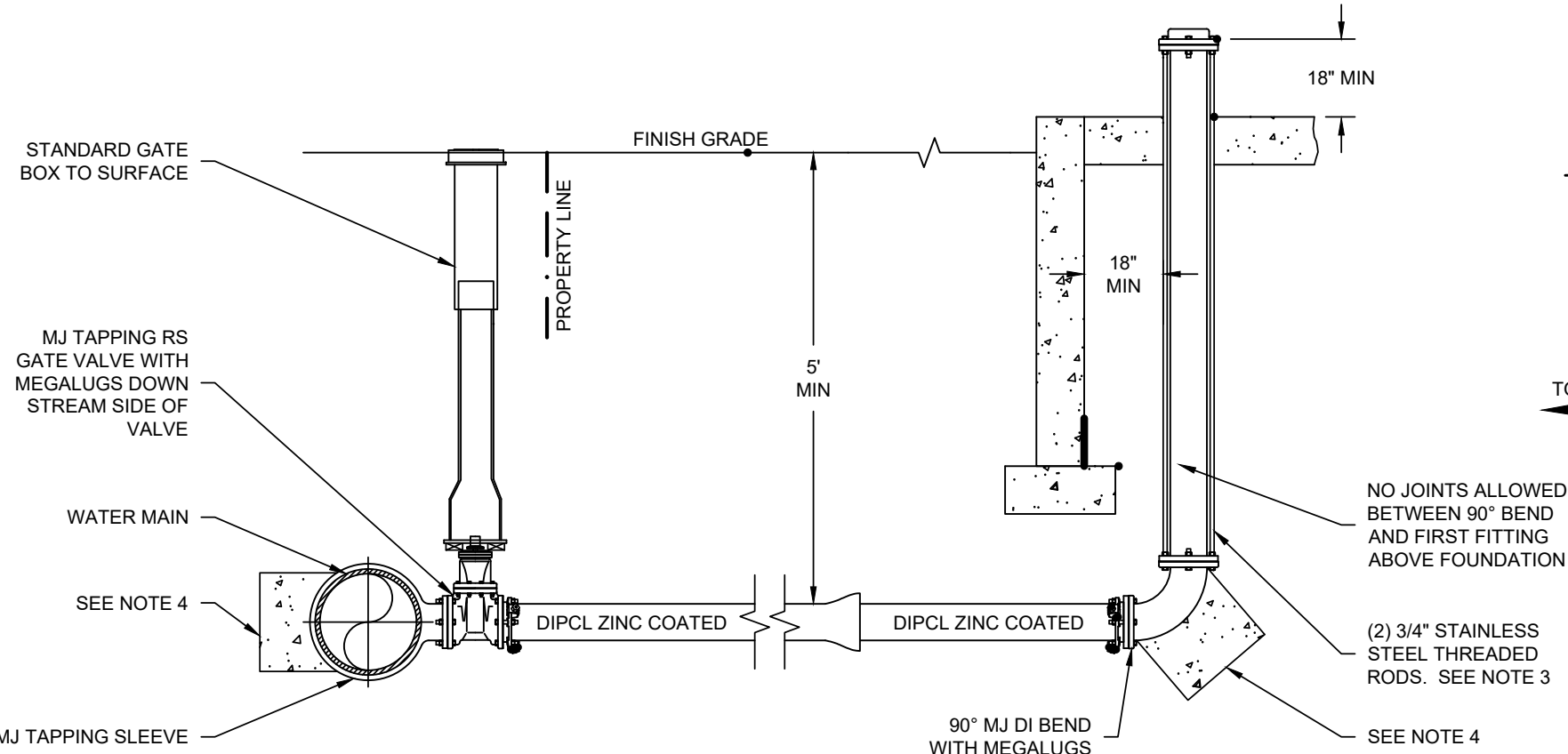
GENERAL NOTES:
1. STEEL REINFORCEMENT CONFORMS TO LATEST ASTM SPECIFICATIONS: ASTM-A615 GRADE 60 REBAR.
2. CONCRETE: Fc = 4,000 PSI @ 28 DAYS MINIMUM.
3. EST WEIGHT: 3,000 LBS.



RETAINING WALL DETAIL
NOT TO SCALE

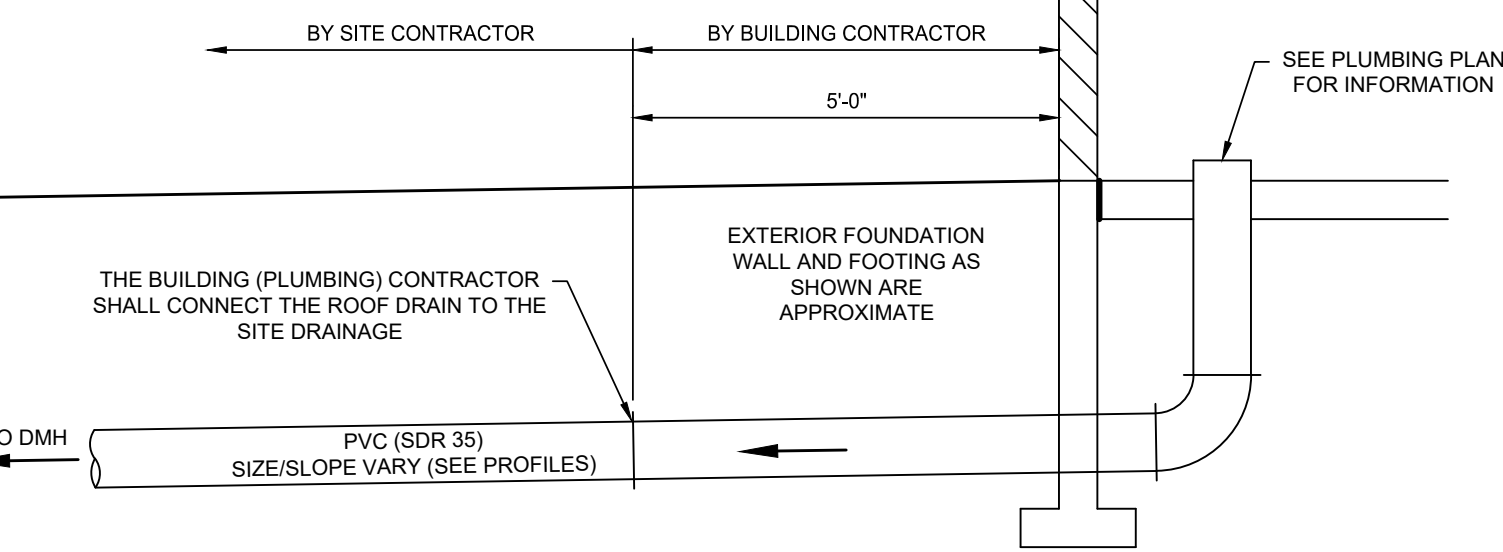


LOAM AND SEED DETAIL
NOT TO SCALE

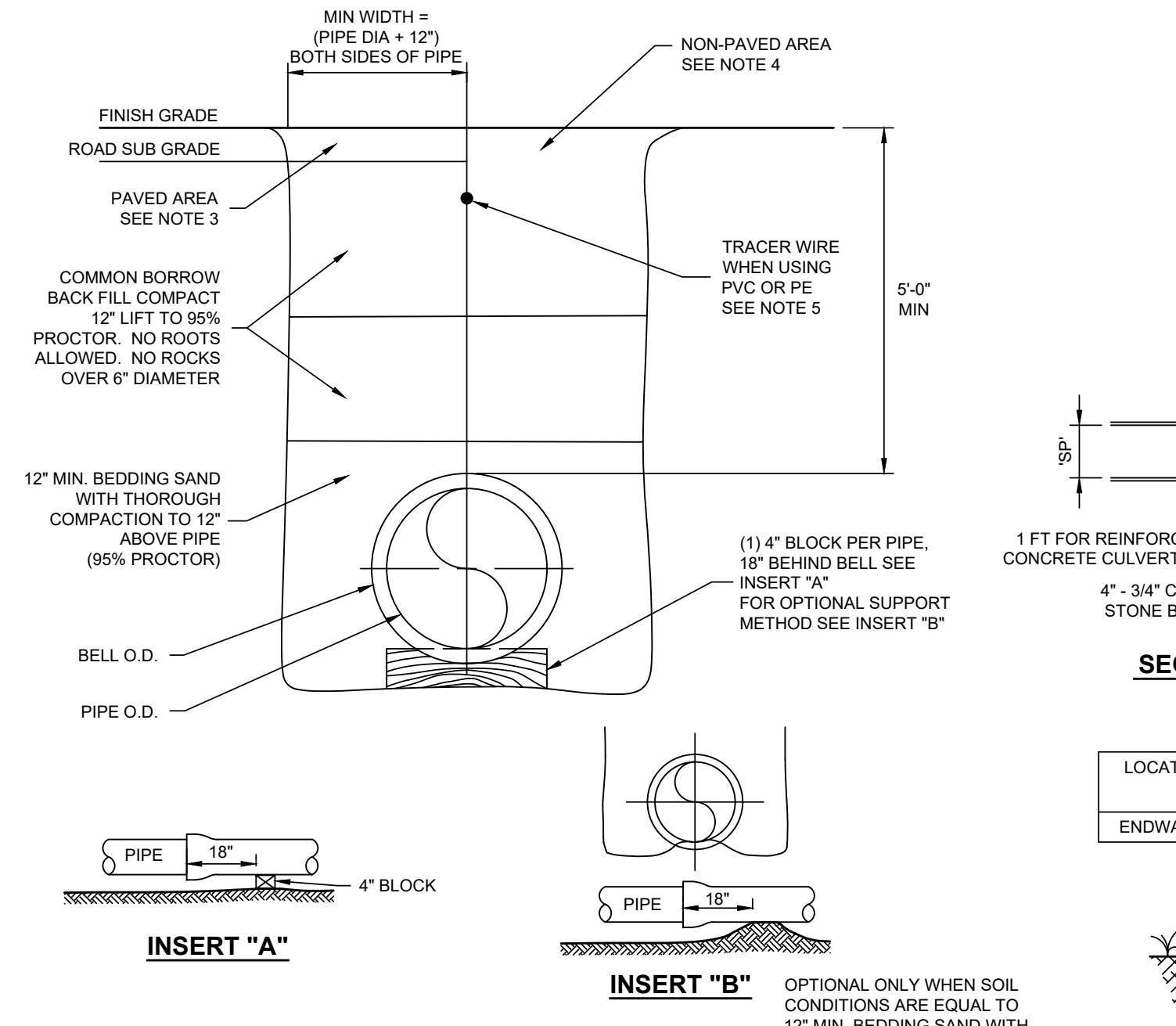


TYPICAL FIRE SERVICE INSTALLATION DETAIL
NOT TO SCALE

- NOTES:**
- ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON WATER DEPARTMENT TECHNICAL SPECIFICATIONS.
 - ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 - 3/4" S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS. 10" FITTING OR SMALLER = (2) 3/4" S.S. RODS & ASSOC. HARDWARE. 12" FITTING OR LARGER = (4) 3/4" S.S. RODS & ASSOC. HARDWARE.
 - MIN 2'X2'X3' PRE CAST CONCRETE THRUST BLOCK MAY BE USED WITH TOWN OF HUDSON WATER DEPARTMENT APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN.

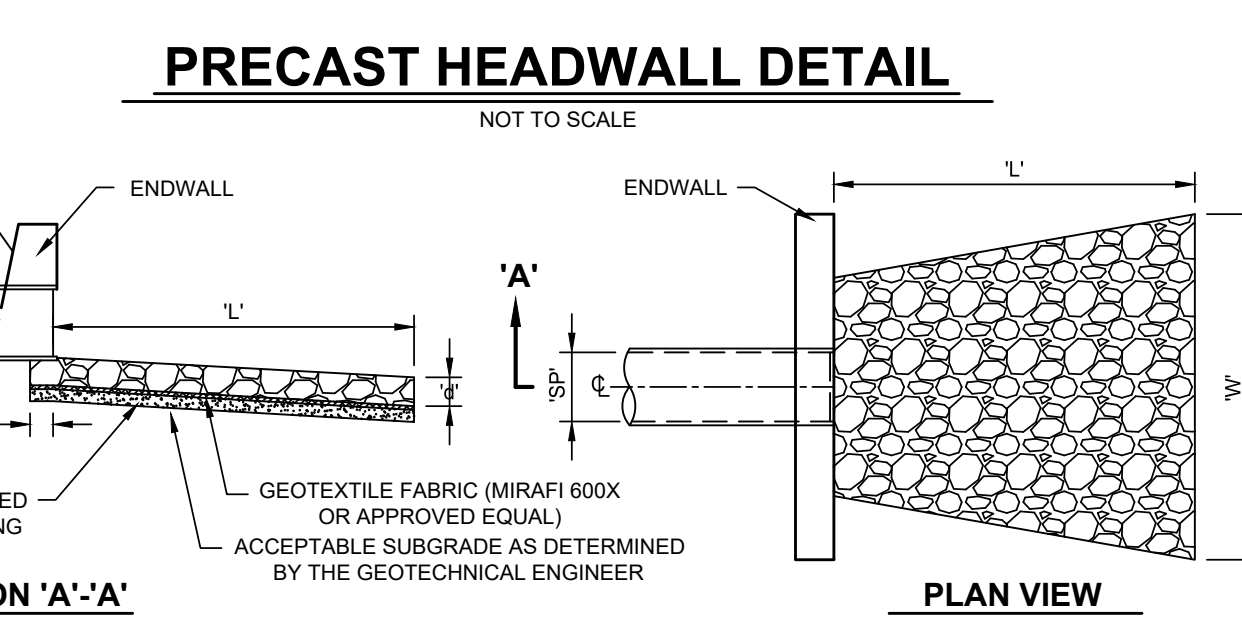


ROOF DRAIN CONNECTION DETAIL
NOT TO SCALE

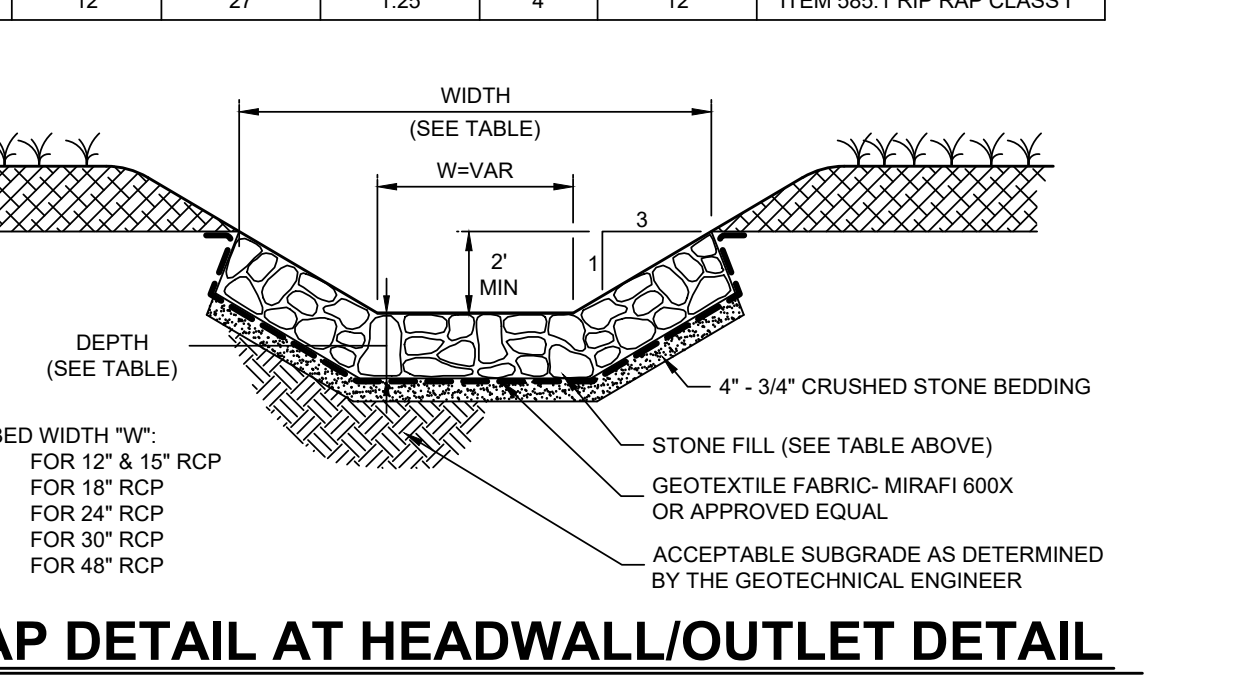


TYPICAL TRENCH DETAIL
NOT TO SCALE

- NOTES:**
- ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON WATER DEPARTMENT TECHNICAL SPECIFICATIONS.
 - ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
 - REQUIREMENTS FOR SUBBASE AND BASE MATERIAL TYPE ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN PAVED AREAS.
 - REQUIREMENTS FOR GRAVEL, LOAM AND/OR SEED ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN NON-PAVED AREAS.
 - USE 10-GAUGE SOLID-CORE COATED BLUE TRACER WIRE PER TOWN OF HUDSON WATER DEPARTMENT TECHNICAL SPECIFICATIONS.



PRECAST HEADWALL DETAIL
NOT TO SCALE



RIPRAP DETAIL AT HEADWALL/OUTLET DETAIL
NOT TO SCALE

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL.

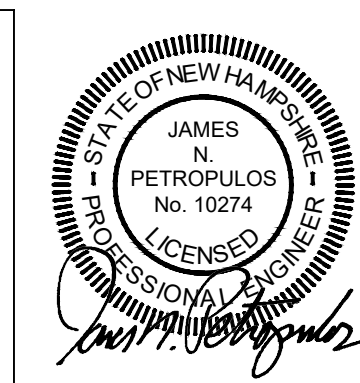
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No. _____ DATE _____ REVISION _____ BY _____

DETAIL SHEET - DRAINAGE (MAP 209, LOT 4)

PROPOSED BUILDING ADDITIONS

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HUDSON, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
INTEGRA BIOSCIENCES CORP.
2 WENTWORTH DRIVE HUDSON, NEW HAMPSHIRE 03051 (603) 578-5800

SCALE AS SHOWN

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FIELD BOOK: 1234 DRAWING NAME: 5734 SITE-DET1 5734 10 OF 15
DRAWING LOC: J:\5000\5734\DWG\5734 SITE 2021 File Number Sheet

TEST PIT LOGS

HSI #5734
MAP 209 LOT 4
INTEGRA BIOSCIENCES CORP.
22 FRIARS DRIVE
HUDSON, NH

TEST PITS: FOR DRAINAGE
WEATHER: 34" CLEAR
EQUIPMENT: KUBOTA KX161-3 MINI EXCAVATOR
LOGGED BY: PAUL CARIDEO, NHDES PERMIT #68

TEST PIT # 1 DATE: 12/28/21

0-14" 10YR 3/3, DARK BROWN, SANDY LOAM FILL, FINE GRANULAR, VERY FRIABLE WITH FEW ROOTS
14-96" 10YR 5/4, YELLOWISH BROWN, MEDIUM SAND, SINGLE GRAIN, LOOSE WITH FEW ROOTS TO 38"

ESHW: NONE OBSERVED OWT: NONE ROOTS: 38' LEDGE: NONE

TEST PIT # 2 DATE: 12/28/21

0-4" 10YR 3/3, DARK BROWN, SANDY LOAM FILL, FINE GRANULAR, VERY FRIABLE WITH FEW ROOTS
4-8" 10YR 3/2, VERY DARK GRAYISH BROWN, FINE SANDY LOAM, WEAK FINE GRANULAR, VERY FRIABLE WITH MANY ROOTS
8-20" 10YR 5/6, YELLOWISH BROWN, SANDY LOAM, FINE GRANULAR, VERY FRIABLE WITH COMMON ROOTS
20-36" 10YR 5/3, BROWN, MEDIUM SAND, SINGLE GRAIN, LOOSE WITH FEW ROOTS
36-88" 10YR 5/4, YELLOWISH BROWN, MEDIUM SAND, SINGLE GRAIN, LOOSE WITH FEW ROOTS
88-96" 10YR 6/3, LIGHT YELLOWISH BROWN, GRAVELLY SAND, 15% ROUNDED COBBLES, 10% GRAVEL, SINGLE GRAIN, LOOSE WITH FEW ROOTS TO 90"

ESHW: NONE OBSERVED OWT: NONE ROOTS: 90' LEDGE: NONE

TEST PIT # 3 DATE: 12/28/21

0-8" 10YR 3/3, DARK BROWN, FINE SANDY LOAM FILL, WEAK FINE GRANULAR, VERY FRIABLE WITH MANY ROOTS
8-14" 10YR 3/2, VERY DARK GRAYISH BROWN, FINE SANDY LOAM, MASSIVE, VERY FRIABLE WITH MANY ROOTS
14-30" 10YR 5/8, YELLOWISH BROWN, SANDY LOAM, FINE GRANULAR, FRIABLE WITH COMMON ROOTS
30-76" 10YR 5/4, YELLOWISH BROWN, MEDIUM SAND, SINGLE GRAIN, LOOSE WITH FEW ROOTS TO 42" AND 7.5YR 5/6, STRONG BROWN, COMMON, DISTINCT REDOXIMORPHIC FEATURES AT 72"
76-80" 10YR 6/3, LIGHT YELLOWISH BROWN, MEDIUM SAND, SINGLE GRAIN, FIRM WITH 5YR 5/8, YELLOWISH RED REDOXIMORPHIC FEATURES THROUGHOUT
80-96" 10YR 6/2, LIGHT GRAYISH BROWN, VERY FINE SAND, MASSIVE, FIRM WITH 5YR 4/6, YELLOWISH RED REDOXIMORPHIC FEATURES THROUGHOUT

ESHW: 72" OWT: 78" ROOTS: 42' LEDGE: NONE

TEST PIT # 4 DATE: 12/28/21

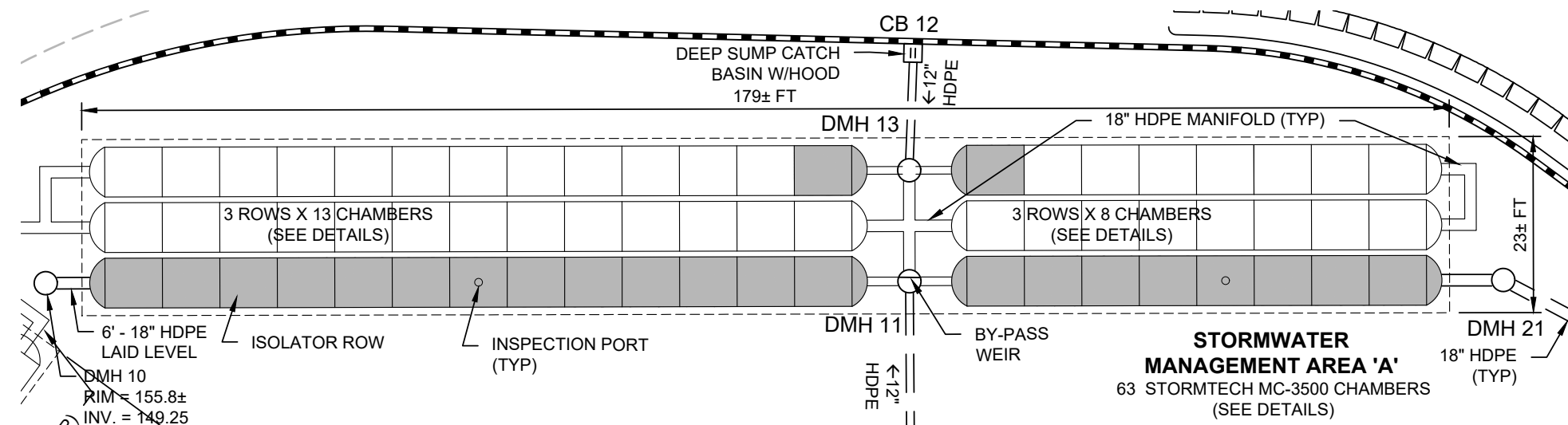
0-6" 10YR 3/3, DARK BROWN, SANDY LOAM FILL, GRANULAR, VERY FRIABLE WITH FEW ROOTS
6-20" 10YR 7/4, VERY PALE BROWN, CRUSHED GRANULAR FILL, 25% ANGULAR COBBLES, 20% GRAVEL, GRANULAR, LOOSE WITH FEW ROOTS
20-42" 10YR 5/4, YELLOWISH BROWN, MEDIUM SAND, SINGLE GRAIN, LOOSE WITH FEW ROOTS TO 30"
42-76" 10YR 6/3, LIGHT YELLOWISH BROWN, FINE SAND, FINE GRANULAR, FIRM IN PLACE-FRIABLE REMOVED WITH 7.5YR 5/8, STRONG BROWN, COMMON, DISTINCT REDOXIMORPHIC FEATURES AT 72"
80-96" 10YR 5/3, BROWN, GRAVELLY SAND, 15% ROUNDED COBBLES, 10% GRAVEL, SINGLE GRAIN, LOOSE WITH 7.5YR 5/8, STRONG BROWN, COMMON, DISTINCT REDOXIMORPHIC FEATURES THROUGHOUT

ESHW: 72" OWT: 78" ROOTS: 30' LEDGE: NONE

LOCATION	INLET INVERT 'A'	OUTLET INVERT 'B'	WEIR ELEVATION 'C'
DMH 7	151.56	149.25	150.00

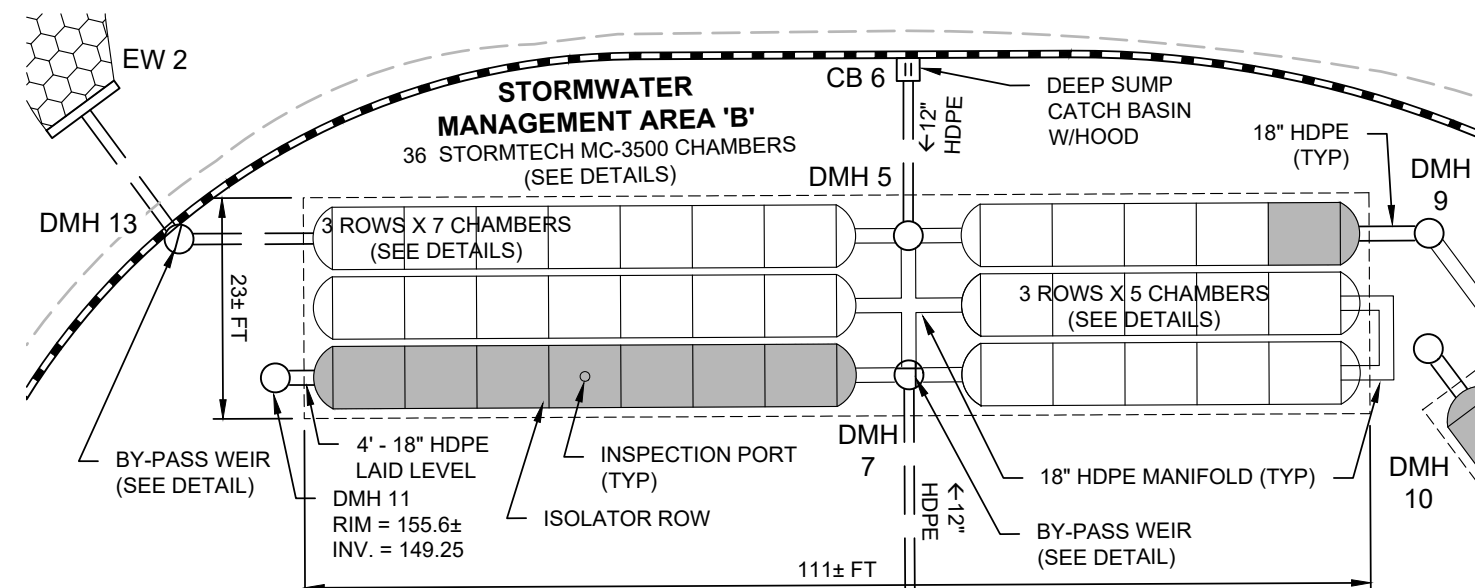
LOCATION	INLET INVERT 'A'	OUTLET INVERT 'B'	WEIR ELEVATION 'C'
DMH 3	149.25	149.58	153.25
DMH 11	151.78	149.25	150.75

LOCATION	A	B	C	D
SMA 'A'	148.25	149.00	152.75	154.00
SMA 'B'	148.25	149.00	152.75	154.00



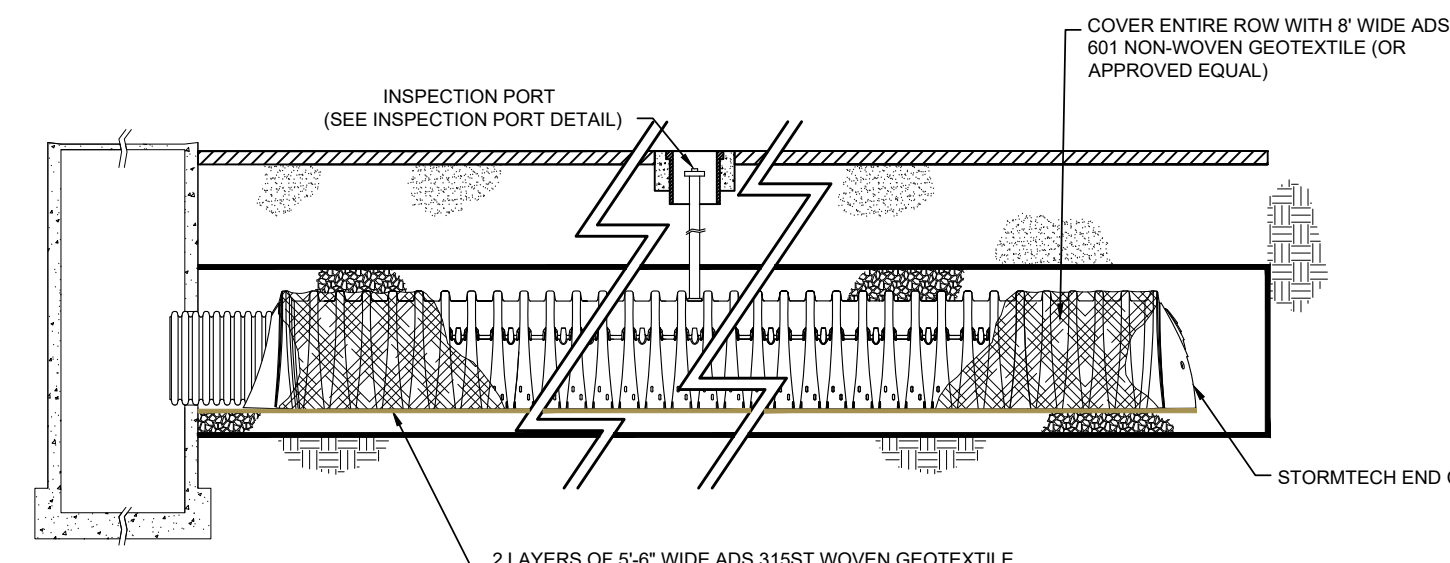
STORMWATER MANAGEMENT AREA 'A' PLAN VIEW

SCALE: 1" = 20'

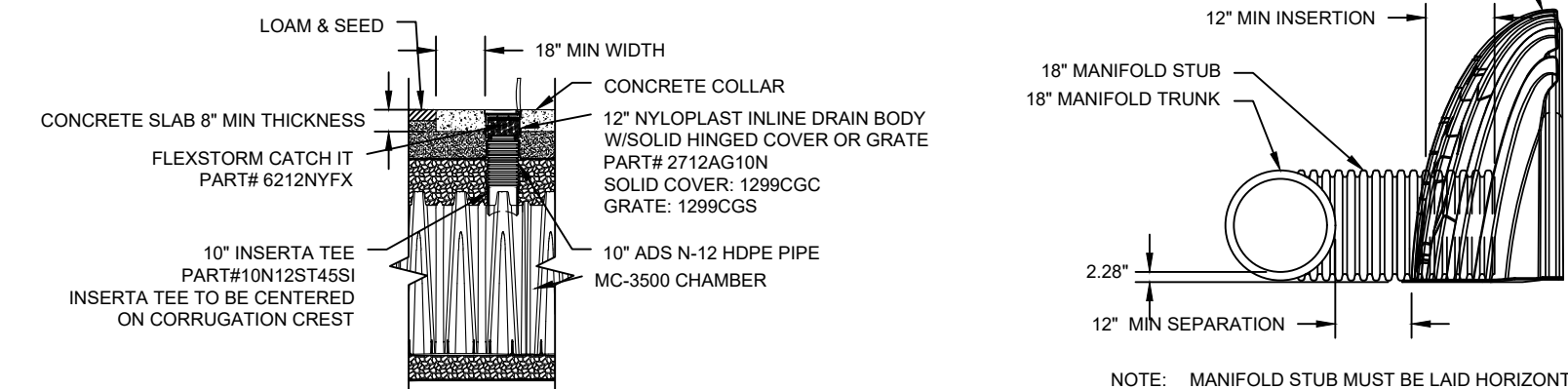


STORMWATER MANAGEMENT AREA 'B' PLAN VIEW

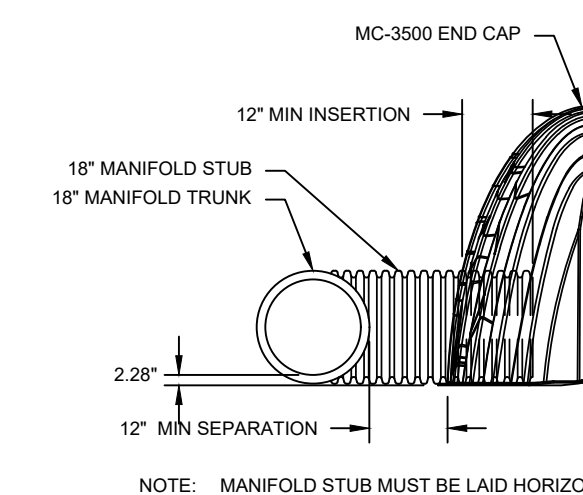
SCALE: 1" = 20'



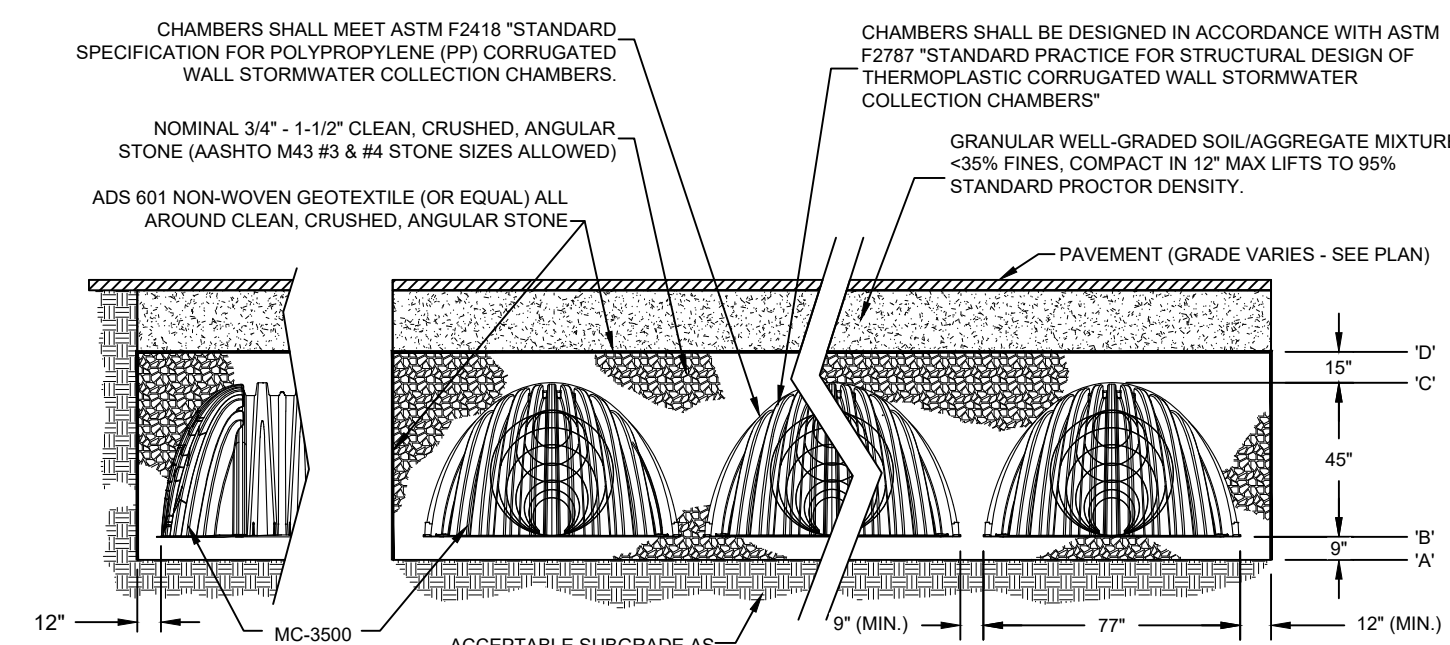
ISOLATOR ROW DETAIL



INSPECTION PORT DETAIL



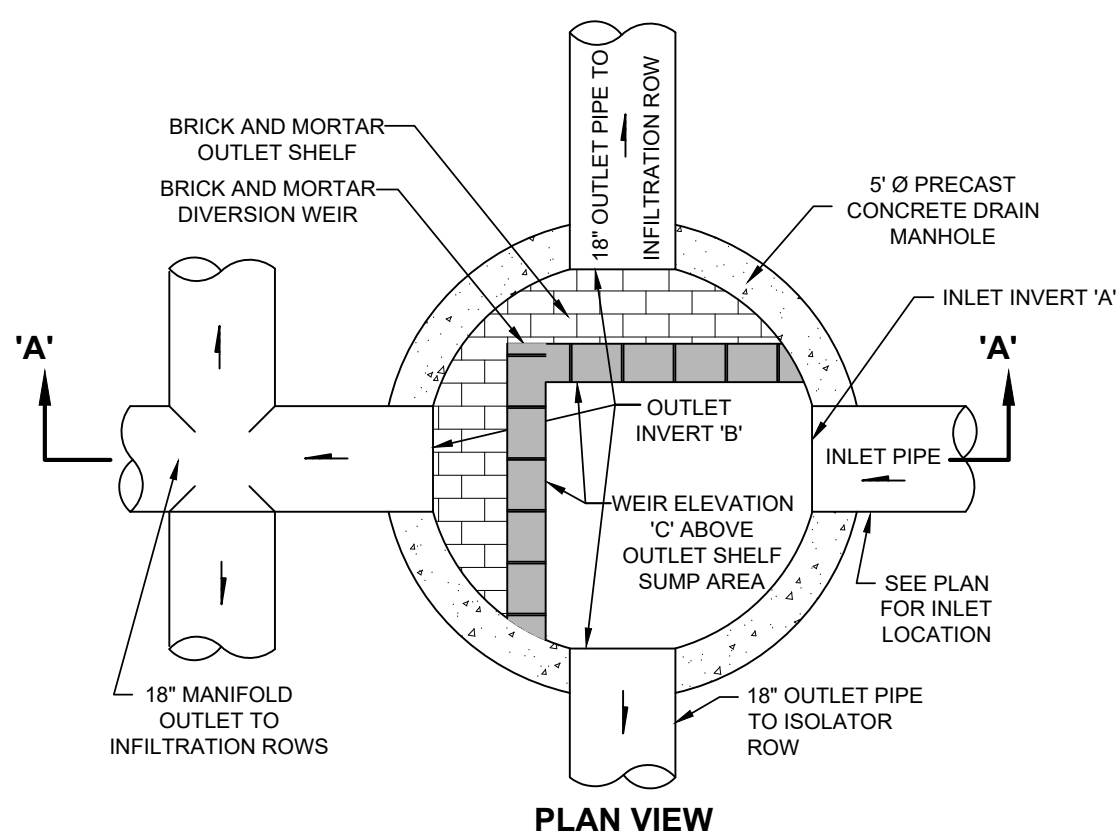
END CAP DETAIL



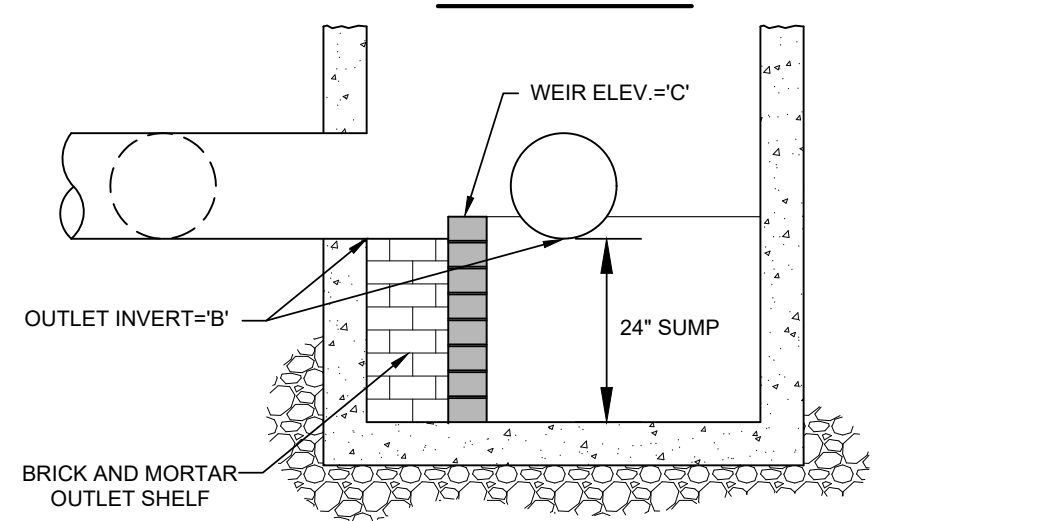
TYPICAL CROSS SECTION DETAIL

STORMTECH MC-3500 CHAMBER SYSTEM DETAILS

NOT TO SCALE



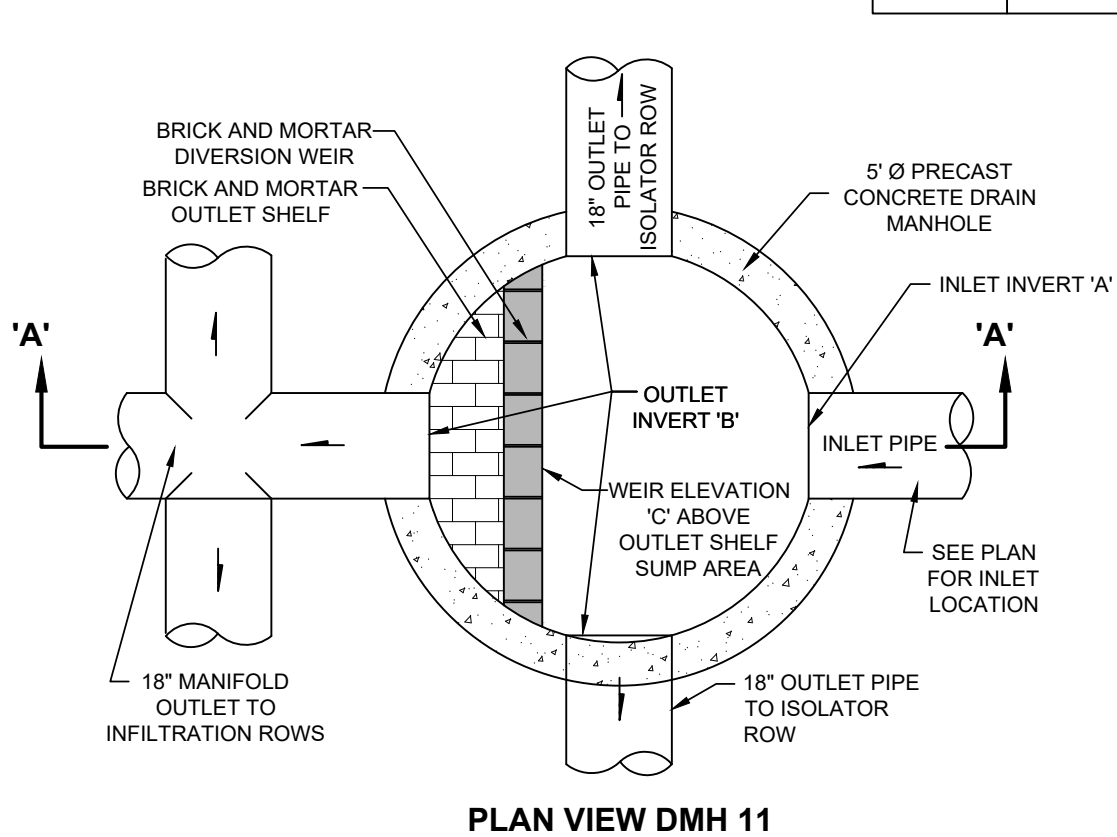
PLAN VIEW



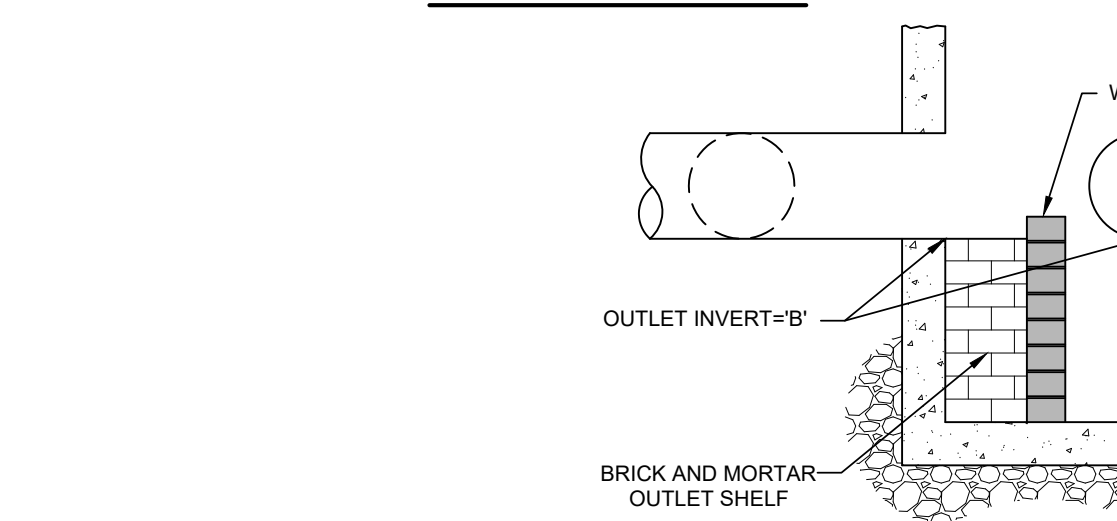
SECTION 'A'-A' VIEW

INLET DRAIN MANHOLE DETAIL (DMH 7)

NOT TO SCALE



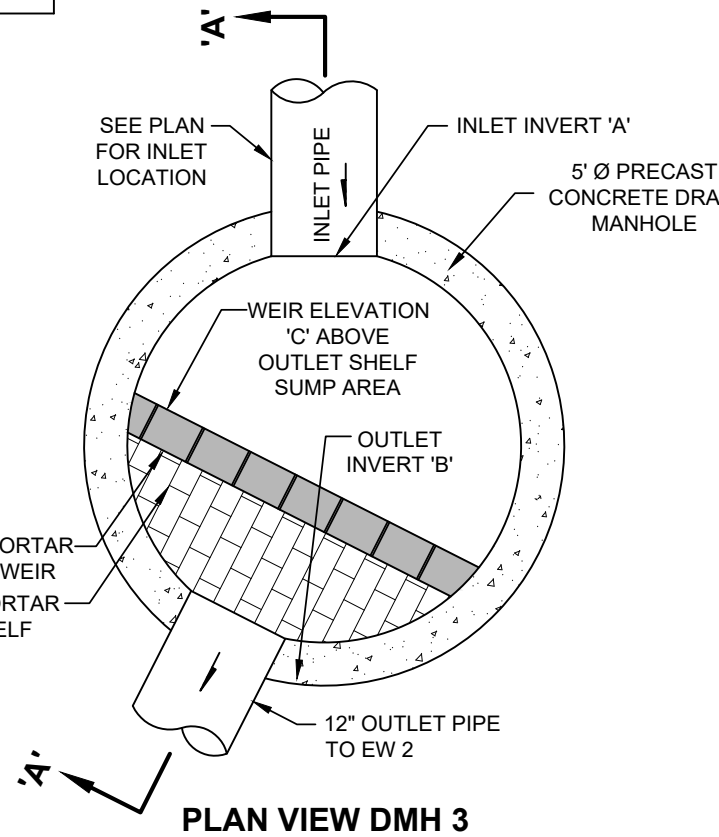
PLAN VIEW DMH 11



SECTION 'A'-A' VIEW

INLET DRAIN MANHOLE DETAIL (DMH 3 & 11)

NOT TO SCALE

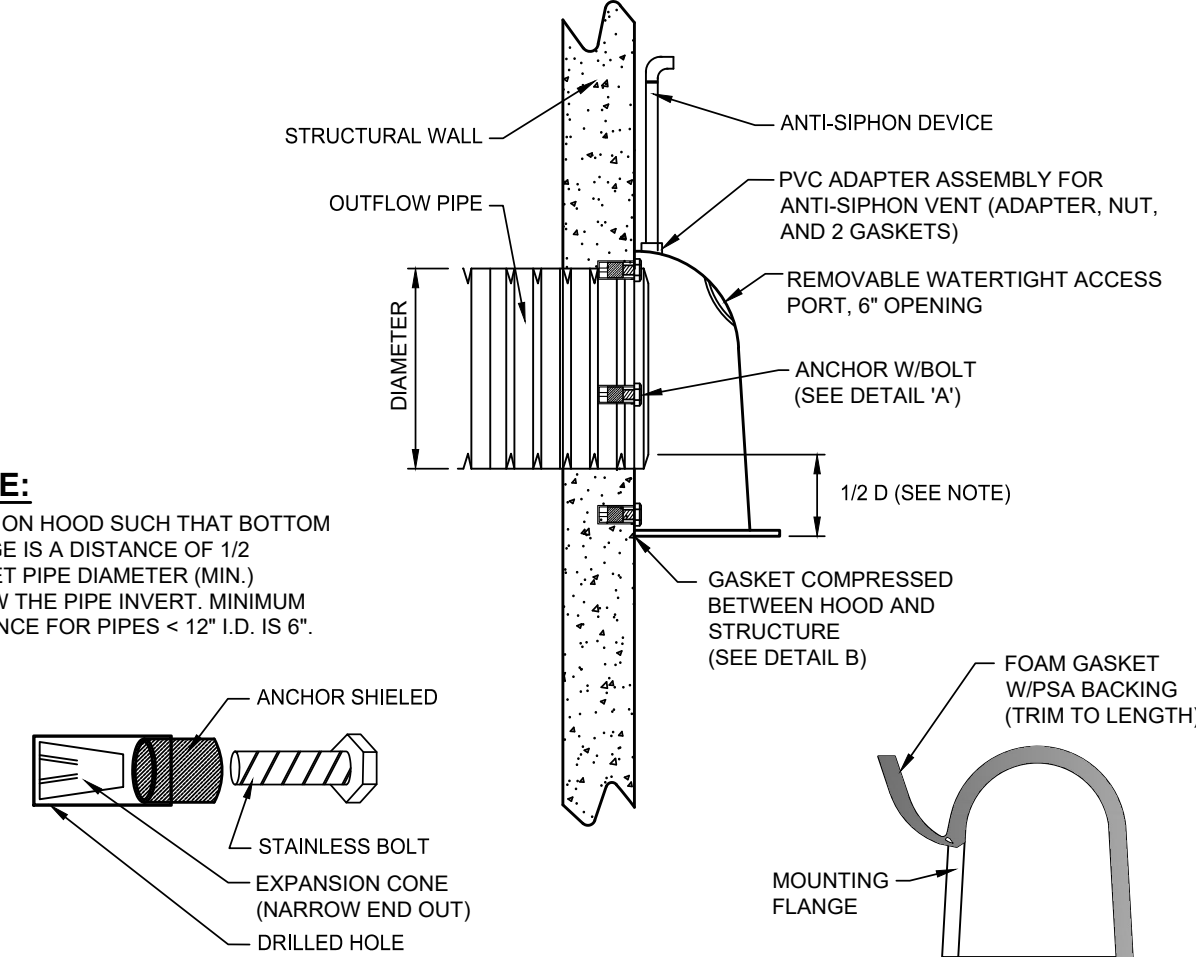


PLAN VIEW DMH 3



SECTION 'A'-A' VIEW

NOTE:
POSITION HOOD SUCH THAT BOTTOM FLANGE IS A DISTANCE OF 1/2 OUTLET PIPE DIAMETER (MIN.) BELOW THE PIPE INVERT. MINIMUM DISTANCE FOR PIPES < 12" I.D. IS 6".



DETAIL 'A'

DETAIL 'B'

SNOUT® OIL AND DEBRIS STOP DETAIL

NOT TO SCALE

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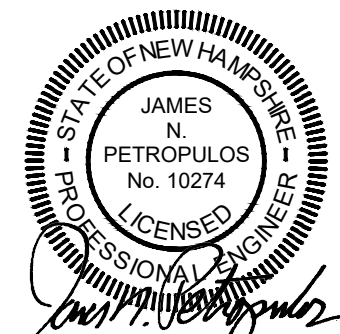
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No.	DATE	REVISION	BY

DETAIL SHEET - DRAINAGE
(MAP 209, LOT 4)

PROPOSED BUILDING ADDITIONS
22 FRIARS DRIVE
HUDSON, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
INTEGRA BIOSCIENCES CORP.
2 WENTWORTH DRIVE HUDSON, NEW HAMPSHIRE 03051 (603) 578-5800

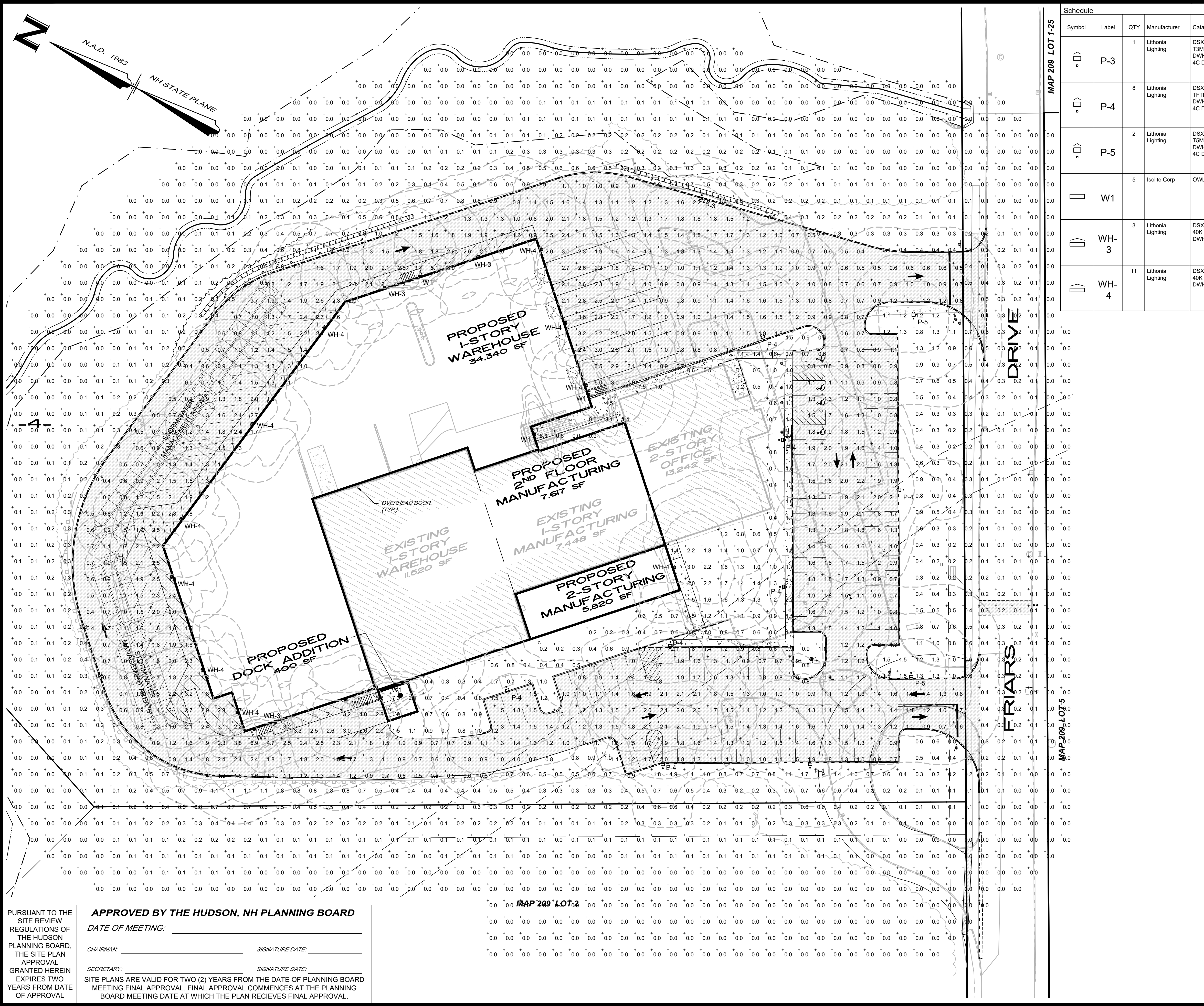
SCALE AS SHOWN

27 JANUARY 2022

HSI Hayner/Swanson, Inc.
Civil Engineers/Land Surveyors

3 Congress Street
Nashua, NH 03062
(603) 883-2057
131 Middlesex Turnpike
Burlington, MA 01803
(781) 203-1501
www.haynerswanson.com

FIELD BOOK: 1234	DRAWING NAME: 5734 SITE-DET1	5734	11 OF 15
DRAWING LOC: J:\5000\5734\DWG\5734 SITE DET1		File Number	Sheet



Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Filename	Lumens per Lamp	LLF	Wattage	Distribution	Polar Plot
P-3	P-3	1	Lithonia Lighting	DSX0 LED P3 40K T3M MVOLT SPA DWHXD with SSS 20 4C DM19AS DWHXD	DSX0 LED Area Fixture; mounted at 22ft (20ft pole on 2ft base)	LED	DSX0_LED_P3_40K_T3M_MVOLT.ies	8205	0.9	71	TYPE III, MEDIUM, BUG RATING: B2 - U0 - G2	
P-4	P-4	8	Lithonia Lighting	DSX0 LED P3 40K TFTM MVOLT SPA DWHXD with SSS 20 4C DM19AS DWHXD	DSX0 LED Area Fixture; mounted at 22ft (20ft pole on 2ft base)	LED	DSX0_LED_P3_40K_TFTM_MVOLT.ies	8447	0.9	71	TYPE IV, SHORT, BUG RATING: B2 - U0 - G2	
P-5	P-5	2	Lithonia Lighting	DSX0 LED P3 40K T5M MVOLT SPA DWHXD with SSS 20 4C DM19AS DWHXD	DSX0 LED Area Fixture; mounted at 22ft (20ft pole on 2ft base)	LED	DSX0_LED_P3_40K_T5M_MVOLT.ies	8770	0.9	71	TYPE VS, BUG RATING: B3 - U0 - G2	
W1	W1	5	Isolite Corp	OWL EM WH MB HX	OWLAC/EM OWLin Normal AC Mode; mounted at 10ft	LED	OWL-ISOLITE-ACIES.ies	1529	0.9	15.8		
WH-3	WH-3	3	Lithonia Lighting	DSXW2 LED 30C 700 40K T3M MVOLT DWHXD	DSXW2 LED Wallpack; mounted at 20ft	LED	DSXW2_LED_30C_700_40K_T3M_MVOLT.ies	8199	0.9	71	TYPE IV, SHORT, BUG RATING: B2 - U0 - G3	
WH-4	WH-4	11	Lithonia Lighting	DSXW2 LED 30C 700 40K T3M MVOLT DWHXD	DSXW2 LED Wallpack; mounted at 20ft	LED	DSXW2_LED_30C_700_40K_T3M_MVOLT.ies	8082	0.9	71	TYPE IV, SHORT, BUG RATING: B2 - U0 - G2	

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Ground Around Building	+	1.2 fc	7.3 fc	0.0 fc	N/A	N/A
Outside of Parking Lot	+	0.1 fc	2.0 fc	0.0 fc	N/A	N/A
Parking Lot	+	1.4 fc	6.9 fc	0.4 fc	17.3:1	3.5:1

NOTE
 THE PURPOSE OF THE PHOTOMETRIC LIGHT PLAN IS TO SHOW LIGHTING LEVELS THROUGH THE SITE. THE CONTRACTOR SHALL REFER TO THE SITE ELECTRICAL PLAN FOR LIGHT POLE BASE DESIGN, CONDUIT WIRING AND OTHER APPURTENANT SITE LIGHTING DESIGN ELEMENTS.

No.	DATE	REVISION	BY

PHOTOMETRIC SITE LIGHTING PLAN
 (MAP 209, LOT 4)

PROPOSED BUILDING ADDITIONS

22 FRIARS DRIVE
 HUDSON, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
INTEGRA BIOSCIENCES CORP.
 2 WENTWORTH DRIVE HUDSON, NEW HAMPSHIRE 03051 (603) 578-5800

SCALE: 1"=30 Feet
 1"=9.144 Meters

27 JANUARY 2022

GATE CITY ELECTRIC

NASHUA, NH 603-886-0200

FIELD BOOK: 1234	DRAWING NAME: 5734 SITE-SL31	5734	13 OF 15
DRAWING LOC: J:\5000\5734\DWG\5734 SITE 2021		File Number	Sheet

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL

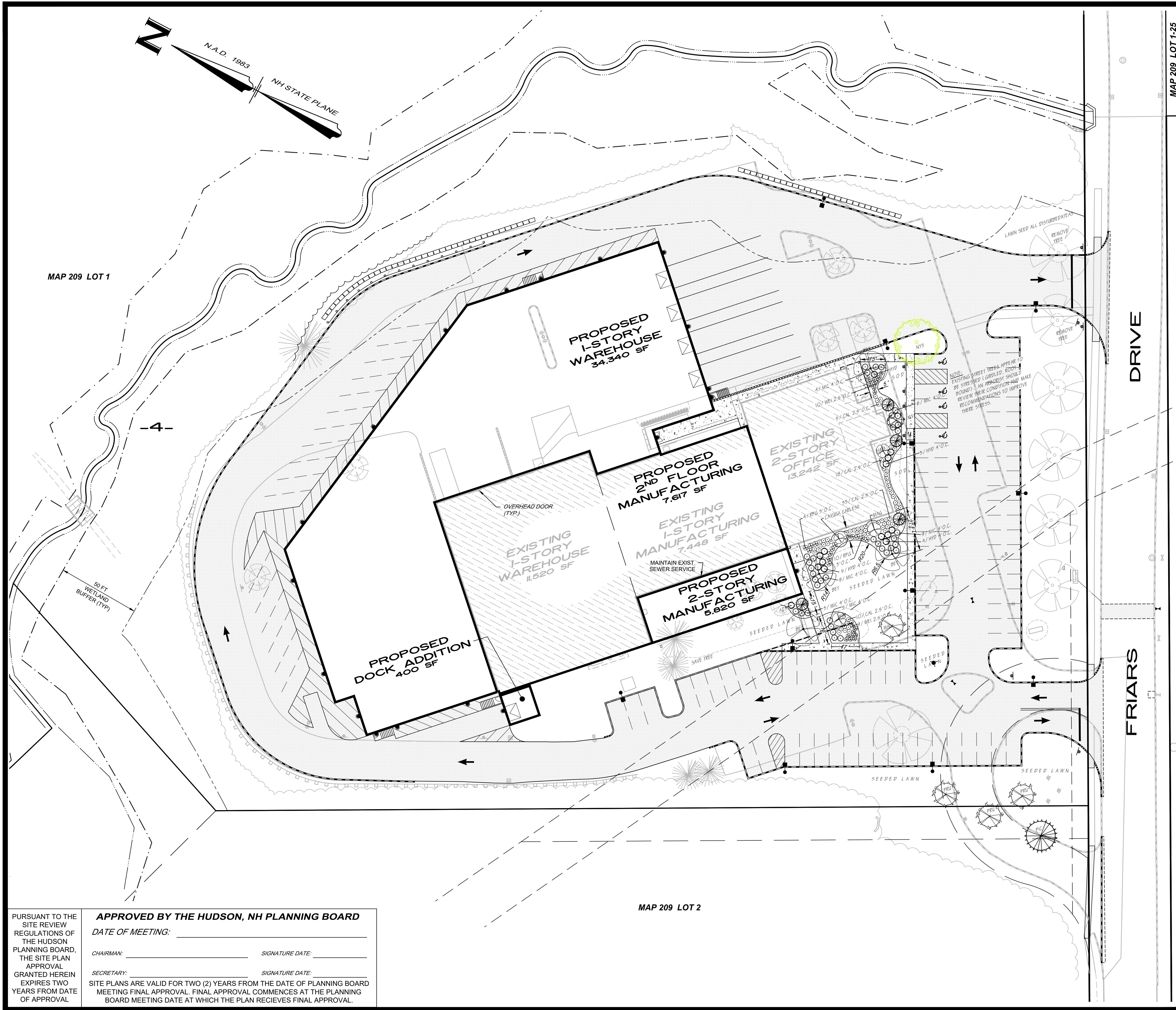
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MATERIAL LIST

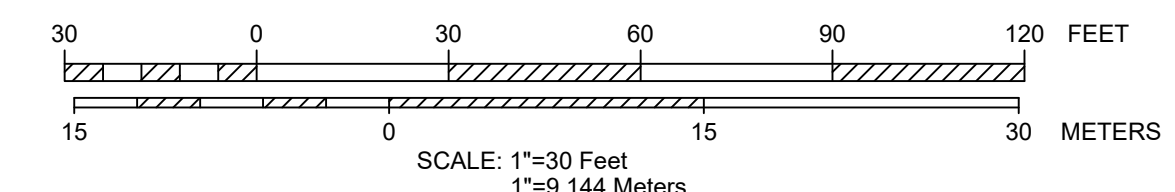
1/ AZA AZALEA SPECIES (INNOCENCE AZALEA)	#9 GAL.
4/ BET BETULA NIGRA (HERITAGE RIVER BIRCH)	12'-14' MULTI-STEM
30/ CAL CALAMAGROSTIS A. (KARL FOEBSTER FEATHER REED GRASS)	#2 GAL.
5/ CHA CHAMAECYPARIS OBTUSA GRACILILIS (GRACILIS HINOKI FALSE CYPRESS)	7'-8' BB
1/ HAM HAMAMELIS VIRGINIANA (HARVEST MOON WITCHHAZEL)	5'-6' BB
10/ HYD HYDRANGEA PANICULATA (LITTLE QUICK FIRE HYDRANGEA)	#5 GAL.
1/ MAG MAGNOLIA X. (LOUIS MAGNOLIA)	6'-7' BB
1/ MAL MALUS SPECIES (LOUISA CRABAPPLE)	2.5"-3" CAL.
1/ MST MALUS SPECIES (SARGENT TINA CRABAPPLE)	2"-2.5" CAL.
20/ MIC MICROBIOTA DECUSSATA (RUSSIAN CYPRESS)	#3 GAL.
1/ NYS NYSSA SYLVATICA (WILDFIRE TUPELO)	2.5"-3" CAL.
1/ PIC PICEA PUNGENS GLAUCA (COLORADO BLUE SPRUCE)	8'-1' BB
1/ PIN PINUS STROBUS (BLUE SHAG PINE)	5'-4' BB
3/ PRU PRUNUS SERRULATA (KWANZAN CHERRY TREE)	@'-2.5" CAL.
20/ RFG RHODODENDRON (PURPLE GEM RHODODENDRON)	#9 GAL.
9/ WEI WEIGELA FLORIDA (MIDNIGHT WINE WEIGELA)	#9 GAL.
MISCELLANEOUS:	
SOD	PER PLAN
PINE/HEMLOCK BLEND	ALL NEW AND EXISTING BEDS
LAWN SEED MIX SANDY SOIL/ DROUGHT TOLERANT BLEND	PER PLAN

GENERAL NOTES:
 NO PLANT HYBRID SUBSTITUTIONS OR CHANGES IN SIZE AND/OR CONTAINER VS. BB, WITHOUT PRIOR WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT.
 DO NOT USE TINTED BARKMULCH IN THE PLANT BEDS OR TREE SAUCERS. REPLACE ALL EXISTING MULCH WITH A PREMIUM BLEND PINE/HEMLOCK BLEND.
 DO NOT USE THE 'BEEHIVE' MULCHING TECHNIQUE FOR TREE SAUCERS, INSTALL PER DETAILS.

No.	DATE	REVISION	BY

LANDSCAPE PLAN
 (MAP 209, LOT 4)
PROPOSED BUILDING ADDITIONS
 22 FRIARS DRIVE
 HUDSON, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
INTEGRA BIOSCIENCES CORP.
 2 WENTWORTH DRIVE HUDSON, NEW HAMPSHIRE 03051 (603) 578-5800



27 JANUARY 2022

PREPARED BY:
BLACKWATER DESIGN
 PHONE (603) 648-6500 FAX (603) 648-6506
 Land Planning - Landscape Architecture
 85 Frost Lane - Webster, NH 03303

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MAP 209 LOT 2

MAP 209 LOT 1-25

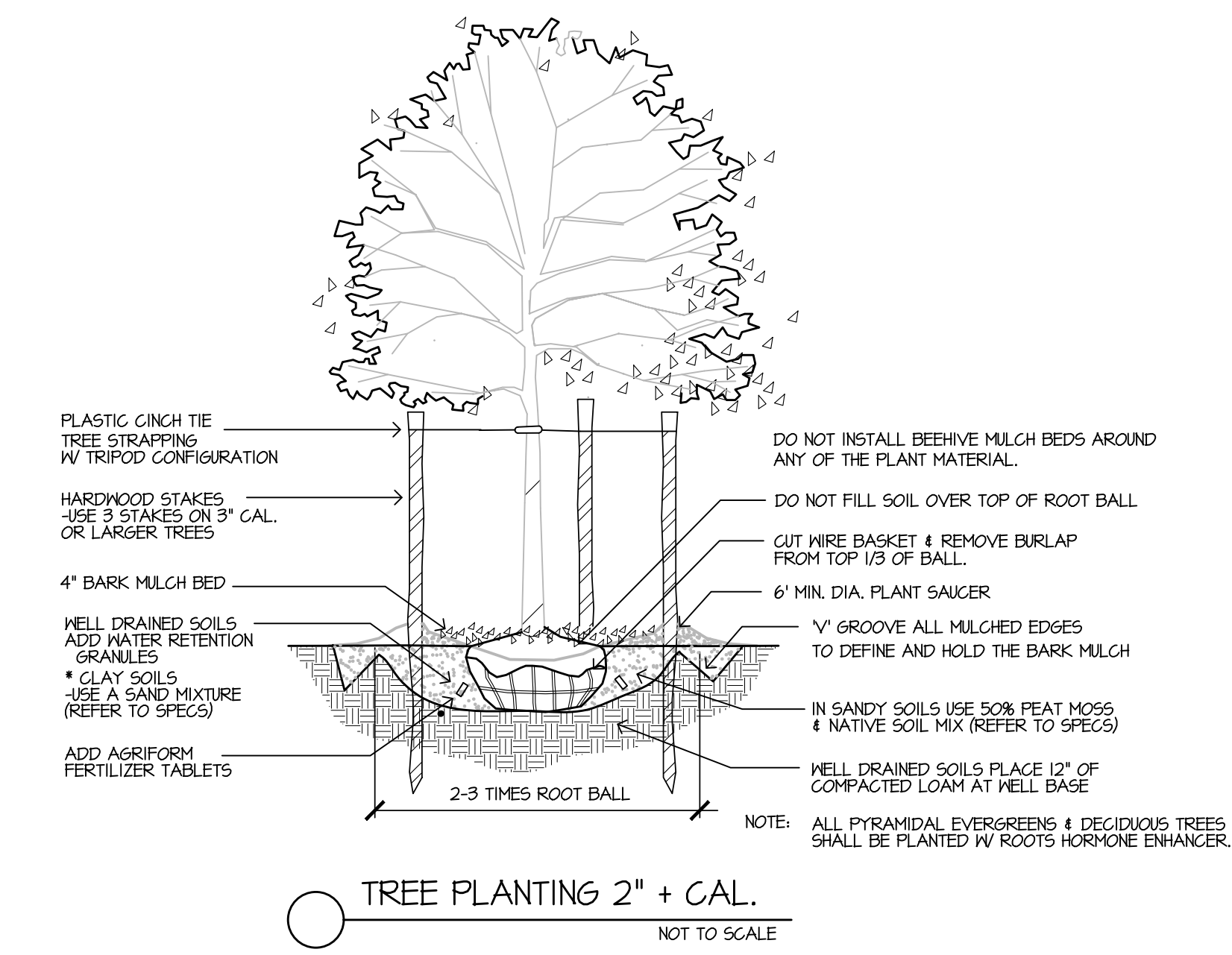
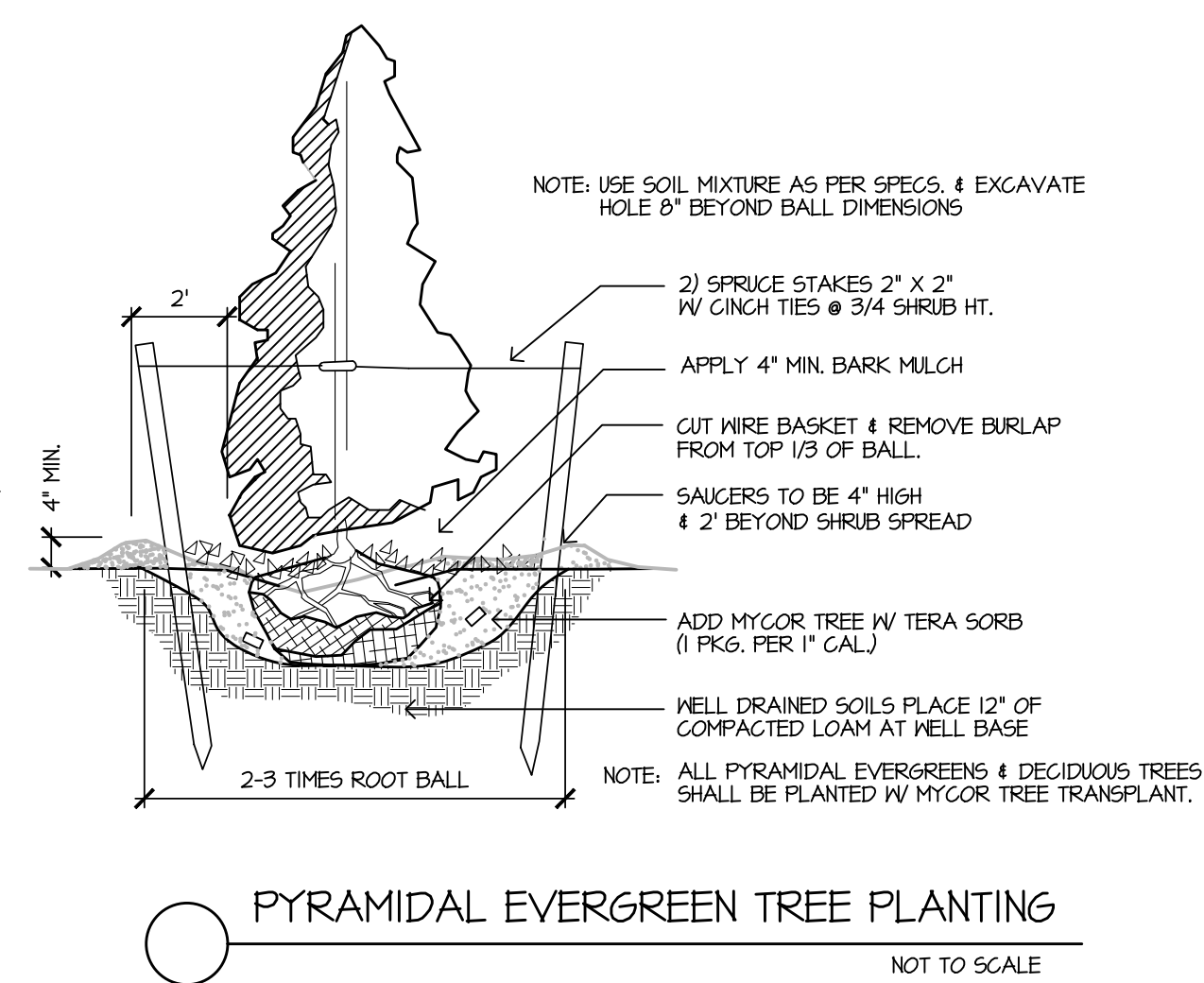
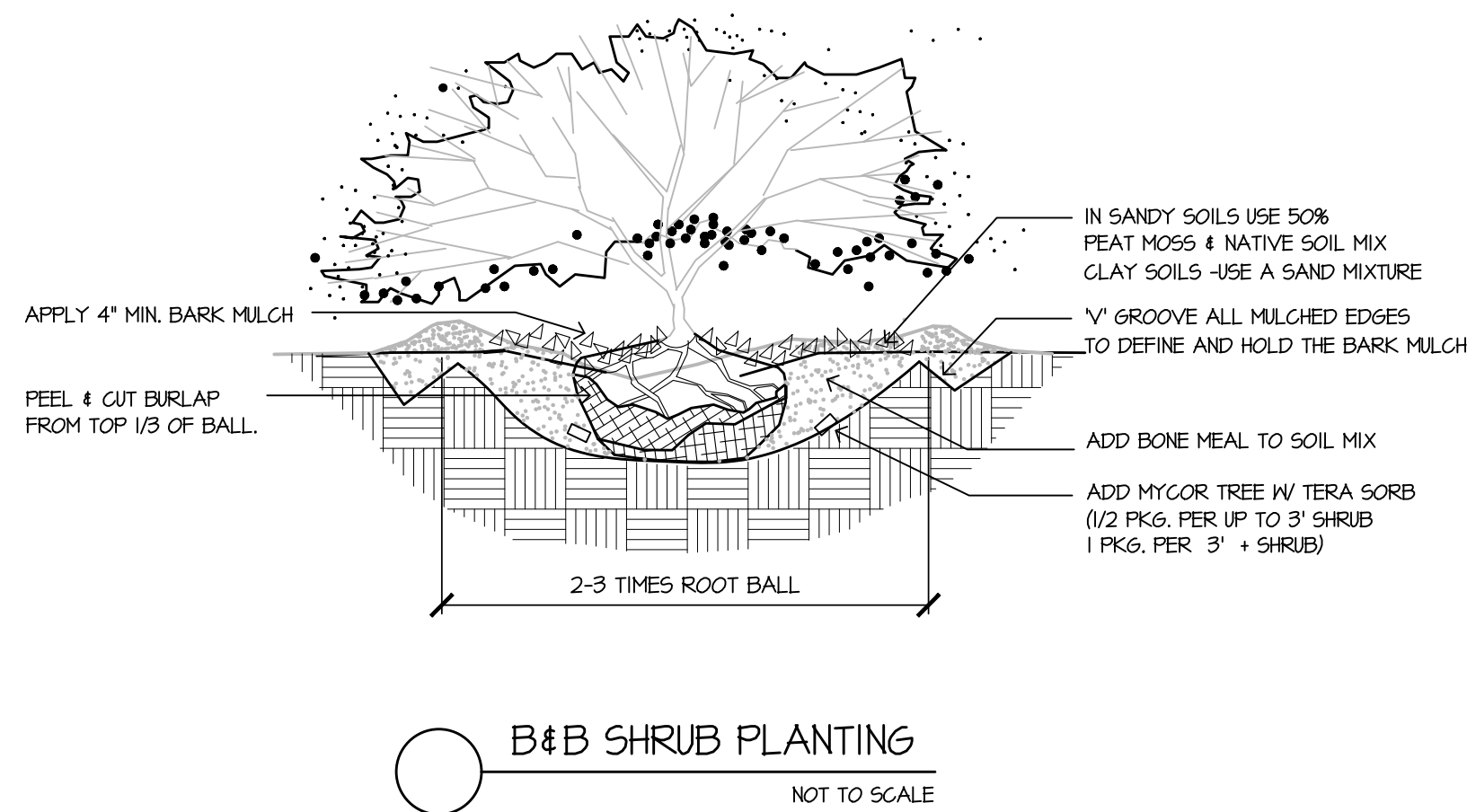
MAP 209 LOT 5

General Specifications

- The contractor shall at his expense furnish all the materials, supplies, machinery, equipment, tool, superintendent, labor, insurance, & other accessories and services necessary to complete the said project within the unit costs stated within the bid price.
- The work to be done under this contract is as shown and described on the drawings. Each bidder shall make a careful examination of the plans and specifications (the plan shall dictate quantities) and acquaint himself with all conditions before making his proposal. He will be held responsible for errors in his proposal resulting from his failure to make such an examination. All bidders shall visit the site and inform themselves of all conditions.
- The bids shall be based on materials and equipment complying with the drawings and the specifications. The contractor shall be responsible under this contract price, for furnishing and installing materials conforming to the bid items. Under no circumstances may a species 'hybrid' be substituted or size changed without written consent of the landscape architect.
- The contractor shall be responsible for the protection of such existing utilities as water mains, sewer systems, gas mains, electrical conduits, telephone lines and any other utilities and if any damage or destruction may occur to these utilities, he shall be responsible for their repair and/or replacement at his expense.
- The contractor shall make payment for all damages to buildings, structures, trees, shrubs and/or any other property outside the construction area or located within those limits but not designated for removal or reconstructed providing such damage shall result from accident caused by negligence for which the contractor shall be legally liable.
- If additional labor and/or materials is requested or required, the contractor shall submit a price to the owner. If the owner approves the price he shall prepare a change order for approval and signature. The contractor shall not proceed without a written authorization from the owner for the additional work. If the contractor proceeds with the additional work without this authorization he shall forfeit any claim for additional compensation.
- The landscape architect shall reserve the right to inspect the project work at any time deemed necessary to insure that the specifications and plans and any other contract documents are being followed.
- The L.A. shall have the right to reject any plant on-site based upon condition, size, or incorrect species or hybrid. LA must be contacted prior to install, to inspect materials delivered to the site, and to insure that soil amendments, bark mulch, roof ballast, etc. are to the written specifications.
- All seeded areas shall receive a minimum 6" topsoil blanket (by site contractor) w/site preparation, raking and general clean up prior to application. Operations shall include a preemergence type herbicide, 12 -25 -12 granular fertilizer @ 10 lbs./1000 sf., and pelletized limestone @ 25 lbs./1000 s/f power raked into the top 2" of soil prior to hydro-seeding. Ratios & application rates may change based upon the required soil analysis.
- Contractor is responsible for establishing a thick, weed free lawn. Seed shall be spread @ 4lbs./1000. Lawn germination shall be 95% free of noxious weeds for acceptance. Define differences in seed mixes (if applicable) with irrigation flagging until 2nd mowing. Site review by LA is required.

- Review of the installed irrigation system by the designer is required prior to release of final payment.
- Hydroseeding operations shall be a one part process with a paper fiber mulch; a tackifier shall be applied on all slopes greater than 3:1, Excelsior Drainage mat shall be applied to all 2:1 slopes and drainage swales per plan.
- Contractor shall maintain, from acceptance date, the lawn areas through the first mowing. Contractor is not responsible for the first mowing.
- All plant materials shall be installed in accordance with A.L.C.C. Trees and shrubs shall have appropriate soil mixtures, fertilizer and soil retention granules.
- If the soil conditions are extremely sandy, all trees shall have a 6" layer of compacted topsoil (verify with Landscape Architect) placed in the base of the plant pit as a moisture retention layer. The plant pit sidewalls shall be over excavated by an additional 12" beyond the normal outside radius of the hole. A topsoil planting mixture shall be used to backfill as per spec # 22.
- Landscape architect shall have the right to reject and have ground removed any plant material not of proper size or of weak quality, ie. thin, no lower branching, etc. Contractor must submit shipping lists (billing invoices) for verification, prior to installation.
- All plant material shall be guaranteed for a period of one (1) year from date of installation. Any material which dies or does not show a healthy appearance within this time shall be replaced at the contractors expense; with same warranty requirements as the original. Warranty does not cover loss due mechanical damage, ie. snow storage. Contractor should protect susceptible species from insect infestation. Use a liquid systemic application on birch, etc.
- Plant beds and saucers vary in dia. (refer to dwg). Trees and shrubs shall receive a 4" (settled) covering of pine/hemlock bark mulch; saucer diameters per drawing & details. Deciduous trees shall have a 6' dia. saucer (typ.), evergreen trees shall have a saucer 2' min. beyond it's outer branches. All edges shall have a 'V' groove.
- All B&B material which are encased in wire baskets shall have the wires cut loose and the top third removed prior to backfill operation.
- If road base is encountered in any plant bed areas, ie. parking islands, it shall be removed and suitable amended soil installed per drawings and specifications.
- Soil planting mixture shall be a 6%-10% organic topsoil, amended with 10% wood ash, 10%% manure, & 30%% peatmoss or incorporate a dehydrated compost material. If planting in sand, gravel or other well drained soils, a 50% peatmoss to excavated soil. Other soil amendments shall include; Agriform tablets, Hydro-Gel or equal, and Roots growth enhancer to all trees and shrubs listed, per manufacturers specifications. All plant material pits will receive a min. 20%% in volume mix of a compost soil amendment. Submittal required. 'Roots' STEP 1 can be substituted for the individual supplements. Install per manufacturer's specs.
- Landscape contractor shall not be responsible for topsoil spreading but shall coordinate with the site contractor adherence to the mound grades, plant bed soil depths and soil type per dwgs & spec. Landscape contractor shall power rake-out for seed.

- Landscape contractor shall provide a soil analysis of the topsoil planting mixture. Analysis to show soil classification (min. sandy loam) and nutrients.
- Contractor shall protect all B&B materials left above grade prior to installation from drying out. All plants shall be stored, covered in mulch, and irrigated until planted. Any plant left on the ground and whose outer ball surface dries out, shall be rejected by the landscape architect. Plants stored in shade and off pavement.
- Plan dictates, contractor shall alert Landscape Architect if any discrepancies exist between the plan, the material list, and as-built site conditions.
- Installer shall notify landscape architect prior to planting, to review plant locations and bedline configurations. If contractor installs without the placement approval of the L.A., said architect shall have the right to relocate any installed plants at the contractor's expense.
- Installer shall notify landscape architect prior to plant installation to review all materials. Any plants of poor condition, improper size, or species will be rejected.
- Upon one year review, contractor shall straighten any trees that have shifted. Any weak or bare spots in lawn shall be reseeded.
- All bedlines shall have a deep 'V' groove to define lawn to mulch edge. No 'Beehive' mounding of mulch is allowed, also keep mulch away from base of perennials.
- Do not plant materials too close to the edge of bedlines. Refer to drawings for center of plant to bedline. At a minimum no outer branching of a shrub or perennial shall be closer than two feet from the bedlines. If the as-built does not comply contractor shall adjust the plant location or bedline at his expense.
- Seed mixes include: Sandy Soil Lawn Mix by: deercreekseed.com; New England Wetland Plants, Amherst, Ma. refer to planting plan for designations.
- Any items not completed to the specifications will be required at contractors expense prior to final approvals. Contractor is to bid the work according to the specifications and not to what they may do under their standard practices. Special attention will be payed to soils, amendments, guy stakes, bedline & saucer configurations, seed mixtures, etc.
- Certain designated foundation edging is rood ballust (washed rounds, non-crushed, natural) Size of stone is a range of 3/4"-1.5" dia. placed to a depth of 3", upon placement apply a coating of granular Preen (preemergent).
- Any questions concerning this drawing shall be directed to Joseph Hochrein c/o Blackwater Design, 85 Frost Lane, Webster, NH 03303, 603-648-2541.



No.	DATE	REVISION	BY
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LANDSCAPE PLAN
(MAP 209, LOT 4)

PROPOSED BUILDING ADDITIONS
22 FRIARS DRIVE
HUDSON, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
INTEGRA BIOSCIENCES CORP.
2 WENTWORTH DRIVE HUDSON, NEW HAMPSHIRE 03051 (603) 578-5800

30 0 30 60 90 120 FEET
15 0 15 30 METERS
SCALE: 1"=30 Feet
1"=9.144 Meters

27 JANUARY 2022

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