

PROPERTY OWNERS  
WITHIN 200'

Block	Lot	Owner
117.01	1.03	Harrison Building 1, Urban Renewal LLC 50 Washington St. Hoboken, NJ 07030
117.01	1.06	CIA, Inc., Doing business as 50 Washington St. Hoboken, NJ 07030
137.01	1.06 / 000	Monte Carlo, LLC 50 Washington St. Hoboken, NJ 07030
138	1.01	Harrison Building 3, LLC 50 Washington St, 3rd Floor Hoboken, NJ 07030
133	1.02	Port Authority Trans-Hudson 225 Park Ave. South New York, NY 10003
133	1.03	Accordia Harrison Urban Renewal, LLC 100 Passaic Ave., STE #150 Fairfield, NJ 07044
133	1.04	Accordia Harrison Urban Renewal, LLC 100 Passaic Ave., STE #150 Fairfield, NJ 07044
133	1.05	Accordia Harrison Urban Renewal, LLC 100 Passaic Ave., STE #150 Fairfield, NJ 07044
134.01	8	Amtrak 1 Massachusetts Ave NW Washington, DC 20001
134.01	9	Amtrak 1 Massachusetts Ave NW Washington, DC 20001
136	1.03	Port Authority Trans-Hudson 225 Park Ave. South New York, NY 10003
136	1.05	National R.R. Corp. (Amtrak) 300 St. Station, 45 Plaza, New York, NY 10044
136	1.06	Port Authority Trans-Hudson 225 Park Ave. South New York, NY 10003
136	1.07	J. Super 138-1 Realty, LLC 443 Morris Ave. Kearny, NJ 07032
136	3	Amtrak 1 Massachusetts Ave NW Washington, DC 20001
150	16.01 / C0001	AT AT Harrison I, LLC 1041 US Highway 202/206 Bergen County, NJ 07621
150	16.01 / C0001	AT AT Harrison II, LLC 1041 US Highway 202/206 Bergen County, NJ 07621
152	1.01	1 Massachusetts Ave NW Washington, DC 20001
153.01	31	Port Authority 225 Park Ave. South, 14th Fl New York, NY 10003
154	36.01	Conrail 171 Morris Ave., 13th Floor Philadelphia, PA 19103
154	38	Conrail 171 Morris Ave., 13th Floor Philadelphia, PA 19103
167	38	Conrail 1717 Morris St., 13th Floor Philadelphia, PA 19103
189.02	122.01	Conrail 1717 Morris St., 13th Floor Philadelphia, PA 19103
213	5.04	1 Riverfront Plaza, Suite 327 Newark, NJ 07102
213	6	Accordia Harrison 1 Massachusetts Ave NW Washington, DC 20001
213	6.01	Town of Harrison 318 Harrison Ave. Harrison, NJ 07029

UTILITY CONTACTS

Utilities	
Public Service Electric & Gas Co. (PSEG)	Manager Corporate Properties 80 Park Plaza, 16th Newark, NJ 07102
Verizon	55 Morris Street Newark, NJ 07101
Pasaic Valley Water Commission	1525 Morris Avenue, PO Box 230 Clifton, NJ 07012
Comcast Cablevision of New Jersey	800 Railway Avenue Union, NJ 07083
Town of Harrison Water Department	600 Essex Street Harrison, NJ 07029
Gas Utility Commission	Thomas A. DeGise, County Executive 583 Newark Ave Jersey City, NJ 07306
Planning Department of Engineering and Planning	599 Congress Street Seaside Heights, NJ 07754
The Port Authority of New York and New Jersey, Newark Legal Center	Office of the New Jersey Solicitor One Morris Avenue, Suite 327 Newark, NJ 07102
City of Newark	93 Broad St. Newark, NJ 07102
Borough of East Newark	345 Sherman Avenue East Newark, NJ 07029
Town of Kearny	400 Kearny Avenue Kearny, NJ 07032
Harrison Redevelopment Agency	600 Essex Street Harrison, NJ 07029

SHEET INDEX

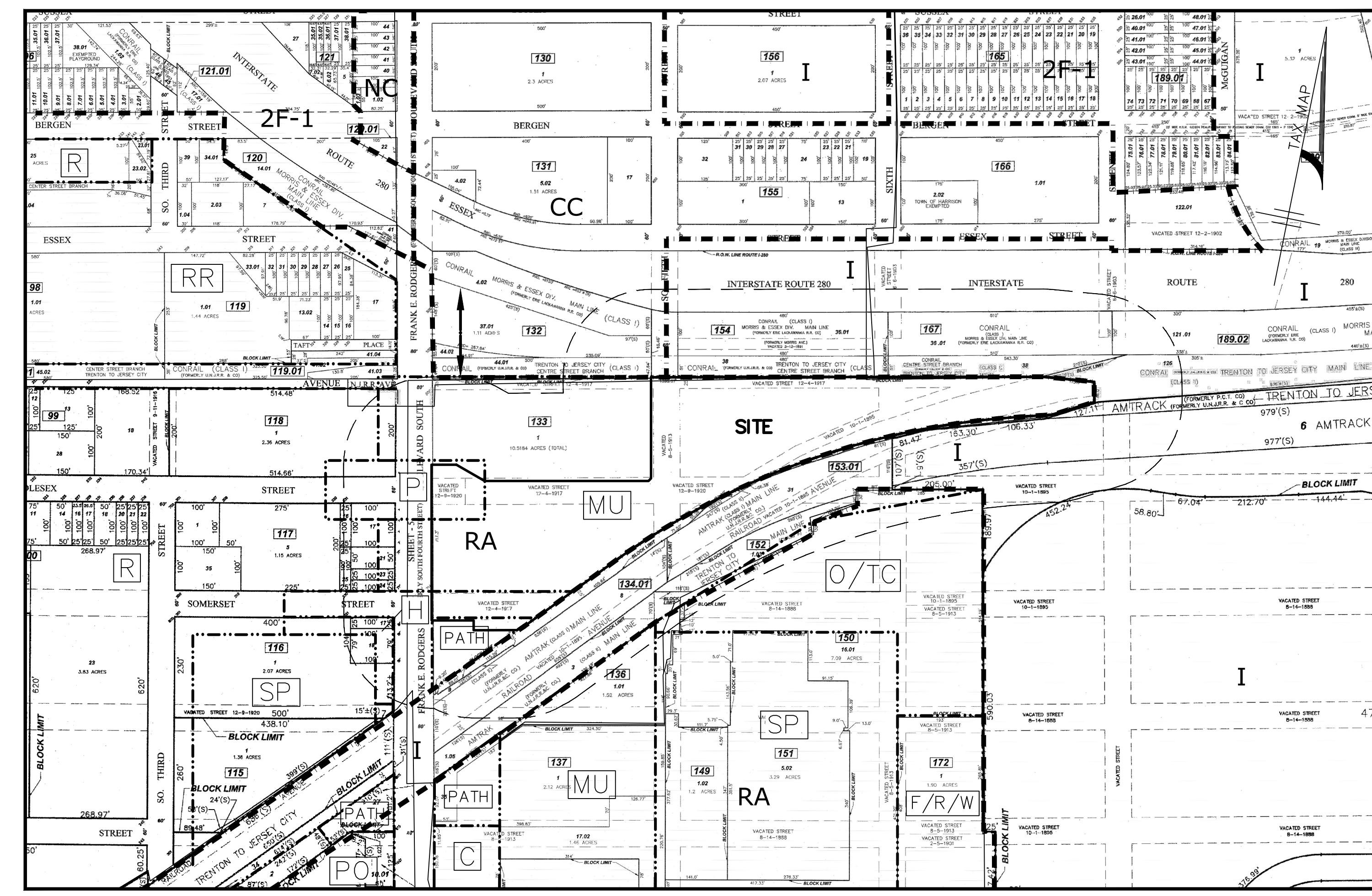
No.	Description	Revision Date
1.	TITLE SHEET	04/14/20
2.	EXISTING CONDITIONS PLAN	04/14/20
3.	PHASING PLAN	04/14/20
4.	OVERVIEW PLAN	04/14/20
5.	GEOMETRY, SIGNAGE & STRIPING PLAN	04/14/20
6.	GEOMETRY, SIGNAGE & STRIPING PLAN	04/14/20
7.	ADA RAMP, GRADING PLAN	04/14/20
8.	ADA RAMP, GRADING PLAN	04/14/20
9.	UTILITY PLAN	04/14/20
10.	UTILITY PLAN	04/14/20
11.	POWER	04/14/20
12.	LIGHTING PLAN	04/14/20
13.	LIGHTING PLAN	04/14/20
14.	LANDSCAPE PLAN	04/14/20
15.	LANDSCAPE PLAN	04/14/20
16.	LIGHTING & LANDSCAPE DETAILS	04/14/20
17.	SOIL EROSION AND SEDIMENT CONTROL PLAN	04/14/20
18.	SOIL EROSION AND SEDIMENT CONTROL DETAILS	04/14/20
19.	CONSTRUCTION DETAILS	04/14/20
20.	CONSTRUCTION DETAILS	04/14/20

# AMENDED PRELIMINARY/FINAL MAJOR SITE PLAN

## HARRISON YARDS - PHASE II

### BLOCK 133; LOTS 1.03 & 1.05, TAX MAP SHEET 16

### TOWN OF HARRISON, HUDSON COUNTY, NEW JERSEY



KEY MAP

200 100 0 200 400 600  
150 50 GRAPHIC SCALE  
1 inch = 200 feet

LEGEND

- - - INDICATES ZONE BOUNDARY
- INDICATES ZONE ID.
- - - WATERFRONT REDEVELOPMENT DISTRICT BOUNDARY
- MU WATERFRONT REDEVELOPMENT DISTRICT

Parking Schedule - Phases I & II:

Required Residential: 1,107 Units @ 1/Unit = 1,107 spaces

RSIS (Residential Only)  
(0.8 / Studio or 1 Bedroom) x 873 = 699 spaces

(1.3 / 2-Bedrooms) x 197 = 257 spaces

(1.9 / 3-Bedrooms) x 37 = 71 spaces

Total = 1,027 spaces

Retail (Building A): 8,495 SF @ 1/1,000 SF = 9 spaces

Retail (Building B): 55,106 SF @ 1/1,000 SF = 59 spaces

Office (Building B): 72,420 SF @ 1/1,000 SF = 73 spaces

Retail (Building C): 74,183 SF @ 1/1,000 SF = 75 spaces

Hotel: 200 Rooms @ 1/Room + 7,569 SF @ 1/1,000 SF = 208 spaces

Total = 1,531 spaces required

Provided: Lot 1.03 = 17 surface + 648 automated = 665 spaces (17 Compact, 3 of which are Electric spaces)

Lot 1.04 = 177 spaces (31 Compact)

Lot 1.05 = 114 surface + 571 automated = 685 spaces (11 Compact & 6 Electric spaces)

Angelo Cifelli Drive = 12 spaces

Fifth Street = 10 spaces

Total = 1,549 spaces proposed

Parking Schedule - Phase II Only:

Required Residential: 898 Units @ 1/Unit = 898 spaces

Bldg B (Retail & Commercial): 130,526 SF @ 1/1,000 SF = 132 spaces

Bldg C (Retail): 74,183 SF @ 1/1,000 SF = 75 spaces

Hotel: 200 Rooms @ 1/Room + 7,569 SF @ 1/1,000 SF = 208 spaces

Total = 1,313 spaces required

Provided: Lot 1.03 = 17 surface + 648 automated = 665 spaces (17 Compact, 3 of which are Electric spaces)

Lot 1.05 = 115 surface + 571 automated = 685 spaces (11 Compact & 6 Electric spaces)

Total = 1,350 spaces proposed

Notes:

1. As per NJ.A.C. 5:21-4.14(d) alternative parking standards shall be accepted to better reflect local conditions (Mass Transit/Urban). Parking is provided in compliance with the Redevelopment Plan Standards which have been established based on location conditions and proven demand with prior/similar projects.

2. A Demolition exception from the Residential Site Improvement Standards (NJ.A.C. 5:21-4) related to parking space sizes whereas 9'x18' is required and 8.5'x18' is proposed.

3. 20% of the total spaces may be compact (min. 8'x18')

4. 2% of the total spaces provided shall be handicap accessible.

Unit Chart - Phases I & II

Type	Quantity	Percentage
Studio + 1 Bedroom	873 Units	79%
2 Bedroom	197 Units	18%
3 Bedroom	37 Units	3%
Total Units	1,107 Units	100%

Unit Chart - Phase II Only

Type	Quantity	Percentage
Studio + 1 Bedroom	727 Units	81%
2 Bedroom	134 Units	15%
3 Bedroom	37 Units	4%
Total Units	898 Units	100%

Min. 50% required to be studio or 1-bedroom units.  
Max. 50% to be 2 or 3-bedroom units of which 10% can be 3-bed (V)

APPROVED BY THE TOWN OF HARRISON PLANNING BOARD

APPROVED BY THE HUDSON COUNTY PLANNING BOARD

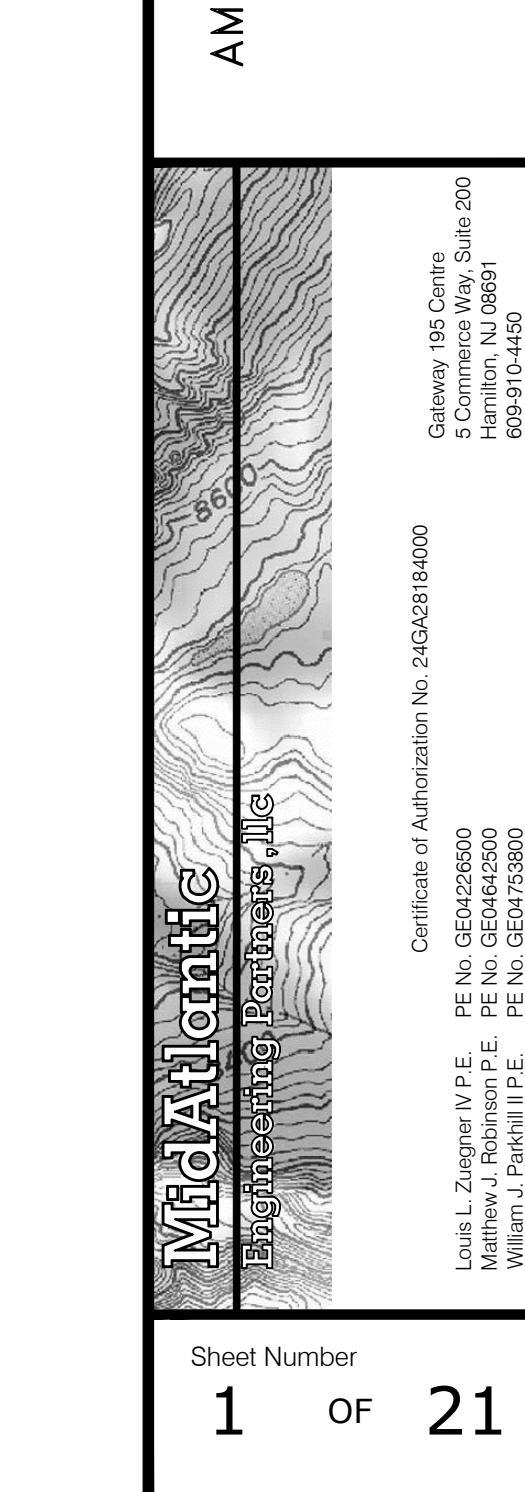
BOARD CHAIR DATE

ENGINEER DATE

SECRETARY DATE


PLANNER DATE

ENGINEER DATE

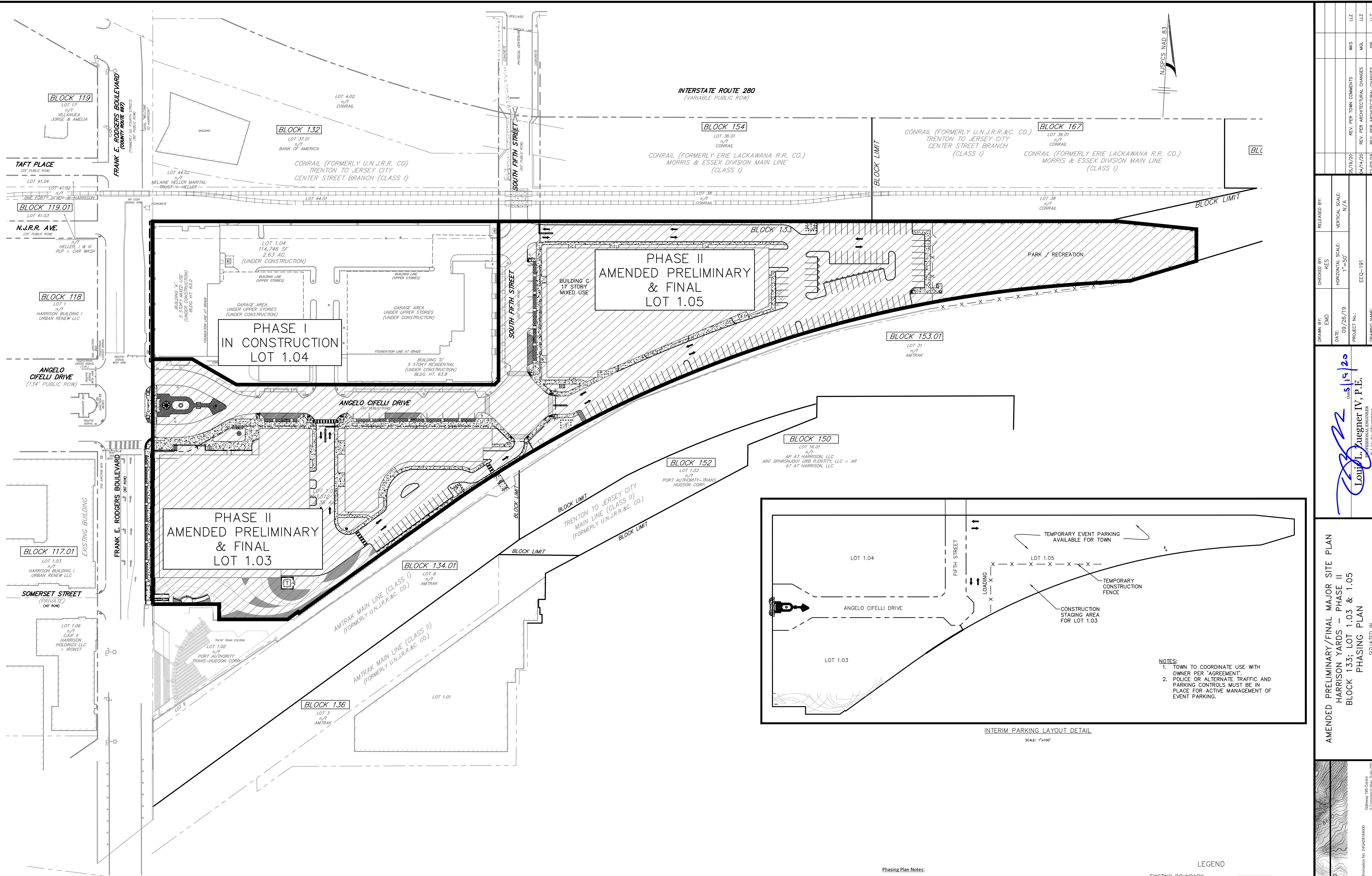


General Notes:

- Applicant/Owner: Accordia Harrison Urban Renewal, LLC 100 Passaic Avenue, #150 Fairfield, NJ 07044
- Project site known and designated as Lot 1, Block 133 within the Town of Harrison, New Jersey as shown on the current tax assessment map - sheet 16, containing a total of 10.5 acres and is located entirely within the Mixed Use District of the Waterfront Redevelopment Plan. Property has since been subdivided but the tax map has not been officially updated.
- Lot information and topography based upon survey entitled "ALTA/NSPS Land Title Survey, Lots 1.03, 1.04 & 1.05, Block 133, 600-798 Frank E. Rodgers Boulevard, situated in the Town of Harrison, Hudson County, New Jersey, revised 10/19/18," prepared by MidAtlantic Engineering Partners.
- Site coordinates: 695,135' N, 588,069' E
- Horizontal Datum: NAD 83 Vertical Datum: NAVD 88
- Based on NJDEP GIS review, no wetlands or wetland transition areas exist on-site (site previously fully developed).
- The site is located within Flood Zone AE (EL 9), Zone X (areas of the 0.2% annual chance of flood), and Zone X (areas outside of the 0.2% annual chance of flood) according to FEMA Flood Insurance Rate Map number 340017C0082D, having an effective date of August 16, 2006. This property is also located in Zone AE (EL 10), and Zone X (areas of the 0.2% annual chance of flood) according to FEMA's NJ Preliminary Flood Insurance Rate Map of Hudson County – Panel 082, released December 20, 2013.
- The contractor is directed to the fact that the approximate locations of known utility structures and facilities (including but not limited to sanitary sewers, storm sewers, potable water lines and appurtenances, natural gas lines,

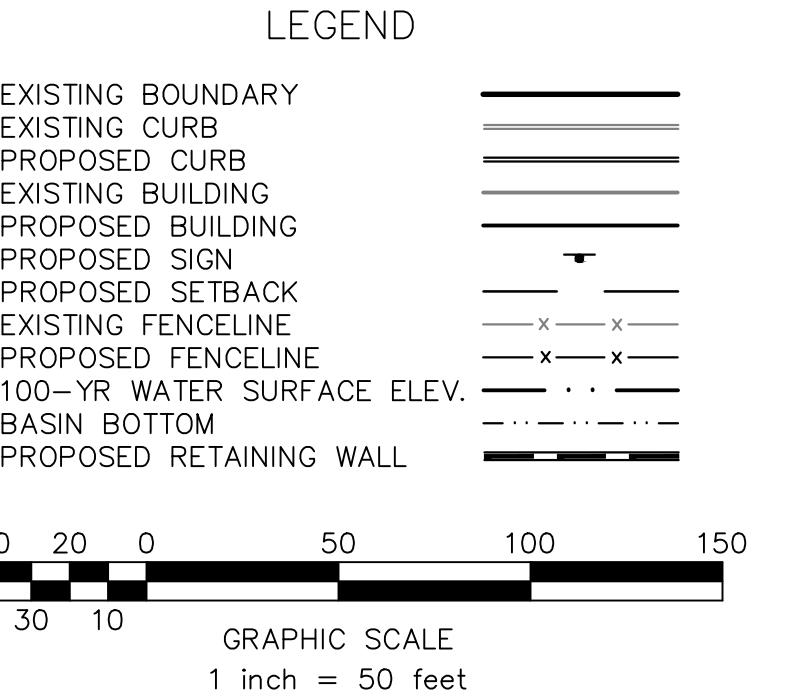


le Name: G:\Eastone Equities\JOBS\EEQ-191 - Harrison Yards\DWG\02-Existing Conditions.dwg  
lot time: May 21, 2020 - 7:52am



Phasing Plan Notes:

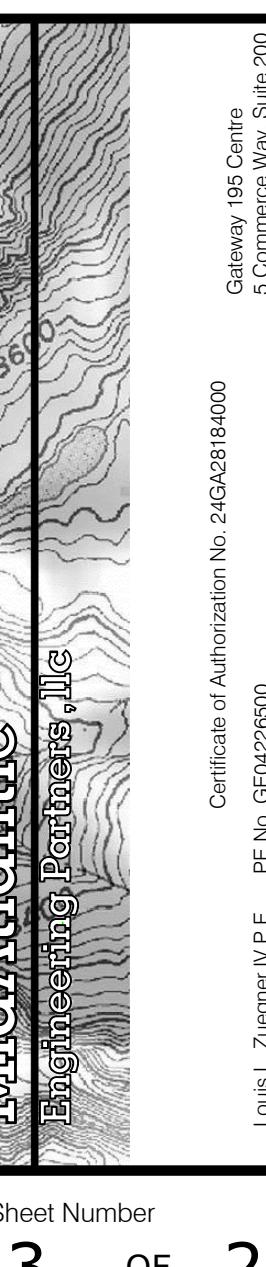
- 1) This plan is provided to indicate general phases only. See separate site plan sheets for detailed improvements.
- 2) Preliminary & Final Site Plan Approval previously granted for Phase I (Lot 1.04).
- 3) Amended Preliminary & Final Site Plan Approval is being requested for Phase II (Lots 1.03 & 1.05).
- 4) Partial improvements within Angelo Cifelli Drive and South Fifth Street were constructed during Phase I. The remaining improvements will be completed during Phase II.



AMENDED PRELIMINARY/FINAL MAJOR SITE PLAN  
HARRISON YARDS - PHASE II  
BLOCK 133; LOT 1.03 & 1.05  
PHASING PLAN

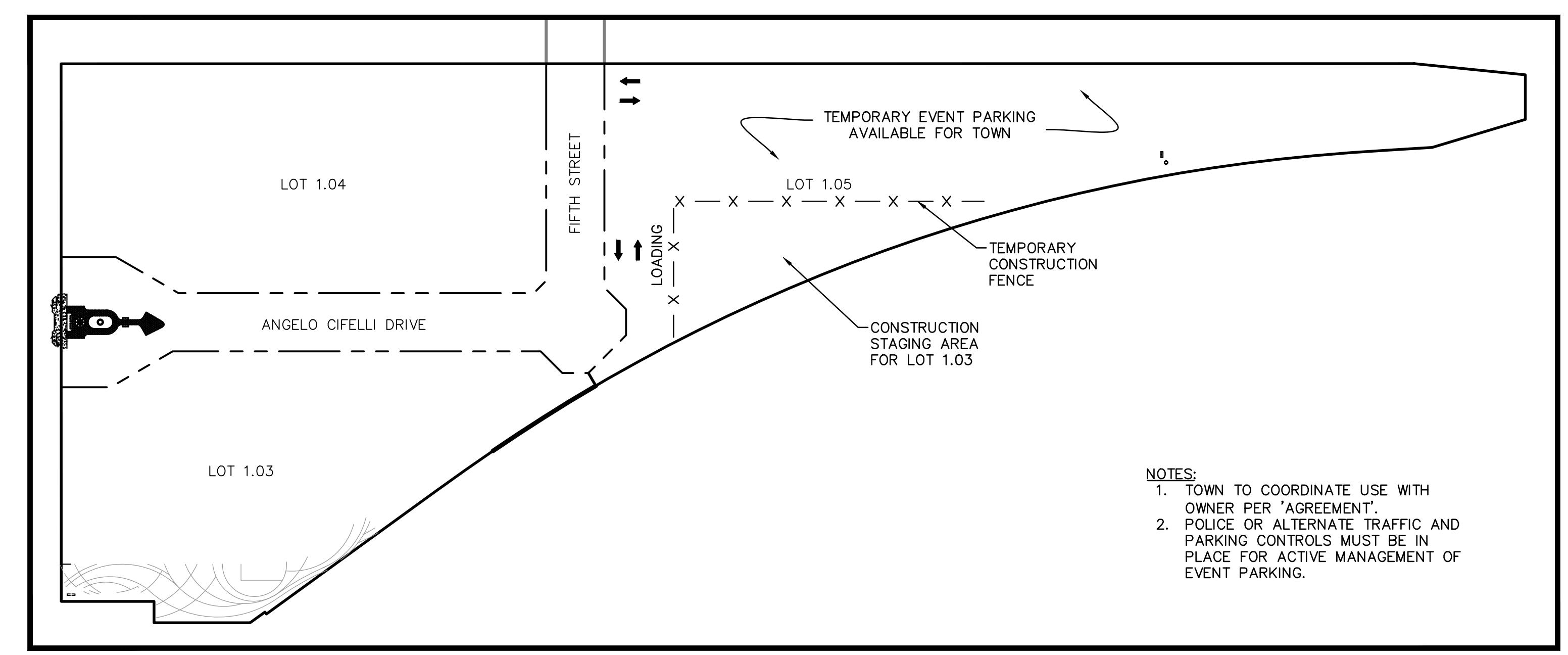
SITUATED IN

TOWN OF HARRISON, HUDSON COUNTY, NEW JERSEY



Sheet Number

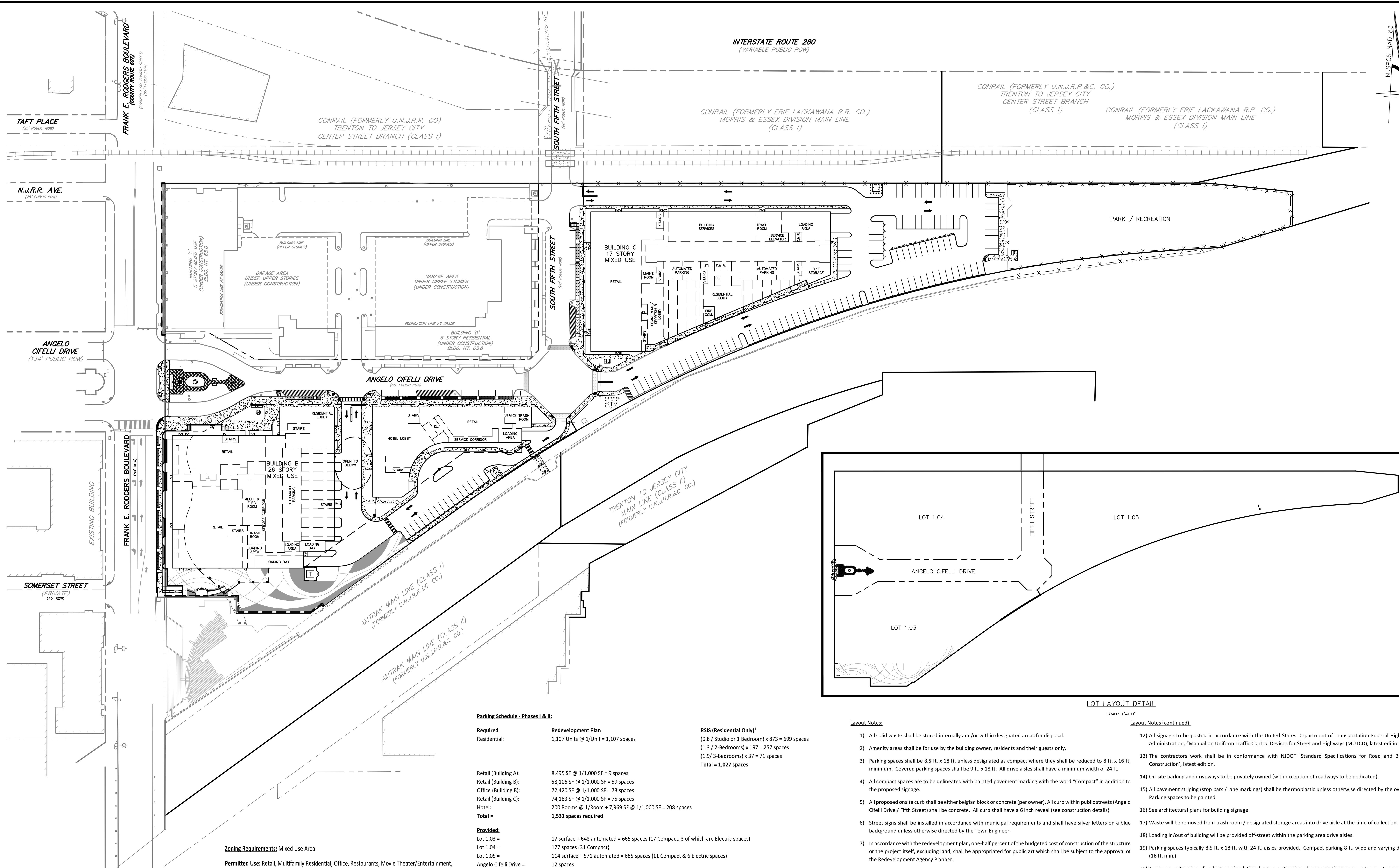
3 OF 21



DRAWN BY:		CHECKED BY:		RELEASED BY:	
DATE:	EMD	DATE:	KES	DATE:	N/A
09/26/19		10/01/19			
PROJECT No.:		EEQ-191			
DRAWING NAME:	03-Long.dwg				

*2020*

*Louis L. Auger IV, P.E.*  
Professional Engineer  
N.J. Lic. No. G4242690



**Unit Chart - Phases I & II**

Type	Quantity	Percentage
Studio + 1 Bedroom	873 Units	79%
2 Bedroom	197 Units	18%
3 Bedroom	37 Units	3% (16% of 2 & 3-bedroom units) (V)
<b>Total Units</b>	<b>1,107 Units</b>	<b>100%</b>

**Unit Chart - Phase II Only**

Type	Quantity	Percentage
Studio + 1 Bedroom	727 Units	81%
2 Bedroom	134 Units	15%
3 Bedroom	37 Units	4% (22% of 2 & 3-bedroom units) (V)
<b>Total Units</b>	<b>898 Units</b>	<b>100%</b>

**Proposed Signage:** Freestanding signs are prohibited in the Mixed Use District, therefore, a variance is required for the proposed Sign Tower\* and the proposed Pylon Sign\*.

#### Parking Schedule - Phases I & II:

##### Required Redevelopment Plan

Residential: 1,107 Units @ 1/Unit = 1,107 spaces

Retail (Building A): 8,495 SF @ 1/1,000 SF = 9 spaces  
 Retail (Building B): 58,106 SF @ 1/1,000 SF = 59 spaces  
 Office (Building B): 72,420 SF @ 1/1,000 SF = 73 spaces  
 Retail (Building C): 74,183 SF @ 1/1,000 SF = 75 spaces  
 Hotel: 200 Rooms @ 1/Room + 7,969 SF @ 1/1,000 SF = 208 spaces  
**Total = 1,531 spaces required**

##### Provided:

Lot 1.03 = 17 surface + 648 automated = 665 spaces (17 Compact, 3 of which are Electric spaces)  
 Lot 1.04 = 177 spaces (31 Compact)  
 Lot 1.05 = 114 surface + 571 automated = 685 spaces (11 Compact & 6 Electric spaces)  
 Angelo Cifelli Drive = 12 spaces  
 Fifth Street = 10 spaces  
**Total = 1,549 spaces proposed**

#### Parking Schedule - Phase II Only:

##### Required Redevelopment Plan

Residential: 898 Units @ 1/Unit = 898 spaces  
 Bldg B (Retail & Commercial): 130,526 SF @ 1/1,000 SF = 132 spaces  
 Bldg C (Retail): 74,183 SF @ 1/1,000 SF = 75 spaces  
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##### Notes:

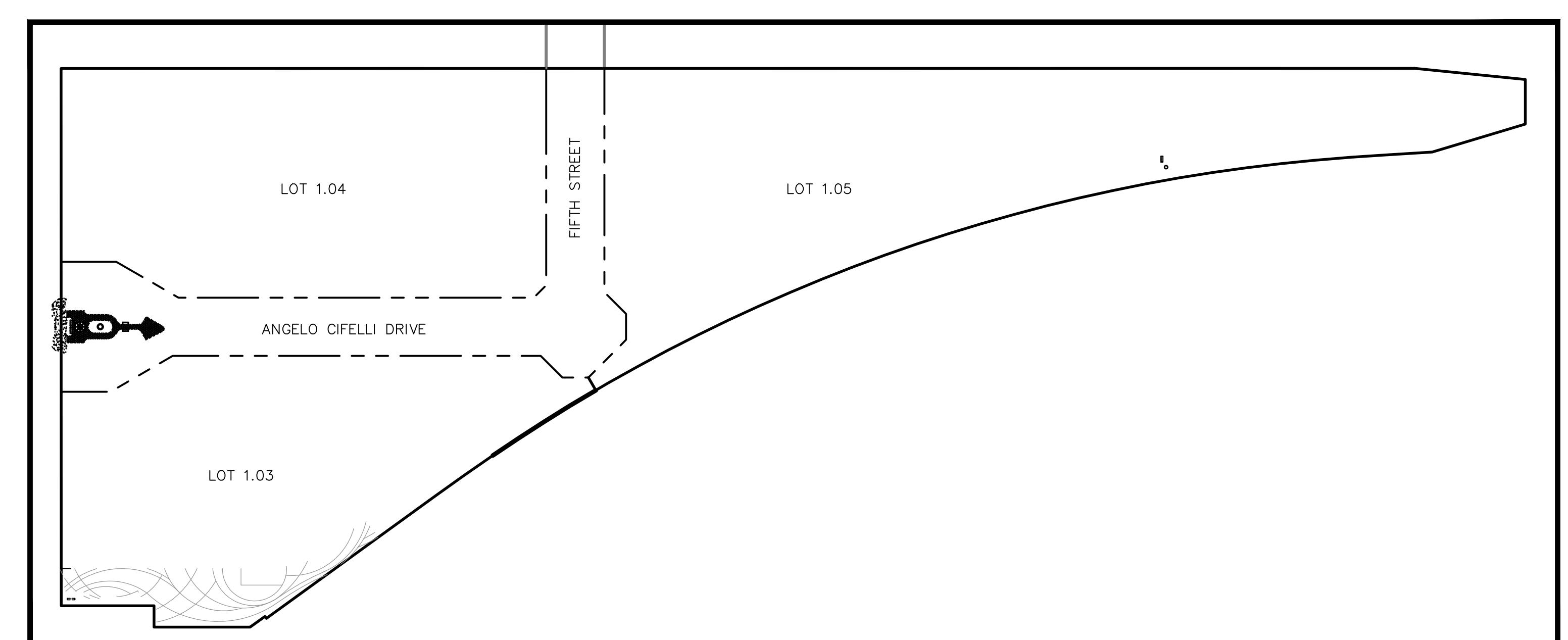
- As per N.J.A.C. 5:21-4.14(c) alternative parking standards shall be accepted to better reflect local conditions (Mass Transit/Urban). Parking is provided in compliance with the Redevelopment Plan Standards which have been established based on location conditions and proven demand with prior/similar projects.
- A demolition exception from the Residential Site Improvement Standards (N.J.A.C. 5:21-4) related to parking space sizes whereas 9'x18' is required and 8.5'x18' is proposed.
- 20% of the total spaces may be compact (min. 8'x15')
- 2% of the total spaces provided shall be handicap accessible.

\* Variance Required

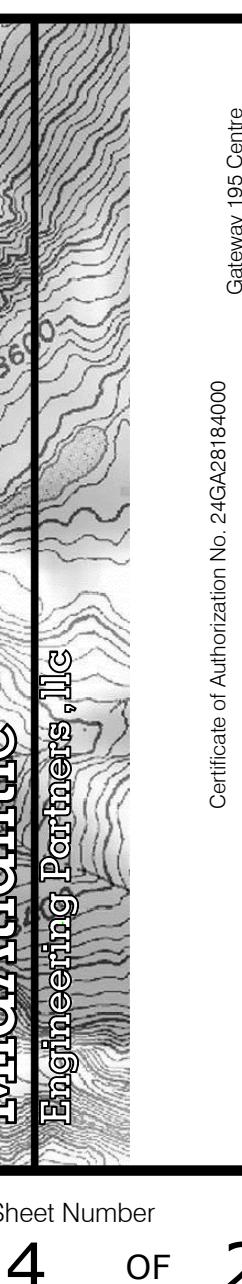
#### Layout Notes:

- All solid waste shall be stored internally and/or within designated areas for disposal.
- Amenity areas shall be for use by the building owner, residents and their guests only.
- Parking spaces shall be 8.5 ft. x 18 ft., unless designated as compact where they shall be reduced to 8 ft. x 16 ft. minimum. Covered parking spaces shall be 9 ft. x 18 ft. All drive aisles shall have a minimum width of 24 ft.
- All compact spaces are to be delineated with painted pavement marking with the word "Compact" in addition to the proposed signage.
- All proposed onsite curb shall be either belgian block or concrete (per owner). All curb within public streets (Angelo Cifelli Drive / Fifth Street) shall be concrete. All curb shall have a 6 inch reveal (see construction details).
- Street signs shall be installed in accordance with municipal requirements and shall have silver letters on a blue background unless otherwise directed by the Town Engineer.
- In accordance with the redevelopment plan, one-half percent of the budgeted cost of construction of the structure or the project itself, excluding land, shall be appropriated for public art which shall be subject to the approval of the Redevelopment Agency Planner.
- Refer to architectural plans for building elevations & floor plans.
- All connections with existing pavement, curb, sidewalk etc. shall be saw cut.
- Handicap detectable warning strips shall be "replaceable wet-set" or equivalent, Surface mount or "stick on" warning strips are not permitted.
- The contractor shall:
  - Perform all work for the project in a finished and workmanlike manner to the satisfaction of the owner and in accordance with the best recognized trade practices.
  - Be responsible to maintain the site in a clean and orderly manner.
  - Dispose of any and all construction debris in accordance with any local, state, or federal requirements.
  - Repair any damage to public streets, curbs, sidewalks and utilities as a result of site construction activities.
  - Coordinate the construction schedule with the owner prior to start of work.
  - Obtain any required road opening permits and perform work in accordance with Town of Harrison requirements.
  - Be responsible to provide traffic control including barricades, lighting, signage etc. as may be necessary for completion of the project.
  - Be responsible for site safety and security and the means and methods of construction for the duration of the project.
  - Confirm the location of all utilities prior to start of construction by requesting a utility mark out and completing test pits as necessary.
  - Notify the owner and engineer of any required field change immediately.
  - Mark the proposed location of all new infrastructure and improvements that shall be provided to the owner / engineer noting the location of all underground infrastructure such as electric conduit, water lines, roof/leader collection piping etc.
  - Only import certified clean fill (if required) in accordance with NJDEP Technical Requirements N.J.A.C. 7:26E. All imported material requires approval by owner and their environmental consultant prior to placement onsite.
- Waste will be removed from trash room / designated storage areas into drive aisle at the time of collection.
- Loading in/out of building will be provided off-street within the parking area drive aisles.
- Parking spaces typically 8.5 ft. x 18 ft. with 24 ft. aisles provided. Compact parking 8 ft. wide and varying depth (16 ft. min.)
- Temporary alteration of pedestrian circulation due to construction phase operations requires County Engineering Department approval of a pedestrian modification plan.
- All work proposed within the County right-of-way will require the applicant to obtain County Road Opening Permits from the Office of the County Engineer.

#### LOT LAYOUT DETAIL



AMENDED PRELIMINARY/FINAL MAJOR SITE PLAN  
HARRISON YARDS - PHASE II  
BLOCK 133; LOT 1.03 & 1.05  
OVERALL LAYOUT PLAN  
SITUATED IN  
TOWN OF HARRISON, HUDSON COUNTY, NEW JERSEY

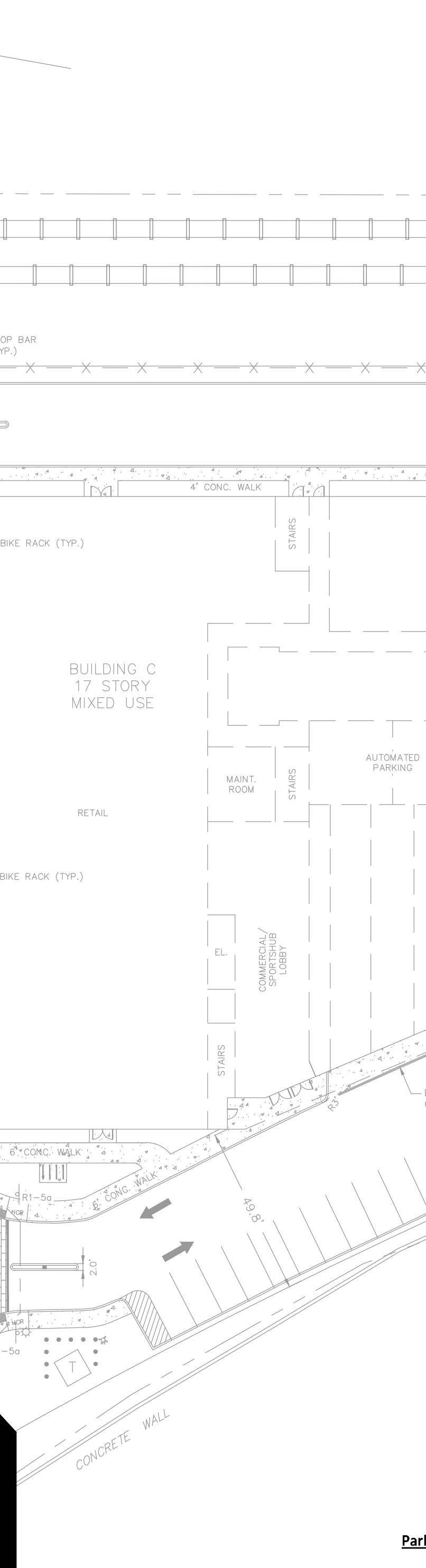
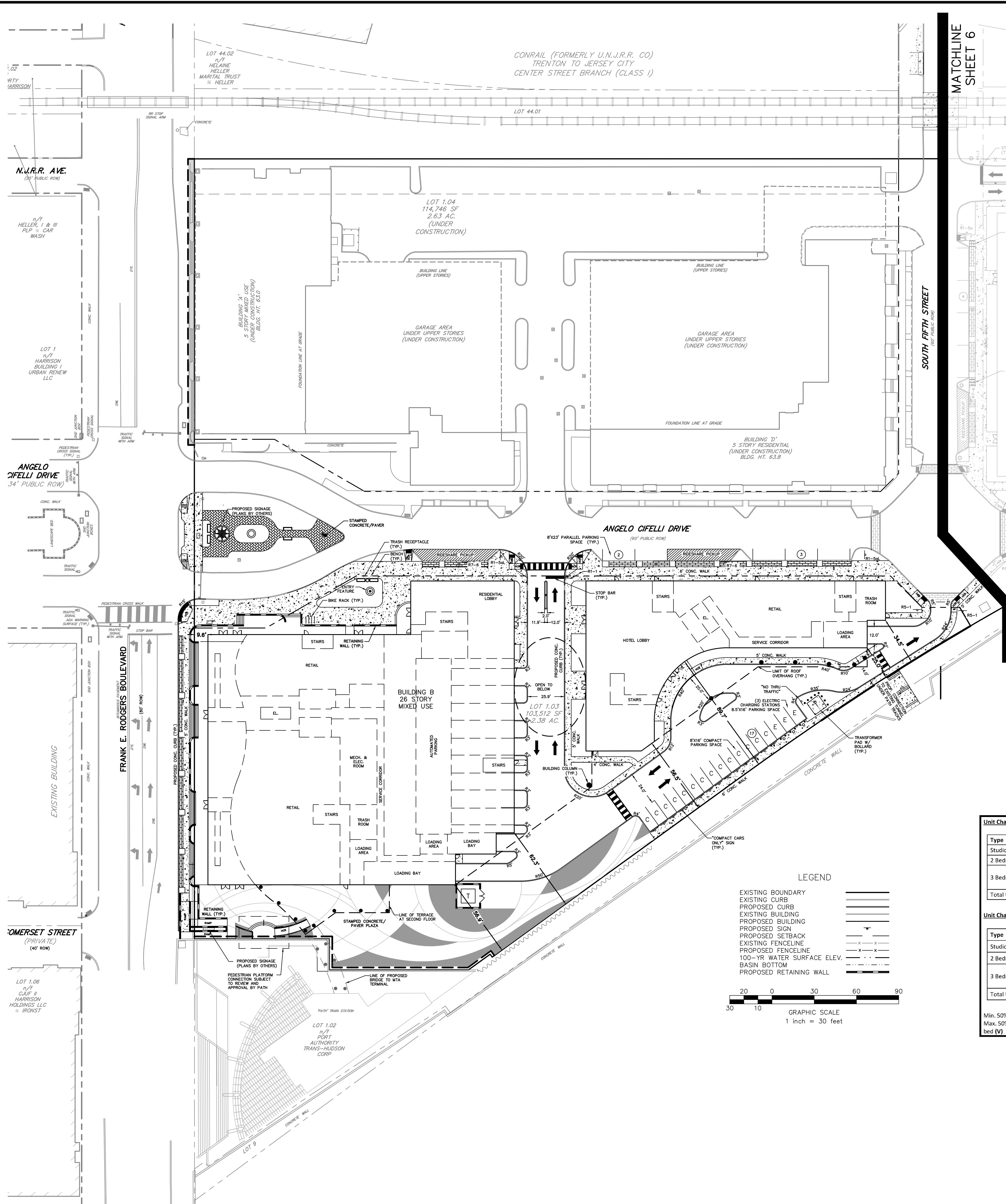


Sheet Number  
4 OF 21

DRAWN BY:	EMD	CHECKED BY:	KES	RELEASED BY:	
DATE:	09/26/19	HORIZONTAL SCALE:	1"=50'	VERTICAL SCALE:	N/A
PROJECT No.:	EEO-191	REV. PER TOWN COMMENTS:		WKS	L1.2
DRAWING NAME:	03-Layout.dwg	REV. PER ARCHITECTURAL CHANGES:		MGL	L1.2
DATE:	12/05/19	REV. PER ARCHITECTURAL CHANGES:		JSR	L1.2

*John L. Wagner IV, P.E.*  
John L. Wagner IV, P.E.  
PROFESSIONAL ENGINEER  
N.J. Lic. No. GEA42690

4 OF 21



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- Refer to architectural plans for building elevations & floor plans.
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- Notify the owner and engineer of any required field change immediately.
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**12) All signage to be posted in accordance with the United States Department of Transportation-Federal Highway Administration, "Manual on Uniform Traffic Control Devices for Street and Highways (MUTCD), latest edition.**

**13) The contractors work shall be in conformance with NJDOT 'Standard Specifications for Road and Bridge Construction', latest edition.**

**14) On-site parking and driveways to be privately owned (with exception of roadways to be dedicated).**

**15) All pavement striping (stop bars / lane markings) shall be thermoplastic unless otherwise directed by the owner. Parking spaces to be painted.**

**16) See architectural plans for building signage.**

**17) Waste will be removed from trash room / designated storage areas into drive aisle at the time of collection.**

**18) Loading in/out of building will be provided off-street within the parking area drive aisles.**

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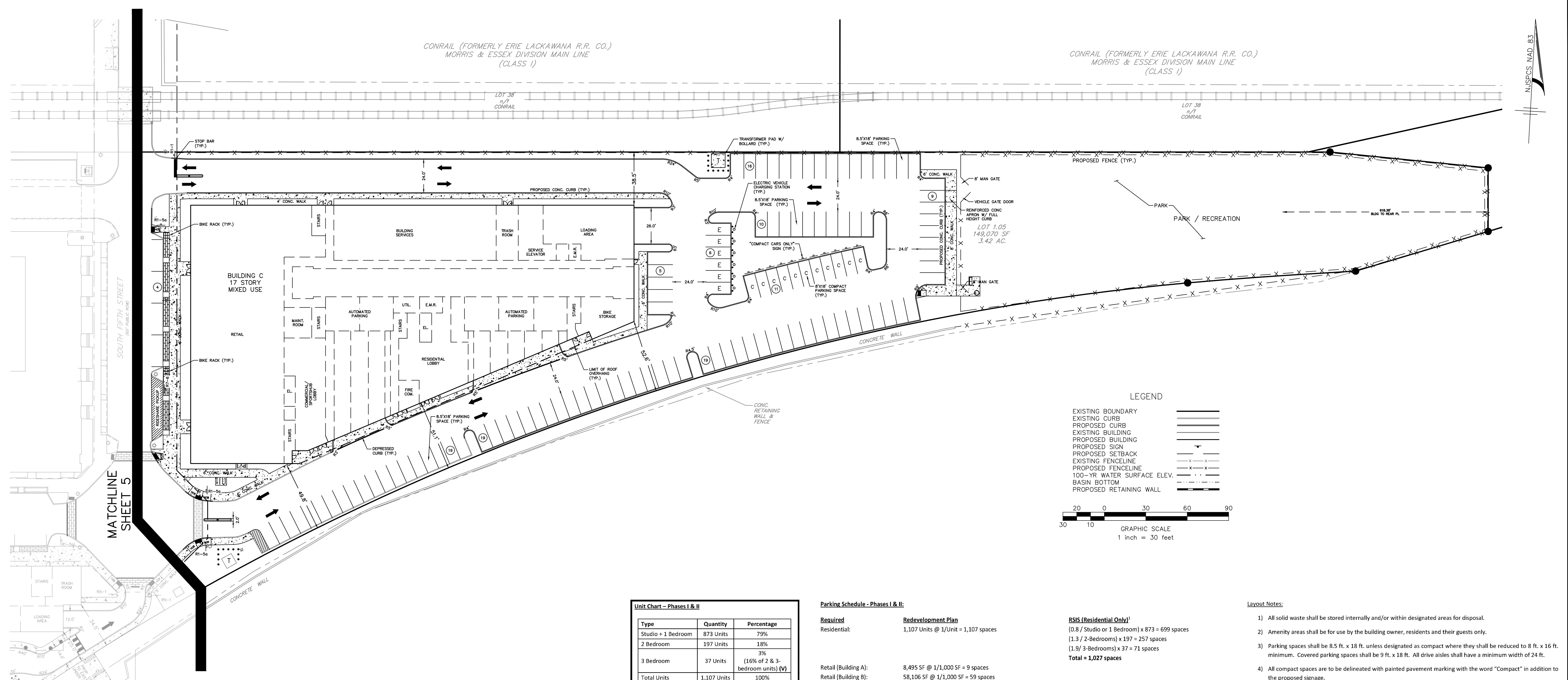
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 HARRISON YARDS – PHASE II  
 BLOCK 133; LOT 1.03 & 1.05  
 GEOMETRY, SIGNAGE & STRIPING PLAN  
 SITUATED IN  
 TOWN OF HARRISON, HUDSON COUNTY, NEW JERSEY

MIDNIGHT INC  
 Engineering Partners, LLC  
 Certificate of Authorization No. PES-NJ-GEN00500  
 Gateway 195 Center  
 Concourse Way, Suite 200  
 609-910-4450  
 Louis J. Paganelli P.E. PE No. GES14753800  
 William J. Paganelli P.E. PE No. GES14753800  
 Sheet Number  
 5 OF 21



## Unit Chart – Phases I & II

Type	Quantity	Percentage
Studio + 1 Bedroom	873 Units	79%
2 Bedroom	197 Units	18%
3 Bedroom	37 Units	3% (16% of 2 & 3-bedroom units) (V)
Total Units	1,107 Units	100%

## Parking Schedule - Phases I & II:

<u>Required</u>	<u>Redevelopment Plan</u>	<u>RSIS (Res)</u>
Residential:	1,107 Units @ 1/Unit = 1,107 spaces	(0.8 / Stu
		(1.3 / 2-E
		(1.9/ 3-B
		<b>Total = 1</b>

Retail (Building C):	7,418 SF @ 1/1,000 SF = 75 spaces
Hotel:	200 Rooms @ 1/Room + 7,969 SF @ 1/1,000 SF = 208 spaces
<b>Total =</b>	<b>1,531 spaces required</b>

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<u>Required</u>	<u>Redevelopment Plan</u>
Residential:	898 Units @ 1/Unit = 898 spaces
Bldg B (Retail & Commercial):	130,526 SF @ 1/1,000 SF = 132 spaces
Bldg C (Retail):	74,183 SF @ 1/1,000 SF = 75 spaces
Hotel:	200 Rooms @ 1/Room + 7,969 SF @ 1/1,000 SF = 208 spaces

<u>Provided:</u>	
Lot 1.03 =	17 surface + 648 automated = 665 spaces (17 Compact, 3 of which are Electric spaces)
Lot 1.05 =	115 surface + 571 automated = 685 spaces (11 Compact & 6 Electric spaces)
<b>Total =</b>	<b>1,350 spaces proposed</b>

out Notes:

- 1) All solid waste shall be stored internally and/or within designated areas for disposal.
- 2) Amenity areas shall be for use by the building owner, residents and their guests only.
- 3) Parking spaces shall be 8.5 ft. x 18 ft. unless designated as compact where they shall be reduced to 8 ft. x 16 ft. minimum. Covered parking spaces shall be 9 ft. x 18 ft. All drive aisles shall have a minimum width of 24 ft.
- 4) All compact spaces are to be delineated with painted pavement marking with the word "Compact" in addition to the proposed signage.
- 5) All proposed onsite curb shall be either belgian block or concrete (per owner). All curb within public streets (Angelo Cifelli Drive / Fifth Street) shall be concrete. All curb shall have a 6 inch reveal (see construction details).
- 6) Street signs shall be installed in accordance with municipal requirements and shall have silver letters on a blue background unless otherwise directed by the Town Engineer.
- 7) In accordance with the redevelopment plan, one-half percent of the budgeted cost of construction of the structure or the project itself, excluding land, shall be appropriated for public art which shall be subject to the approval of the Redevelopment Agency Planner.
- 8) Refer to architectural plans for building elevations & floor plans.
- 9) All connections with existing pavement, curb, sidewalk etc. shall be saw cut.
- 10) Handicap detectable warning strips shall be "replaceable wet-set" or equivalent, Surface mount or "stick on"

11) The contractor shall:

- a. Perform all work for the project in a finished and workmanlike manner to the satisfaction of the owner and in accordance with the best recognized trade practices.
- b. Be responsible to maintain the site in a clean and organized manner.
- c. Dispose of any and all construction debris in accordance with any local, state, or federal requirements.
- d. Repair any damage to public streets, curbs, sidewalks and utilities as a result of site construction activities.
- e. Coordinate the construction schedule with the owner prior to start of work.
- f. Obtain any required road opening permits and perform work in accordance with Town of Harrison requirements.
- g. Be responsible to provide traffic control including barricades, lighting, signage etc. as may be necessary for completion of the project.
- h. Be responsible for site safety and security and the means and methods of construction for the duration of the project.
- i. Confirm the location of all utilities prior to start of construction by requesting a utility mark out and completing test pits as necessary.
- j. Notify the owner and engineer of any required field change immediately.
- k. Maintain dimensioned redline plans of all installed infrastructure and improvements that shall be provided to the owner / engineer noting the locations of all underground infrastructure such as electric conduit, water lines, roof leader collection piping etc.
- l. Only import certified clean fill (if required) in accordance with NJDEP Technical Requirements N.J.A.C 7:26E. All imported material requires approval by owner and their environmental consultant prior to

12) All signage to be posted in accordance with the United States Department of Transportation-Federal Highway Administration, "Manual on Uniform Traffic Control Devices for Street and Highways (MUTCD), latest edition.

- 13) The contractors work shall be in conformance with NJDOT 'Standard Specifications for Road and Bridge Construction', latest edition.
- 14) On-site parking and driveways to be privately owned (with exception of roadways to be dedicated).

15) All pavement striping (stop bars / lane markings) shall be thermoplastic unless otherwise directed by the owner.  
Parking spaces to be painted.

16) See architectural plans for building signage

17) Waste will be removed from trash room / designated storage areas into drive aisle at the time of collection.

18) Loading in/out of building will be provided off-street within the parking area drive aisles.

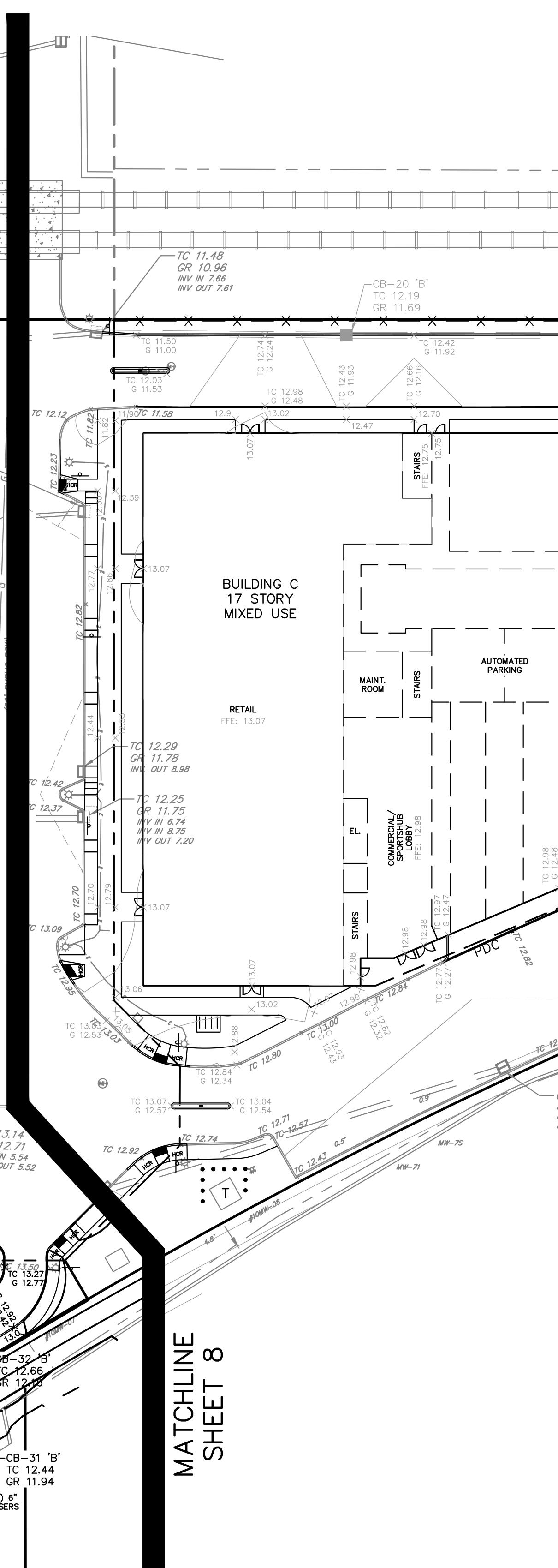
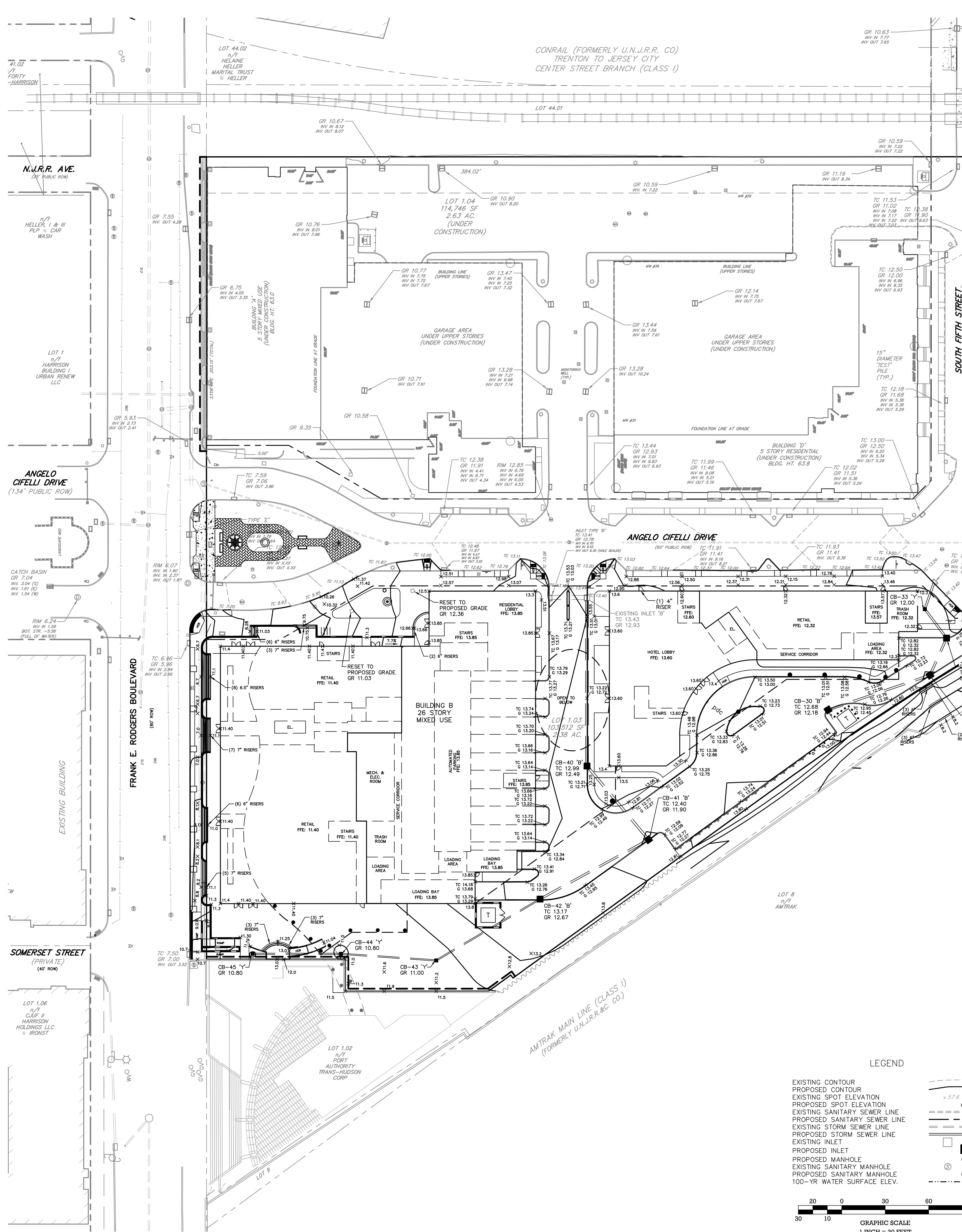
19) Parking spaces typically 8.5 ft. x 18 ft. with 24 ft. aisles provided. Compact parking 8 ft. wide and varying depth

(16 ft. min.)

20) Temporary alteration of pedestrian circulation due to construction phase operations requires County Engineering Department approval of a pedestrian modification plan.

21) All work proposed within the County right-of-way will require the applicant to obtain County Road Opening Permits from the Office of the County Engineer.

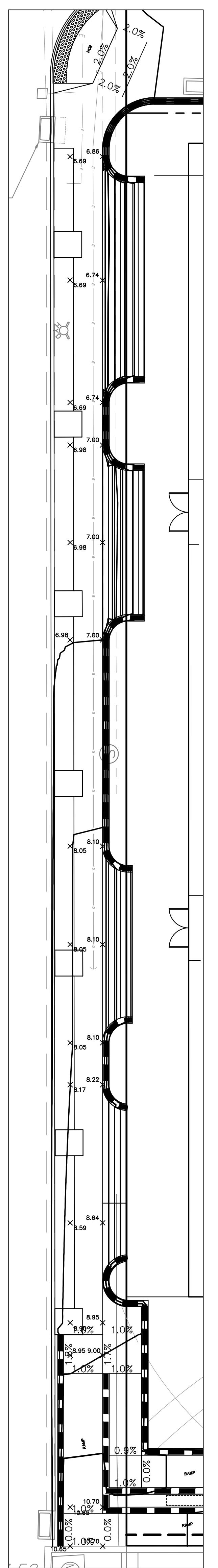
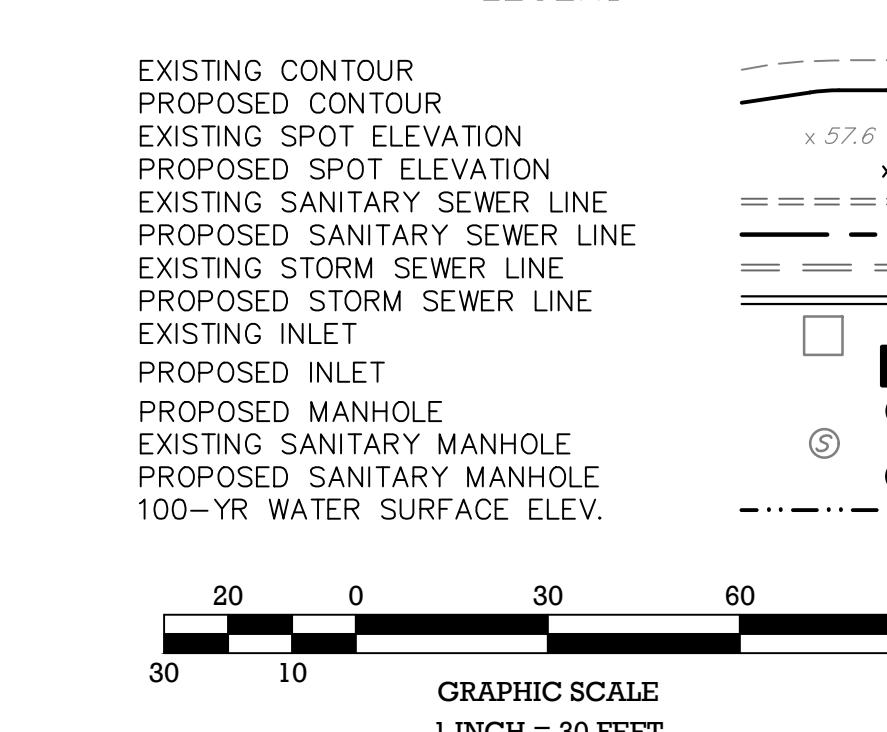
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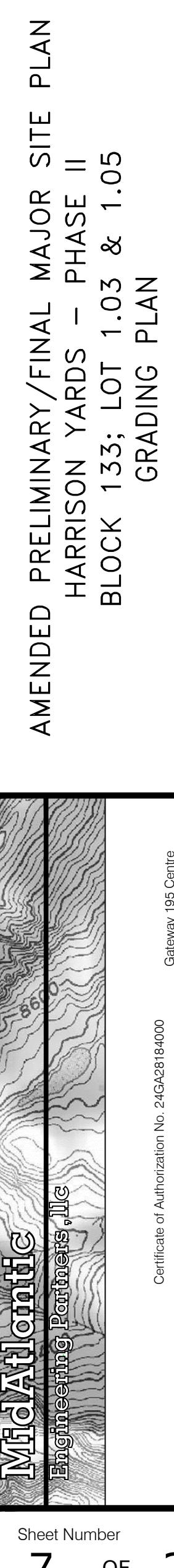
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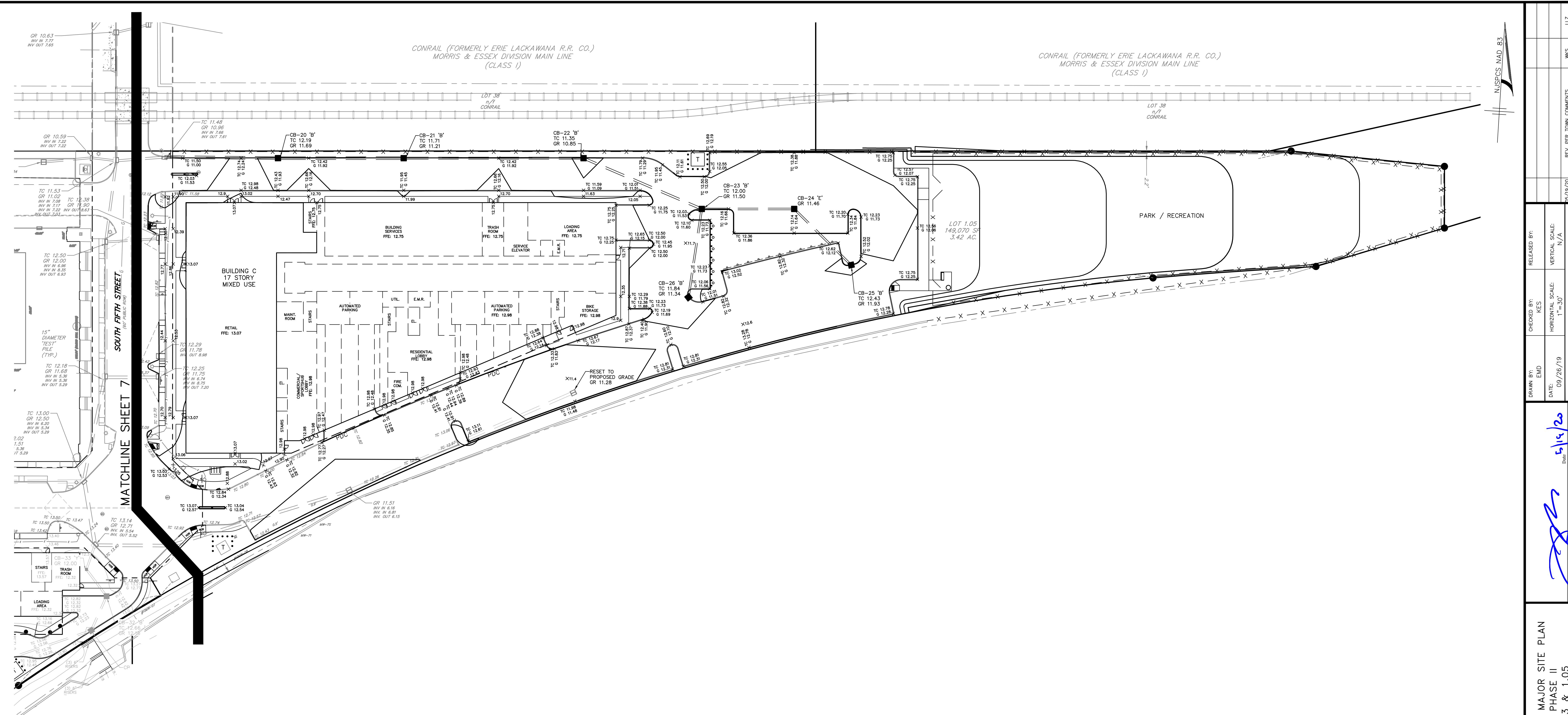
LEG

EXISTING CONTOUR	—
PROPOSED CONTOUR	—
EXISTING SPOT ELEVATION	—
PROPOSED SPOT ELEVATION	—
EXISTING SANITARY SEWER LINE	—
PROPOSED SANITARY SEWER LINE	—
EXISTING STORM SEWER LINE	—
PROPOSED STORM SEWER LINE	—
EXISTING INLET	—
PROPOSED INLET	—
PROPOSED MANHOLE	—
EXISTING SANITARY MANHOLE	—
PROPOSED SANITARY MANHOLE	—
100-YR WATER SURFACE ELEV.	—



GRAPHIC SCALE  
1 inch = 10 feet





MATCHLINE SHEET 7

CONRAIL (FORMERLY ERIE LACKAWANA R.R. CO.)  
MORRIS & ESSEX DIVISION MAIN LINE  
(CLASS I)

CONRAIL (FORMERLY ERIE LACKAWANA R.R. CO.)  
MORRIS & ESSEX DIVISION MAIN LINE  
(CLASS I)

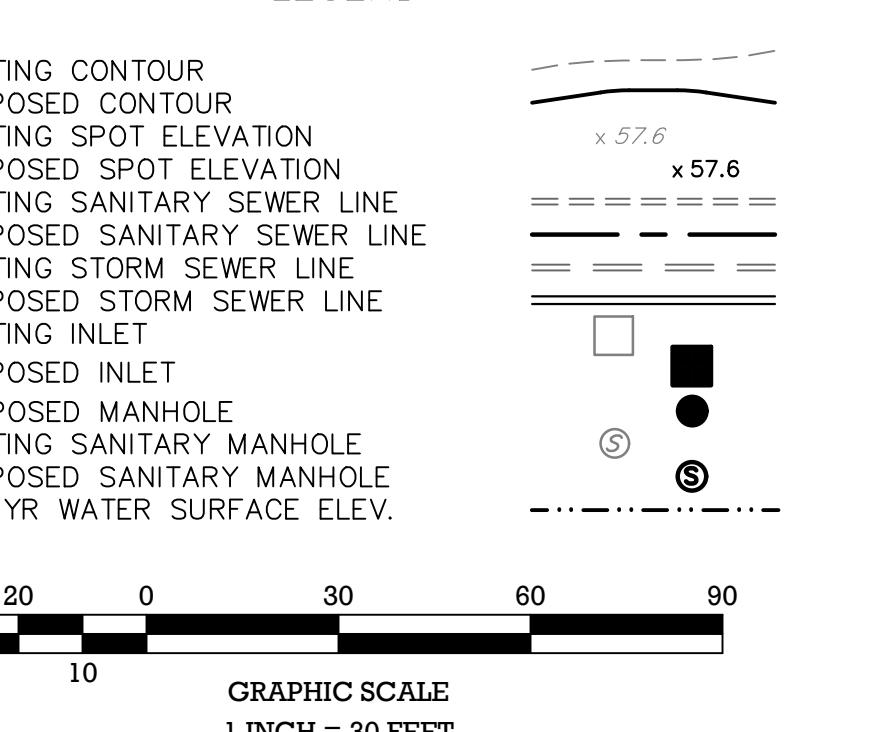
AMENDED PRELIMINARY/FINAL MAJOR SITE PLAN  
HARRISON YARDS - PHASE II  
BLOCK 133; LOT 1.03 & 1.05  
GRADING PLAN

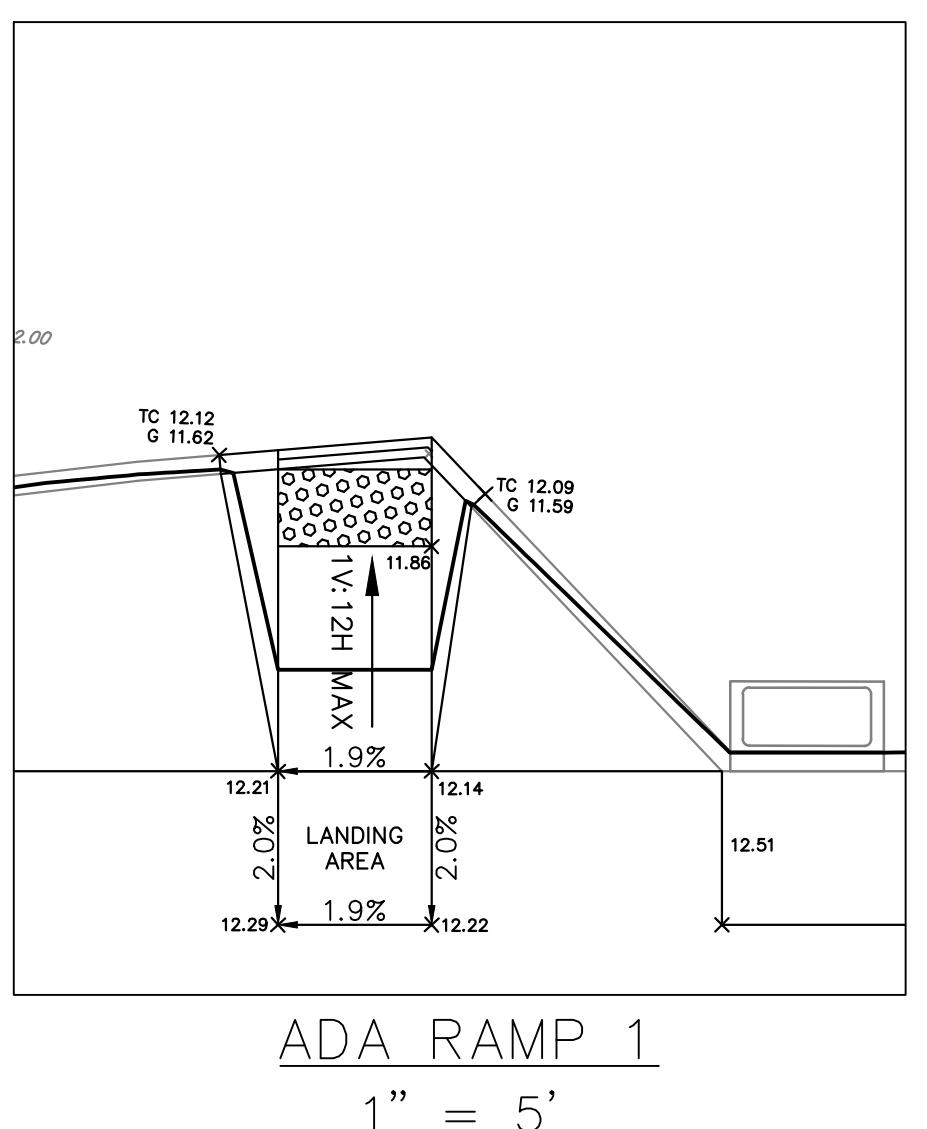
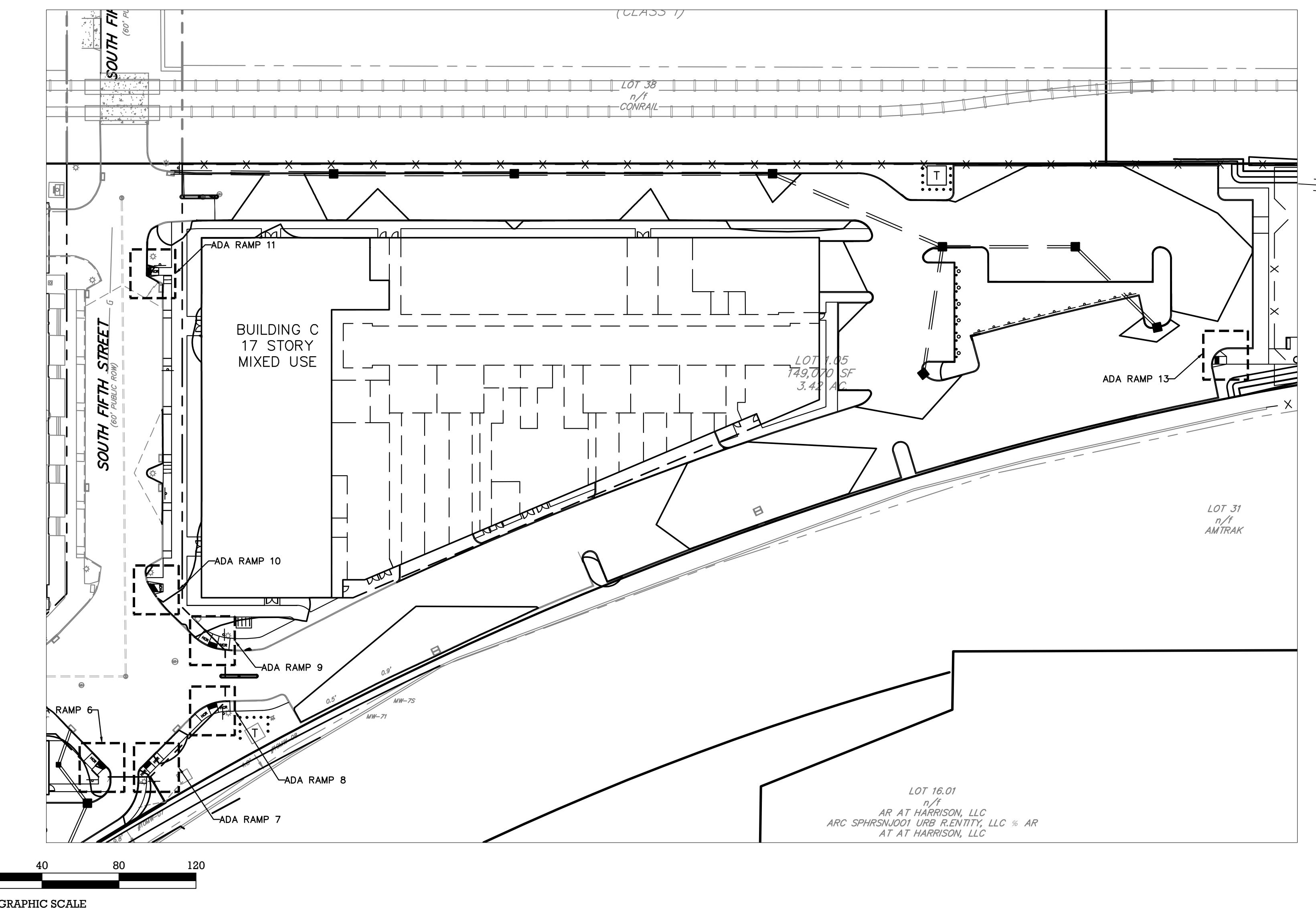
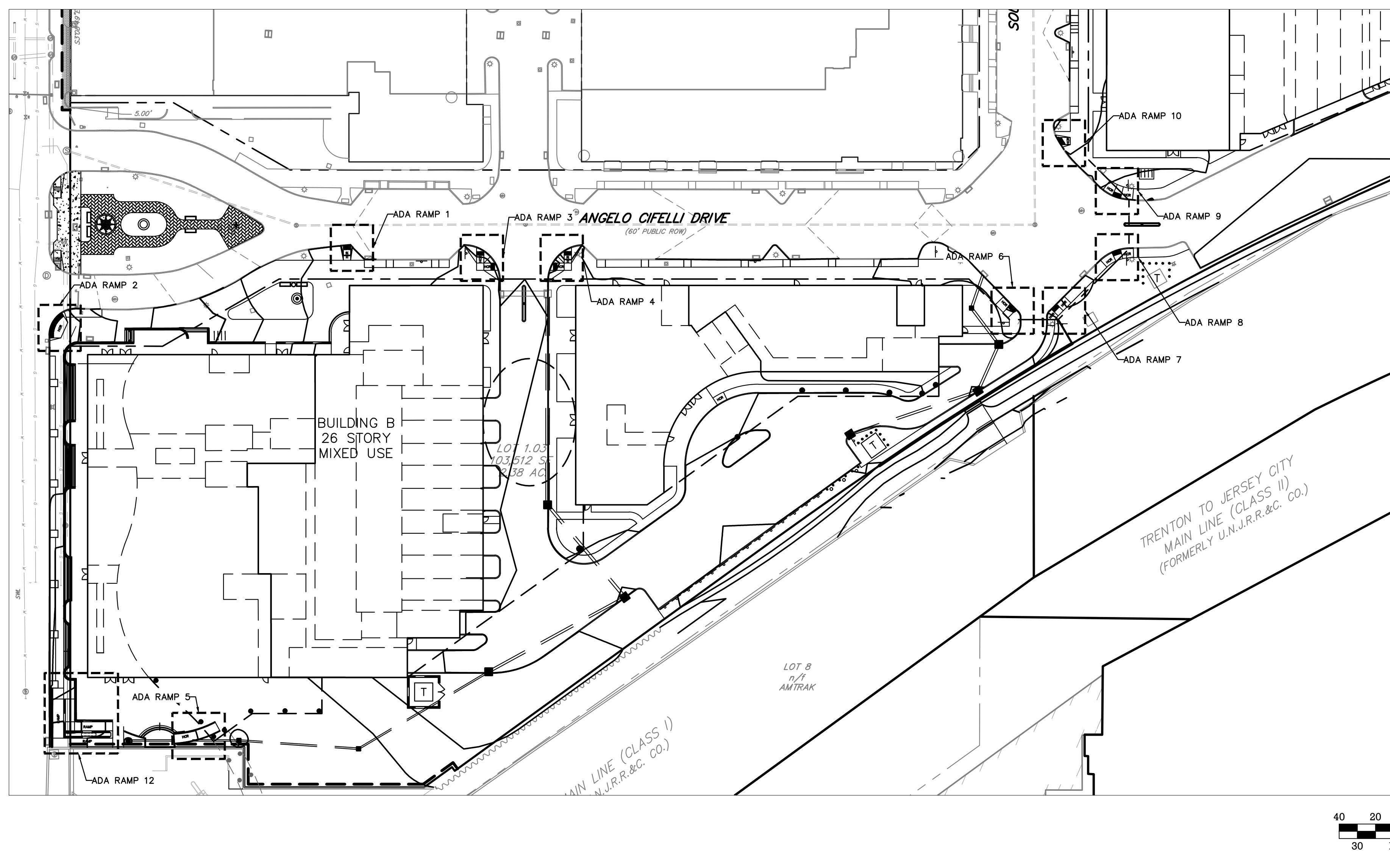
SITUATED IN  
TOWN OF HARRISON, HUDSON COUNTY, NEW JERSEY

Grading Notes:

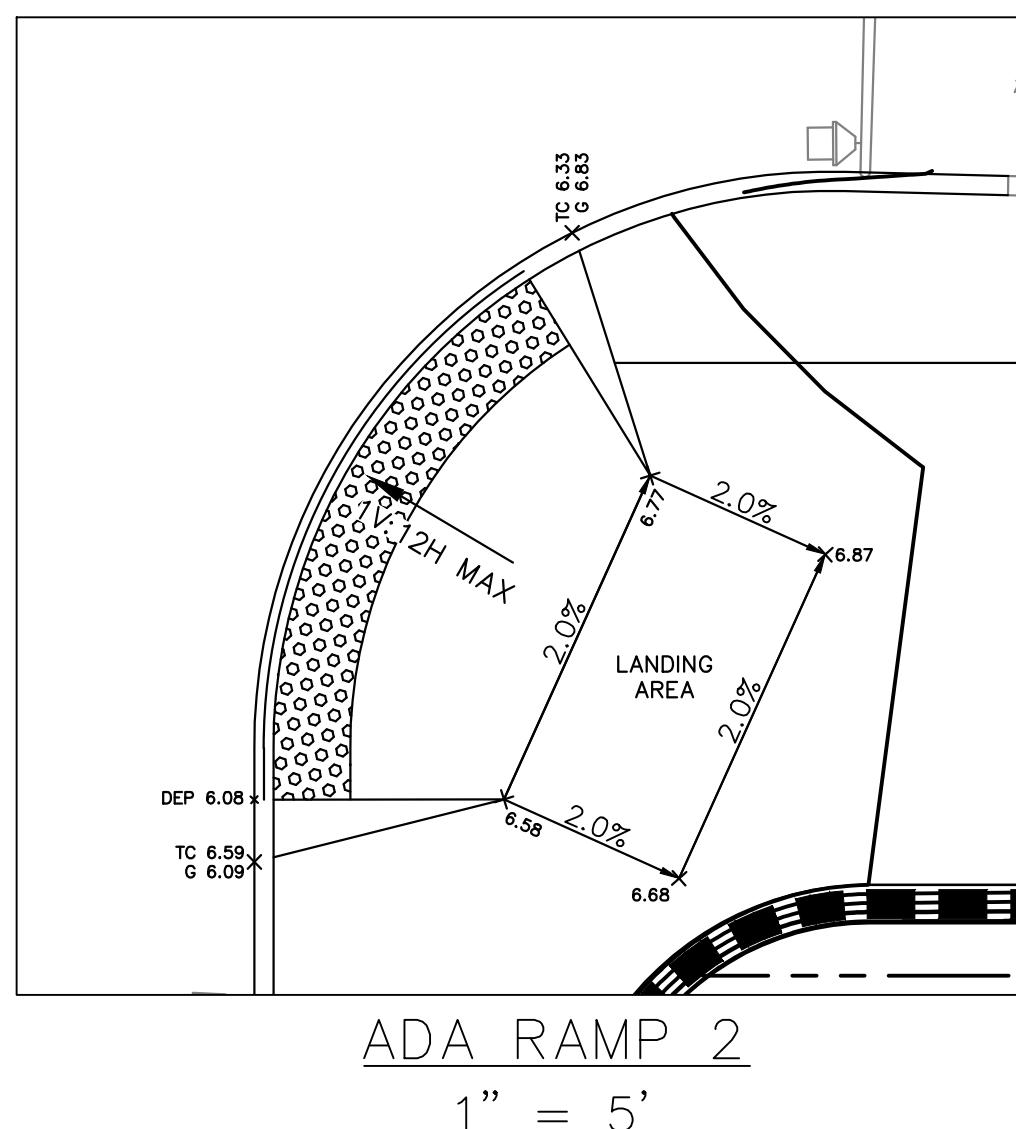
- 1) ADA Compliant handicapped ramps to be provided in sidewalk at all intersections.
- 2) Horizontal Datum: NAD 83 Vertical Datum: NAVD 88
- 3) All curb and sidewalks shall conform to state and federal barrier free design standards.
- 4) All connections with existing pavements, curbs, sidewalks, etc. shall be saw cut.
- 5) Sidewalk/walkway risers must be greater than 4" and less than 8".
- 6) See architect's plans for building elevations and floor plans, finished floor elevations at doorways shall be confirmed prior to construction and final grading.
- 7) All proposed curbing shall have a 6" reveal, unless otherwise stated.
- 8) All walkways to have a maximum cross slope of 2% and maximum running slope of 5% unless otherwise noted.
- 9) All grading within grassed areas to be a minimum of 2% and a maximum of 3:1 slope unless otherwise noted.
- 10) All grading in pavement areas shall be greater than 1% unless otherwise noted.
- 11) Positive drainage to be maintained from all building in accordance with applicable regulations and building code.
- 12) Floor elevations, adjacent grade, doorway locations and elevations shall be confirmed with architectural plans prior to construction by the contractor.
- 13) All grassed / planter areas to have a minimum of 6" clean top soil
- 14) Soil compaction to be per architectural requirements based on slab and footing design. 95% minimum compaction required per modified proctor moisture density test procedure ASTM D1557.
- 15) Sidewalk cross slope shall not exceed 2%.

LEGEND

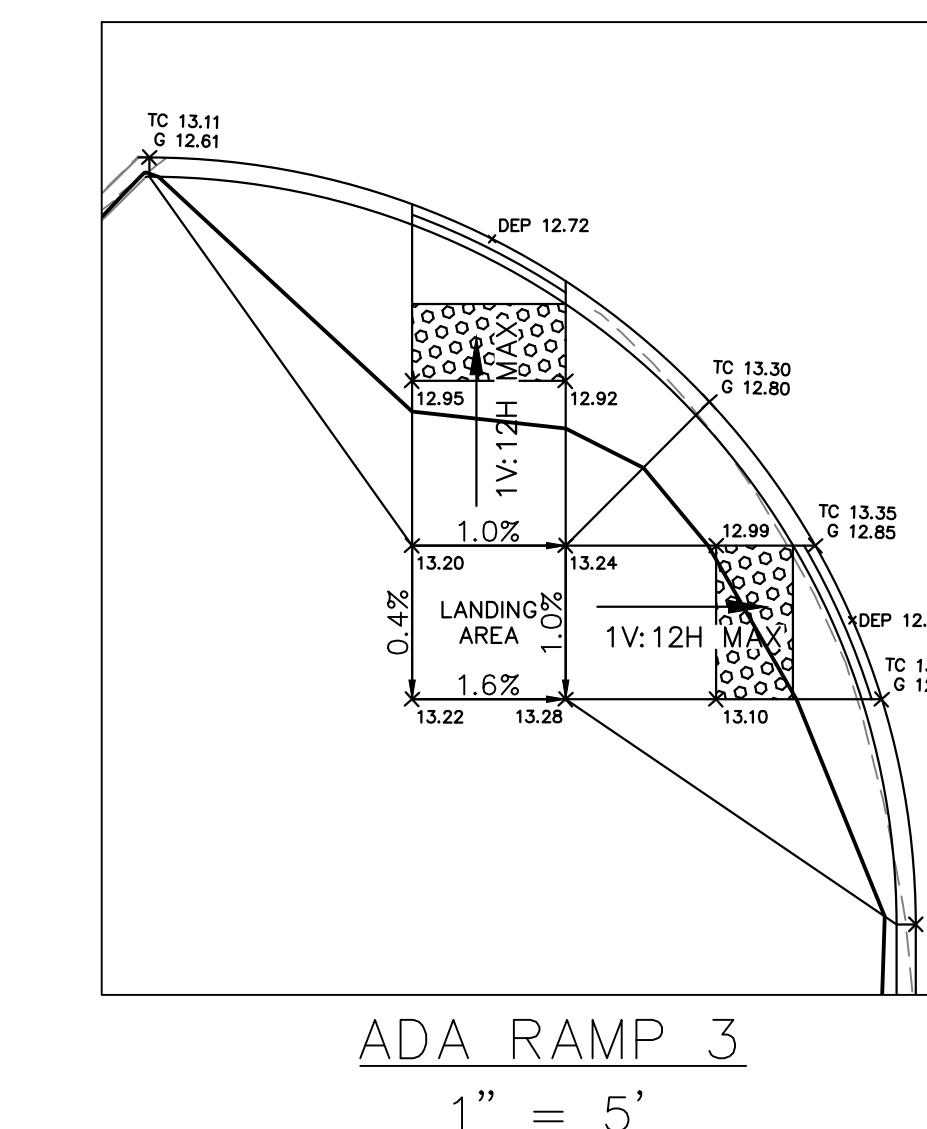




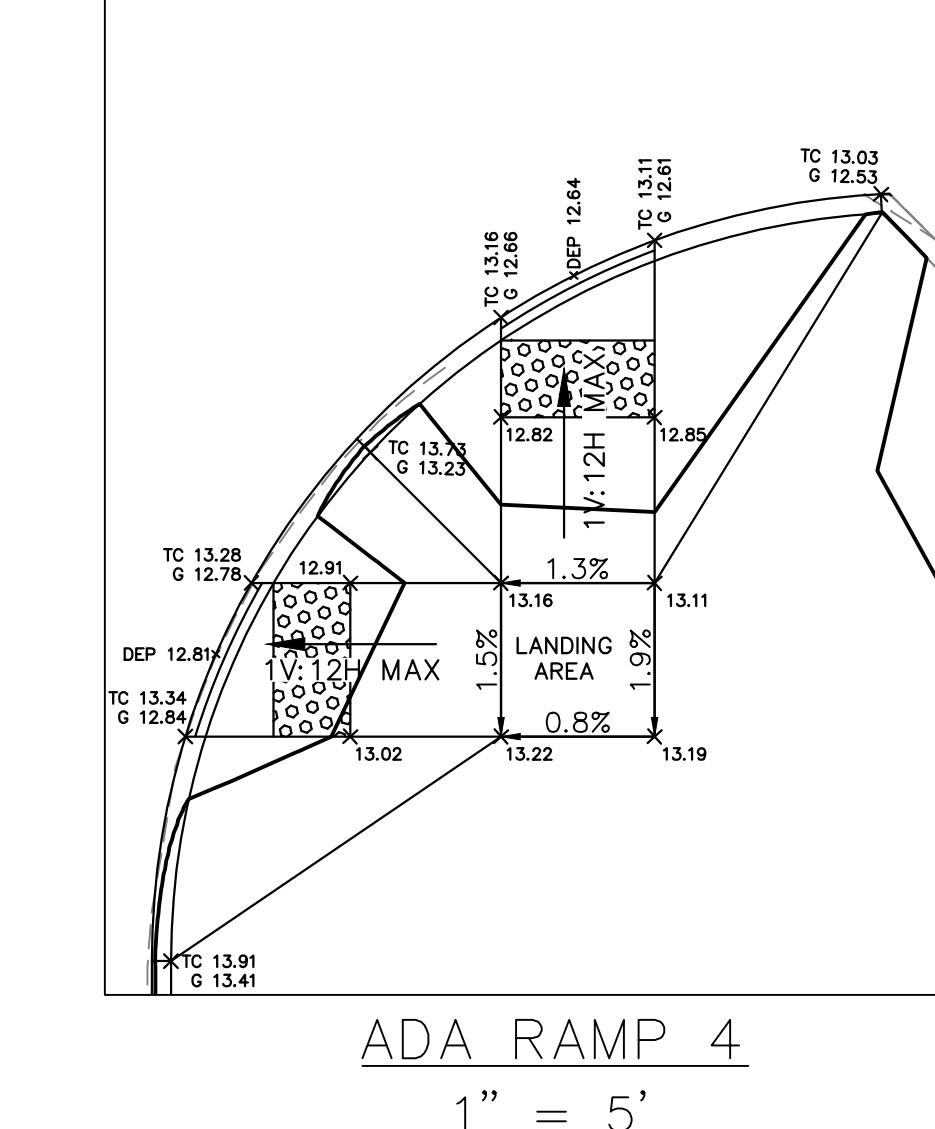
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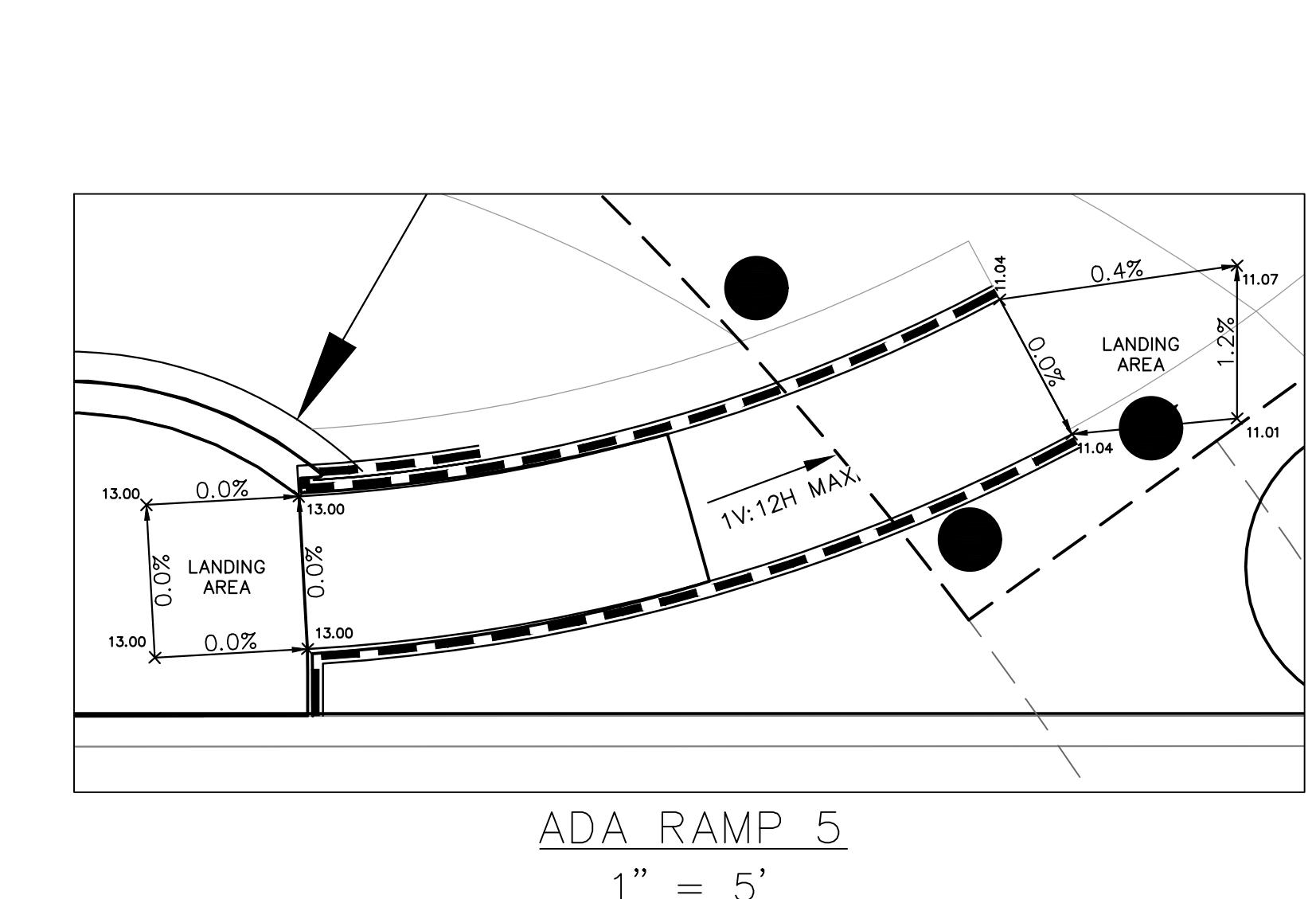
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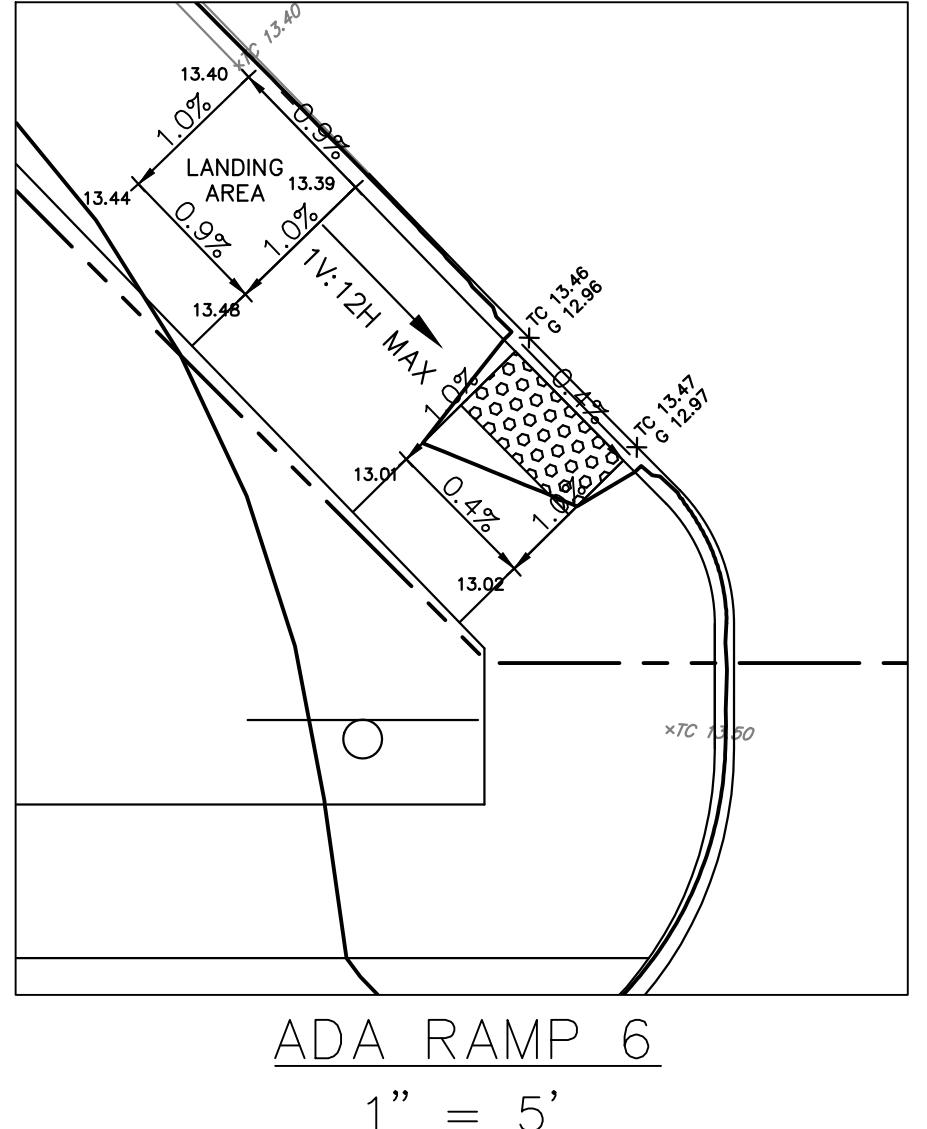
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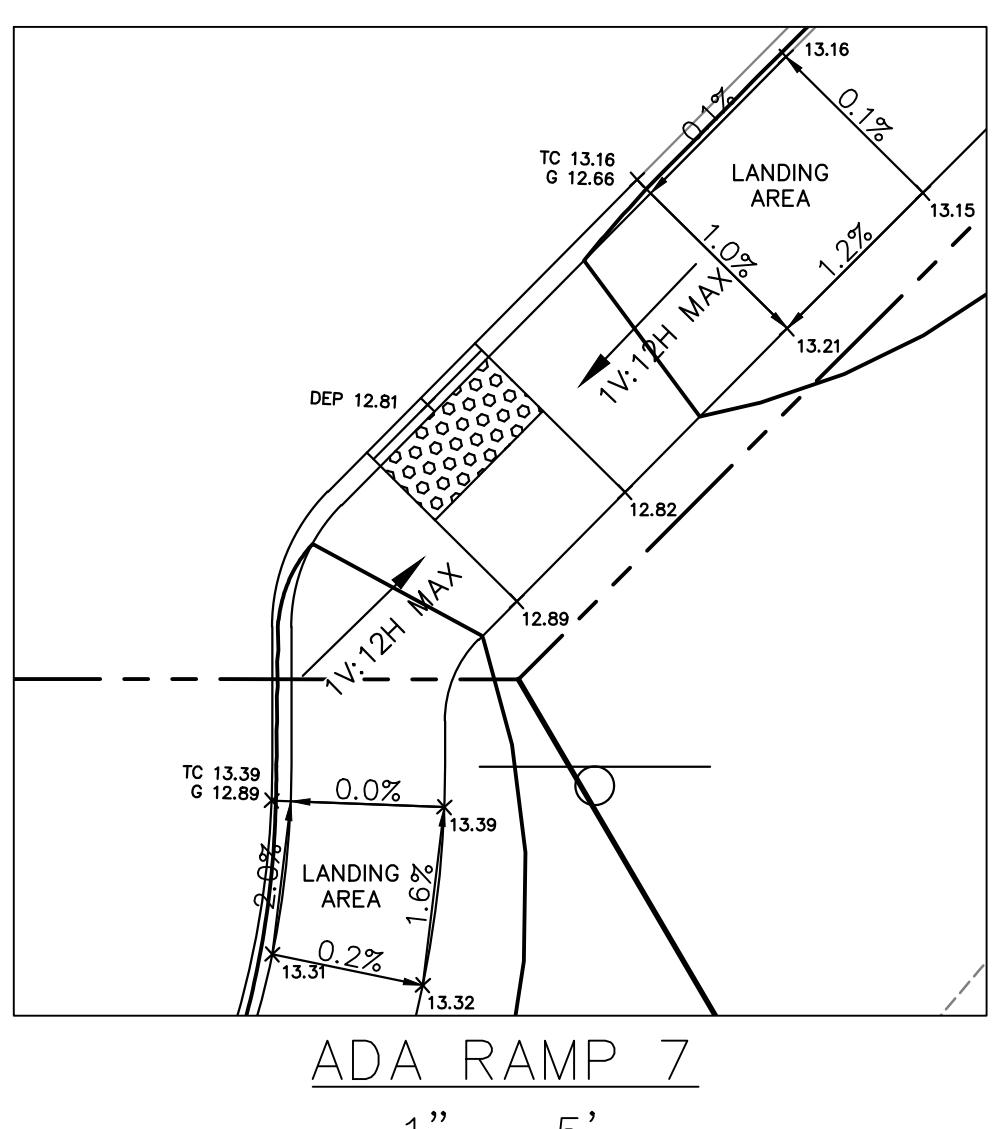
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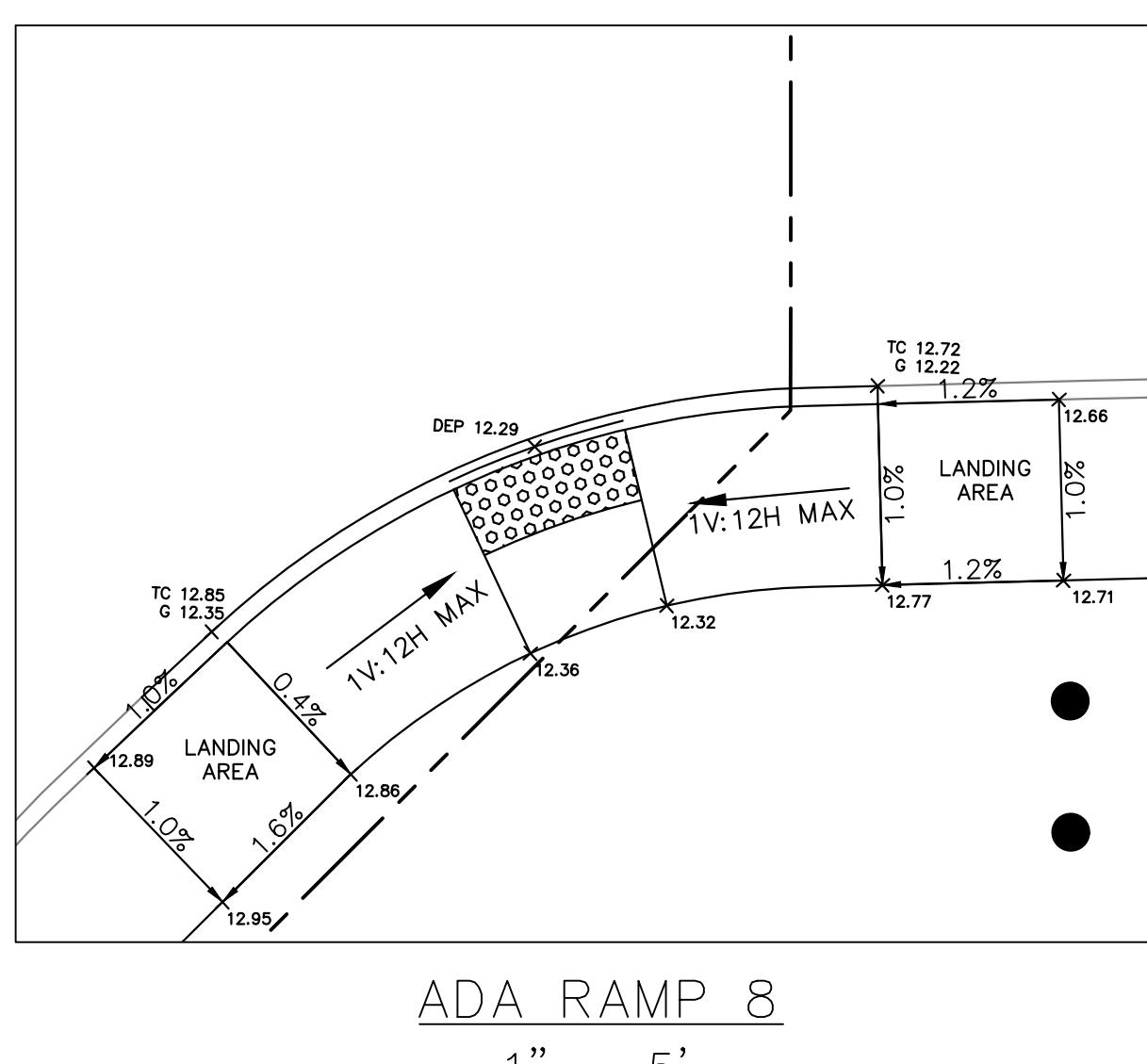
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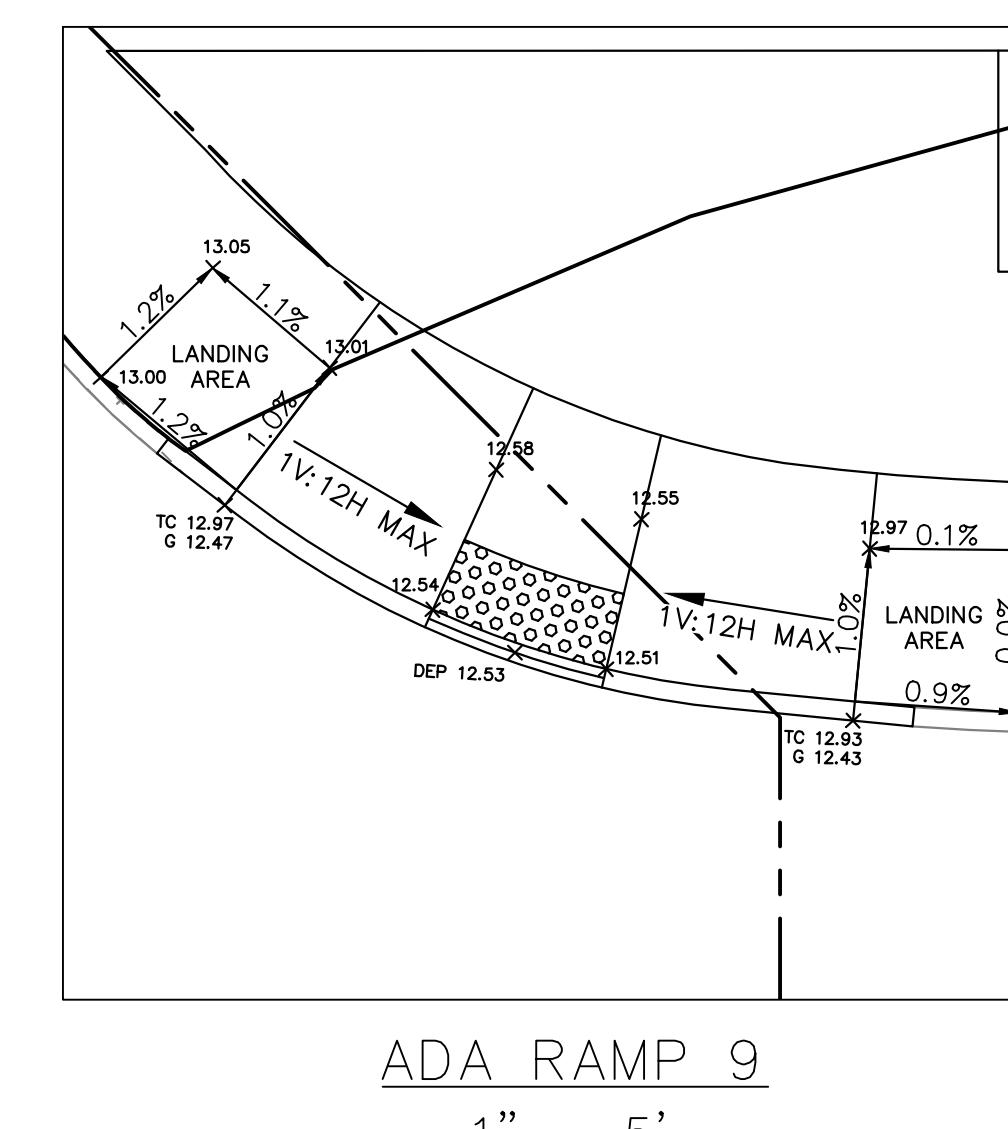
ADA RAMP 6



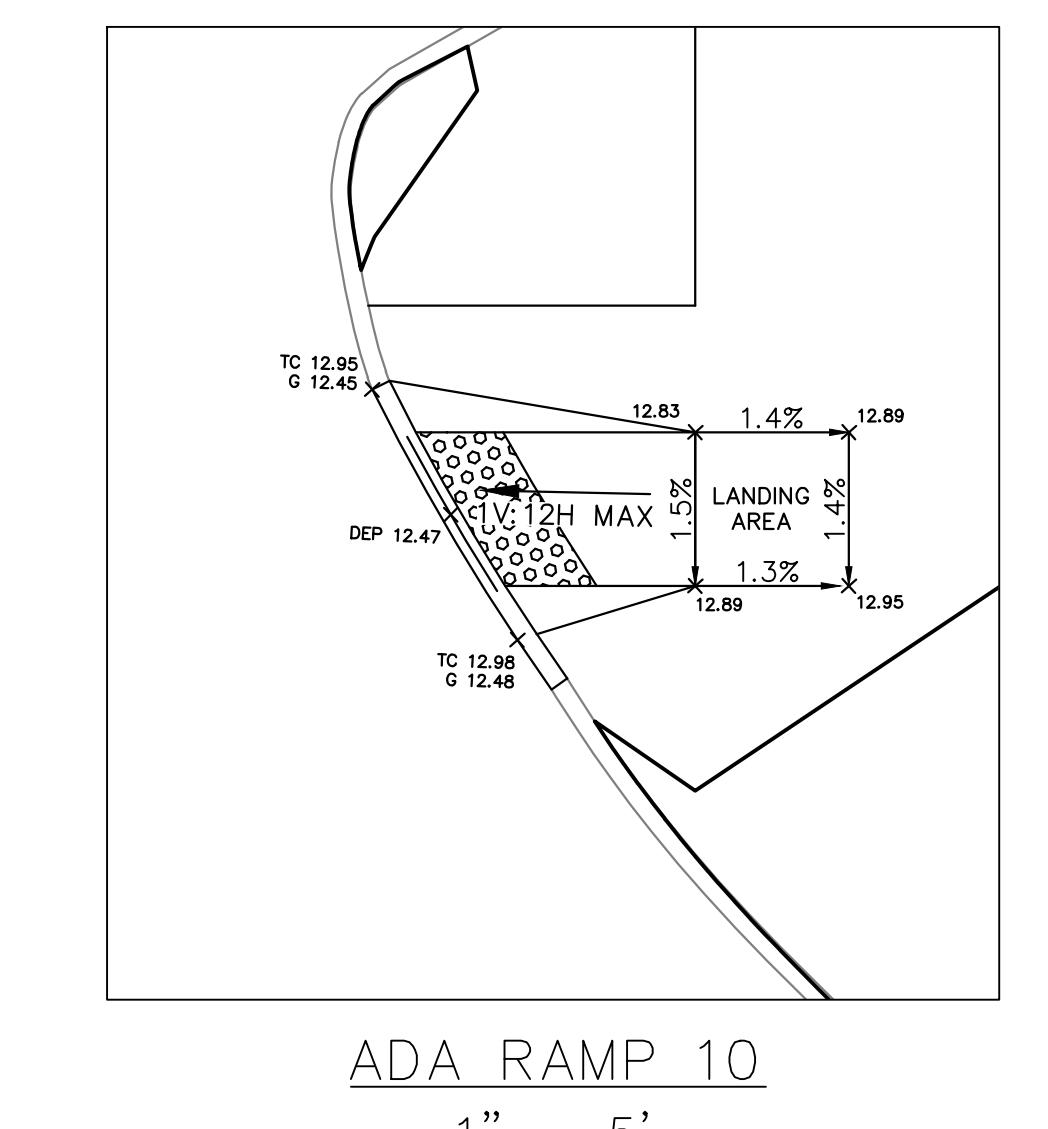
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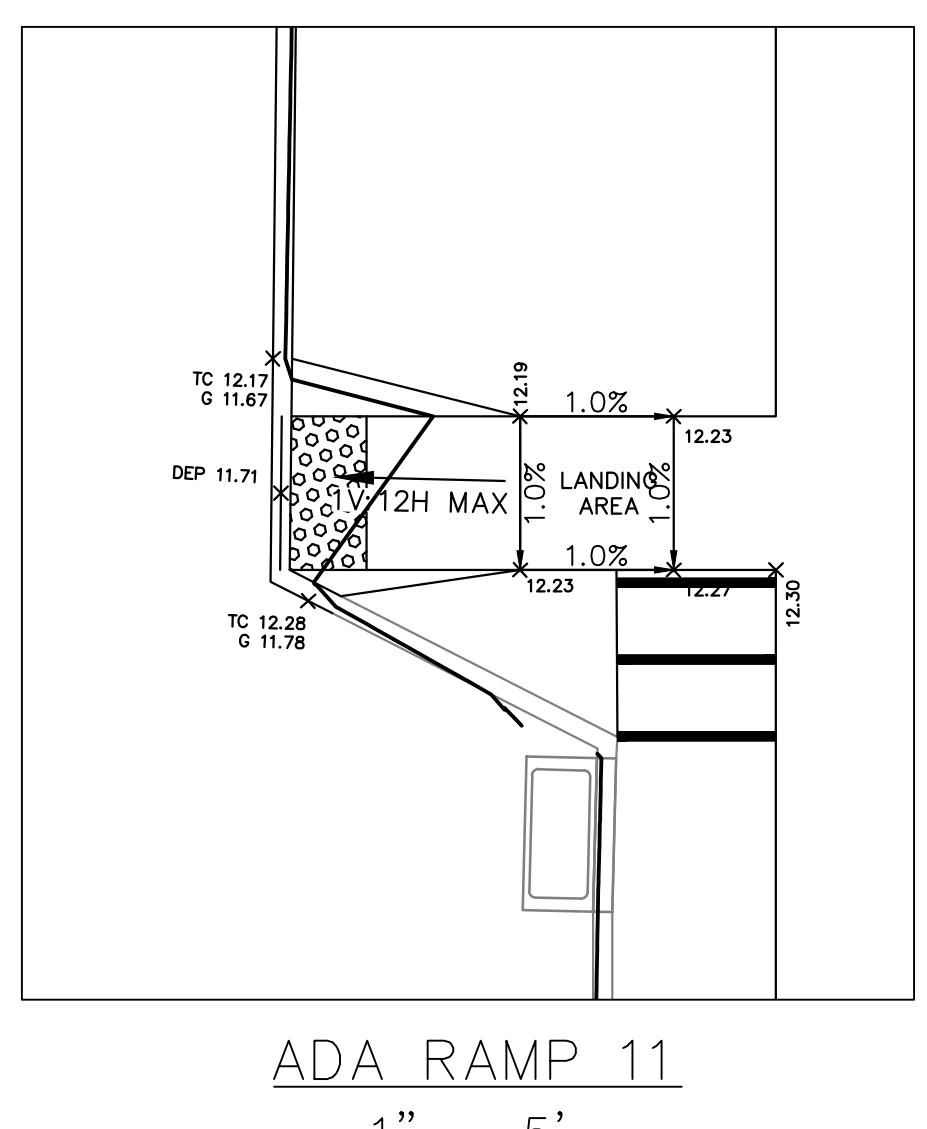
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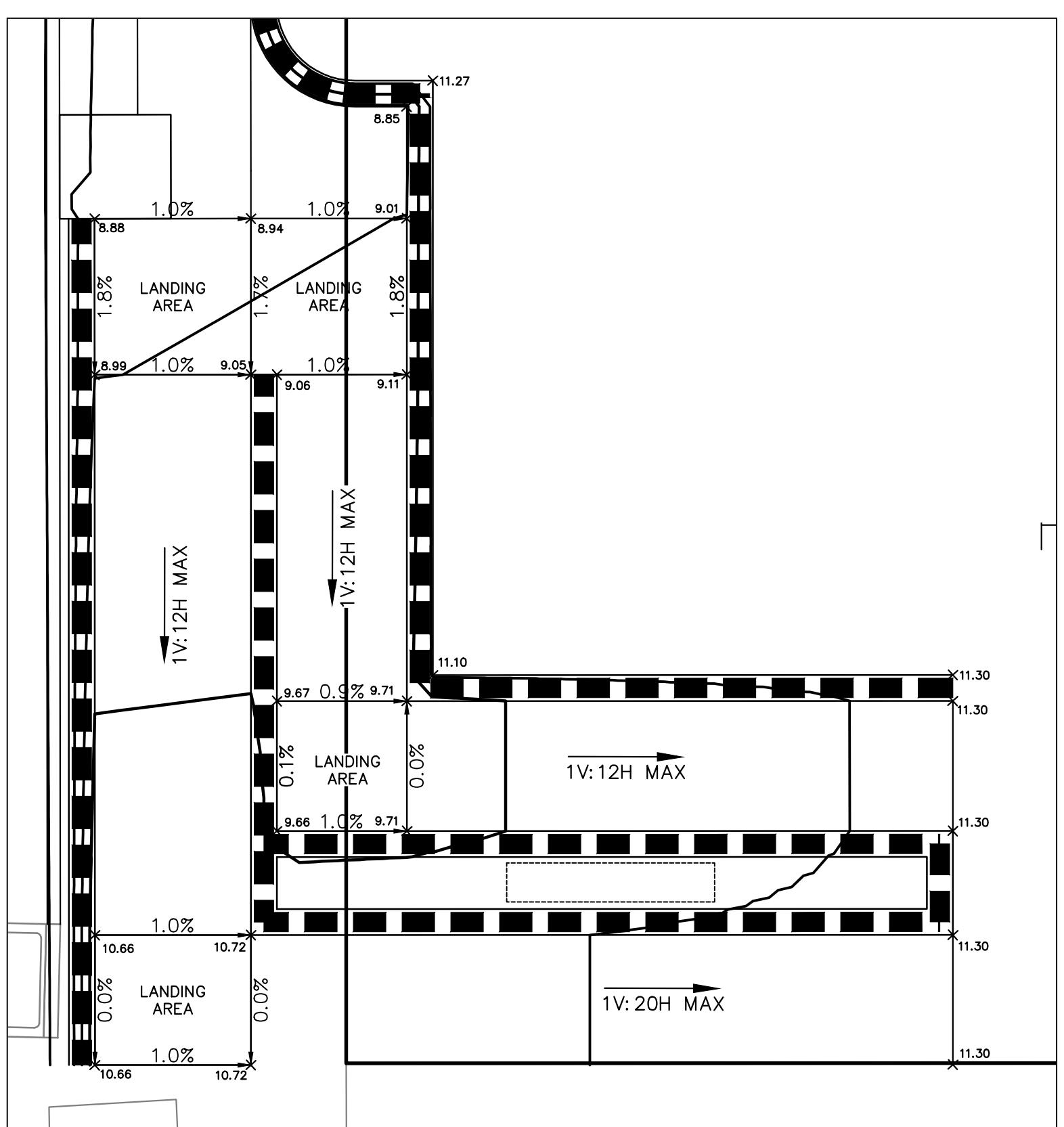
# ADA RAMP



ADA RAMP 1



ADA RAMP 11



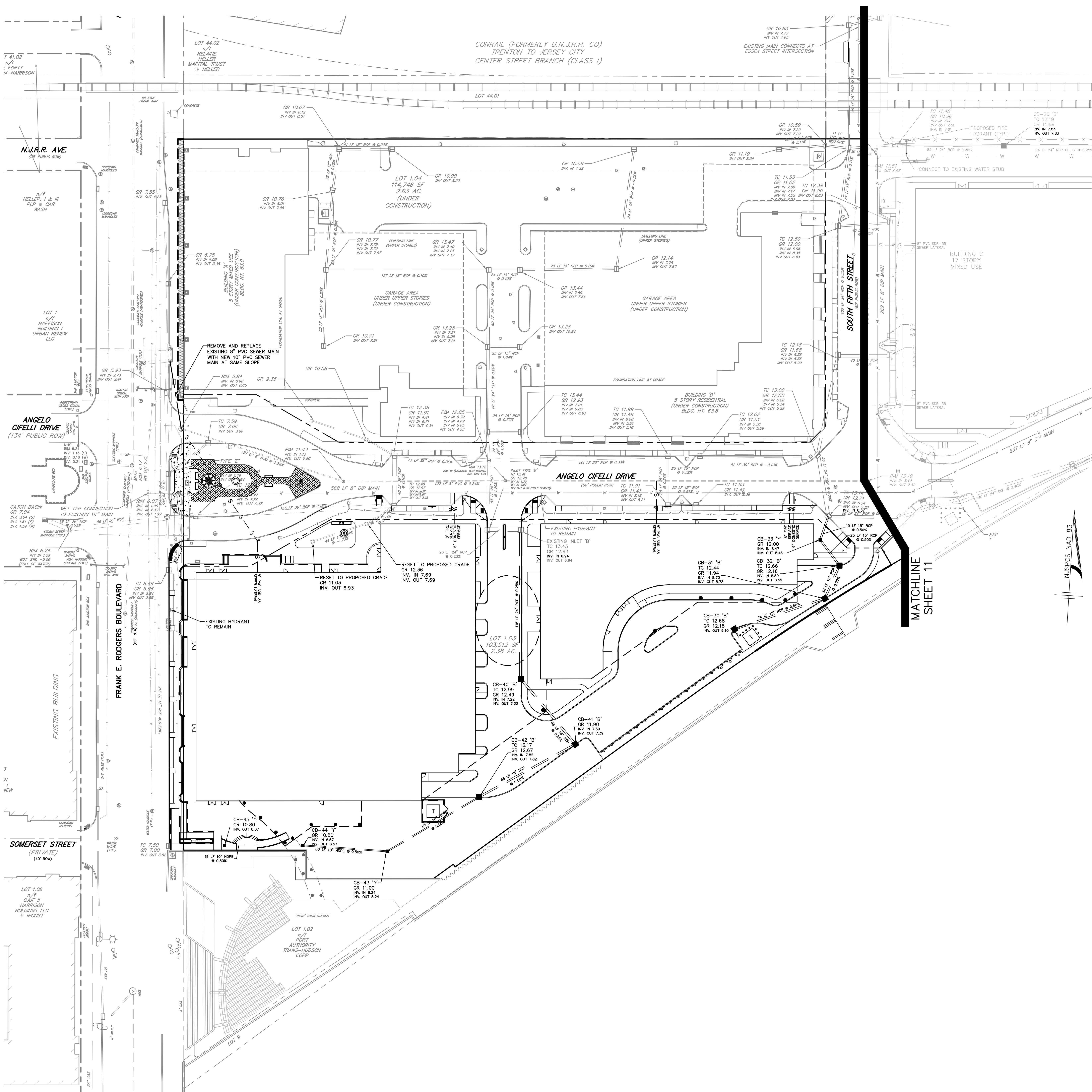
## ADA RAMP 12

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LEGEND

EXISTING CONTOUR  
PROPOSED CONTOUR  
EXISTING SPOT ELEVATION  
PROPOSED SPOT ELEVATION  
EXISTING SANITARY SEWER LINE  
PROPOSED SANITARY SEWER LINE  
EXISTING STORM SEWER LINE  
PROPOSED STORM SEWER LINE  
EXISTING INLET  
PROPOSED INLET  
PROPOSED MANHOLE  
EXISTING SANITARY MANHOLE  
PROPOSED SANITARY MANHOLE  
100-YR WATER SURFACE ELEV.

		AMENDED PRELIMINARY/FINAL MAJOR SITE PLAN		
		<b>HARRISON YARDS – PHASE II</b> <b>BLOCK 133; LOT 1.03 &amp; 1.05</b> <b>GRADING PLAN</b>		
<b>Engineering Options, LLC</b> <b>2019</b> <b>Sheet Number</b> <b>OF</b> <b>OF</b>		<b>DATE:</b> <b>09/26/19</b> <b>Horizontal Scale:</b> <b>1" = 40'</b>	<b>EMD</b> <b>KES</b>	<b>Vertical Scale:</b> <b>N/A</b>
<b>Louis L. Zuegner IV, P.E.</b> <b>Professional Engineer</b> <b>EEQ-191</b> <b>04/14/20</b> <b>REV. PER ARCHITECTURAL CHANGES</b> <b>MGL</b> <b>LLZ</b>		<b>PROJECT No.:</b> <b>EEQ-191</b> <b>05/19/20</b> <b>REV. PER TOWN COMMENTS</b> <b>WKS</b> <b>LLZ</b>	<b>2019</b> <b>2019</b> <b>Date</b>	
		<b>2019</b> <b>2019</b> <b>Date</b>		



Utility Notes:					
1) All proposed onsite utilities shall be underground.					
2) All sanitary sewer mains shall be owned & maintained by the Town of Harrison who will be provided with a blanket utility & access easement for the purpose of repair and service.					
3) See MEP/Architectural plans for all utility connections to building, all utility connections shall be reviewed & verified by the contractor prior to start of site construction.					
4) Utility locations may vary from the plan & shall be field verified prior to construction.					
5) Pipe lengths indicated are measured center to center of each structure.					
6) Building roof leaders and clear waste from building shall connect to site storm sewer system. Connection points shall be coordinated with architectural and plumbing plans.					
7) Electrical, telephone, CATV and all other wire-served utility extensions and services shall be installed underground with standards established by the servicing utility company.					
8) All water mains shall be installed with a minimum of 4 ft. of cover to prevent freezing.					
9) All sewer mains and laterals shall be PVC SDR-35 or Ductile Iron Pipe Class PSI 350 as indicated on the plans unless otherwise noted.					
10) All RCP shall be class 3 wall, bell and spigot type, unless otherwise noted.					
11) All DIP water main shall be class 50, double cement lined interior wall, bituminous coated external wall with polyethylene encasement.					
12) Adequate structural support of sewers and water lines at all points of crossing shall be provided to prevent excessive deflection, settlement, or damage. The crossings shall be arranged such that the joints in the pipes are equidistant and as far apart as possible from the other pipe.					
13) Where utilities cross beneath existing / proposed water mains or storm and sanitary sewers, the utility contractor shall provide adequate structural support by installing select backfill from the utility to the spring line of the water main or sewer. Select backfill shall be clean sand or NJDOT soil I-9 compacted to 95% of the modified proctor aggregate type density ASTM D-698 Method D. It shall extend a minimum of 10 feet each way from the centerline of the crossing.					
14) Electrical transformer pad specifications, conduit locations, and installation to be coordinated with PSEG prior to installation.					
15) A 10-ft. horizontal distance shall separate water mains and sanitary sewer mains. Where such separation is not possible, the water mains and sanitary sewer mains shall be installed in separate trenches with the water main at least 18 inches above the sewer main. Where such vertical separation is not possible, the sewer main shall be constructed with watertight joints for a distance of 10 feet in either direction of the water main (N.J.A.C. 7:10-11.7(d)-5).					
16) All existing cleanout structures shall be checked, repaired and/or restored as needed prior to connection by the contractor.					
17) All sanitary and drainage structures shall be precast concrete.					
18) Electric transformers servicing the building shall incorporate public art by being painted in a creative fashion subject to approval by both the HRA & PSEG.					
19) Project is located within an area served by combined storm and sanitary sewers.					
20) Gas and electric service to be coordinated with PSEG.					

# UTILITY PLAN SITUATED IN

SITUATED IN  
HUDSON COUNTY, NEW JERSEY

PE No. GFE04226500  
Name of PE: Mr. V.P.E  
Certificate of Authorization No. 24GA28184000  
Gateway 195 Centre  
5 Commerce Way Suite 200

5 Commerce Way, Suite 200  
Hamilton, NJ 08691  
609-910-4450

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21

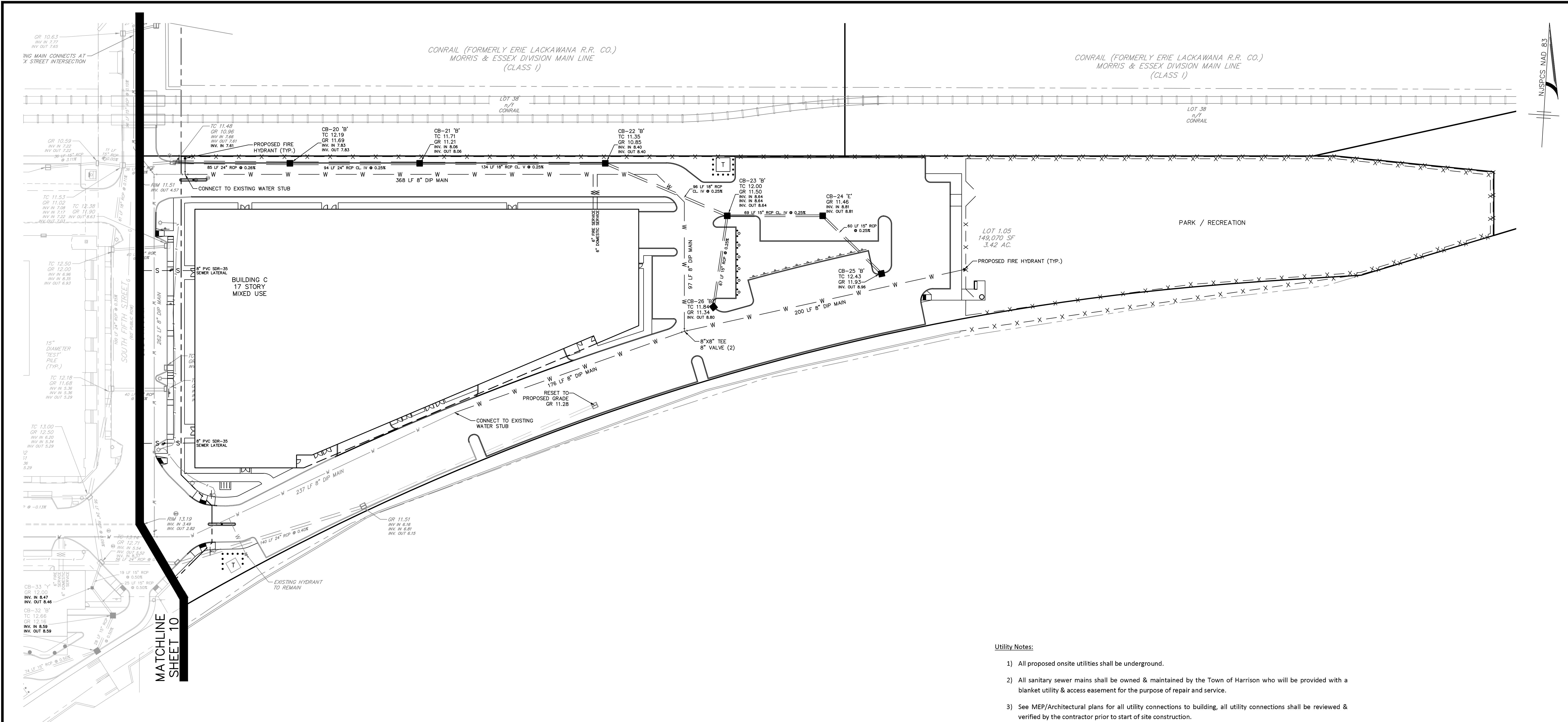
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LEGEND	
ANITARY SEWER LINE	=====
SANITARY SEWER LINE	_____
TORM SEWER LINE	====
STORM SEWER LINE	=====
INLET	□
INLET	□
MANHOLE	(○)
ANITARY MANHOLE	(○)
SANITARY MANHOLE	(○)
SANITARY LATERAL	— S —
SANITARY CLEANOUT	— S —
WATER LINE	_____
WATER LINE	_____
YDRANT	(Y)
WATER HYDRANT	(Y)
WATER METER	(W)
WATER LATERAL	— W —

GRAPHIC SCALE  
1 INCH = 30 FEET

= 2

21



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- 7) Electrical, telephone, CATV and all other wire-served utility extensions and services shall be installed underground with standards established by the servicing utility company.
- 8) All water mains shall be installed with a minimum of 4 ft. of cover to prevent freezing.
- 9) All sewer mains and laterals shall be PVC SDR-35 or Ductile Iron Pipe Class PSI 350 as indicated on the plans unless otherwise noted.
- 10) All RCP shall be class 3 wall, bell and spigot type, unless otherwise noted.
- 11) All DIP water main shall be class 50, double cement lined interior wall, bituminous coated external wall with polyethylene encasement.
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END

LEGEND

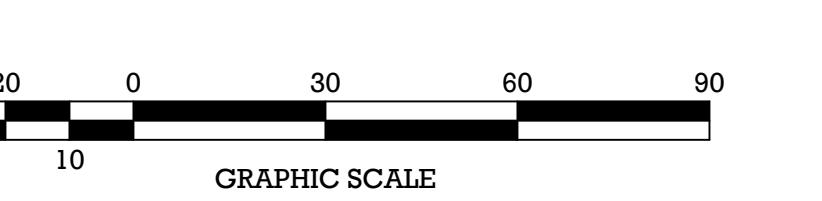
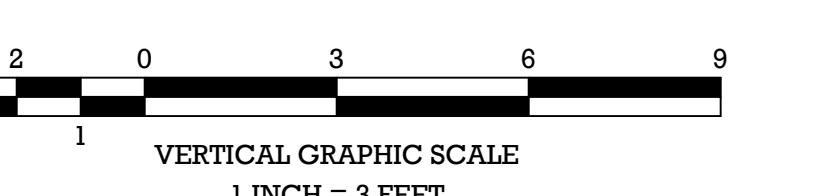
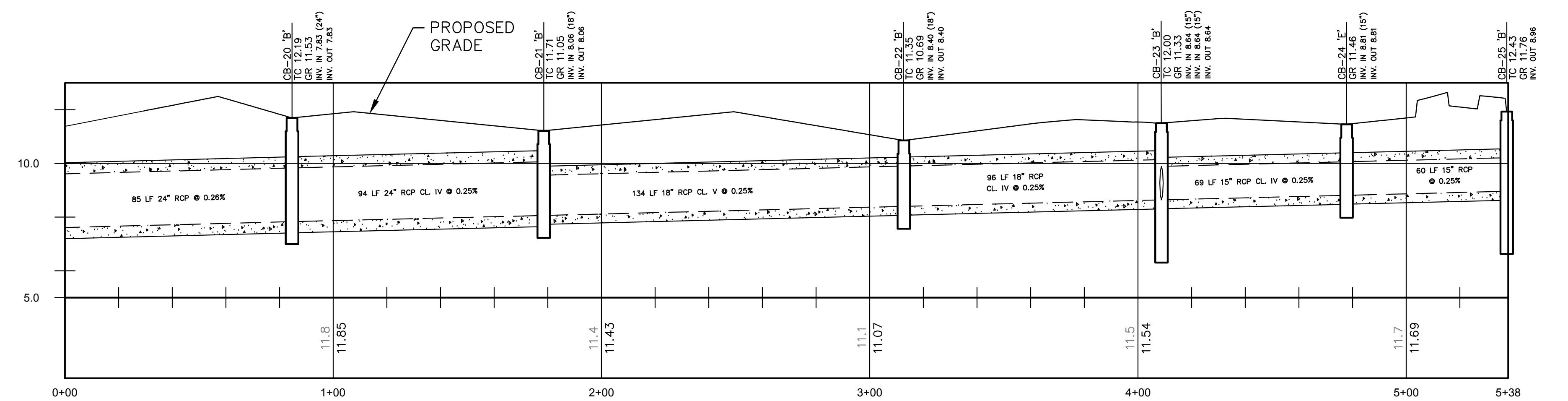
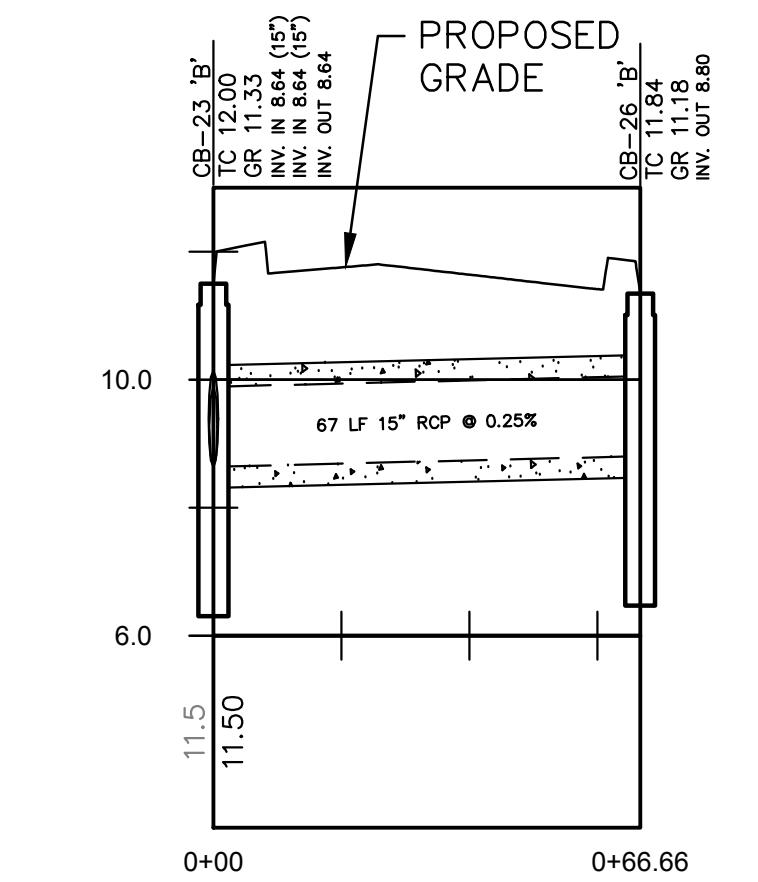
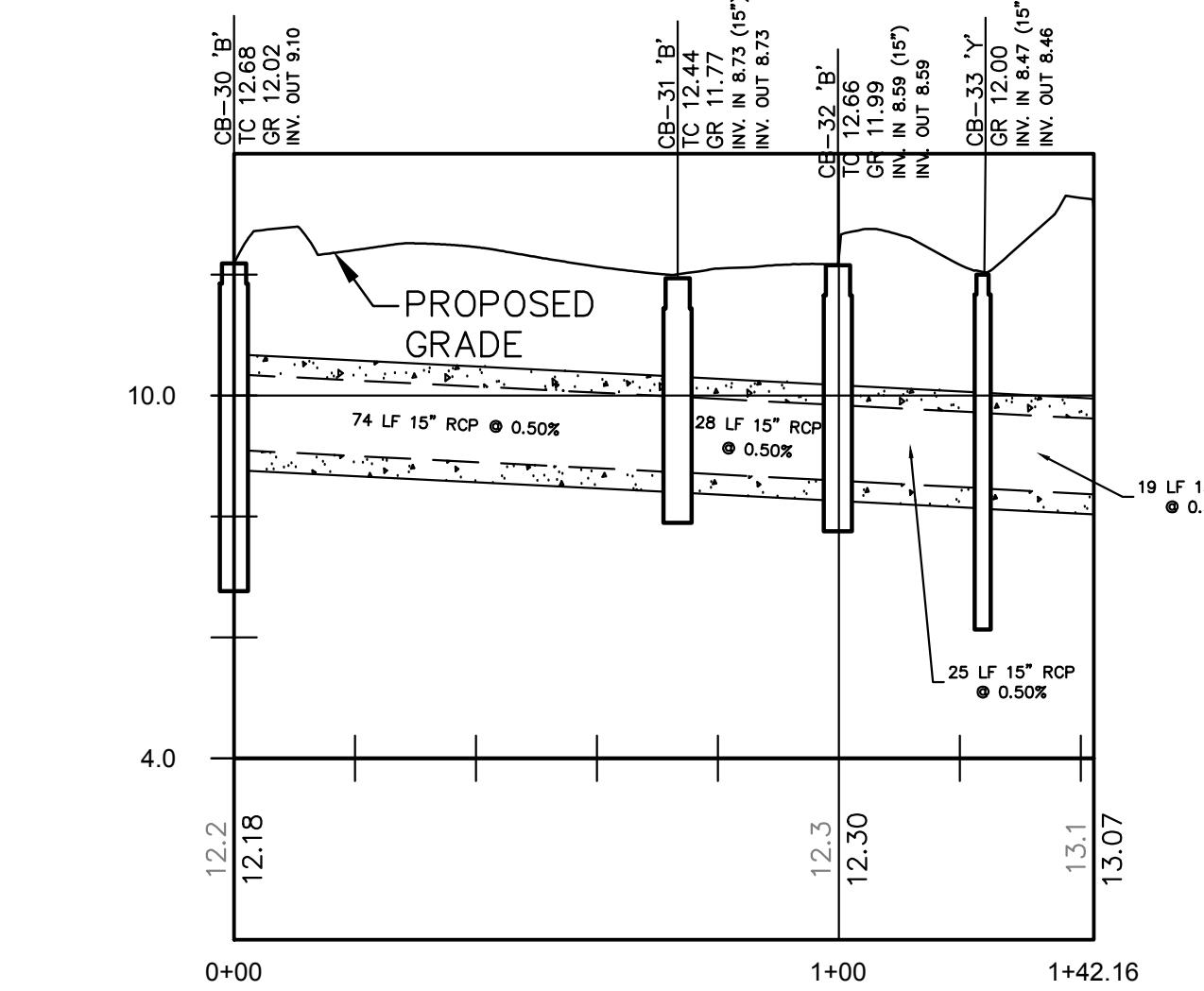
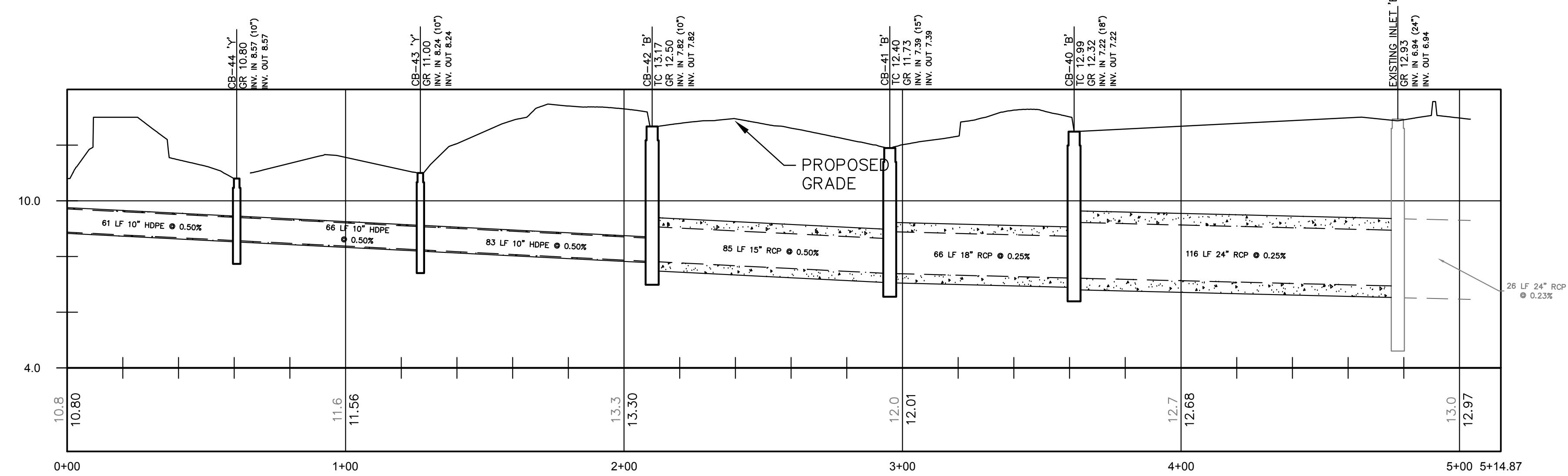
SANITARY SEWER LINE  
 SANITARY SEWER LINE  
 STORM SEWER LINE  
 STORM SEWER LINE  
 INLET  
 INLET  
 MANHOLE  
 SANITARY MANHOLE  
 SANITARY MANHOLE  
 SANITARY LATERAL  
 SANITARY CLEANOUT  
 WATER LINE  
 WATER LINE  
 HYDRANT  
 WATER HYDRANT  
 WATER METER  
 WATER LATERAL

Solid line  
 Dashed line  
 Solid line  
 Dashed line  
 Square  
 Rectangle  
 Circle with dot  
 Square  
 Rectangle  
 Circle with dot  
 S  
 S  
 S  
 co  
 W  
 W  
 Circle with cross  
 Square with cross  
 Circle with dot  
 W  
 HYD.  
 WM  
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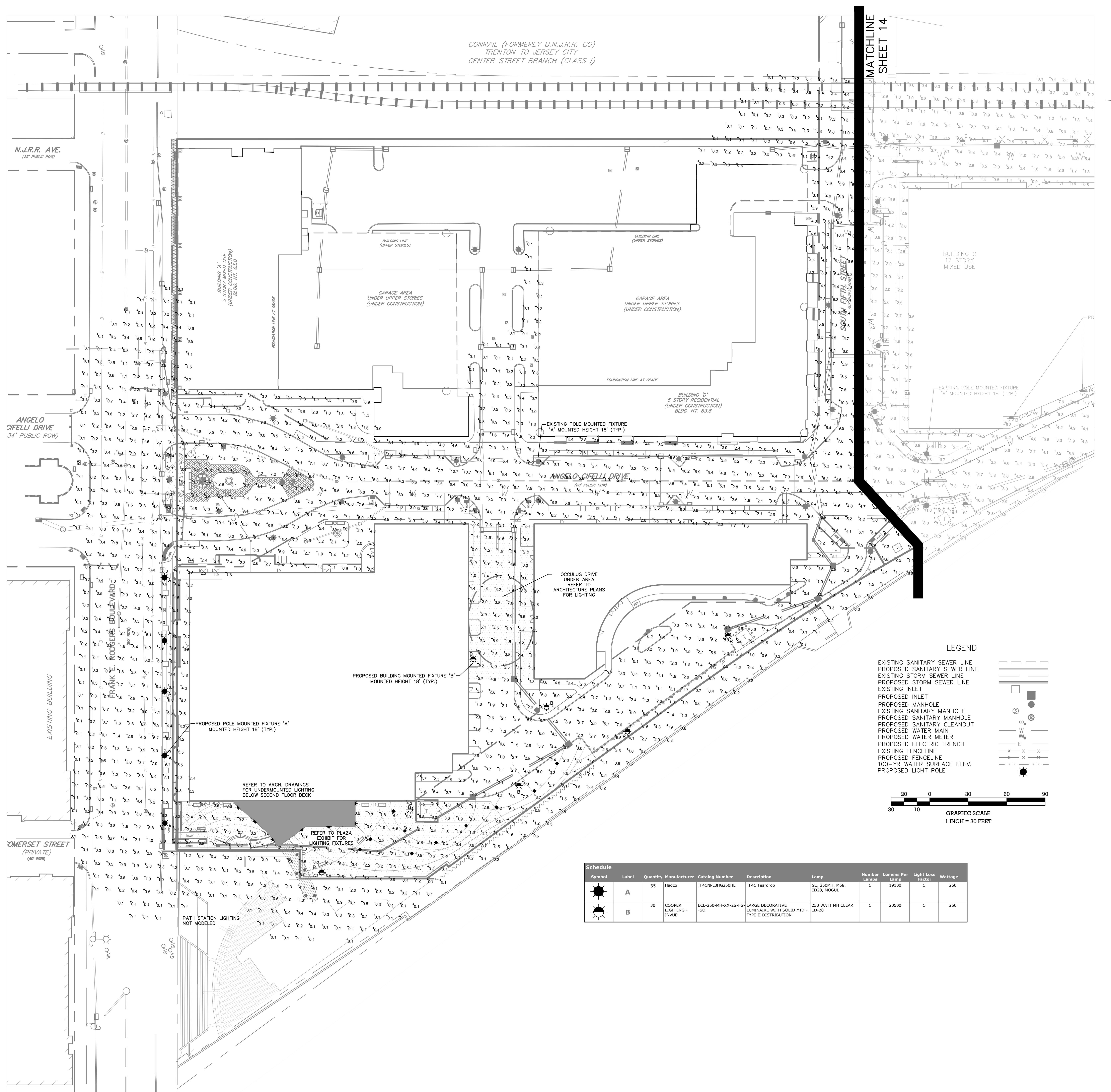
ED WATER LATERAL      W W W  
 ED GAS LINE      G G G  
 ED GAS LINE      G G G G  
 0      30      60      90  
 10  
 GRAPHIC SCALE

HARRISON YARDS - PHASE II  
BLOCK 133; LOT 1.03 & 1.05  
UTILITY PLAN

A vertical rectangular image featuring a topographic map background with numerous contour lines and a grid pattern. The map is oriented vertically, with the top edge showing a series of wavy, irregular lines representing elevation changes. The overall texture is grainy and has a light gray to white color scheme.



MID-Atlantic		AMENDED PRELIMINARY/FINAL MAJOR SITE PLAN		DRAWN BY: EMD		CHECKED BY: KES		RELEASED BY:	
		HARRISON YARDS - PHASE II		DATE: 09/26/19		HORIZONTAL SCALE: 1"=20'		VERTICAL SCALE: N/A	
		BLOCK 133, LOT 1.03 & 1.05		PROJECT NO: 191-20		REV. PER TOWN COMMENTS		WKS	
		PROFILES		EEO-191		REV. PER ARCHITECTURAL CHANGES		MGL	
		SITUATED IN		DRAFTED BY: Louis L. Wagner IV, P.E.		REV. PER ARCHITECTURAL CHANGES		LSR	
		TOWN OF HARRISON, HUDSON COUNTY, NEW JERSEY		DRAWING NAME: P-Grading.dwg		DATE: 12/05/19		DRAWN BY: REVISIONS	
				DRAWN BY: Louis L. Wagner IV, P.E.		CHECKED BY: William J. Packard P.E.		RELEASED BY: DR	
				DATE: 09/19/20		HORIZONTAL SCALE: 1"=20'		VERTICAL SCALE: N/A	
				PROJECT NO: 191-20		REV. PER TOWN COMMENTS		WKS	
				EEO-191		REV. PER ARCHITECTURAL CHANGES		MGL	
				DRAFTED BY: Louis L. Wagner IV, P.E.		REV. PER ARCHITECTURAL CHANGES		LSR	
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				DATE: 09/14/20		HORIZONTAL SCALE: 1"=20'		VERTICAL SCALE: N/A	
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				DATE: 09/12/20		HORIZONTAL SCALE: 1"=20'		VERTICAL SCALE: N/A	
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				DATE: 09/09/20		HORIZONTAL SCALE: 1"=20'		VERTICAL SCALE: N/A	
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				EEO-191		REV. PER ARCHITECTURAL CHANGES		MGL	
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				DRAFTED BY: Louis L. Wagner IV, P.E.		REV. PER ARCHITECTURAL CHANGES		LSR	
				DRAWING NAME: P-Grading.dwg		DATE: 12/05/19		DRAWN BY: CHECKED BY:	
				DRAWN BY: Louis L. Wagner IV, P.E.		CHECKED BY: William J. Packard P.E.		RELEASED BY: DR	
				DATE: 09/02/20		HORIZONTAL SCALE: 1"=20'		VERTICAL SCALE: N/A	



Schedule											
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage	
	A	35	Hadco	TF41NPL3HG250HE	TF41 Teardrop	GE, 250MH, M58, ED28, MOGUL	1	19100	1	250	
	B	30	COOPER LIGHTING - INVUE	ECL-250-MH-XX-2S-FG -SO	LARGE DECORATIVE LUMINAIRE WITH SOLID MID - TYPE II DISTRIBUTION	250 WATT MH CLEAR ED-28	1	20500	1	250	

## Lightin

Project site known and designated as Lot 1; Block 133 within the Town of Harrison, New Jersey as shown on the current tax assessment map - sheet 16, containing a total of 10.5 acres and is located entirely within the Mixed Use District of the Waterfront Redevelopment Plan. Property has since been subdivided but the tax map has not been officially updated.

Lot information and topography based upon survey entitled "ALTA/NSPS Land Title Survey, Lots 1.03, 1.04 & 1.05; Block 133, 600-798 Frank E. Rodgers Boulevard, situated in the Town of Harrison, Hudson County, New Jersey, revised 10/19/18" prepared by MidAtlantic Engineering Partners.

Site coordinates: 695,135' N, 588,069' E

Horizontal Datum: NAD 83      Vertical Datum: NAVD 88

The proposed light fixtures shall be installed with a mounting height of 18 ft. (fixture to grade), with a supporting pole that shall not exceed 20 feet in height.

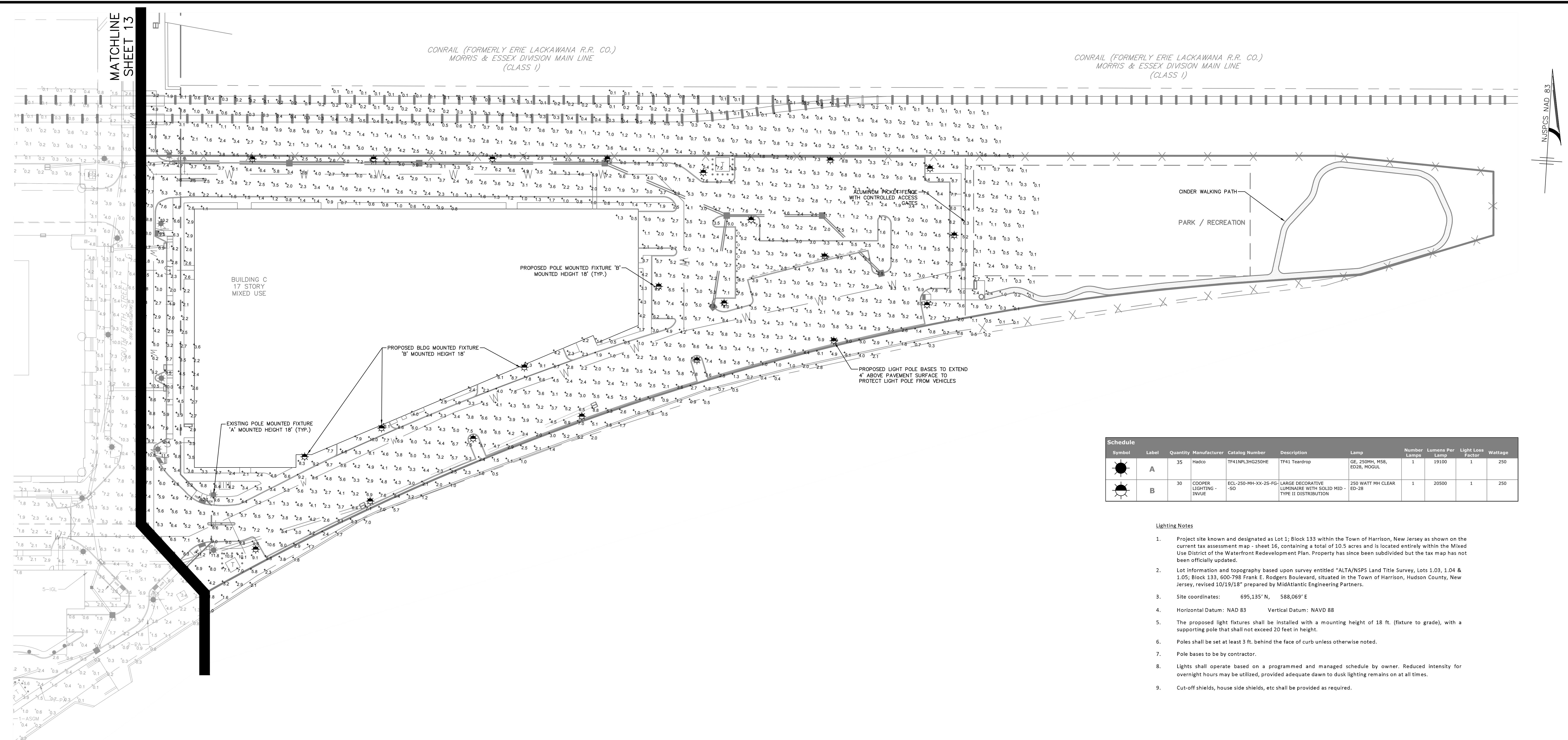
Poles shall be set at least 3 ft. behind the face of curb unless otherwise noted.

Pole bases to be by contractor.

Lights shall operate based on a programmed and managed schedule by owner. Reduced intensity for overnight hours may be utilized, provided adequate dawn to dusk lighting remains on at all times.

Cut-off shields, house side shields, etc shall be provided as required.

		AMENDED PRELIMINARY/FINAL MAJOR SITE PLAN			
		<b>HARRISON YARDS – PHASE II</b> <b>BLOCK 13; LOT 1.03 &amp; 1.05</b> <b>LIGHTING PLAN</b>			
<b>Louis L. Zuegner IV, P.E.</b> <b>Engineering Services, Inc.</b> <b>5/14/20</b> <b>Date</b>		<b>EMD</b> <b>KES</b> <b>DATE:</b> 09/26/19 <b>HORIZONTAL SCALE:</b> 1" = 30' <b>VERTICAL SCALE:</b> N/A			
<b>PROFESSIONAL ENGINEER</b> <b>N.J. Lic. No. GEO4226500</b>		<b>DRAWING NAME:</b> 06-L&L.dwg <b>REVISIONS</b> <b>DATE</b>			
<b>SITUATED IN</b> <b>TOWN OF HARRISON, HUDSON COUNTY, NEW JERSEY</b>		<b>DRAWN BY</b> CHECKED BY <b>12/05/19</b> REV. PER ARCHITECTURAL CHANGES <b>JSR</b> <b>LLZ</b> <b>04/14/20</b> REV. PER ARCHITECTURAL CHANGES <b>MGL</b> <b>LLZ</b> <b>05/19/20</b> REV. PER TOWN COMMENTS <b>WKS</b> <b>LLZ</b>			
<b>Certificate of Authorization No. 24A282400</b> <b>Louis L. Zuegner IV, P.E.</b> <b>Matthew J. Robinson P.E.</b> <b>William J. Parkhill P.E.</b> <b>609-910-4450</b>		<b>Gateway115Center</b> <b>5 Commerce Way, Suite 200</b> <b>Hamilton, NJ 08619</b> <b>609-910-4450</b>			



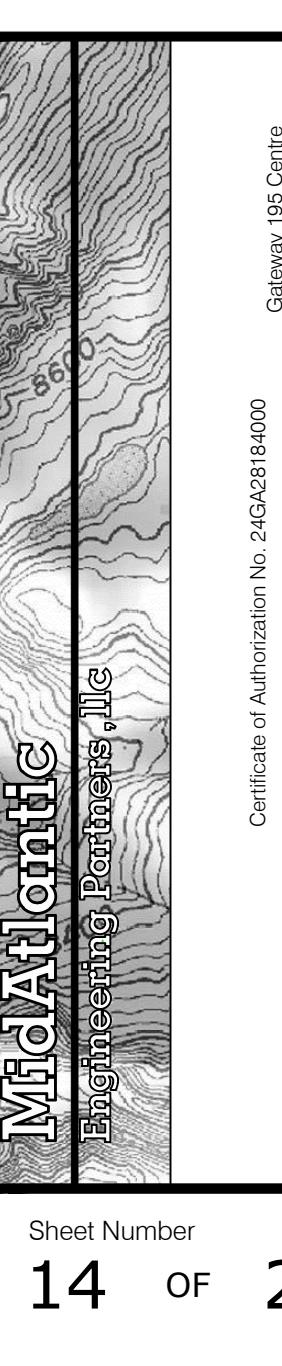
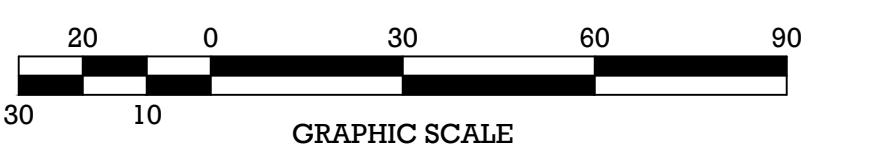
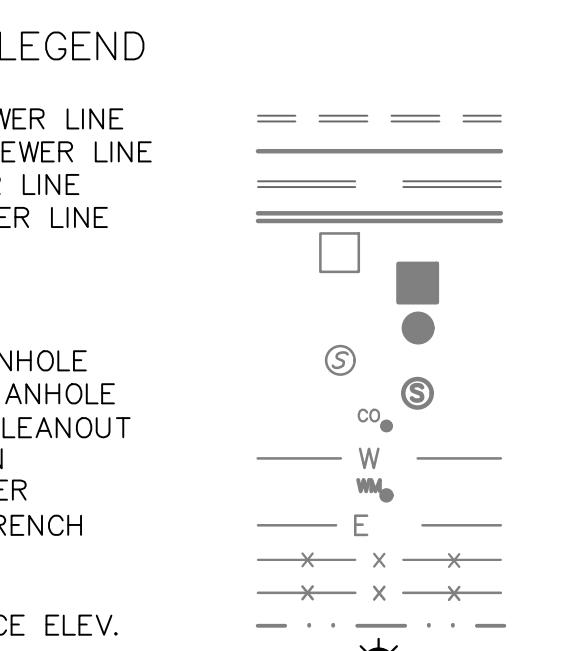
Schedule										
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number	Lumens Per Lamp	Light Loss Factor	Wattage
	A	35	Hado	TF41NP3H250HE	TF41 Teardrop	GE 250MH, MSB, ED28, MOGUL	1	19100	1	250
	B	30	COOPER LIGHTING - INVIE	ECL-250-MH-XX-2S-FG- -SO	LARGE DECORATIVE LUMINARIES WITH 2 SIDED HID TYPE II DISTRIBUTION	250 WATT MH CLEAR ED-28	1	20500	1	250

**Lighting Notes**

- Project site known and designated as Lot 1, Block 133 within the Town of Harrison, New Jersey as shown on the current tax assessment map - sheet 16, containing a total of 10.5 acres and is located entirely within the Mixed Use District of the Waterfront Redevelopment Plan. Property has since been subdivided but the tax map has not been officially updated.
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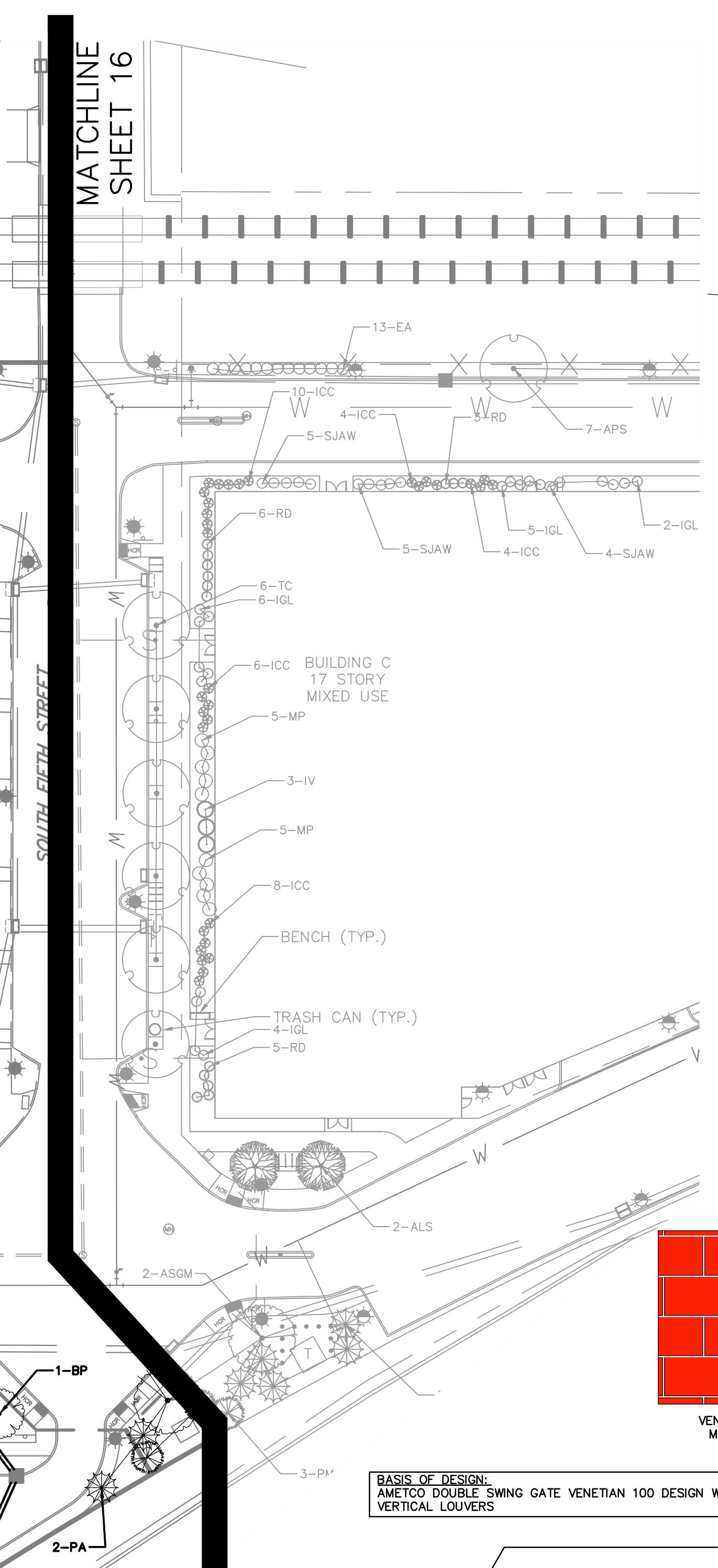
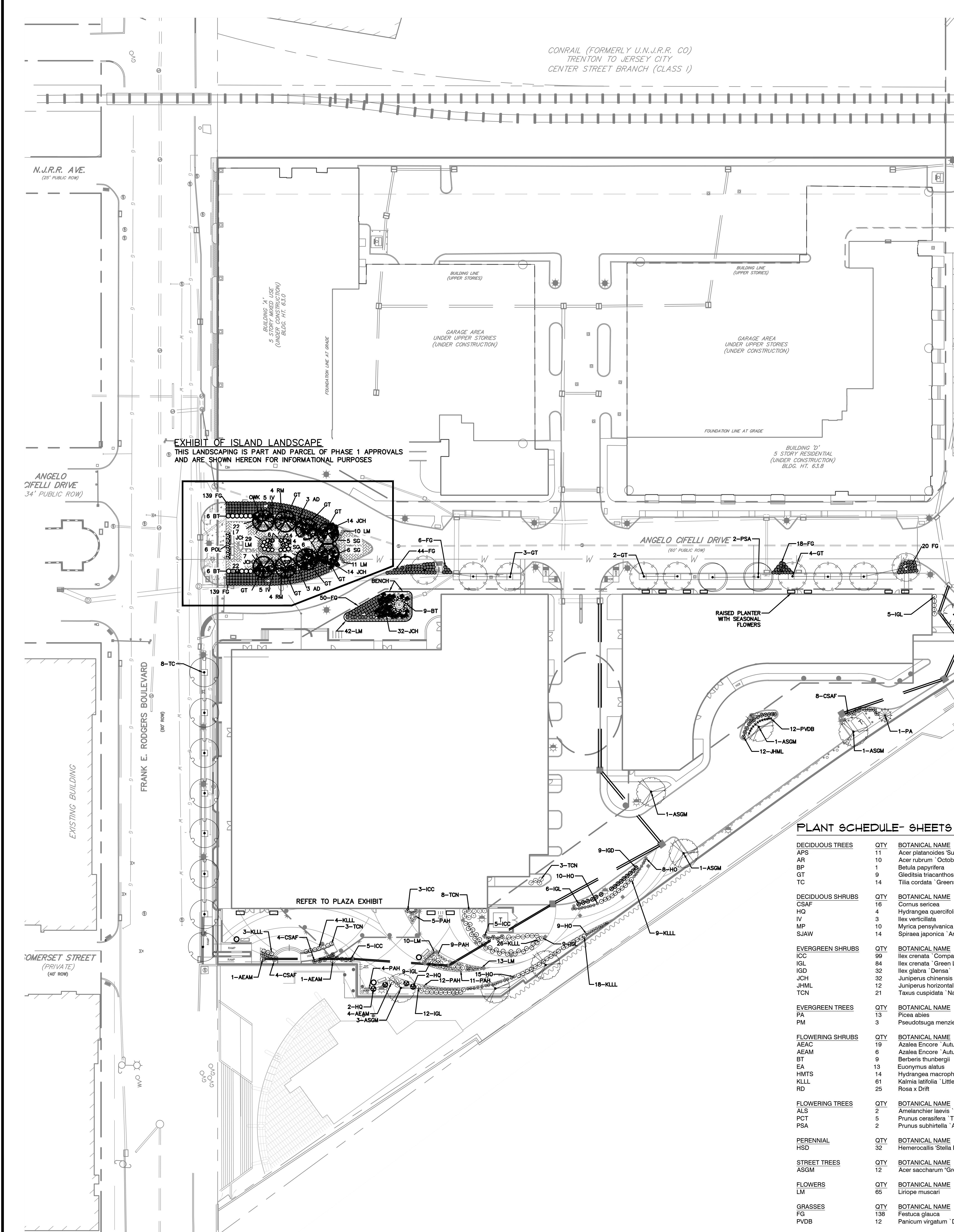
**AMENDED PRELIMINARY/FINAL MAJOR SITE PLAN  
HARRISON YARDS - PHASE II  
BLOCK 133; LOT 1.03 & 1.05  
LIGHTING PLAN**

SITUATED IN  
TOWN OF HARRISON, HUDSON COUNTY, NEW JERSEY



Certificate of Authorization No. 26G02816400  
Gateway 195 Center  
Compton Way Suite 200  
609-910-4450  
Local Legend P.E. P.E. No. GEG02500  
William J. Pachall P.E. P.E. No. GEG01753800  
William J. Pachall P.E. P.E. No. GEG01753800

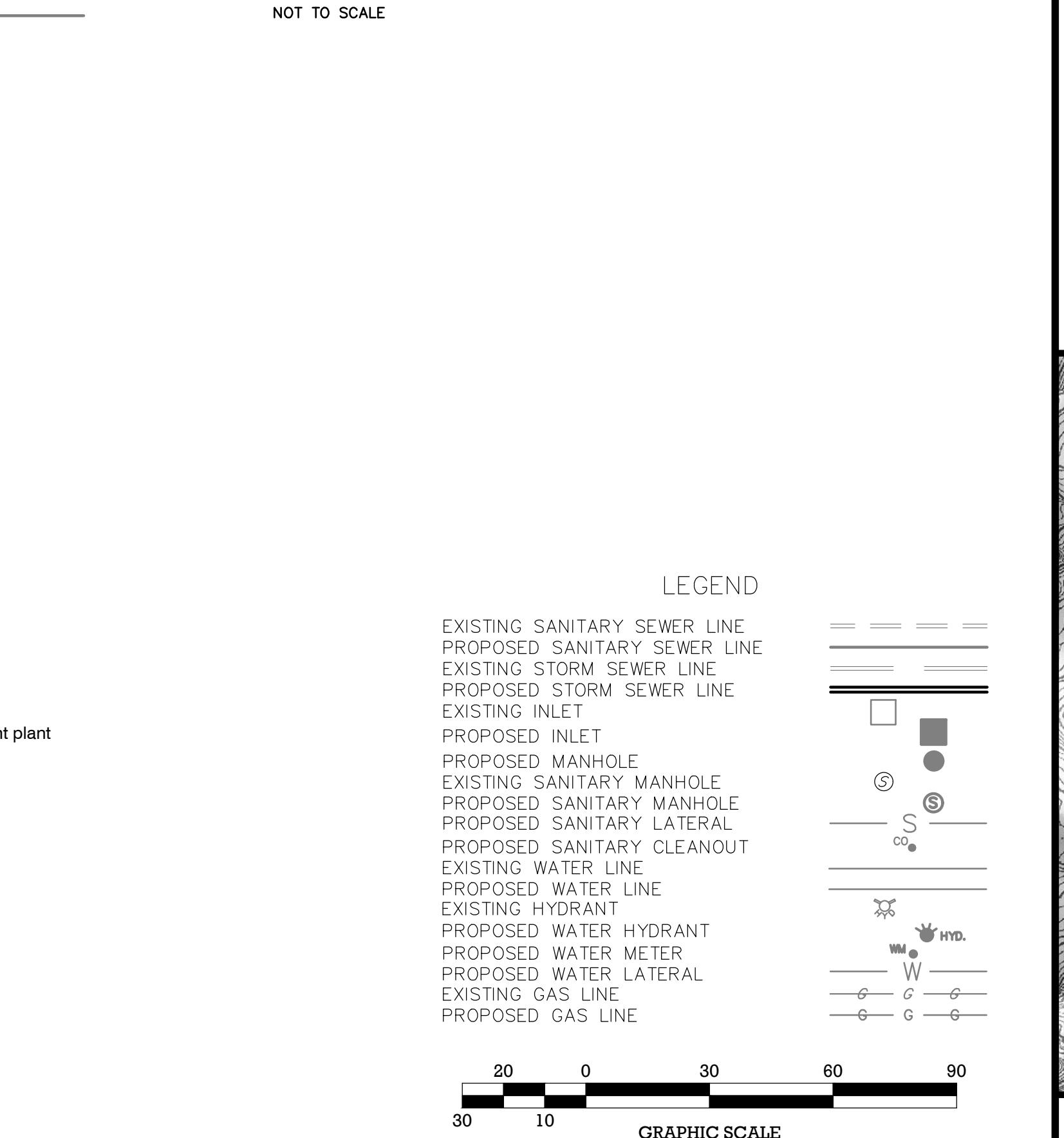
Sheet Number  
14 OF 21



## PLANT SCHEDULE- SHEETS 14 & 15 (INCLUDES PLAZA AREA)

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
APS	11	Acer platanoides 'Summershade'	Summershade Maple	3-31/2" cal.	B&B	Mature Ht. = 50 ft.
AR	10	Acer rubrum 'October Glory' TM	October Glory Maple	3-31/2" cal.	B&B	Mature ht. 40-50'
BP	1	Betula papyrifera	Paper Birch	21/2-3" cal.	B&B	
GT	9	Gleditsia triacanthos inermis 'Halka'	Halka Thornless Honey Locust	3-31/2" cal.	B&B	
TC	14	Tilia cordata 'Greenspire'	Greenspire Littleleaf Linden	3-31/2" cal.	B&B	
DECIDUOUS SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
CSAF	16	Cornus sericea	Arctic Fire Red Twig Dogwood	18-24" HT.	B&B	Drought tolerant plant
HQ	4	Hydrangea quercifolia 'Pee Wee'	Pee Wee Oakleaf Hydrangea	18-24" HT.		
IV	3	Ilex verticillata	Winterberry Holly	5-6` HT	B&B	
MP	10	Myrica pensylvanica	Northern Bayberry	3-4" ht.	B&B	
SJAW	14	Spiraea japonica 'Anthony Waterer'	Japanese Spirea	24-30"	B&B	
EVERGREEN SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
ICC	99	Ilex crenata 'Compacta'	Dwarf Japanese Holly	24-30"	B&B	
IGL	84	Ilex crenata 'Green Lustre'	Green Luster Japanese Holly	18-24" HT.	B&B	Drought tolerant plant
IGD	32	Ilex glabra 'Densa'	Inkberry Holly	24-30"	B&B	Mature ht. of 8`
JCH	32	Juniperus chinensis horizontalis	Horizontal Juniper	18-24"	B&B	
JHML	12	Juniperus horizontalis 'Mother Lode'	Creeping Juniper	15-18"	B&B	
TCN	21	Taxus cuspidata 'Nana'	Dwarf Japanese Yew	18-24" HT.	B&B	
EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
PA	13	Picea abies	Norway Spruce	6-7` HT.	B&B	
PM	3	Pseudotsuga menziesii	Douglas Fir	7-8` HT.	B&B	
FLOWERING SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
AEAC	19	Azalea Encore 'Autumn Coral' TM	Autumn Coral Azalea	18-24" HT.	B&B	
AEAM	6	Azalea Encore 'Autumn Moonlight' TM	Encore Azalea	18-24" HT.	B&B	
BT	9	Berberis thunbergii	Japanese Barberry	18-24" HT.	B&B	
EA	13	Euonymus alatus	Burning Bush	18-24" HT.	B&B	
HMTS	14	Hydrangea macrophylla 'Twist-n-Shout'	Twist-n-Shout Hydrangea	24-30"	B&B	
KLLL	61	Kalmia latifolia 'Little Linda'	Miniature Pink Mountain Laurel	18-24" HT.	B&B	
RD	25	Rosa x Drift	Pink Drift Rose	18-24" HT.	B&B	Drought and heat tolerant pl
FLOWERING TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
ALS	2	Amelanchier laevis 'Snowcloud'	Snowcloud Allegheny Serviceberry	2-21/2" cal.	B&B	
PCT	5	Prunus cerasifera 'Thundercloud'	Thundercloud Plum	7-8" HT.	B&B	
PSA	2	Prunus subhirtella 'Autumnalis'	Autumn Flowering Cherry	8-10` HT.	B&B	
PERENNIAL	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
HSD	32	Hemerocallis 'Stella D'Oro'	Stella D'Oro Daylily	1 gal.	Pot	Mature ht. 3-4`
STREET TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
ASGM	12	Acer saccharum "Green Mountain"	Green Mountain Sugar Maple	21/2-3" cal.	B&B	
FLOWERS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
LM	65	Liriope muscari	Lily Turf	1 gal.	Pot	
GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
FG	138	Festuca glauca	Blue Fescue	2 ga.	Pot	
PVDB	12	Panicum virgatum 'Dallas Blues' TM	Dallas Blues Switch Grass	1 gal.	Pot	
ANNUALS/PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
HO	42	Hosta x 'Night Before Christmas'	Plantain Lily	1 gal.	Pot	Mature ht. 2`
PAH	41	Pennisetum alopecuroides 'Hameln'	Hameln Dwarf Fountain Grass	1 gal.	Pot	Drought tolerant plant

## TRANSFORMER ENCLOSURE DETAIL



## Planting Notes

1. The contractor shall be responsible for planting at correct grades and alignment. Layout to be approved by owner's representative prior to installation.
2. Plants shall be typical of their species and variety; have normal growth habits; well-developed branches, densely foliated, vigorous root systems and be free from defects and injuries.
3. All plant material shall be guaranteed by the contractor to be in vigorous growing condition. Provision shall be made for a growth guarantee of at least two years from the date of final approval by the township. Replacements shall be made at the beginning of the first succeeding planting season. All replacements shall have a guaranteed equal to that stated above.
4. Insofar as it is practicable, plant material shall be planted on the day of delivery. In the event this is not possible, the contractor shall protect stock not planted. Plants shall not remain unplanted for longer than a three day period after delivery.
5. Quality and size of plants, spread of roots, and size of balls shall be in accordance with ANSI z60.1 (rev. 2001) "American Standard for Nursery Stock" as published by the American Nursery and Landscape Association.
6. All plants shall be planted in amended top soil that is thoroughly watered and tamped as back filling progresses. Planting mix to be as shown on planting details. Large planting areas to incorporate fertilizer and soil conditioners as stated in planting specifications.
7. Plants shall not be bound with wire or rope at any time so as to damage the bark or break branches. Plants shall be handled from the bottom of the ball only.
8. Planting operations shall be performed during periods within the planting season when weather and soil conditions are suitable and in accordance with accepted local practice. Plants shall not be installed in topsoil that is in a muddy or frozen condition. All plant material shall be sprayed with 'wilt-pruf' or equal as per manufacturer's instructions.
9. Set all plants plumb and straight. Set at such level that a normal or natural relationship to the crown of the plant with the ground surface will be established. Locate plant in the center of the pit.
10. All injured roots shall be pruned to make clean ends before planting utilizing clean, sharp tools. It is advisable to prune approximately 1/3 of the growth of large trees (2" caliper and over) by the removal of superfluous branches, those which cross, those which run parallel, etc. Main leader of trees will not be cut back. Long side branches, however, must be shortened.
11. Each tree and shrub shall be pruned in accordance with standard horticultural practice to preserve natural character of plant. Pruning shall be done with clean, sharp tools.
12. All planting beds shall be mulched with 3" layer of double shredded hardwood bark mulch.
13. New planting areas and sod shall be adequately irrigated or watered to establish the proposed plants and lawn.
14. Alternative forms of plantings or similar species may be substituted where availability is limited, with prior approval.

DRAWN BY: EMD	CHECKED BY: KES	RELEASED BY:	
DATE: 09/26/19	HORIZONTAL SCALE: 1"=30'	VERTICAL SCALE: N/A	
PROJECT No.:: EEQ-191			
DRAWING NAME: 06-L&L.dwg			
DATE	REVISIONS	DRAWN BY	CHECKED BY
05/19/20	REV. PER TOWN COMMENTS	WKS	LLZ
04/14/20	REV. PER ARCHITECTURAL CHANGES	MGL	LLZ
12/05/19	REV. PER ARCHITECTURAL CHANGES	JSR	LLZ

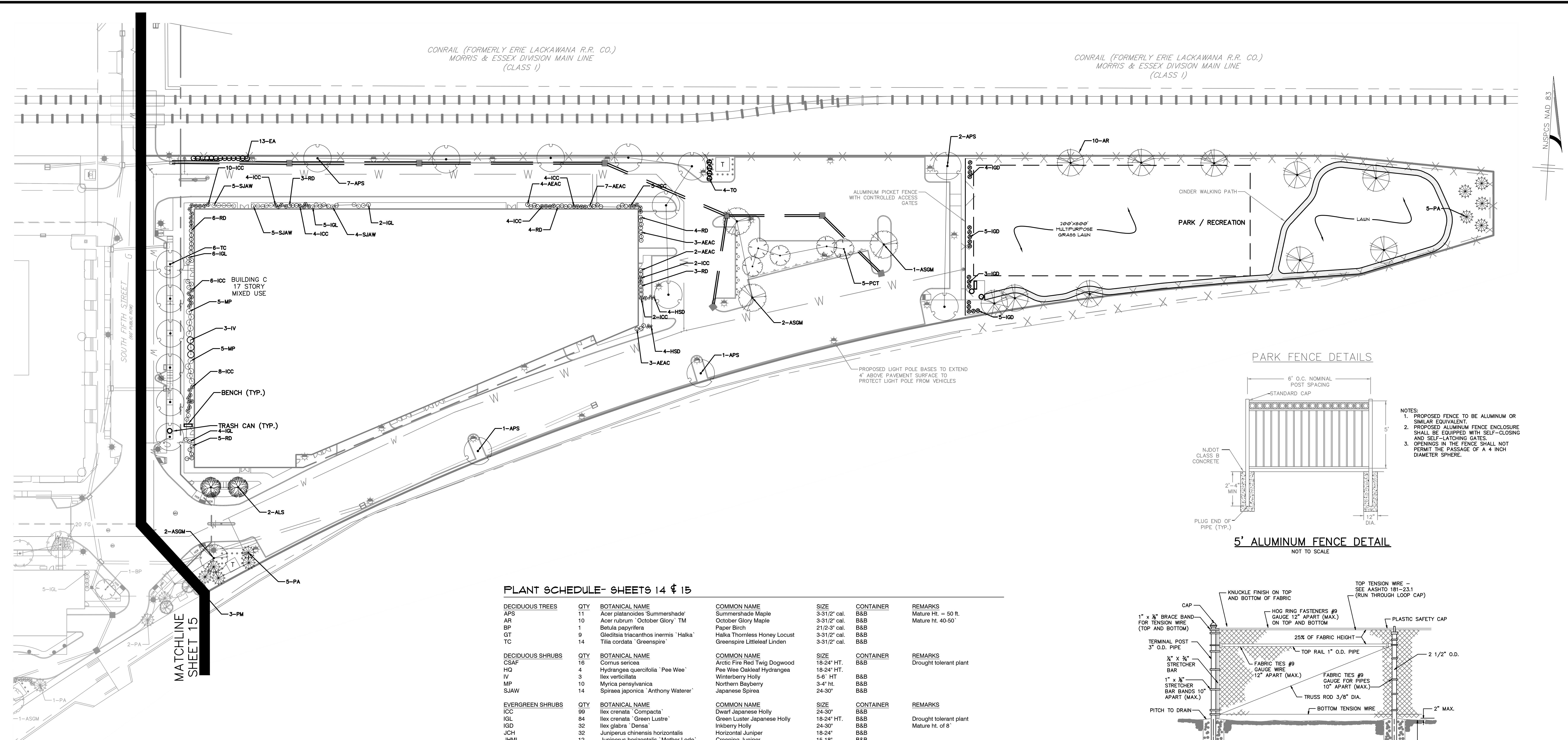
*LJZ* 5/19/20  
Date

**Louis L. Zuegner IV, P.E.**

PROFESSIONAL ENGINEER  
N.J. Lic. No. GE04226500

AMENDED PRELIMINARY/FINAL MAJOR SITE PLAN  
HARRISON YARDS – PHASE II  
BLOCK 133; LOT 1.03 & 1.05

A topographic map with contour lines. A vertical line is drawn across the map, labeled '8600' at the top. Overlaid on the map is the logo for 'MidAtlantic Engineering Partners, LLC', which consists of the company name in a stylized, blocky font.

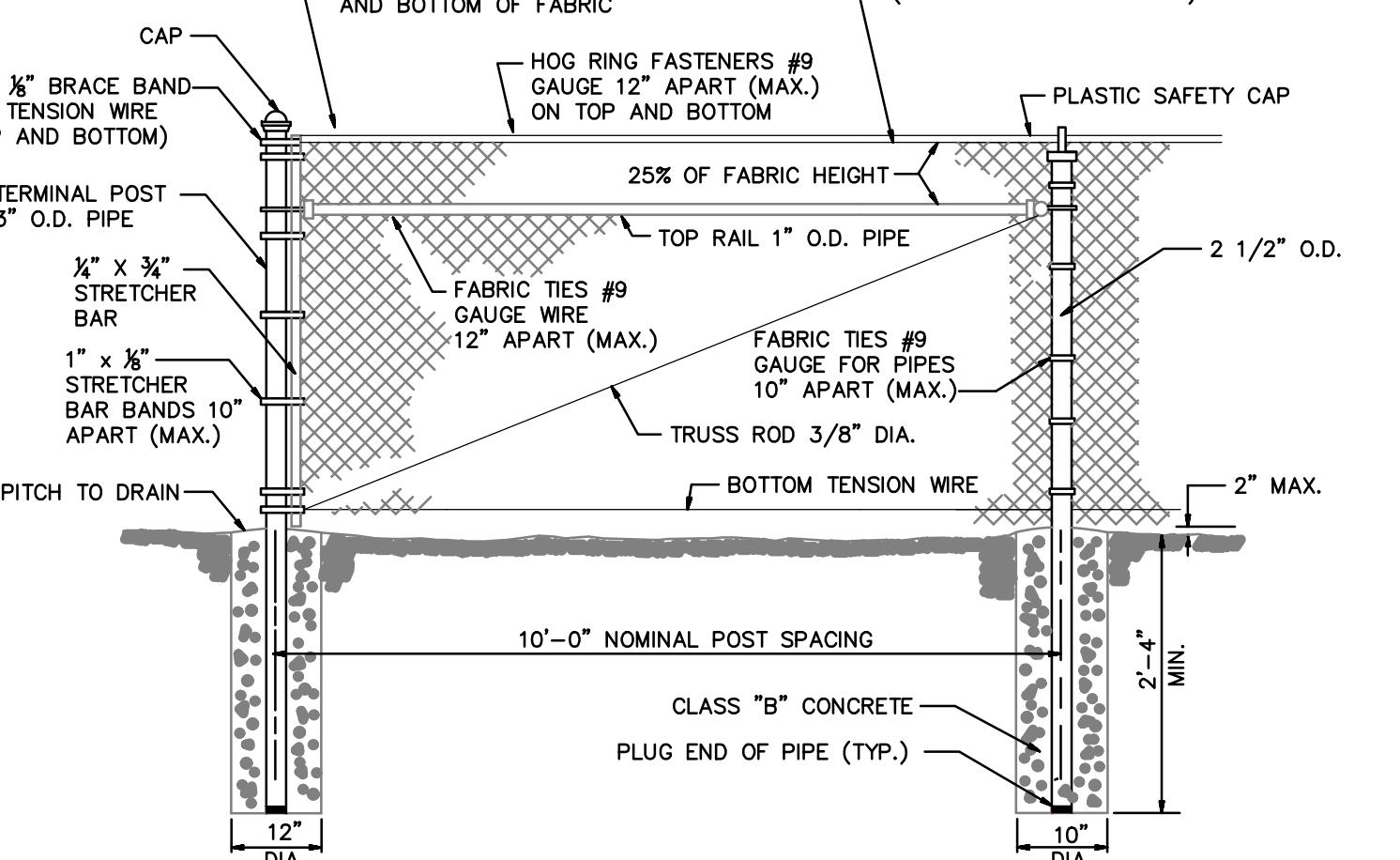
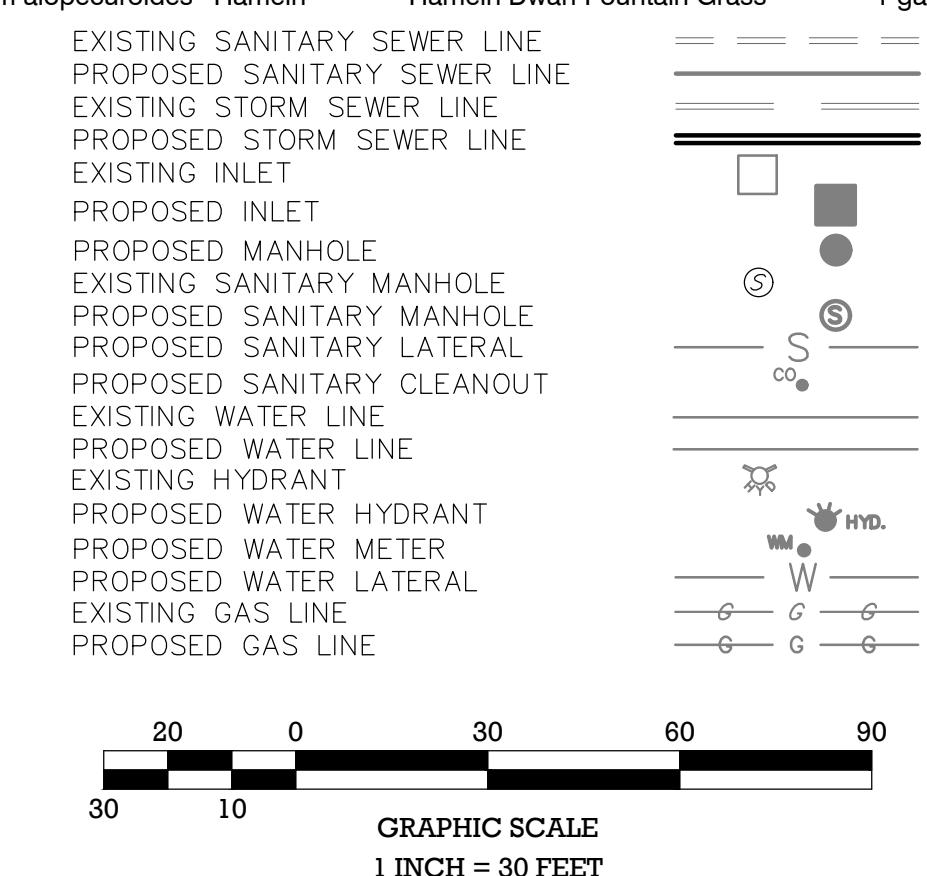


## PLANT SCHEDULE- SHEETS 14 & 15

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
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BP	1	Betula papyrifera	Paper Birch	21/2-3" cal.	B&B	
GT	9	Gleditsia triacanthos inermis 'Halka'	Halka Thornless Honey Locust	3-31/2" cal.	B&B	
TC	14	Tilia cordata 'Greenspire'	Greenspire Littleleaf Linden	3-31/2" cal.	B&B	
DECIDUOUS SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
CSAF	16	Cornus sericea	Arctic Fire Red Twig Dogwood	18-24" HT.	B&B	Drought tolerant plant
HQ	4	Hydrangea quercifolia 'Pee Wee'	Pee Wee Oakleaf Hydrangea	18-24" HT.		
IV	3	Ilex verticillata	Winterberry Holly	5-6` HT	B&B	
MP	10	Myrica pensylvanica	Northern Bayberry	3-4" ht.	B&B	
SJAW	14	Spiraea japonica 'Anthony Waterer'	Japanese Spirea	24-30"	B&B	
EVERGREEN SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
ICC	99	Ilex crenata 'Compacta'	Dwarf Japanese Holly	24-30"	B&B	
IGL	84	Ilex crenata 'Green Lustre'	Green Luster Japanese Holly	18-24" HT.	B&B	Drought tolerant plant
IGD	32	Ilex glabra 'Densa'	Inkberry Holly	24-30"	B&B	Mature ht. of 8`
JCH	32	Juniperus chinensis horizontalis	Horizontal Juniper	18-24"	B&B	
JHML	12	Juniperus horizontalis 'Mother Lode'	Creeping Juniper	15-18"	B&B	
TCN	21	Taxus cuspidata 'Nana'	Dwarf Japanese Yew	18-24" HT.	B&B	
EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
PA	13	Picea abies	Norway Spruce	6-7` HT.	B&B	
PM	3	Pseudotsuga menziesii	Douglas Fir	7-8` HT.	B&B	
FLOWERING SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
AEAC	19	Azalea Encore 'Autumn Coral' TM	Autumn Coral Azalea	18-24" HT.	B&B	
AEAM	6	Azalea Encore 'Autumn Moonlight' TM	Encore Azalea	18-24" HT.	B&B	
BT	9	Berberis thunbergii	Japanese Barberry	18-24" HT.	B&B	
EA	13	Euonymus alatus	Burning Bush	18-24" HT.	B&B	
HMTS	14	Hydrangea macrophylla 'Twist-n-Shout'	Twist-n-Shout Hydrangea	24-30"	B&B	
KLLL	61	Kalmia latifolia 'Little Linda'	Miniature Pink Mountain Laurel	18-24" HT.	B&B	
RD	25	Rosa x Drift	Pink Drift Rose	18-24" HT.	B&B	Drought and heat tolerant plant
FLOWERING TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
ALS	2	Amelanchier laevis 'Snowcloud'	Snowcloud Allegheny Serviceberry	2-21/2" cal.	B&B	
PCT	5	Prunus cerasifera 'Thundercloud'	Thundercloud Plum	7-8" HT.	B&B	
PSA	2	Prunus subhirtella 'Autumnalis'	Autumn Flowering Cherry	8-10` HT.	B&B	
PERENNIAL	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
HSD	32	Hemerocallis 'Stella D'Oro'	Stella D'Oro Daylily	1 gal.	Pot	Mature ht. 3-4`
STREET TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
ASGM	12	Acer saccharum "Green Mountain"	Green Mountain Sugar Maple	21/2-3" cal.	B&B	
FLOWERS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
LM	65	Liriope muscari	Lily Turf	1 gal.	Pot	
GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
FG	138	Festuca glauca	Blue Fescue	2 ga.	Pot	
PVDB	12	Panicum virgatum 'Dallas Blues' TM	Dallas Blues Switch Grass	1 gal.	Pot	
ANNUALS/PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
HO	42	Hosta x 'Night Before Christmas'	Plantain Lily	1 gal.	Pot	Mature ht. 2`
PAH	41	Pennisetum alopecuroides 'Hameln'	Hameln Dwarf Fountain Grass	1 gal.	Pot	Drought tolerant plant

## Planting Notes

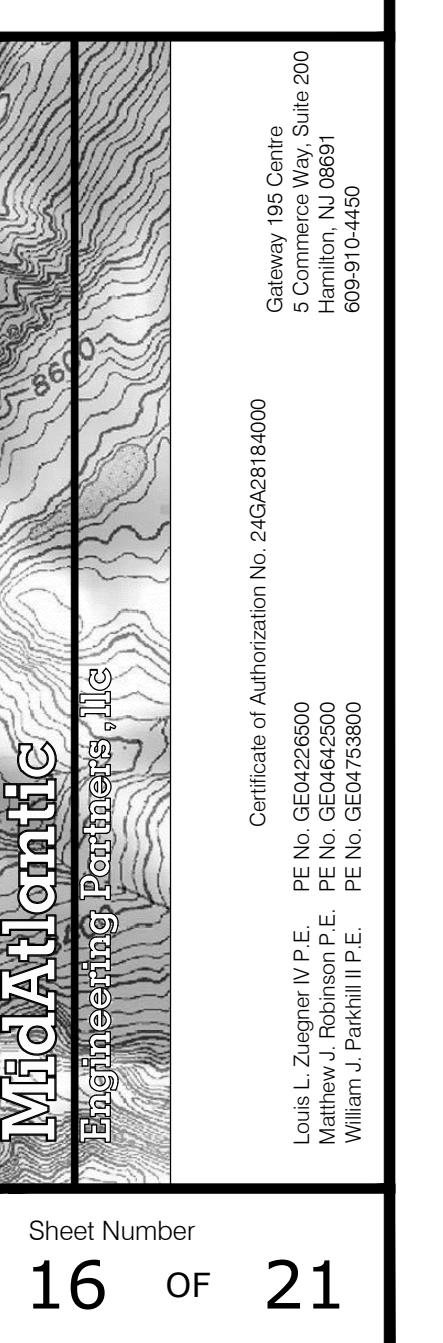
1. The contractor shall be responsible for planting at correct grades and alignment. Layout to be approved by owner's representative prior to installation.
2. Plants shall be typical of their species and variety; have normal growth habits; well-developed branches densely foliated, vigorous root systems and be free from defects and injuries.
3. All plant material shall be guaranteed by the contractor to be in vigorous growing condition. Provision shall be made for a growth guarantee of at least two years from the date of final approval by the township. Replacements shall be made at the beginning of the first succeeding planting season. All replacements shall have a guaranteed equal to that stated above.
4. Insofar as it is practicable, plant material shall be planted on the day of delivery. In the event this is not possible, the contractor shall protect stock not planted. Plants shall not remain unplanted for longer than a three day period after delivery.
5. Quality and size of plants, spread of roots, and size of balls shall be in accordance with ANSI z60.1 (rev. 2001) "American Standard for Nursery Stock" as published by the American Nursery and Landscape Association.
6. All plants shall be planted in amended top soil that is thoroughly watered and tamped as back filling progresses. Planting mix to be as shown on planting details. Large planting areas to incorporate fertilizer and soil conditioners as stated in planting specifications.
7. Plants shall not be bound with wire or rope at any time so as to damage the bark or break branches. Plants shall be handled from the bottom of the ball only.
8. Planting operations shall be performed during periods within the planting season when weather and soil conditions are suitable and in accordance with accepted local practice. Plants shall not be installed in topsoil that is in a muddy or frozen condition. All plant material shall be sprayed with 'wilt-pruf' or equal as per manufacturer's instructions.
9. Set all plants plumb and straight. Set at such level that a normal or natural relationship to the crown of the plant with the ground surface will be established. Locate plant in the center of the pit.
10. All injured roots shall be pruned to make clean ends before planting utilizing clean, sharp tools. It is advisable to prune approximately 1/3 of the growth of large trees (2" caliper and over) by the removal of superfluous branches, those which cross, those which run parallel, etc. Main leader of trees will not be cut back. Long side branches, however, must be shortened.
11. Each tree and shrub shall be pruned in accordance with standard horticultural practice to preserve natural character of plant. Pruning shall be done with clean, sharp tools.
12. All planting beds shall be mulched with 3" layer of double shredded hardwood bark mulch.
13. New planting areas and sod shall be adequately irrigated or watered to establish the proposed plants and lawn.
14. Alternative forms of plantings or similar species may be substituted where availability is limited, with prior approval.



## CHAIN-LINK FENCE

ENCING DESIGN TO BE BASED ON USE OF FIELDS. ABOVE DETAILS REFLECT FOR WHOLE OR PART.

MINIMUM, DECORATIVE FENCING TO FACE PARKING ALONG WESTERN EDGE.  
MAINDER OF FENCE ENCLOSURE TO BE CHAIN LINK OR DECORATIVE BUT TO  
COMPLETE ENCLOSURE.  
ERE EXISTING FENCING SITS ALONG PROPERTY LINE OR ON PROPERTY AND  
IN FEASIBLE, THEN EXISTING FENCE SHOULD BE ASSESSED FOR QUALITY  
D INTEGRITY. EXISTING FENCE MAY BE REUSED OR REPAIRED AT  
CRETION OF TOWN ENGINEER.

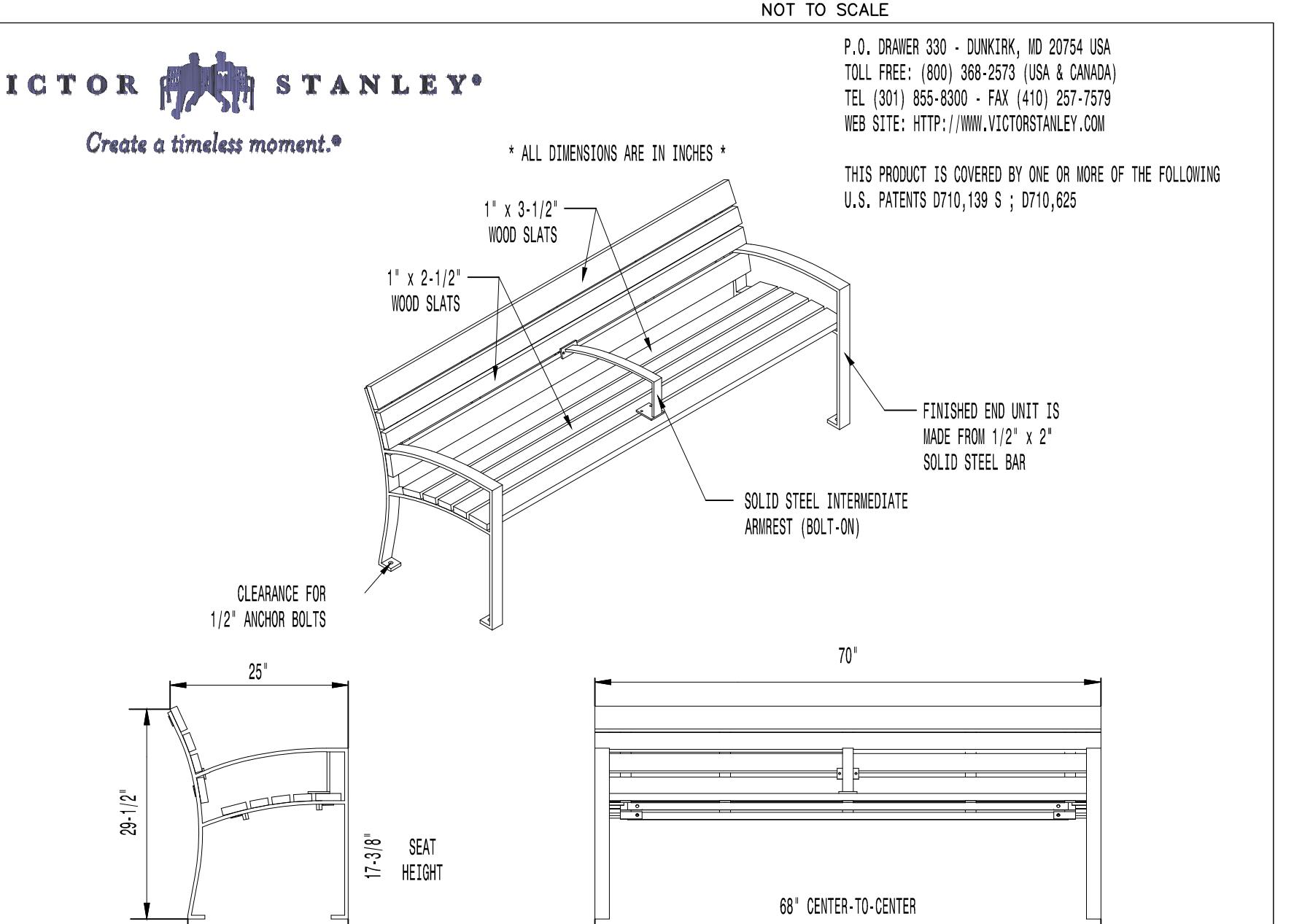
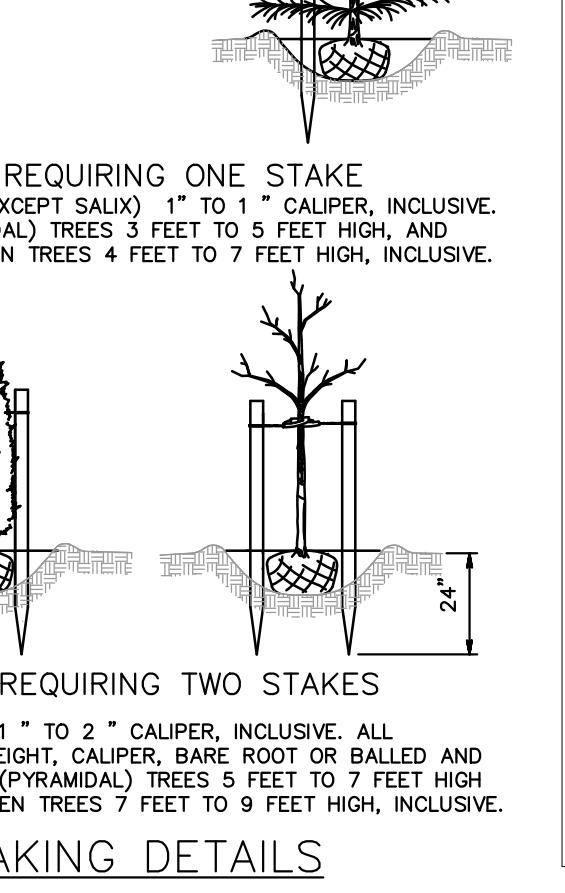
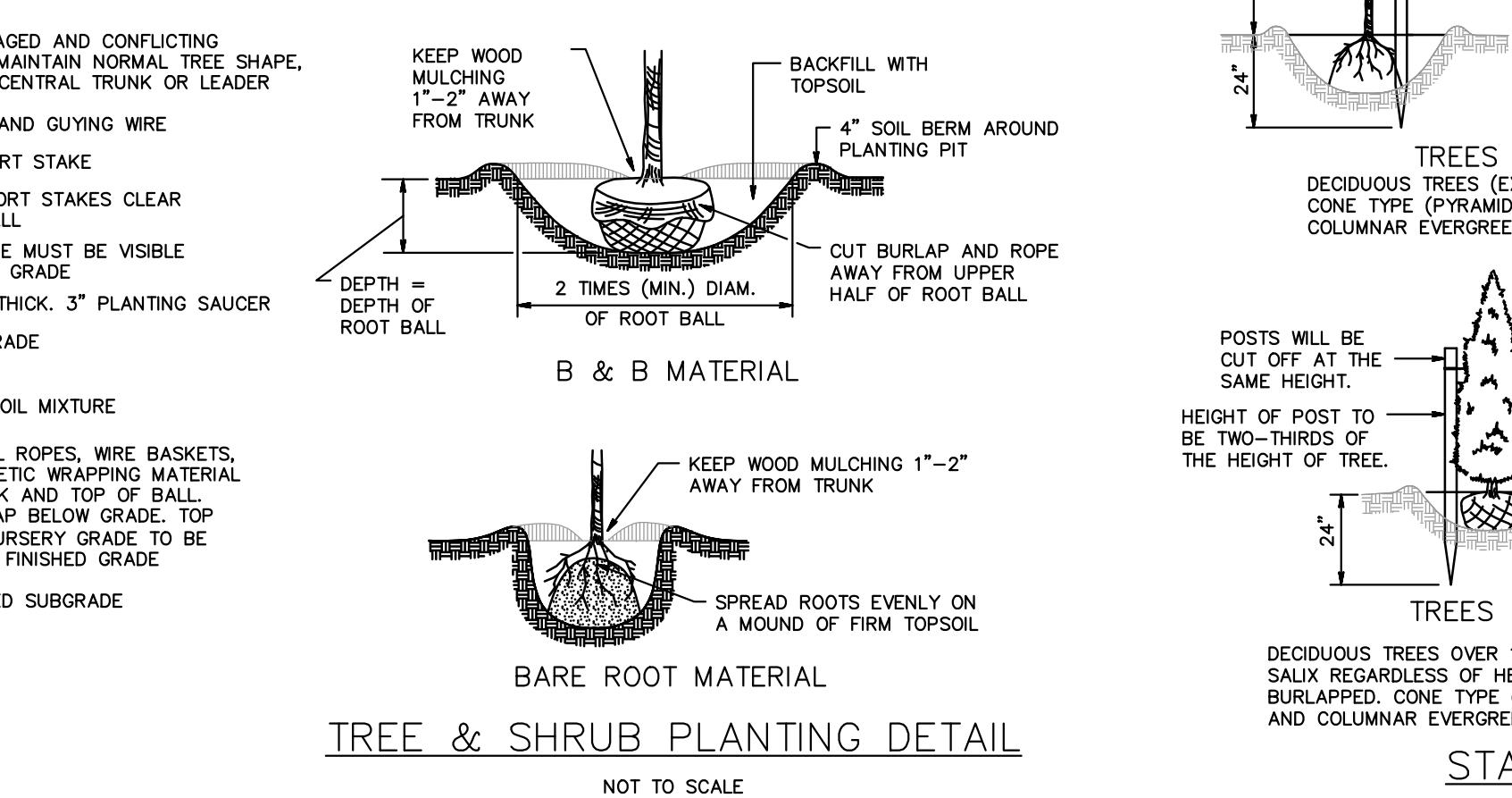
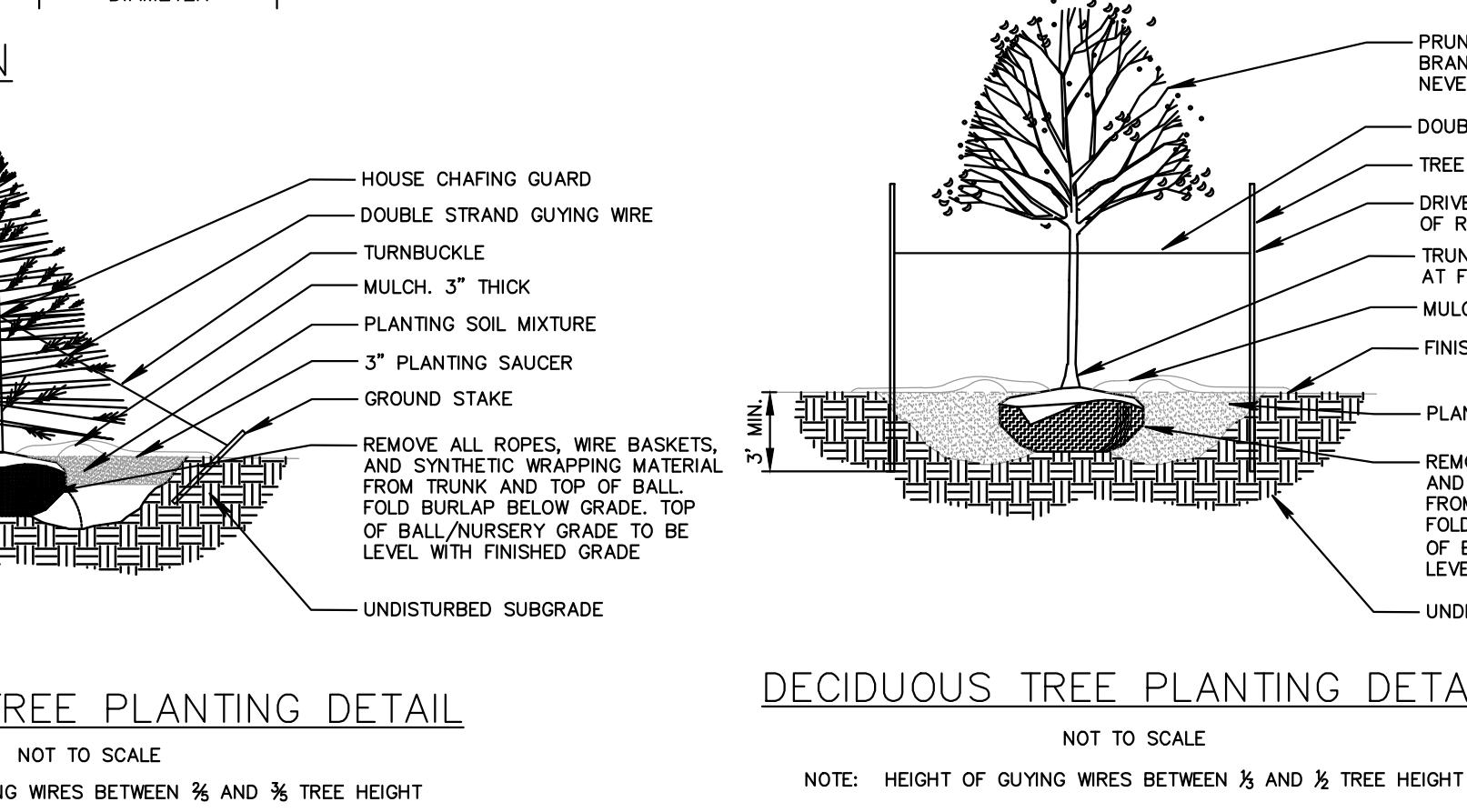
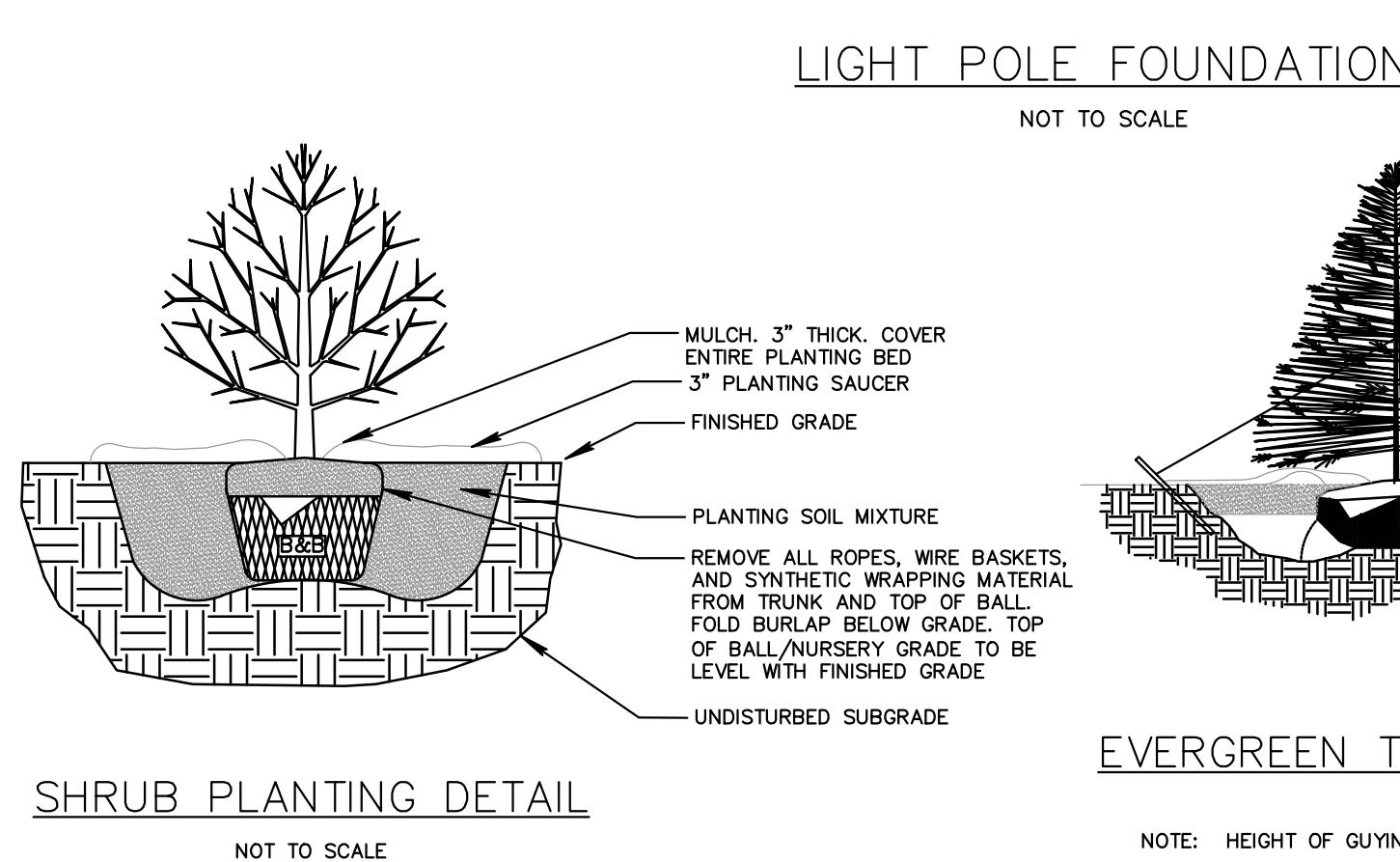
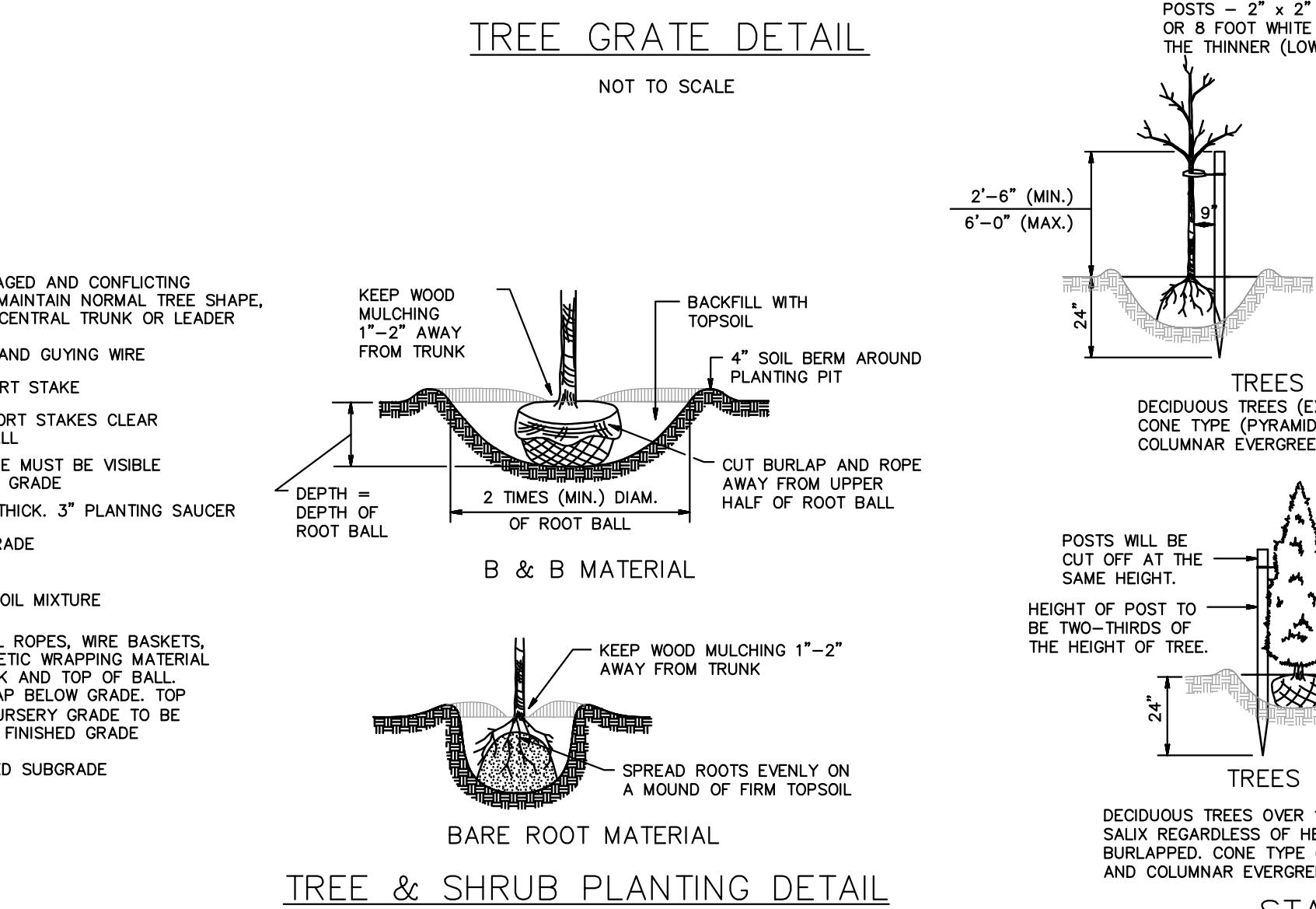
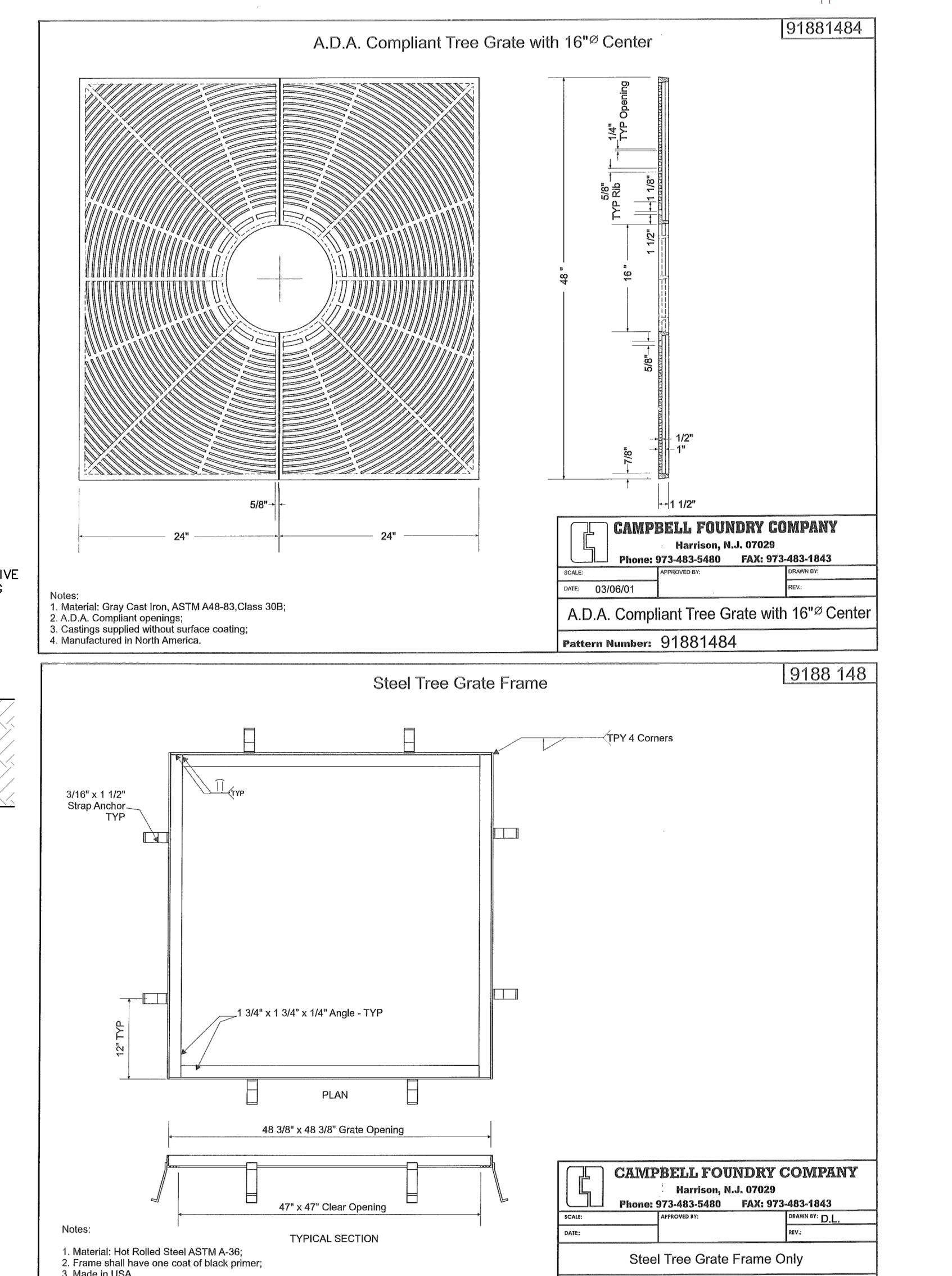
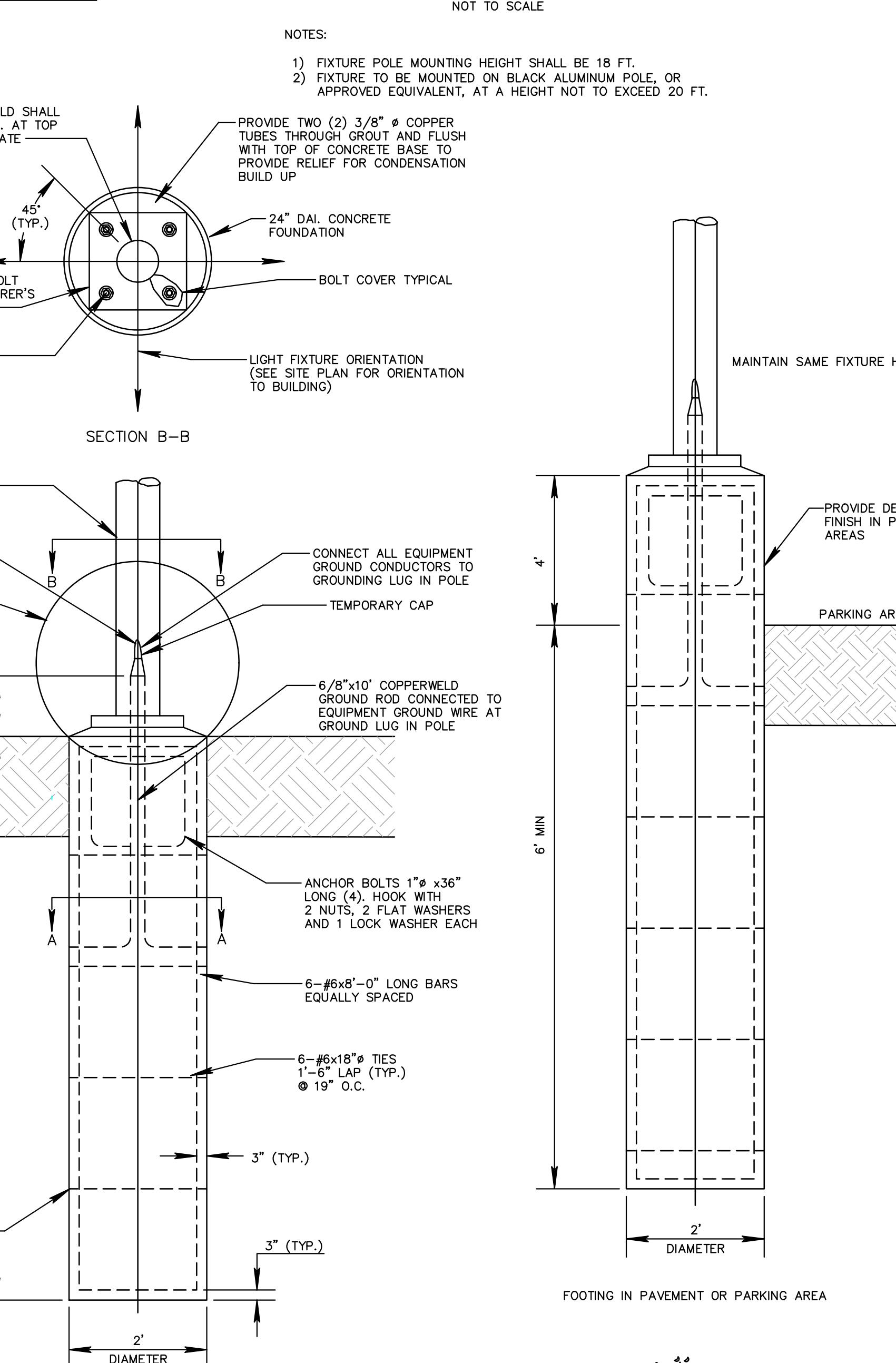
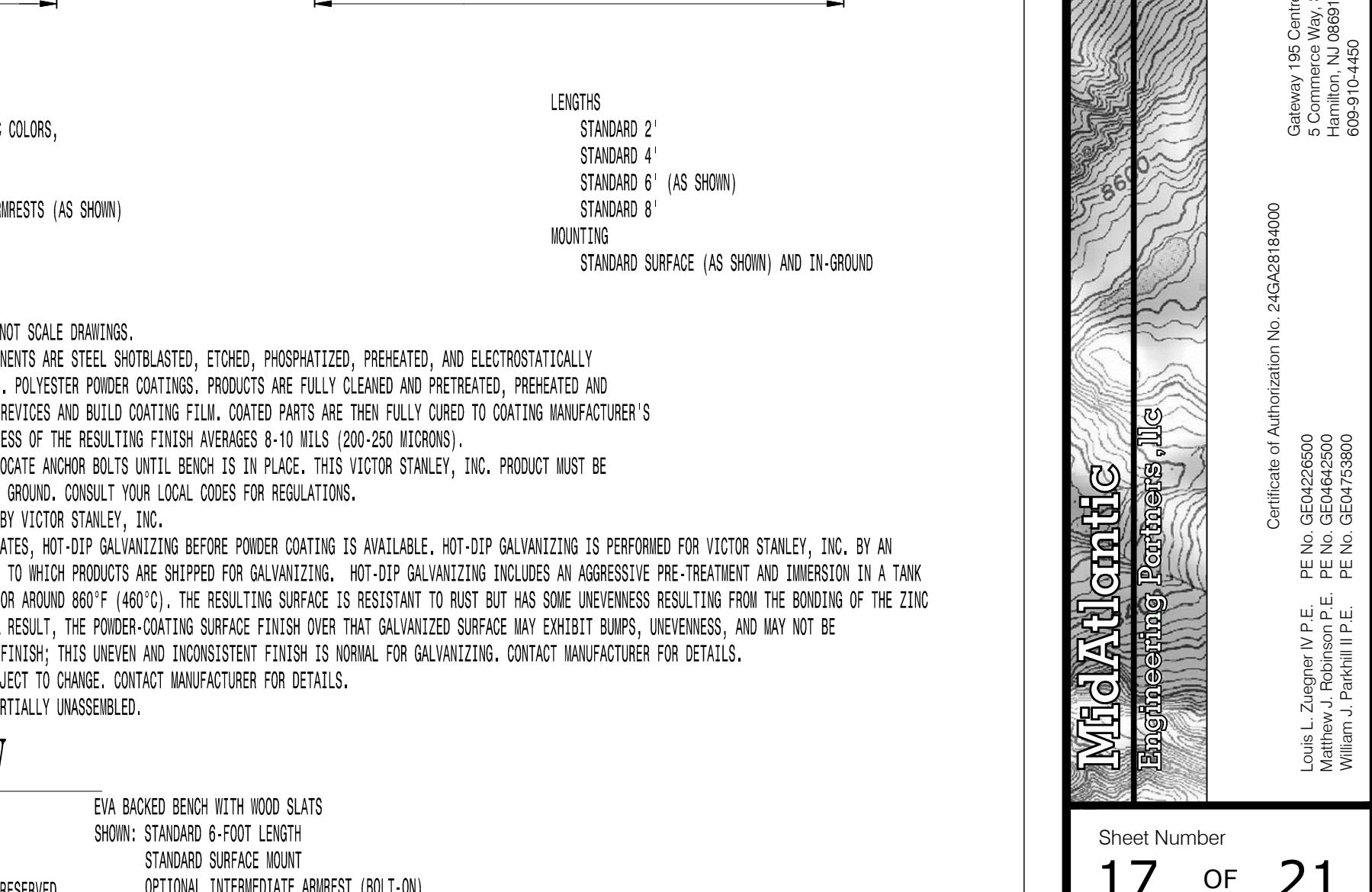
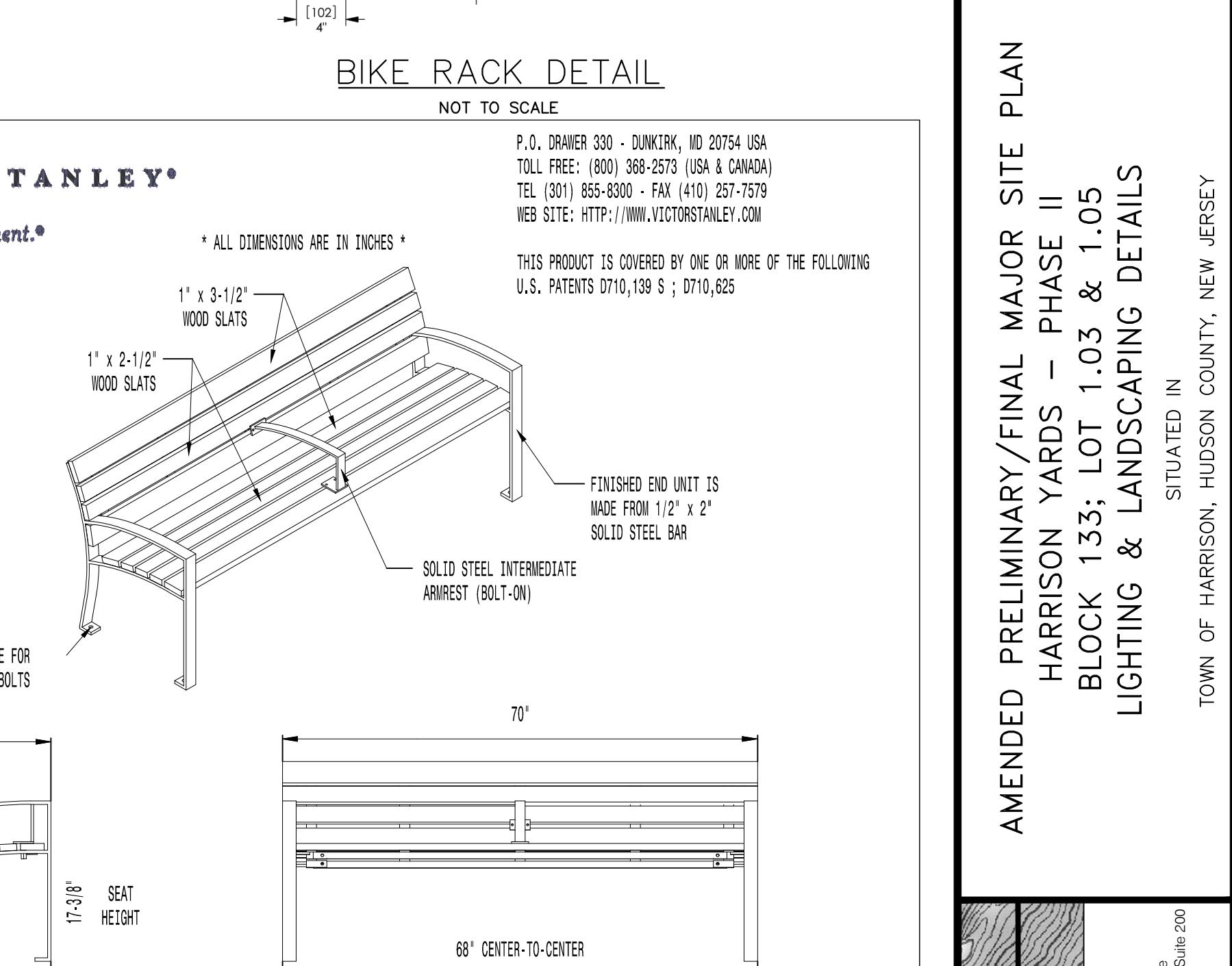
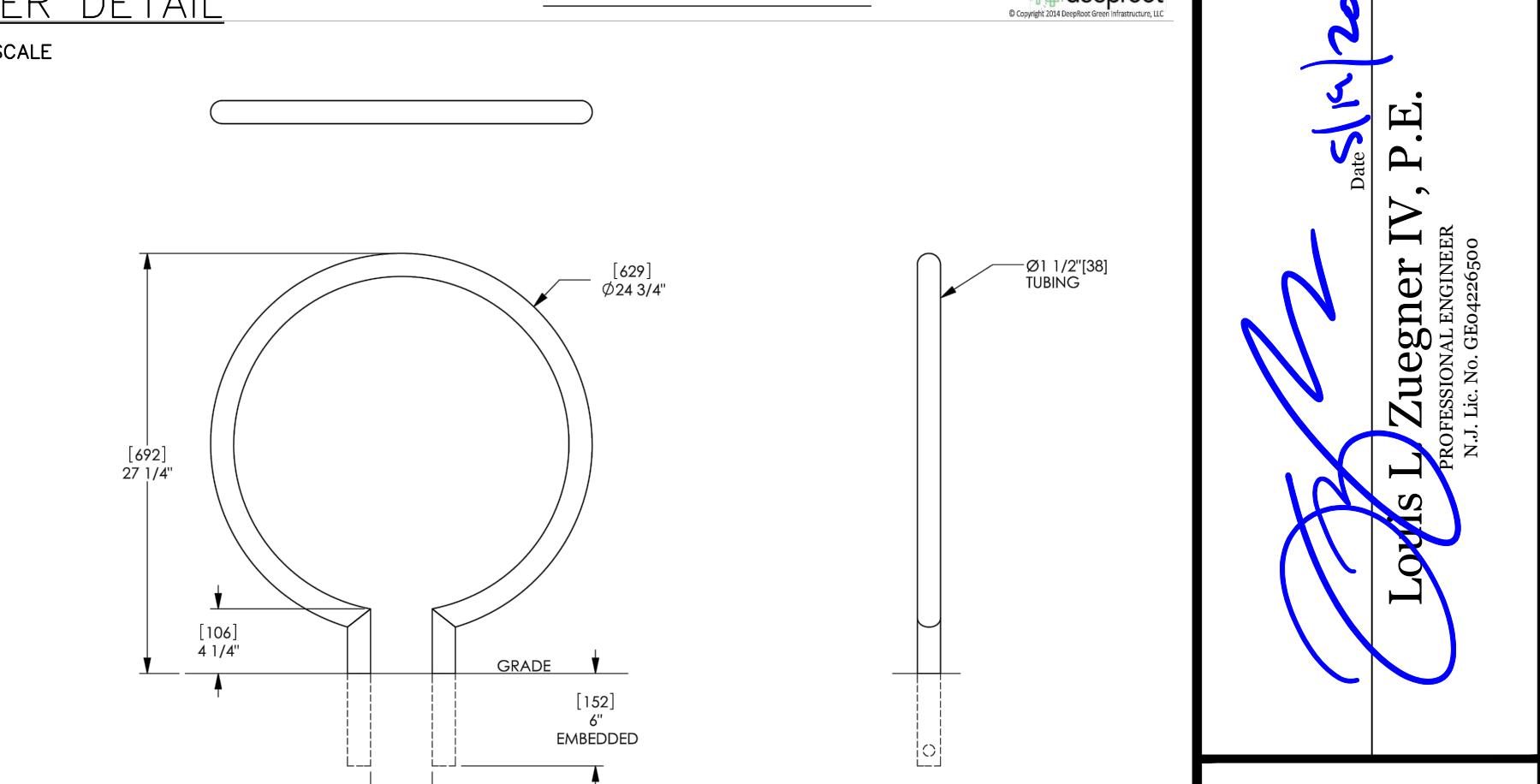
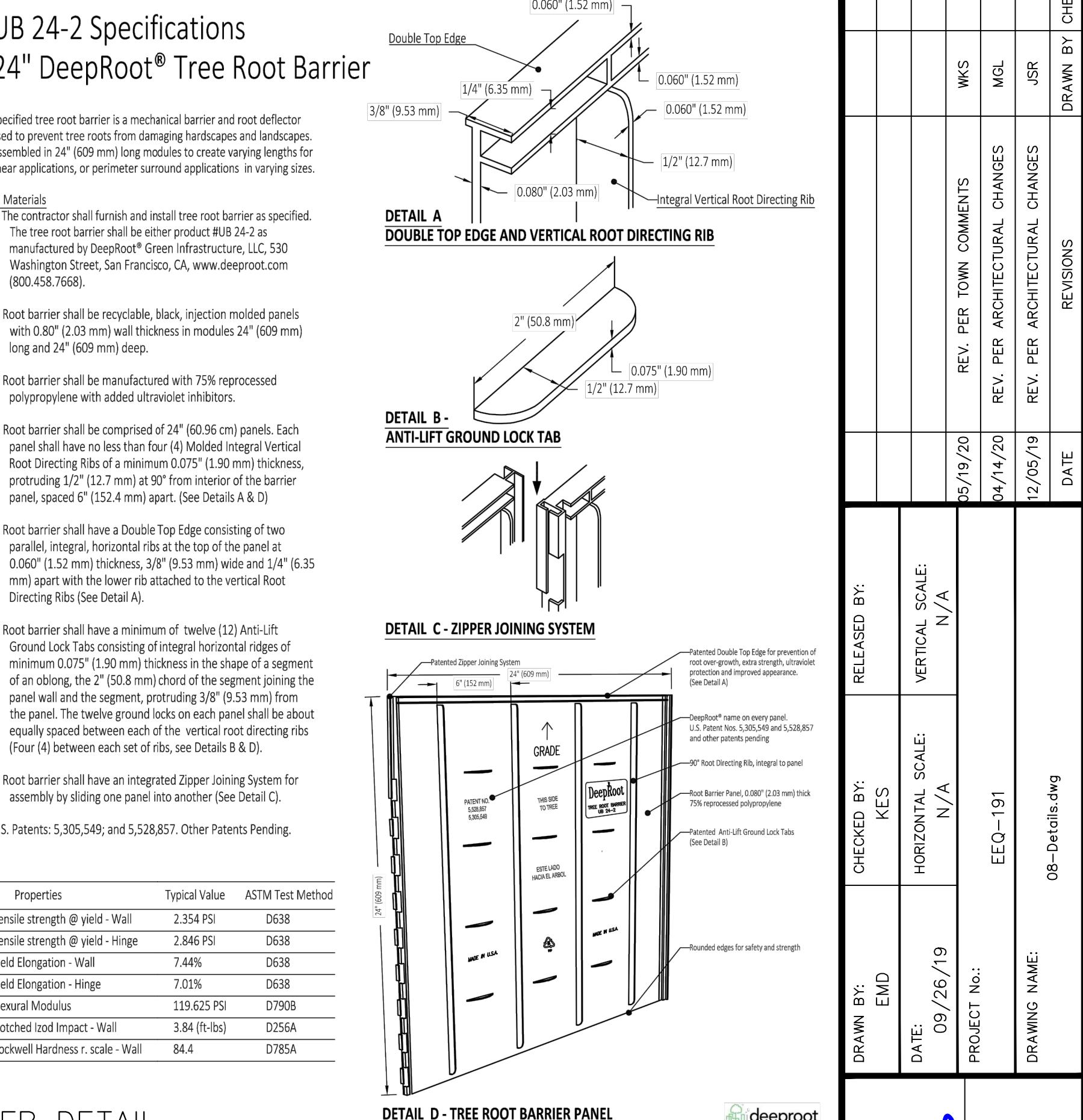
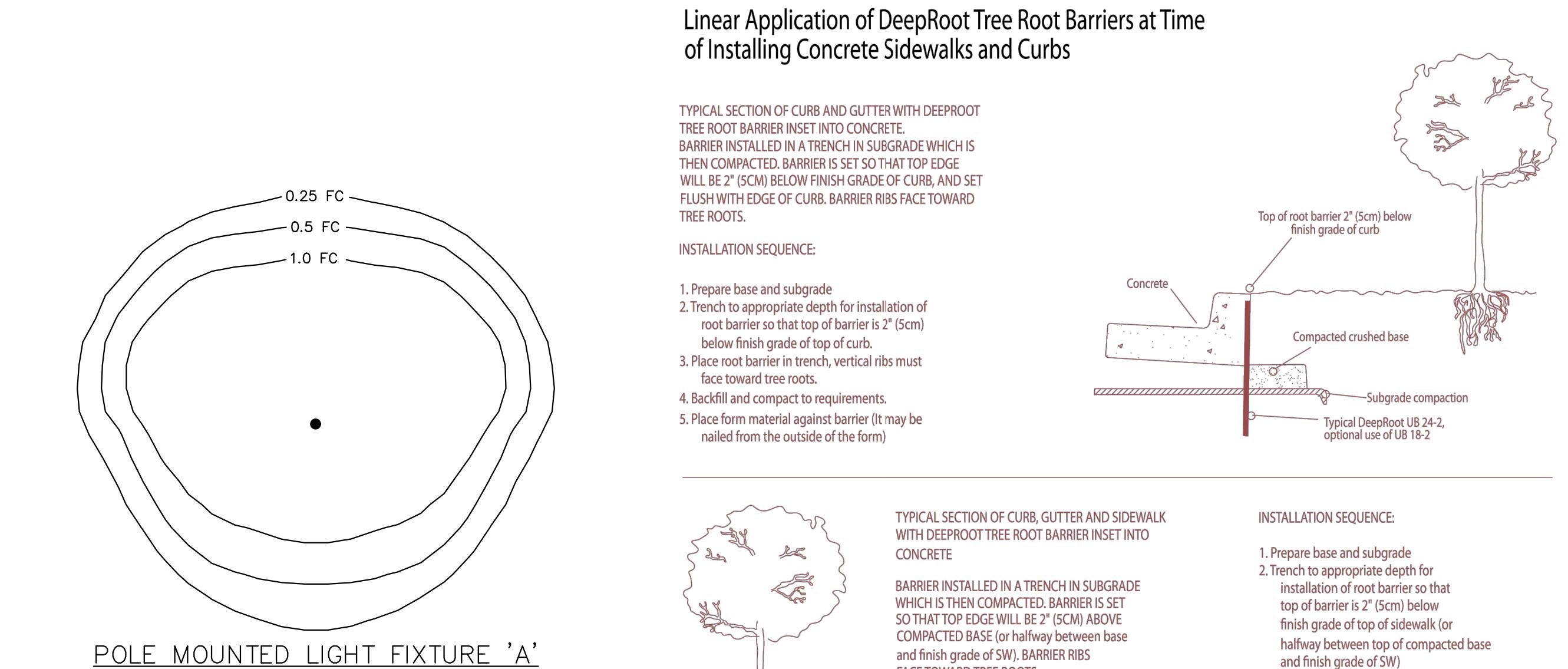
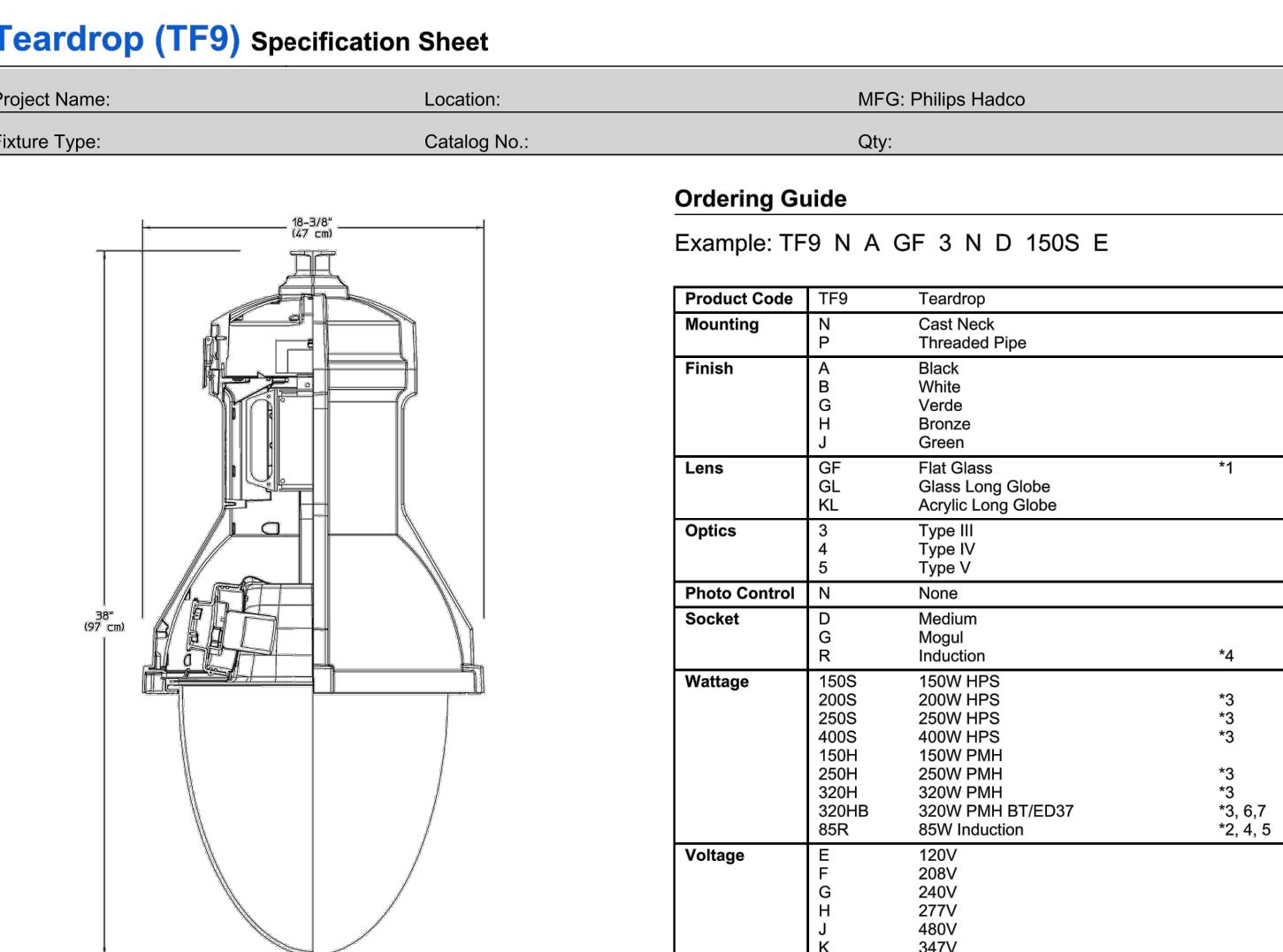
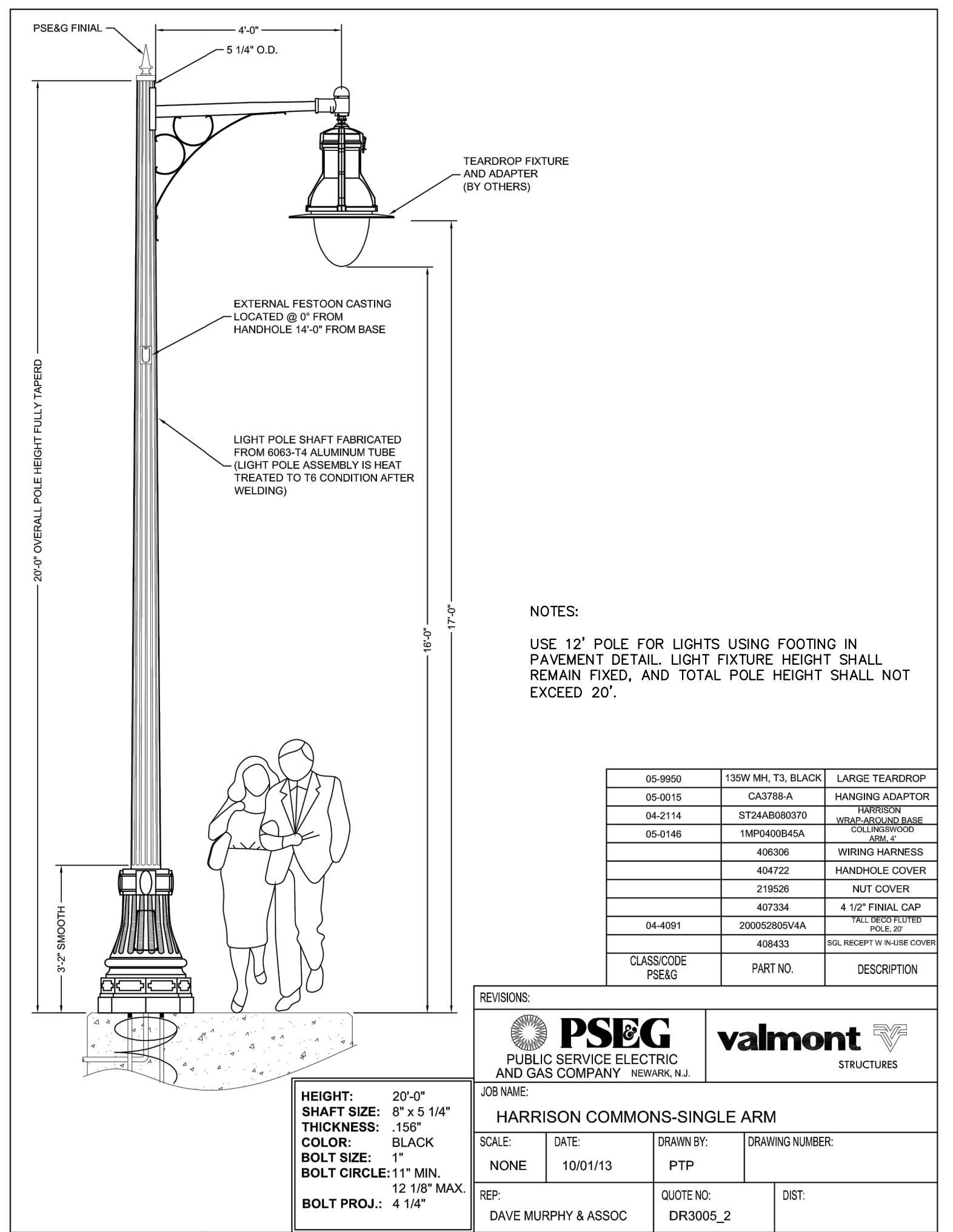


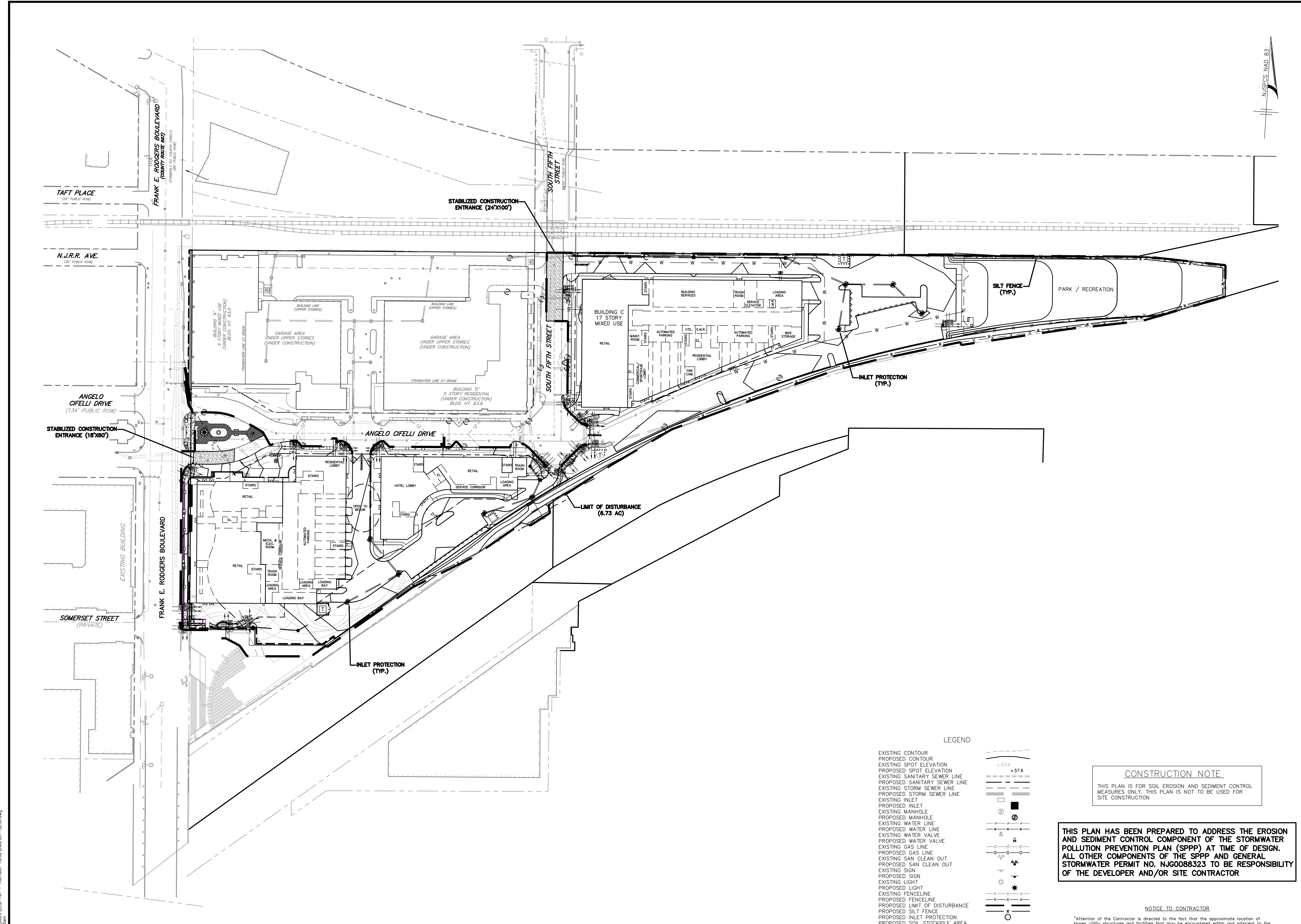
RECOMMENDED PRELIMINARY/FINAL MAJOR SITE PLAN  
HARRISON YARDS - PHASE II  
BLOCK 133; LOT 1.03 & 1.05

# THE CUPPING PLAN SITUATED IN HUDSON COUNTY, NEW JERSEY

DRAWN BY: EMD	CHECKED BY: KES	RELEASED BY:
DATE: 09/26/19	HORIZONTAL SCALE: 1"=30'	VERTICAL SCALE: N/A
PROJECT No.: S19/20	EEQ-191	05/19/20 REV. PER TOWN COMMENTS WKS LLZ
DRAWING NAME: 06-L&L.dwg	04/14/20 REV. PER ARCHITECTURAL CHANGES MGL LLZ	12/05/19 REV. PER ARCHITECTURAL CHANGES JSR LLZ
DATE	REVISIONS	DRAWN BY CHECKED BY

**Louis L. Zuegner IV, P.E.**  
PROFESSIONAL ENGINEER  
N.J. Lic. No. GEO4226500





MICHIGAN AVENUE		AMENDED PRELIMINARY/FINAL MAJOR SITE PLAN	
		HARRISON YARDS - PHASE II	
		BLOCK 133, LOT 1.03 & 1.05	
		SOIL EROSION & SEDIMENT CONTROL PLAN	
Sheet Number	18	Project Name:	EEO-191
Drawn By:	EMD	Checked By:	KES
Date:	09/26/19	Horizontal Scale:	1"=50'
Vertical Scale:	N/A	REV. PER TOWN COMMENTS:	25/19/20
Professional Engineer:	Louis J. Auger IV, P.E.	REV. PER ARCHITECTURAL CHANGES:	34/14/20
Signature:		REV. PER ARCHITECTURAL CHANGES:	34/14/20
License No.:	07-SESC-69	Date:	12/05/19
Comments:	INLET PROTECTION (TYP.)		
Drain:	SILT FENCE (TYP.)		
Checked By:	NUSPCS NAD 83		
Reviewed By:			
Approved By:			
Comments:			
Drawn By:			
Checked By:			
Released By:			
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HUDSON ESSEX PASSAIC SOIL CONSERVATION DISTRICT:  
SOIL EROSION AND SEDIMENT CONTROL NOTES

- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN WILL BE CONSTRUCTED IN ACCORDANCE WITH THE HESCD SOIL EROSION AND SEDIMENT CONTROL NOTES AND THE HESCD SOIL EROSION AND SEDIMENT CONTROL NOTES REVISION JULY 2017, EFFECTIVE DECEMBER 2017. THESE MEASURES WILL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE. THESE MEASURES WILL BE MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- ACTIVELY CONSTRUCTION, WHICH MAY BE REQUIRED TO BE TEMPORARILY MULCHED, AND SEEDED OR OTHERWISE PROVIDED WITH VEGETATIVE COVER AS PER APPENDIX A3, THIS TEMPORARY COVER SHALL BE MAINTAINED UNTIL SUCH TIME WHEREBY PERMANENT RESTABILIZATION IS ESTABLISHED.
- SEEDING DATES: THE FOLLOWING SEEDING DATES ARE BEST RECOMMENDED TO ESTABLISH PERMANENT VEGETATIVE COVER WITHIN MOST LOCATIONS IN THE HESCD: SPRING - 3/1-5/15 & FALL - 8/15-10/1.
- SEDIMENT FENCES ARE TO BE PROPERLY TRENCHED AND MAINTAINED UNTIL PERMANENT VEGETATIVE COVER IS ESTABLISHED.
- ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY ONE OF THE PRACTICES ACCEPTED IN THE STANDARDS, AND PROTECTION SHALL REMAIN UNTIL PERMANENT STABILIZATION HAS BEEN ESTABLISHED. STORM DRAINAGE OUTLET POINTS SHALL BE PROTECTED AS REQUIRED BEFORE THEY BECOME FUNCTIONAL.
- MULCH MATERIALS SHALL BE UN-ROTATED SMALL GRAIN STRAW APPLIED AT THE RATE OF 70 TO 90 POUNDS PER 1,000 SQ. FT. OR EQUIVALENT. LIQUID MULCH BINDERS OR NETTING MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.
- ALL EROSION CONTROL DEVICES SHALL BE PERIODICALLY INSPECTED, MAINTAINED, AND CORRECTED BY THE CONTRACTOR. ANY DAMAGE INCURRED BY EROSION SHALL BE RECTIFIED IMMEDIATELY.
- THE HUDDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT WILL BE NOTIFIED IN WRITING AT LEAST 48 HOURS PRIOR TO ANY SOIL DISTURBING ACTIVITIES. FAX - (862) 333-4507 OR EMAIL - INFORMATION@HESCD.ORG
- THE APPLICANT MUST OBTAIN A DISTRICT ISSUED REPORT-OF-COMPLIANCE PRIOR TO APPLYING FOR THE CERTIFICATE OF OCCUPANCY OR TEMPORARY CERTIFICATE OF OCCUPANCY FROM THE HESCD. THE APPLICANT MUST CALL THE HESCD AT 862-333-4505 TO REQUEST A FINAL INSPECTION, GIVING ADVANCED NOTICE UPON COMPLETION OF THE RESTABILIZATION MEASURES. A PERFORMANCE DEPOSIT MAY BE POSTED WITH THE DISTRICT WHEN WINTER WEATHER OR SNOW CONDITIONS PREVENT A FINAL INSPECTION.
- PAVED ROADSWAYS MUST BE KEPT CLEAN AT ALL TIMES. DO NOT USE A FIRE OR GARDEN HOSE TO CLEAN ROADS UNLESS THE RUNOFF IS DIRECTED TO A PROPERLY DESIGNED AND FUNCTIONING SEDIMENT BASIN. WATER PUMPED OUT OF THE EXCAVATED AREAS CONTAINS SEDIMENTS THAT MUST BE REMOVED PRIOR TO DISCHARGING TO RECEIVING BODIES OF WATER USING REMOVABLE PUMPING STATION, SUMP PIT, PORTABLE SEDIMENTATION TANKS, AND/OR SILT CONTROL BAGS.
- ALL SURFACES LEAVING LAND OR LANDSCAPE ARE TO BE PROVIDED TOPSOIL PRIOR TO PAVING. SOIL SCAFFOLDING PLATES, PAVING 6 INCHES, FIRMED IN PLACE, IS REQUIRED, AS PER STANDARDS FOR TOPSOIL AND LAND GRADING. DIRECTED DECEMBER 2017.
- ALL PLAN REVISIONS MUST BE SUBMITTED TO THE DISTRICT FOR PROPER REVIEW AND APPROVAL.
- A CRUSHED STONE PAD, LEAVING TRADING PAD IS TO BE INSTALLED AT ALL SITE USES USING 2 1/2" CRUSHED ANGULAR STONE (ASTM 2 OR 3) TO A MINIMUM LENGTH OF 50 FEET AND MINIMUM DEPTH OF 6". ALL DRIVEWAYS SHALL BE PROVIDED WITH CRUSHED STONE UNTIL PAVING IS COMPLETE.
- STEEP SLOPES INCURRING DISTURBANCE MAY REQUIRE ADDITIONAL STABILIZATION MEASURES. THESE "SPECIAL" MEASURES SHALL BE DESIGNED BY THE APPLICANT'S ENGINEER AND APPROVED BY THE SOIL CONSERVATION DISTRICT.
- THE HUDDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING, FOR THE SALE OF ANY PORTION OF THE PROJECT OR FOR THE SALE OF INDIVIDUAL LOTS. NEW OWNER'S INFORMATION SHALL BE PROVIDED. ADDITIONAL MEASURES DEEMED NECESSARY BY THE DISTRICT OFFICIALS SHALL BE IMPLEMENTED AS CONDITIONS WARRANT.

CONSTRUCTION SEQUENCE

EXACT TIME FOR DEVELOPMENT OF THIS PROJECT IS NOT KNOWN AT THIS TIME. BUILDING CONSTRUCTION HAS BEEN COMPLETED IN ACCORDANCE WITH THE APPROVED SOIL EROSION PERMIT. HOMEOWNERS IT IS ANTICIPATED THAT CONSTRUCTION OF THE PROPOSED BUILDINGS/IMPROVEMENTS WILL COMMENCE IN SPRING 2020 AND WILL PROCEED IMMEDIATELY AND CONTINUOUSLY ONCE THE REQUIRED APPROVALS ARE SECURED. ITEMS AND DURATIONS OF CONSTRUCTION WILL APPROXIMATELY AS FOLLOWS:

PHASE	DURATION
1. TEMPORARY SOIL EROSION FACILITIES	IMMEDIATELY
2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE	FOLLOWING PAVEMENT REMOVAL
3. SITE PREPARATION	IMMEDIATELY
4. SITE PREPARATION REMOVALS	2 MONTHS
5. INLET PROTECTION	PRIOR TO SITE REMOVALS
6. MAINTENANCE OF TEMPORARY EROSION CONTROL MEASURES	CONTINUOUSLY
7. FINAL SEDIMENT AND STABILIZATION	2 WEEKS

\* TEMPORARY SEEDING SHALL ALSO BE PERFORMED WHEN NECESSARY IN ACCORDANCE WITH NOTE No. 2 OF THE SOIL EROSION AND SEDIMENT CONTROL NOTES.

ADDITIONAL NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION. THE CONTRACTOR OWNERS SHALL ASSUME THIS RESPONSIBILITY AFTER CONSTRUCTION IS COMPLETED AND CERTIFICATES OF OCCUPANCY ARE ISSUED.
- THE SOIL EROSION INSPECTOR MAY REQUIRE ADDITIONAL SOIL EROSION MEASURES TO BE INSTALLED, AS DIRECTED BY THE DISTRICT OFFICIALS.
- THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE ROADWAYS CLEAN AT ALL TIMES. ANY SEDIMENT PILLED OR TRACED ON THE ROADWAY WILL BE CLEANED UP IMMEDIATELY, OR AT A MINIMUM, BY THE END OF EACH CONSTRUCTION DAY.
- ALL STORM DRAINAGE AND SEDIMENT CONTROL PRACTICES ON INDIVIDUAL SITES SHALL APPLY TO ANY SUBSEQUENT OWNER.
- STEEP SLOPES TO RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR SUITABLE EQUAL (SEE ANCHORING NOTES & NOTE No. 6 OF SOIL EROSION & SEDIMENT CONTROL NOTES.)

DUST CONTROL NOTE

DUST GENERATION SHALL BE CONTROLLED ON A CONSTANT BASIS BY WETTING THE SURFACE AND/OR APPLICATION OF CALCIUM CHLORIDE

STANDARD FOR STABILIZATION WITH MULCH ONLY

STABILIZING EXPOSED SOILS WITH NON-VEGETATIVE MATERIALS.

DEFINITION

TO PROTECT EXPOSED SOIL SURFACES FROM EROSION DAMAGE AND TO REDUCE OFFSITE ENVIRONMENTAL DAMAGE.

PURPOSE

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO EROSION, WHERE THE SOIL IS EXPOSED AND THERE IS NO PERMANENT VEGETATION, OR WHERE AN EROSION RESISTANT COVER OR WHERE STABILIZATION IS NEEDED FOR A SHORT PERIOD UNTIL MORE SUITABLE PROTECTION CAN BE APPLIED. WOOD CHIPS WILL NOT BE USED ON AREAS WHERE FLOWING WATER COULD WASH THEM.

METHODS AND MATERIALS

- SITE PREPARATION
  - GRADE, AS NEEDED AND FEASIBLE, TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR APPLYING AND ANCHORING MULCH. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH THE HESCD FOR SOIL EROSION STABILIZATION STANDARDS.
  - EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.

II. PROTECTIVE MATERIALS

- UNROTATED SMALL GRAIN STRAW, HAY, OR SALT HAY AT 2.0 TO 2.5 TONS PER ACRE IS RECOMMENDED. GRAIN STRAW IS TO BE APPLIED AT 90 TO 100 POUNDS PER 1,000 SQ. FT. AND SHOULD BE TIED DOWN WITH MULCH NETTING, TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.
- ASPHALT EMULSION OR CUTBACK ASPHALT IS RECOMMENDED AT THE RATE OF 600 TO 1,200 GALLONS PER ACRE. THIS IS SUITABLE FOR A LIMITED PERIOD OF TIME WHERE TRAVEL BY PEOPLE, ANIMALS OR VEHICLES IS PROBLEMIC.
- SYNTHETIC OR ORGANIC SOIL STABILIZER MAY BE USED - UNDER SUITABLE CONDITIONS AND SUFFICIENT QUANTITIES. LIQUID STABILIZER AT 1/2 GALLON PER 1,000 SQ. FT. AND 1,500 POUNDS PER ACRE MAY BE APPLIED BY A HYDROSEEDER OR HYDROMULCHING.
- MULCH NETTING, SUCH AS PAPER JUTE, EXCELSIOR, COTTON OR POLYPROPYLENE, MAY BE USED.
- WOODCHIPS APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 2 INCHES MAY BE USED.
- GRAVEL, CRUSHED STONE OR SLAG AT THE RATE OF 9 CUBIC YARDS PER 1,000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM C-33) IS RECOMMENDED.

III. MULCH ANCHORING

- MULCH ANCHORING SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT OF MULCH OR STRAW. THIS IS TO BE DONE AS SOON AS POSSIBLE. THIS IS TO BE DONE AS ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA AND STEEPNESS OF SLOPES:
  - PEG AND TINNE - DRIVE 8 TO 10 INCH WOODEN PEGS 18 INCHES DEEP INTO THE GROUND. DRIVE 1/2" TINNE INTO THE GROUND. SECURE STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SURFACE BY STRETCHING TWINE BETWEEN PEGS OR TINNE AND SECURE MULCH TO TWINE.
  - MULCH NETTING - STAPLE PAPER, COTTON, OR PLASTIC NETTING OVER THE MULCH. USE A STAPLER TO SECURE NETTING. AREAS TO BE MOVED, NETTING IS USUALLY AVAILABLE IN ROLLS 4 FEET WIDE AND UP TO 30 FEET LONG.
  - MULCH BUNDLES - USE A TRACTOR DRAWN IMPLEMENT ESPECIALLY DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE. THE PRACTICE AFFORDS MAXIMUM EROSION CONTROL, BUT IT'S USE IS LIMITED TO SOILS THAT ARE NOT TOO STICKY. TO AVOID DAMAGE TO SOFT SOIL, TOOL PENETRATION SHOULD BE ABOUT 1 1/2 TO 4 INCHES. ON SLOPING LAND, THE OPERATION SHOULD BE DONE ON THE CONTOUR.
  - LIQUID MULCH-BINDERS

- LIQUID MULCH-BINDERS SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE MULCH, IN VALLEYS AND AT CRESTS OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE.
- USE OF LIQUID MULCH-BINDERS SHALL BE APPLIED AS RECOMMENDED BY THE MANUFACTURER.
- EMULSIFIED ASPHALT - (SS-1, CSS-1, CMS-2, RS-1, RS-2, CRS-1 AND CRS-2) - USE OF LIQUID ASPHALT AT 1/2 GALLON/ACRE ON FLAT SLOPES AND SLOPES LESS THAN 8 FEET HIGH. USE 0.075 GAL/SQ. YD. ON SLOPES 8 FEET OR MORE HIGH USE 0.075 GAL/SQ. YD.
- ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS. VEGETABLE BASED BINDERS SHALL BE APPLIED AS RECOMMENDED BY THE MANUFACTURER.
- ARTIFICIAL OR ORGANIC BINDERS - BINDERS SUCH AS CUPRUM, CUPRUM PERGO-SET AND TERRA TACK MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS. NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

STANDARD FOR STORM SEWER INLET PROTECTION

DEFINITION

A TEMPORARY BARRIER AND SETTLING FACILITY INSTALLED AT A STORM SEWER INLET.

PURPOSE

THE PURPOSE OF STORM SEWER INLET PROTECTION IS TO INTERCEPT AND RETAIN SEDIMENT PREVENTING THE ENTRANCE OF SEDIMENT INTO THE STORM SEWER SYSTEM.

CONDITIONS WHERE PRACTICE APPLIES

- CONTRIBUTING DRAINAGE AREA IS 3 ACRES OR LESS.
- A STORM SEWER OR THE OUTLET CHANNEL OF A STORM SEWER NEEDS PROTECTION FROM SEDIMENT.
- TRAFFIC WILL NOT DESTROY OR CAUSE CONSTANT MAINTENANCE OF THE STORM SEWER INLET PROTECTION.
- A TRAFFIC HAZARD WILL NOT BE CREATED.
- A FLOODING PROBLEM WILL NOT BE CREATED.

WATER QUALITY ENHANCEMENT

THE PRIMARY BENEFIT TO WATER QUALITY IS REMOVAL SEDIMENT AND OTHER SOLID WASTE FROM THE STORM SEWER SYSTEM, AS AN ADDED BENEFIT OTHER FLOATABLE DEBRIS, SUCH AS VEGETATIVE MATTER AND LITTER MAY ALSO BE FILTERED OUT OF THE RUNOFF.

DESIGN CRITERIA

THE FOLLOWING APPLIES TO ALL METHODS OF STORM SEWER INLET PROTECTION:

- MUST SLOW THE STORM WATER, PROVIDE THE COARSE SEDIMENT PARTICLES A CHANCE TO SETTLE, AND PROVIDE AN AREA TO RETAIN THE PARTICLES THAT HAVE SETTLED.
- IN ALL CASES, THE INLET PROTECTION SHOULD NOT COMPLETELY CLOSE OFF THE INLET.
- THE PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND AN AMOUNT OF RUNOFF THAT HIGHER FLOWS DIRECTLY INTO THE STORM SEWER SYSTEM.

OTHER METHODS THAT ACCOMPLISH THE PURPOSE OF STORM SEWER INLET PROTECTION MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.

INSPECTIONS SHALL BE FREQUENT, MAINTENANCE, REPAIR, AND REPLACEMENT SHALL BE MADE PROMPTLY, AS NEEDED. THE BARRIER SHALL BE REMOVED WHEN THE AREA DRAINING TOWARD THE INLET HAS BEEN STABILIZED.

STANDARD FOR SEEDING SPECIFICATIONS

TEMPORARY SEEDING

TEMPORARY VEGETATIVE COVER SHALL CONSIST OF PERENNIAL RYEGRASS APPLIED UNIFORMLY AT A RATE OF 1.0 POUNDS PER 1,000 SQ. FT. (40 lbs/Ac.) LIMESTONE, PUMICE, OR EGG SHELL, 50 POUNDS CALCIUM PLUS MAGNESIUM OXIDES SHALL BE APPLIED AT THE RATE OF 135 lbs/Ac. (3 TONS/Ac.) AND FERTILIZER (10-20-10 OR EQUIVALENT) AT THE RATE OF 14 lbs/Ac. (0.3 TONS/Ac.)

MULCHING IS REQUIRED ON ALL SEEDING AND SHALL BE ACCOMPLISHED AS FOLLOWS:

- MULCH MATERIALS SHOULD BE UNROTATED SALT HAY, HAY, OR SMALL GRAIN STRAW AT 2.0 TO 2 TONS PER ACRE, OR 70 TO 90 POUNDS PER 1,000 SQUARE FEET. MULCH BLOWERS SHOULD NOT GRIND OR CHOP THE MATERIAL.
- SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 85 PERCENT OF THE SOIL SURFACE WILL BE COVERED FOR UNIFORM DISTRIBUTION OF HAND SPREAD MULCH. DIVIDE AREA INTO 100' X 100' SECTIONS AND SPREAD MULCH IN SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.
- MULCH ANCHORING SHALL BE ACCOMPLISHED USING EITHER PEG OR TWINE, MULCH NETTING, MULCH ANCHORING COULTER TOOL OR LIQUID MULCH-BINDERS, PER THE ACCOMPANYING "STABILIZATION WITH MULCH ONLY" SPECIFICATION.

\* OPTIMUM SEEDING DATES 3/1 - 5/15 AND 8/15 - 10/1

PERMANENT SEEDING

- TOPSOIL IS TO BE PLACED TO A DEPTH OF 4 INCHES ON EXPOSED SOILS UPON COMPLETION OF FINAL GRADING.
- SEED IS TO BE UNIFORMLY APPLIED TO THE NORMAL DEPTH OF 1/4 INCH TO 1/2 INCH (EXCEPT HYDRO SEEDING), SEED MIXTURE 15, AS SHOWN ON PAGE 4-11 IN THE SOIL EROSION STANDARDS. THE SEEDING RATE SHALL BE:

SEED MIXTURE	PILANTING RATE	LBS PER ACRE	LBS PER 1,000 SQ. FT.
HARD FESCUE	120	2.7	
PERENNIAL RYEGRASS	20	0.7	
KENTUCKY BLUEGRASS BLEND	40	0.9	

\* OPTIMAL SEEDING DATES: 3/1-4/30 AND 8/15-10/15

PERMANENT SEEDING

- TOPSOIL IS TO BE PLACED TO A DEPTH OF 4 INCHES ON EXPOSED SOILS UPON COMPLETION OF FINAL GRADING.
- SEED IS TO BE UNIFORMLY APPLIED TO THE NORMAL DEPTH OF 1/4 INCH TO 1/2 INCH (EXCEPT HYDRO SEEDING), SEED MIXTURE 15, AS SHOWN ON PAGE 4-11 IN THE SOIL EROSION STANDARDS. THE SEEDING RATE SHALL BE:

PERCENT SLOPE OF ROADWAY	PERCENT SLOPE OF ROADWAY	COARSE GRAINED SOILS   FINE GRAINED SOILS
0 TO 2%	100 FT.	N/A
2 TO 5%	200 FT.	N/A
> 5%	ENTIRE SURFACE STABILIZED WITH FABRIC BASE COURSE <sup>1</sup>	

1. AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY.

2. 1/2" CLEAN CRUSHED STONE SHALL BE USED.

3. MIN. THICKNESS OF PAD TO BE 6".

4. TRACKING PAD LOCATION MAY BE ADJUSTED BASED ON FIELD/CONSTRUCTION CONDITIONS AND REQUIREMENTS AS APPROVAL OF HESCD INSPECTOR.

NOTES:

1. INLET TO BE "BOXED" IN WITH 2x6's STOOD ON END.

2. 2 ROWS OF 1/2" HOLES TO BE DRILLED IN BOARDS, 6" O.C.

3. 3/

