



W. 65TH STREET GREEN INFRASTRUCTURE RETROFIT
 DETROIT SHOREWAY COMMUNITY DEVELOPMENT ORGANIZATION



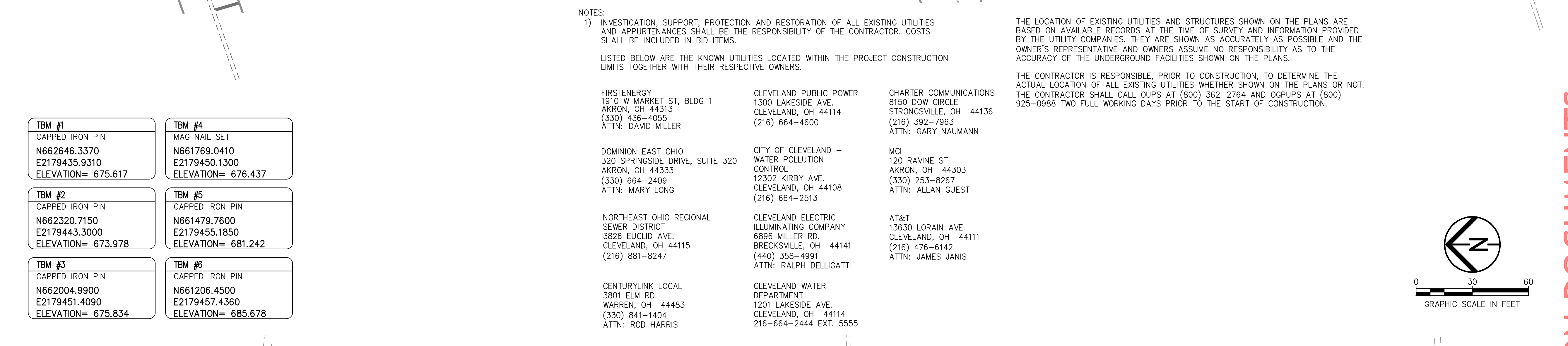
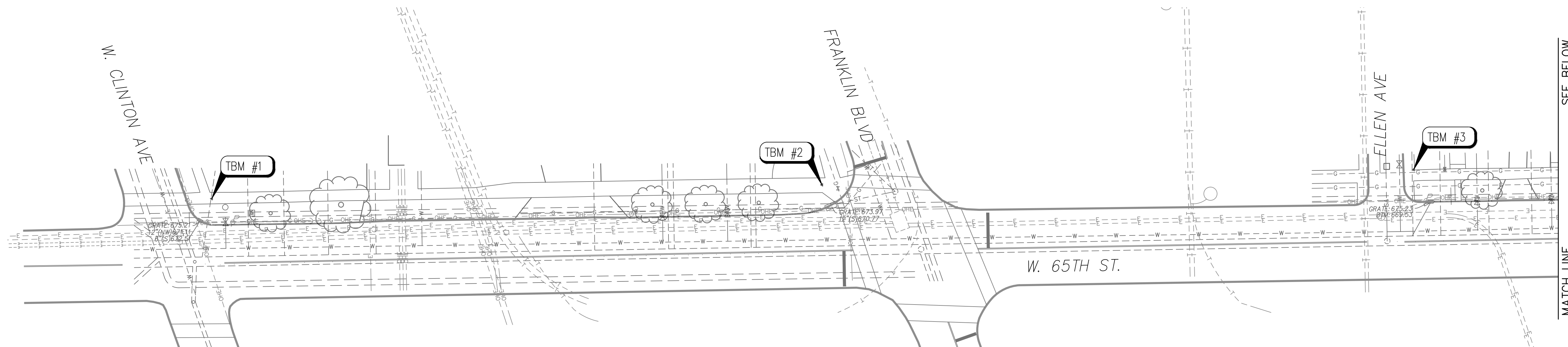
DRAFT 100% CD'S

DATE: _____

REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT NO.: 15-00383-010
 DRAWN BY: EDG
 CHECKED BY: HAH
 DATE ISSUED: 2017/11/30

SURVEY DRAWING

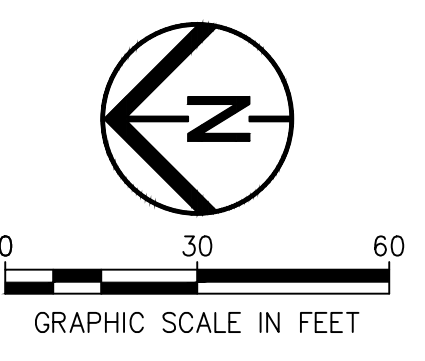


NOTES:
 1) INVESTIGATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. COSTS SHALL BE INCLUDED IN BID ITEMS.
 LISTED BELOW ARE THE KNOWN UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS.

- | | | |
|--|--|--|
| FIRSTENERGY
1910 W MARKET ST, BLDG 1
AKRON, OH 44313
(330) 436-4055
ATTN: DAVID MILLER | CLEVELAND PUBLIC POWER
1300 LAKESIDE AVE.
CLEVELAND, OH 44114
(216) 664-4600 | CHARTER COMMUNICATIONS
8150 DOW CIRCLE
STRONGSVILLE, OH 44136
(216) 392-7963
ATTN: GARY NAUMANN |
| DOMINION EAST OHIO
320 SPRINGSIDE DRIVE, SUITE 320
AKRON, OH 44333
(330) 664-2409
ATTN: MARY LONG | CITY OF CLEVELAND - WATER POLLUTION CONTROL
12302 KIRBY AVE.
CLEVELAND, OH 44108
(216) 664-2513 | MCI
120 RAVINE ST.
AKRON, OH 44303
(330) 253-8267
ATTN: ALLAN GUEST |
| NORTHEAST OHIO REGIONAL SEWER DISTRICT
3826 EUCLID AVE.
CLEVELAND, OH 44115
(216) 881-8247 | CLEVELAND ELECTRIC ILLUMINATING COMPANY
6896 MILLER RD.
BRECKSVILLE, OH 44141
(440) 358-4991
ATTN: RALPH DELLAGATTI | AT&T
13630 LORAIN AVE.
CLEVELAND, OH 44111
(216) 476-6142
ATTN: JAMES JANIS |
| CENTURYLINK LOCAL
3801 ELM RD.
WARREN, OH 44483
(330) 841-1404
ATTN: ROD HARRIS | CLEVELAND WATER DEPARTMENT
1201 LAKESIDE AVE.
CLEVELAND, OH 44114
216-664-2444 EXT. 5555 | |

THE LOCATION OF EXISTING UTILITIES AND STRUCTURES SHOWN ON THE PLANS ARE BASED ON AVAILABLE RECORDS AT THE TIME OF SURVEY AND INFORMATION PROVIDED BY THE UTILITY COMPANIES. THEY ARE SHOWN AS ACCURATELY AS POSSIBLE AND THE OWNER'S REPRESENTATIVE AND OWNERS ASSUME NO RESPONSIBILITY AS TO THE ACCURACY OF THE UNDERGROUND FACILITIES SHOWN ON THE PLANS.
 THE CONTRACTOR IS RESPONSIBLE, PRIOR TO CONSTRUCTION, TO DETERMINE THE ACTUAL LOCATION OF ALL EXISTING UTILITIES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL CALL OUPS AT (800) 362-2764 AND OGPUPS AT (800) 925-0988 TWO FULL WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

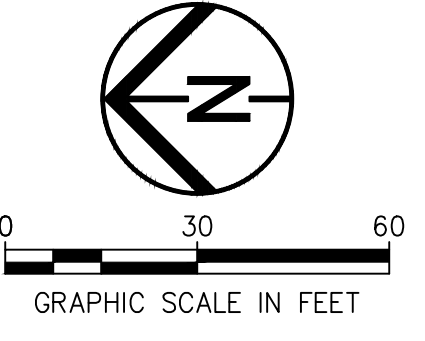
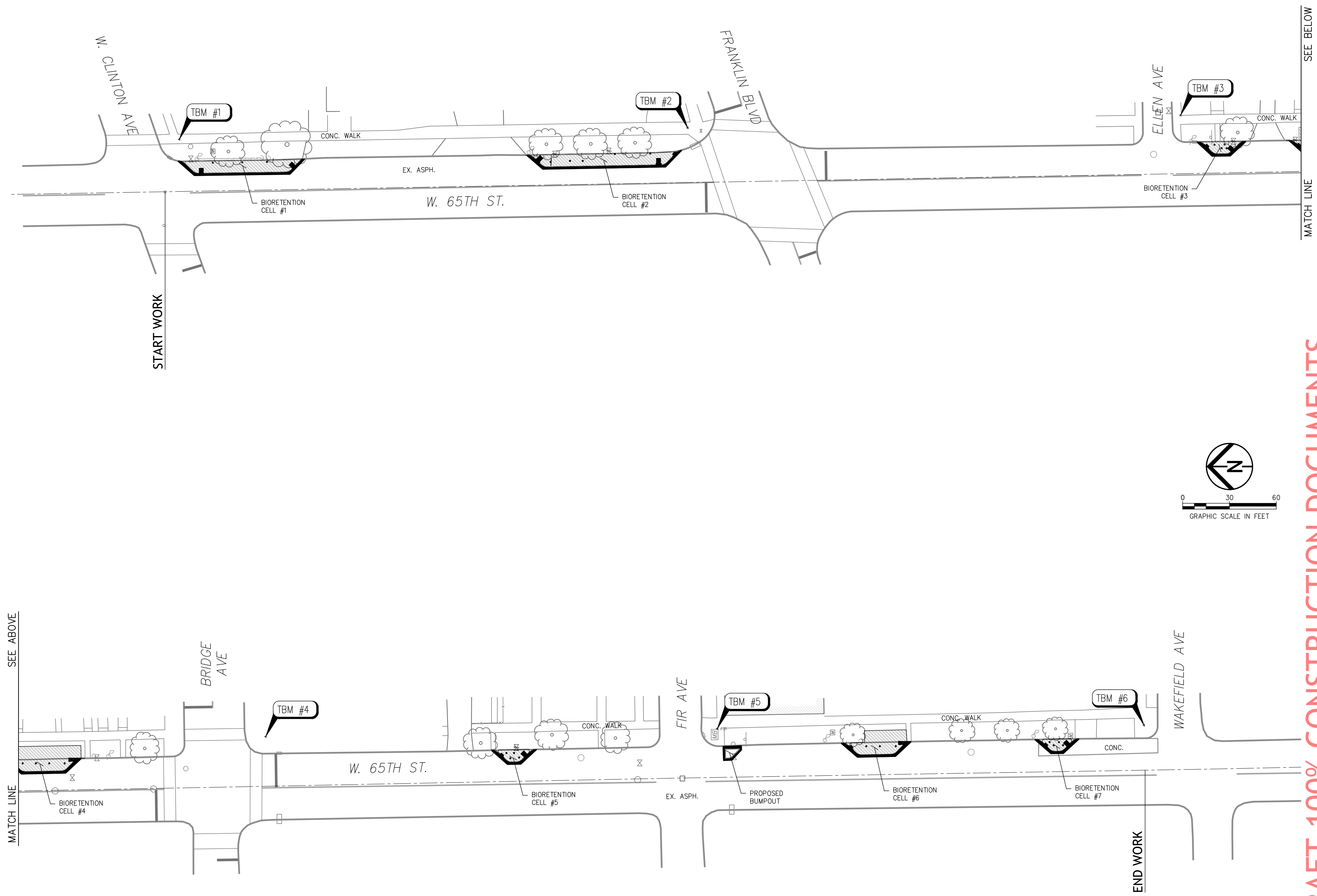
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TBM #2 CAPPED IRON PIN N662320.7150 E2179443.3000 ELEVATION= 673.978	TBM #5 CAPPED IRON PIN N661479.7600 E2179455.1850 ELEVATION= 681.242
TBM #3 CAPPED IRON PIN N662004.9900 E2179451.4090 ELEVATION= 675.834	TBM #6 CAPPED IRON PIN N661206.4500 E2179457.4360 ELEVATION= 685.678



DETROIT SHOREWAY COMMUNITY DEVELOPMENT 15-00383-010 W 65 STREET GICAD.DWG 11/30/2017 9:09:44 AM

DRAFT 100% CONSTRUCTION DOCUMENTS

DETROIT SHOREWAY COMMUNITY DEVELOPMENT 15-00383-010 W 65TH STREET GRADING SCHEM 15-00383-010 - 11/20/2017 08:29:49 AM



DRAFT 100% CONSTRUCTION DOCUMENTS

Environmental Design Group
 450 GRANT STREET AKRON, OH 44311 T: 330.375.1390
 806 LITERARY ROAD 2ND FLOOR, SUITE 206 CLEVELAND, OH 44113 F: 330.375.1590 WWW.ENVDESIGNGROUP.COM

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

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 DETROIT SHOREWAY COMMUNITY DEVELOPMENT ORGANIZATION



DRAFT 100% CD'S

DATE: _____

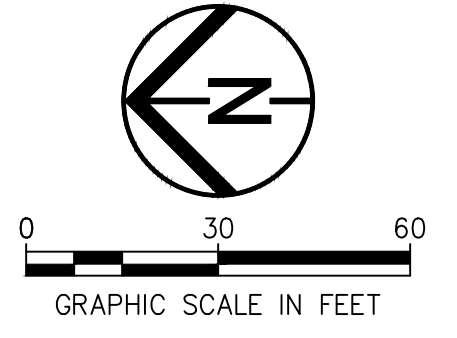
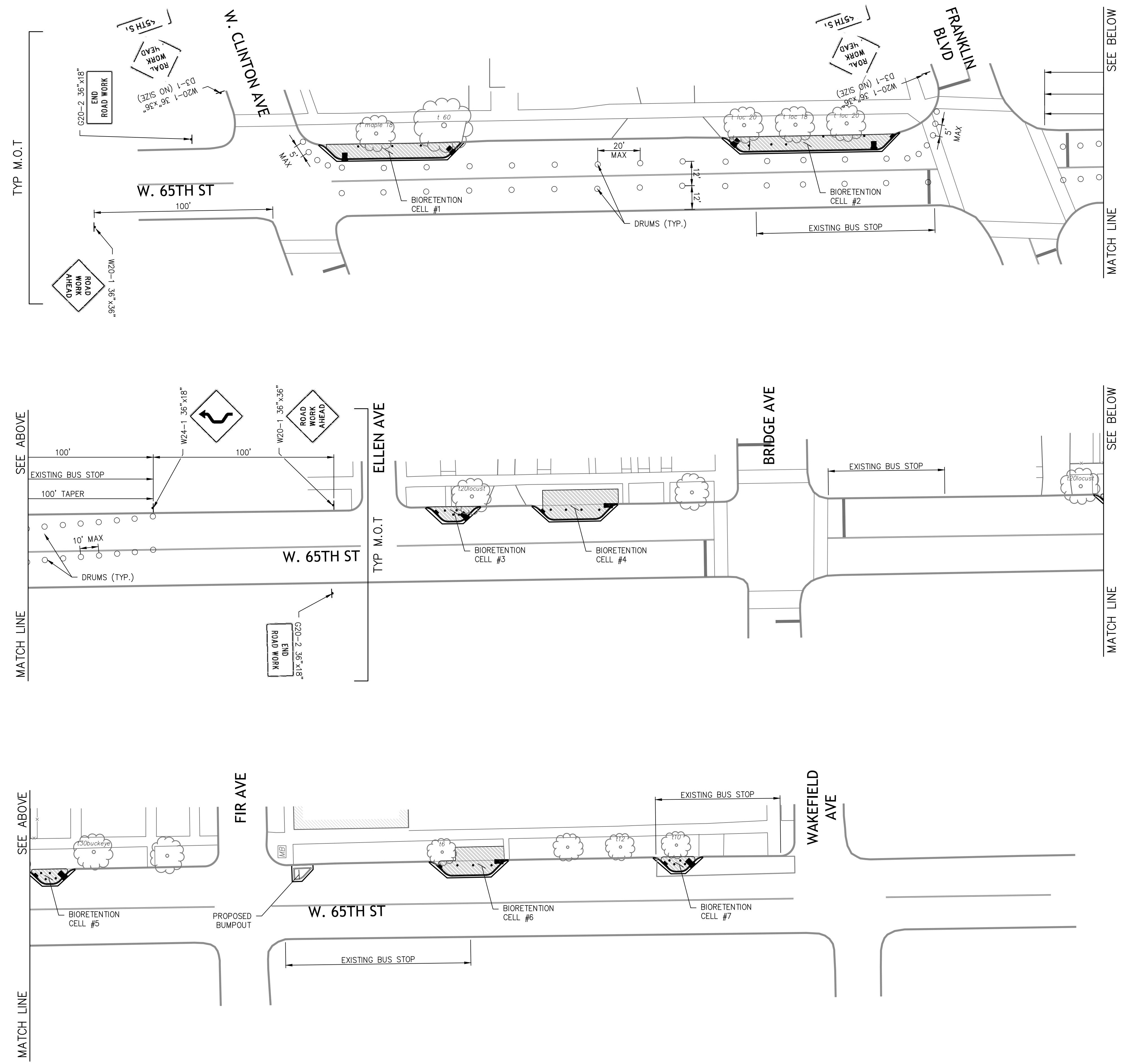
REVISIONS		
Δ	DATE	DESCRIPTION

PROJECT NO.: 15-00383-010
 DRAWN BY: EDG
 CHECKED BY: HAH
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SCHEMATIC PLAN

MAINTENANCE OF TRAFFIC NOTES:

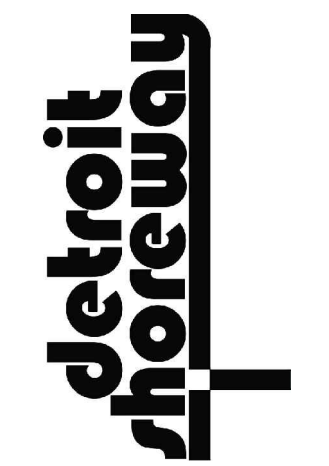
1. THE PLAN SHOWS THE M.O.T. FOR ONE CITY BLOCK (W. CLINTON AVE TO ELLEN AVE), THE MAXIMUM ALLOWABLE LENGTH OF WORK ZONE. THE M.O.T./WORK ZONE AREA SHALL MOVE AS THE WORK PROGRESSES. COVER EXISTING PARKING SIGNS AS NEEDED WITHIN THE WORK ZONE AREA.
2. THE CONTRACTOR SHALL NOTIFY THE GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY (RTA) ONE DAY IN ADVANCE OF CONSTRUCTION AND CONTINUE TO UPDATE RTA OF THE WORK SCHEDULE EACH WEEK.
3. DRUM SPACING: MAXIMUM OF 5' CENTER-TO-CENTER AT STREET CORNERS; MAXIMUM OF 10' CENTER-TO-CENTER AT APPROACH TAPERS; MAXIMUM OF 20' CENTER-TO-CENTER ALONG WORK ZONE
4. ALL DRUMS SHALL HAVE REFLECTIVE TAPE.
5. M.O.T. SIGNAGE, WHEN NOT NEEDED, TO WARN DRIVERS OF ROAD WORK, SHALL BE COVERED.
6. THIS WORK CONSISTS OF THE MAINTENANCE OF TRAFFIC AND THE PROTECTION OF THE TRAVELING PUBLIC APPROACHING THE CONSTRUCTION AREA AND WITHIN THE LIMITS OF CONSTRUCTION.
7. FURNISH, ERECT, PLACE AND MAINTAIN TRAFFIC CONTROL SIGNS AND DEVICES AND MAINTAIN TRAFFIC DURING THE HOURS OF CONSTRUCTION AND AT ALL OTHER TIMES IN ACCORDANCE WITH THE METHODS INDICATED ON THESE DRAWINGS AND:
 - 7.A. THE SPECIAL PROVISIONS OF THE CONTRACT
 - 7.B. ODOT CMS 2016 SPECIFICATIONS
 - 7.C. CITY OF CLEVELAND
 - 7.D. DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 2012 EDITION AND ALL SUPPLEMENTS APPLICABLE TO THE WORK DATED TO THE DATE OF ADVERTISEMENT.
8. UNLESS OTHERWISE NOTED AND EXCEPT FOR REGULATORY SIGNS, ALL SIGNS HAVE A NON-REFLECTORIZED BLACK LEGEND AND RETRO-REFLECTIVE ORANGE BACKGROUND.
9. MOUNTING OF ALL SIGNS AND BARRICADES SHALL BE IN ACCORDANCE WITH ODOT CMS 2016 AND AS PER CITY OF CLEVELAND CODES.
10. THIS TRAFFIC CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR TRAFFIC CONTROL AS PER ODOT CMS 2016 AND CITY OF CLEVELAND CODES.
11. PROVIDE SUFFICIENT NUMBER OF PROPERLY ATTIRED FLAGGERS (VEST, HARD HAT, ETC) TO ADEQUATELY CONTROL TRAFFIC FLOW THROUGH THE WORK ZONE AS REQUIRED BY THE CITY OF CLEVELAND, WHICH INCLUDES ANY INTERSECTING STREETS IN THE WORK ZONE AND AS DIRECTED.
12. AT THE END OF EACH WORKDAY AND WHENEVER PRACTICAL DURING THE WORKDAY, EQUIPMENT, VEHICLES AND MATERIALS SHALL BE STORED A MINIMUM OF 10 FEET FROM THE EDGE OF THE NEAREST OPEN TRAVEL LANE OR THEY SHALL BE ADEQUATELY STORED IN THE STAGING AREA. IF EQUIPMENT, VEHICLES AND MATERIALS CANNOT BE STORED AS DESCRIBED ABOVE, OR IF THESE ITEMS ARE PLACED FOR USE ON OR NEAR THE ROADWAY WITHIN THE WORK ZONE, BARRICADED, DRUMS OR OTHER PROTECTIVE DEVICES SHALL BE PLACED AROUND THE EQUIPMENT, VEHICLES AND STORAGE SITE TO WARN AND PROTECT THE TRAVELING PUBLIC.
13. DO NOT ALLOW EMPLOYEES TO PARK THEIR PERSONAL VEHICLES ON ANY TRAVEL LANE, SHOULDER, OR SEEDED AREA ALONG THE ROADWAY.
14. IMMEDIATELY UPON COMPLETION OF THE WORK, REMOVE THE MAINTENANCE OF TRAFFIC DEVICES.
15. ALL WORKERS SHALL WEAR THE YELLOW/GREEN ANSI 1 VESTS.
16. NOTIFY THE CITY OF CLEVELAND TEN (10) DAYS IN ADVANCE OF ANY SIGNAGE INTENDED TO BE PLACED.
17. MAINTAIN A MINIMUM OF TWO 10-FOOT TRAVEL LANES ON ALL STREETS AT ALL TIMES.
18. NOTIFY CITY OF CLEVELAND PRIOR TO CONSTRUCTION. CITY OF CLEVELAND TO PROVIDE CONSTRUCTION/PERMIT APPROVAL OF ALL WORK.



DRAFT 100% CONSTRUCTION DOCUMENTS



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MAINTENANCE OF TRAFFIC PLAN

DETROIT SHOREWAY COMMUNITY DEVELOPMENT 15-00383-010 W 65 STREET G-CADD/DATE: 15-0383-010 - 11/20/2017 09:29:54 AM



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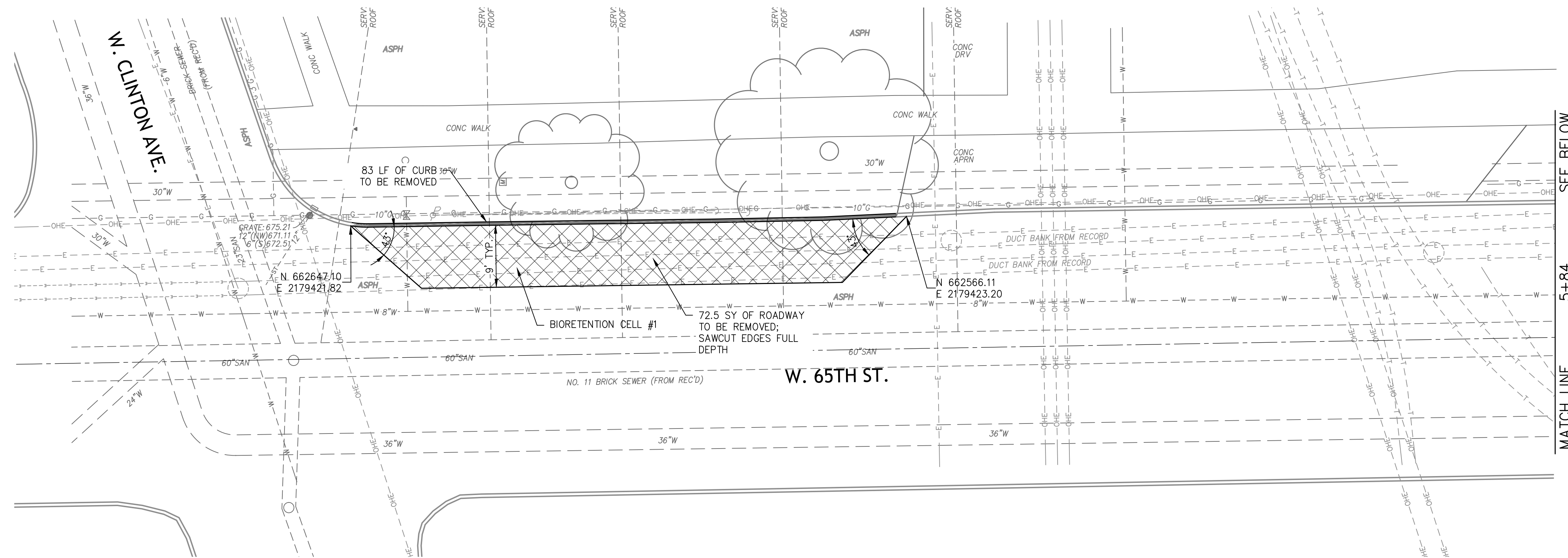
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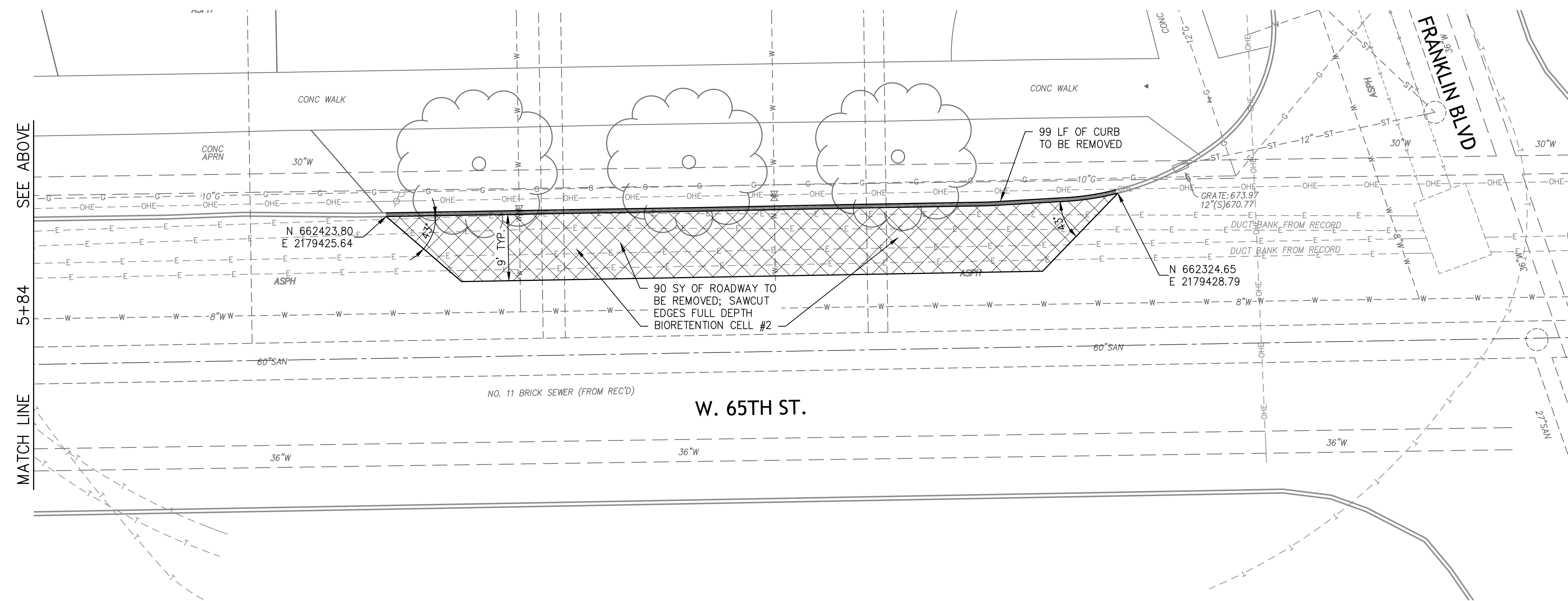
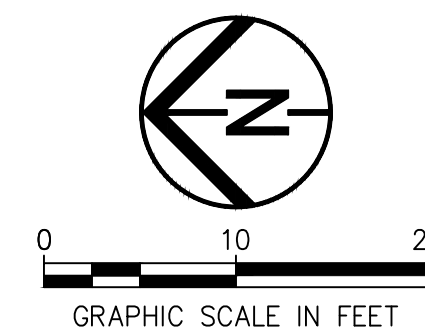
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DEMOLITION PLAN NORTH



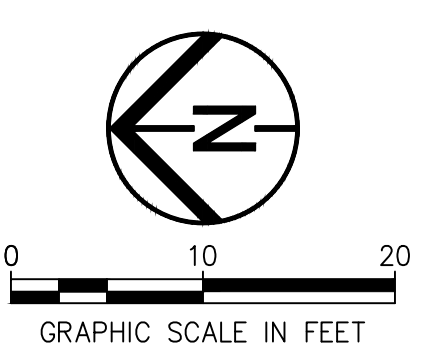
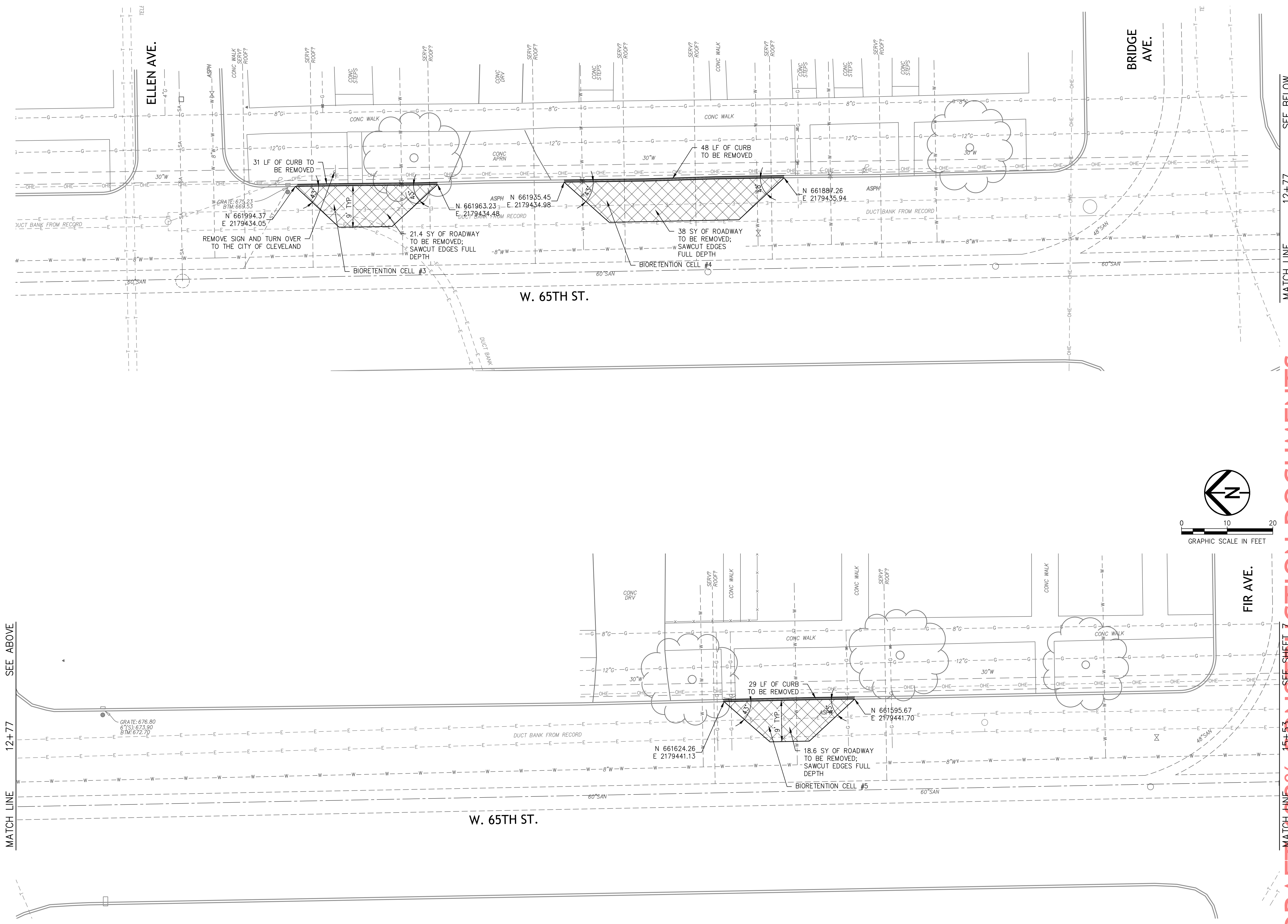
NOTES:

- CONTRACTOR SHALL NOT CUT OR ALTER EXISTING DUCT BANKS IN ANY WAY.
- CONTRACTOR SHALL MARK DEMOLITION AND SAW CUT LINES IN FIELD FOR OWNER APPROVAL PRIOR TO SAWCUTTING/DEMOLITION.



DRAFT 100% CONSTRUCTION DOCUMENTS

DETROIT SHOREWAY COMMUNITY DEVELOPMENT 15-00383-010 - W 65TH STREET GRADING AND BIOMATURING - 11/20/2017 08:00:00 AM



MATCH LINE 12+77 SEE BELOW

MATCH LINE 15+53 SEE SHEET 7

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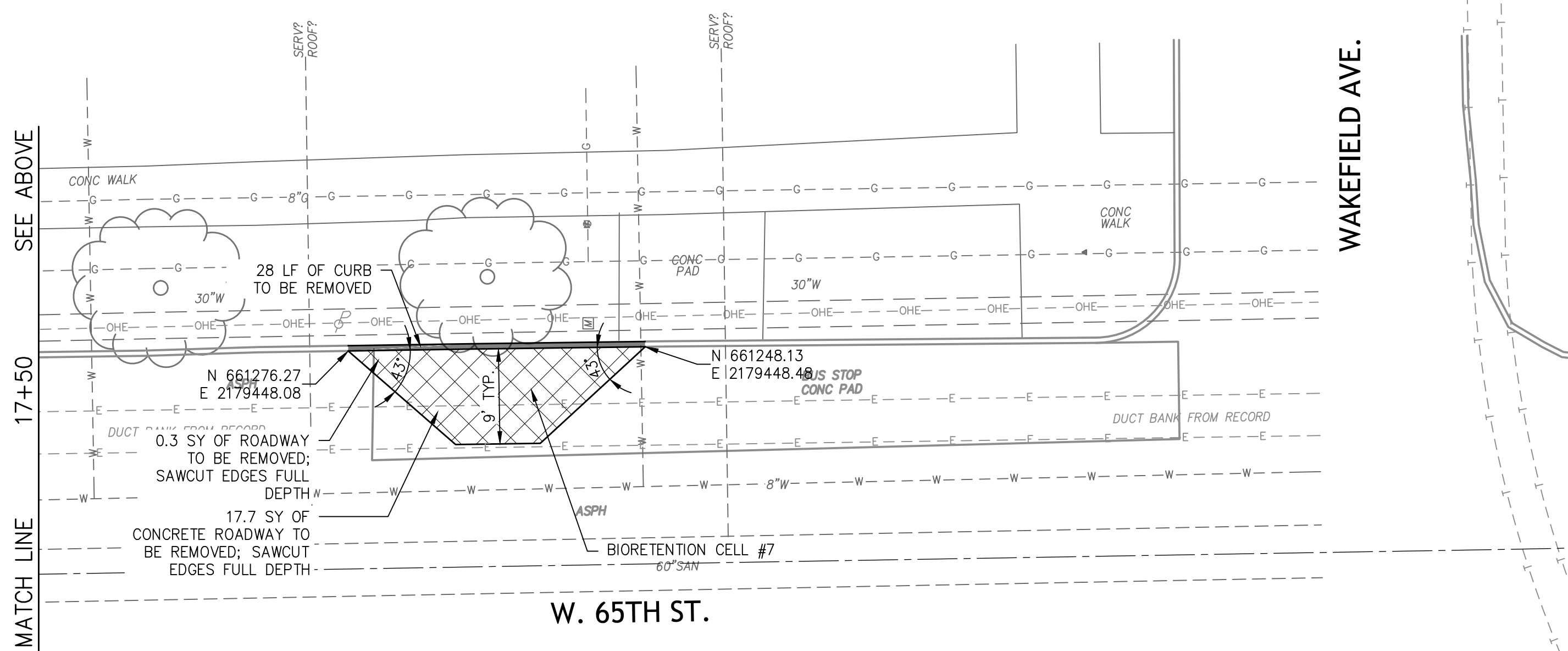
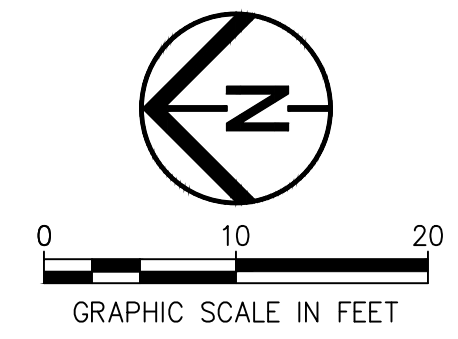
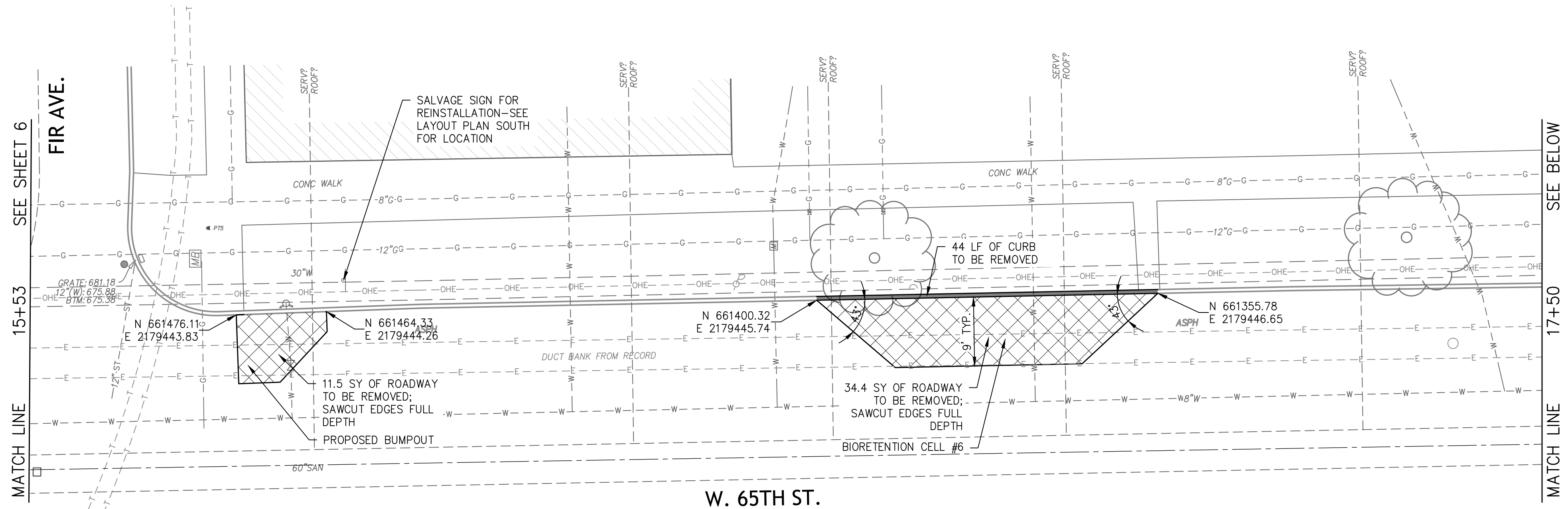
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DEMOLITION PLAN MIDDLE



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DEMOLITION PLAN SOUTH

E:\DETROIT SHOREWAY COMMUNITY DEVELOPMENT\15-00383-010 - W 65 STREET G-CAD\15000 15-00383-010 - 11/20/2017 09:08:08 AM



W. 65TH STREET GREEN INFRASTRUCTURE RETROFIT
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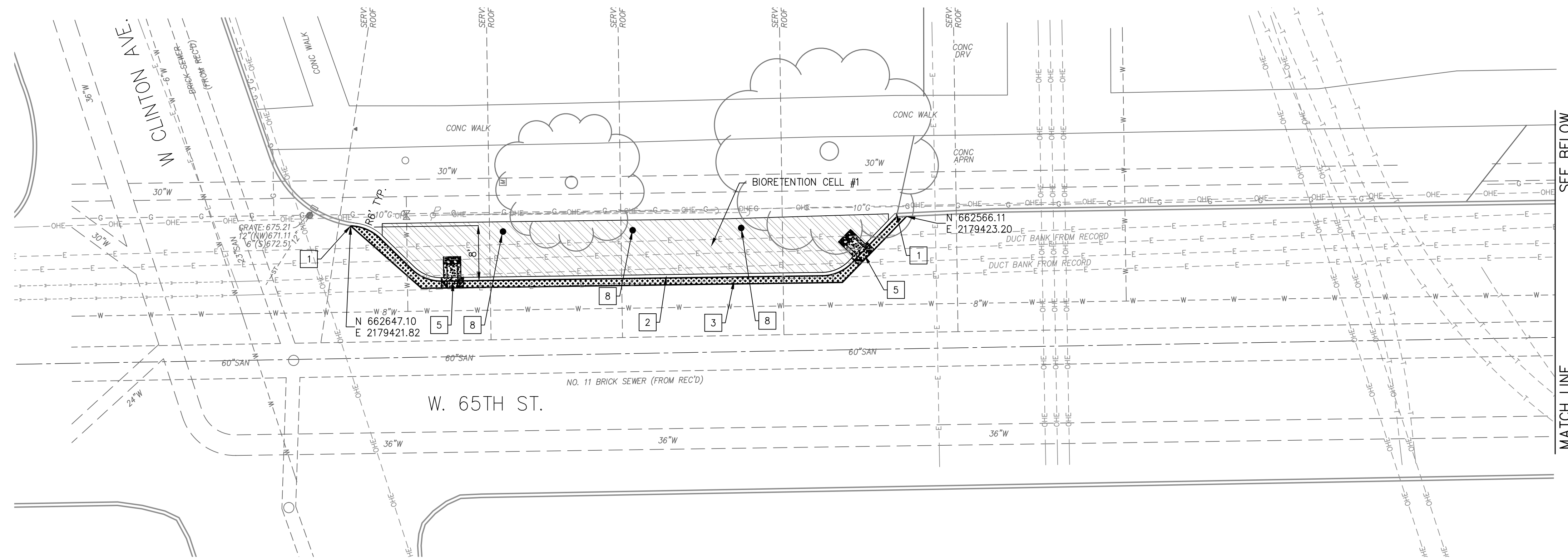
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SITE PLAN NORTH

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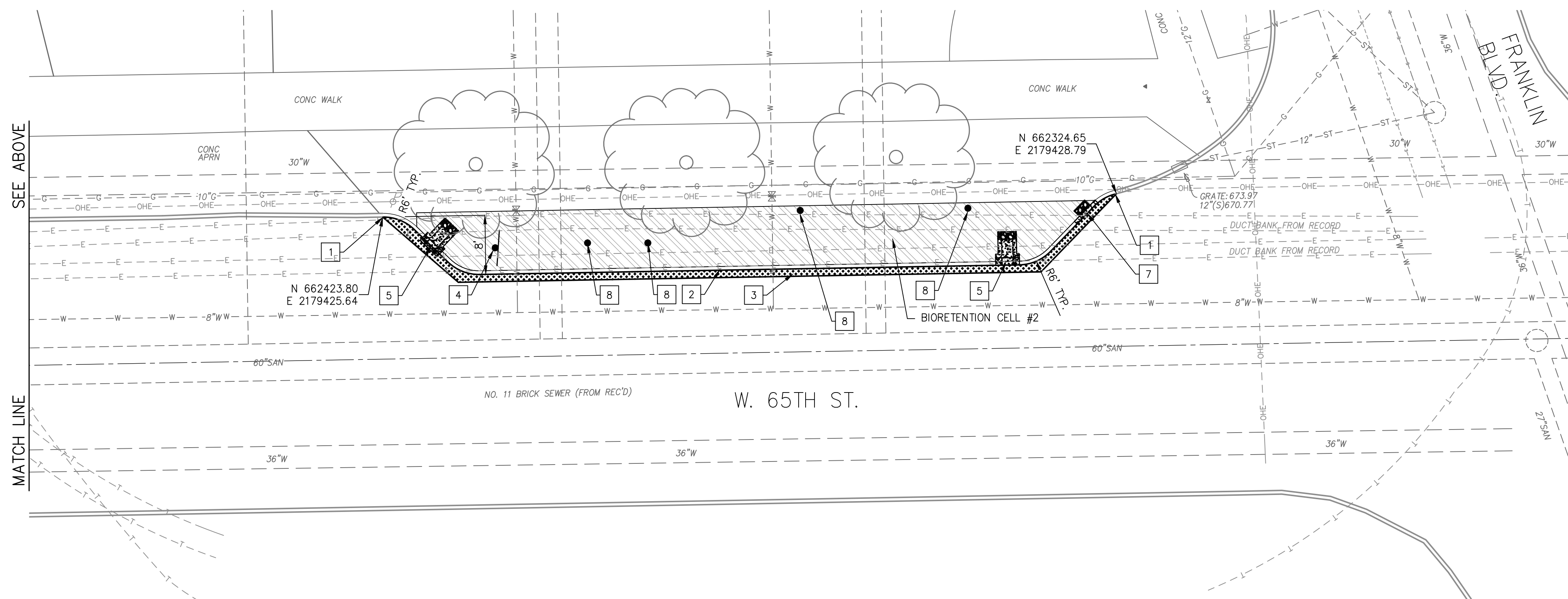
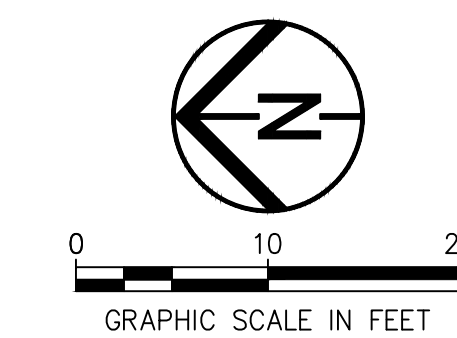


NOTES:

- CONTRACTOR SHALL INSTALL AUGURED SHAFTS PER DETAIL. 26 AUGURED HOLES SHALL BE INSTALLED. FINAL LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE CITY AND LANDSCAPE ARCHITECT.
- FOR THIS PROJECT, ODOT TYPE 6 CURBS ADJACENT TO BIORETENTION SHALL BE 24" IN DEPTH (MEASURED FROM TOP OF CURB).

KEY NOTES:

- MEET AND MATCH EXISTING CURB
- PROPOSED CURB—TOP OF CURB TO BE SET 6" ABOVE ADJACENT PAVEMENT
- PAVEMENT REPAIR PER CITY OF CLEVELAND REQUIREMENTS: MEET AND MATCH ADJACENT PAVEMENT
- RELOCATED SIGN
- CONCRETE CURB INLET (TYPE A)
- CONCRETE CURB INLET (TYPE B)
- CONCRETE CURB INLET (TYPE C)
- AUGURED SHAFTS, TYP.; SEE NOTE 1





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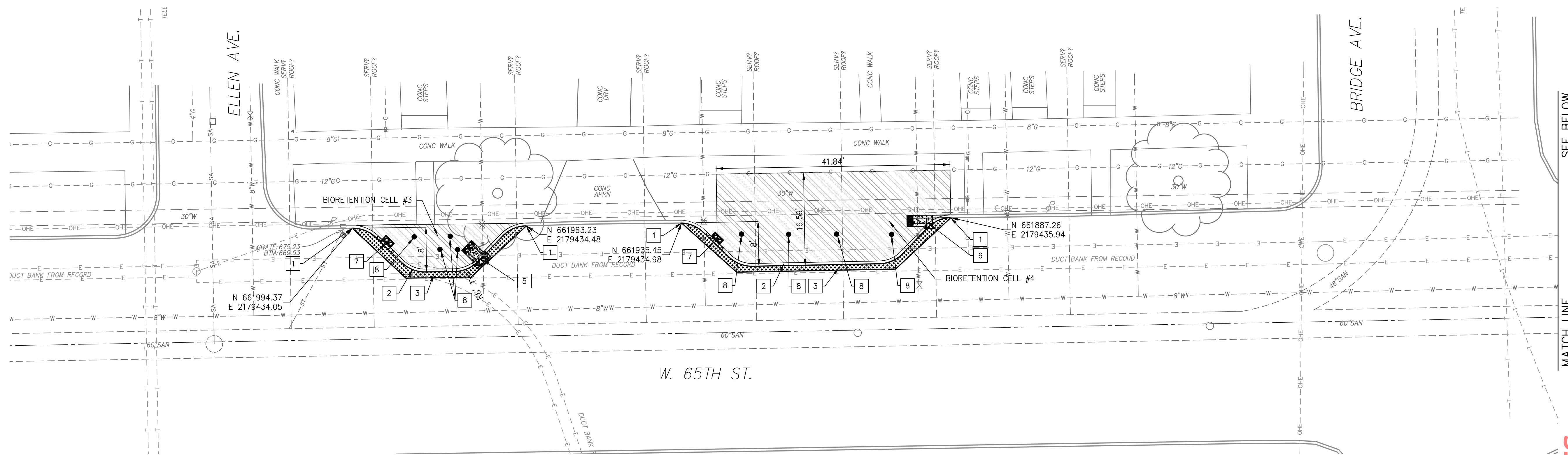
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SITE PLAN MIDDLE

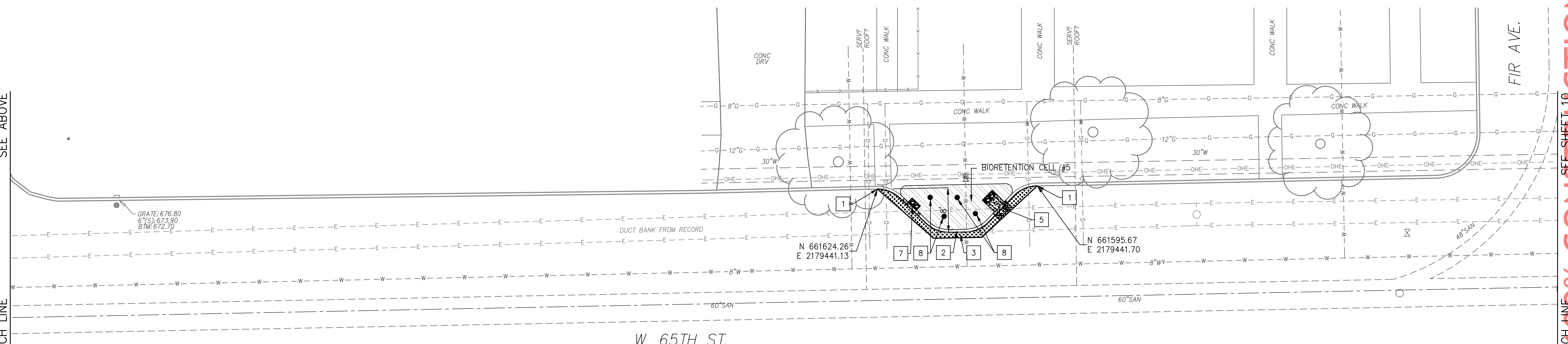
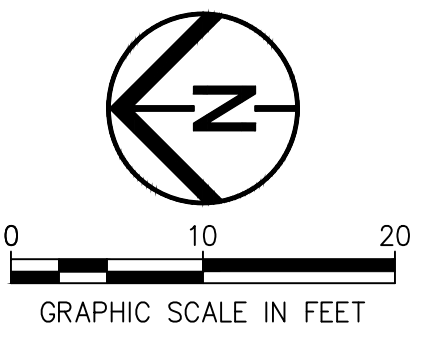


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- CONCRETE CURB INLET (TYPE B)
- CONCRETE CURB INLET (TYPE C)
- AUGURED SHAFTS, TYP.; SEE NOTE 1



DETROIT SHOREWAY COMMUNITY DEVELOPMENT 15-00383-010 W 65 STREET G-CAD/CLAYT 15-00383-010 - 11/30/2017 09:08:18 AM

DRAFT 100% CONSTRUCTION DOCUMENTS

SEE ABOVE

MATCH LINE

SEE BELOW

MATCH LINE

SEE SHEET 10

MATCH LINE



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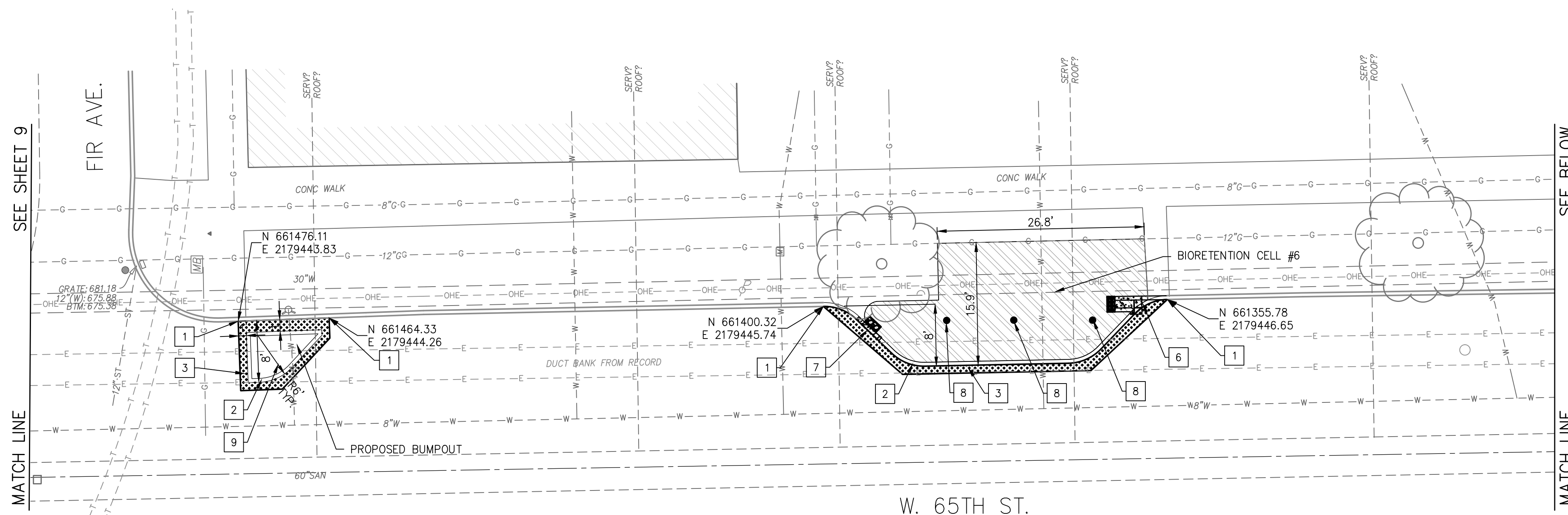
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SITE PLAN SOUTH

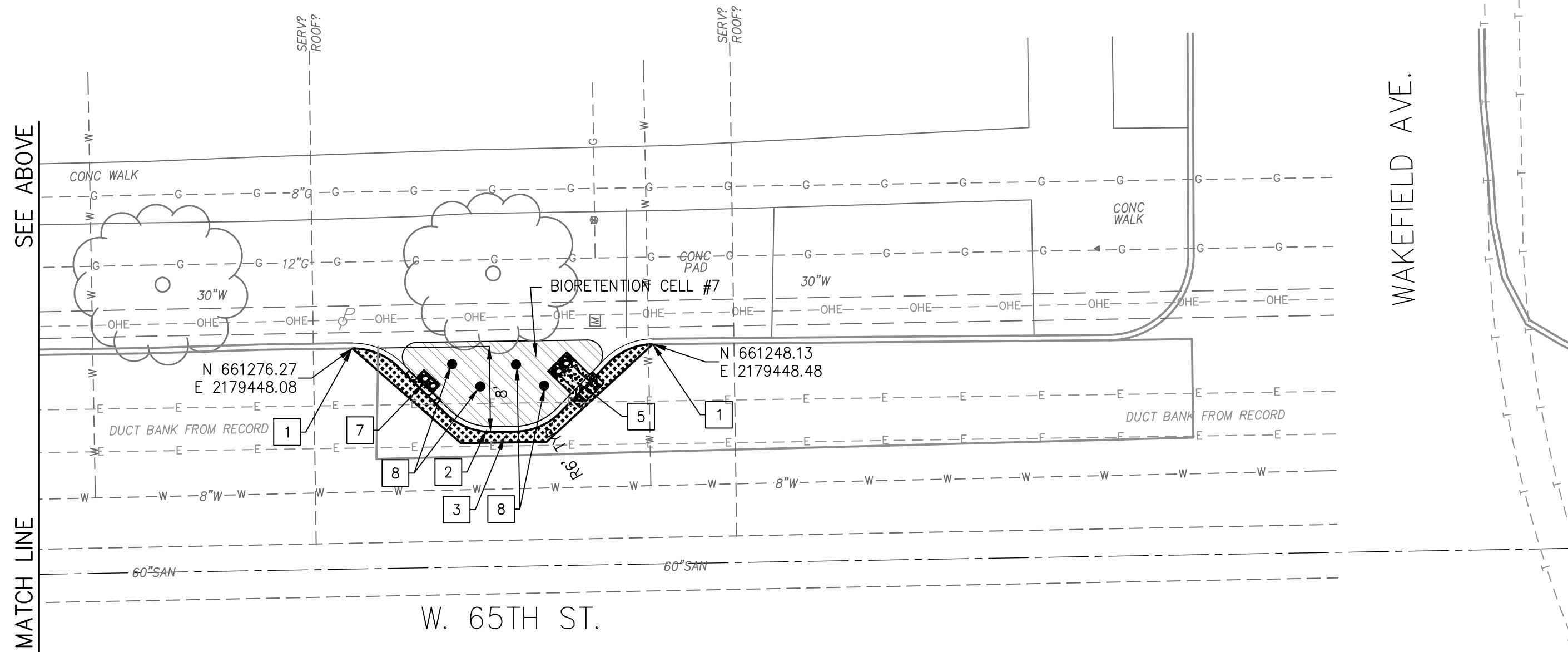
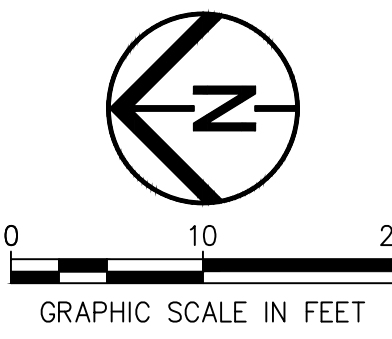


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- CONCRETE CURB INLET (TYPE A)
- CONCRETE CURB INLET (TYPE B)
- CONCRETE CURB INLET (TYPE C)
- AUGURED SHAFTS, TYP.; SEE NOTE 1
- PROPOSED BUMPOUT (NOT BIORETENTION) FOR TRAFFIC CALMING; EXCAVATE AS NEEDED TO IN SITU SOILS AND TO INSTALL CURB AND PLACE 12" TOPSOIL PER ODOT 653 TO MEET TOP OF CURB AFTER COMPACTION.



DRAFT 100% CONSTRUCTION DOCUMENTS

STORMWATER POLLUTION PREVENTION PLAN NOTES

- CONSTRUCT IN ACCORDANCE WITH THESE PLANS, THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) STANDARD CONSTRUCTION DRAWING DM-4.4 AND THE OHIO RAINWATER AND LAND DEVELOPMENT HANDBOOK (2006). THE IMPLEMENTATION OF SOIL EROSION AND SEDIMENT CONTROL SHALL ALSO CONFORM TO THE REQUIREMENTS OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) UNDER NPDES PERMIT #OHCO0004. IF CONFLICTS EXIST REGARDING THE SOIL AND SEDIMENT CONTROL PRACTICES, THE MORE RESTRICTIVE SHALL APPLY.
- STABILIZATION OF DISTURBED AREAS – DISTURBED AREAS SHALL HAVE SOIL STABILIZATION APPLIED WITHIN SEVEN (7) DAYS IF THEY ARE TO REMAIN DORMANT (UNDISTURBED) FOR MORE THAN FOURTEEN (14) DAYS. FOR AREAS WITHIN FIFTY (50) FEET OF ANY LIVE STREAM, SOIL STABILIZATION PRACTICES SHALL BE INITIATED WITHIN TWO (2) DAYS ON ALL INACTIVE, DISTURBED AREAS. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. WHEN SEASONAL CONDITIONS PROHIBIT THE APPLICATION OF TEMPORARY OR PERMANENT SEEDING, NON-VEGETATIVE SOIL STABILIZATION PRACTICES SUCH AS MULCHING AND MATTING SHALL BE USED.
- INSTALL ALL EROSION AND SEDIMENT CONTROL ITEMS BEFORE ANY CLEARING AND GRUBBING OR EARTHWORK IS BEGUN.
- PROTECT UNDISTURBED AREAS THROUGHOUT CONSTRUCTION. DO NOT STORE EQUIPMENT, VEHICLES OR MATERIALS IN THESE PROTECTED AREAS.
- SEEDING AND FERTILIZER FOR PERMANENT COVER SHALL BE AS SPECIFIED IN ODOT CMS ITEM 659.
- MULCHING SHALL BE AS SPECIFIED IN ODOT CMS ITEM 659.
- TOPSOILING SHALL BE AS SPECIFIED IN ODOT CMS ITEM 659.
- EXCELSIOR MATTING/EROSION CONTROL BLANKETS WILL BE USED ON TEMPORARY DIVERSION CHANNELS AND DITCHES GREATER THAN 1.5% AND ALL OTHER SLOPES STEEPER THAN 6%. EXCELSIOR MATTING/EROSION BLANKETS SHALL BE AS SPECIFIED.
- SILT FENCE AND/OR SILT SOCK SHALL BE AS DETAILED ON THE DRAWINGS AND AS SPECIFIED.
- ROCK CHANNEL PROTECTION SHALL BE AS SPECIFIED IN ODOT CMS ITEM 601.
- NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORMWATER RUNOFF.
- OFF-SITE VEHICLE TRACKING OF SEDIMENTS WILL BE MINIMIZED. ALL OFF-SITE TRACKING OF SEDIMENT SHALL BE CLEANED UP AS IT OCCURS.
- SEDIMENT TRAPS AND BASINS WILL BE USED FOR TEMPORARY EROSION CONTROL.
- OTHER EROSION CONTROL AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS.
- A PRE-CONSTRUCTION MEETING IS REQUIRED WITH CUYAHOGA S.W.C.D. (216-524-6580) PRIOR TO BEGINNING WORK.
- TRUCK WASHOUT AND DISCHARGE OF SURPLUS WASH WATER ON SITE IS PERMITTED EXCLUSIVELY IN THE DESIGNATED AREA.
- WINTERIZATION – ANY DISTURBED AREA THAT IS NOT GOING TO BE WORKED FOR 21 DAYS OR MORE MUST BE SEEDING AND MULCHED BY NOVEMBER 1 OR MUST HAVE A DORMANT SEEDING OR MULCH COVER APPLIED BETWEEN NOVEMBER 1 AND MARCH 1.
- TRENCH WATER MUST BE PUMPED THROUGH A SEDIMENT SETTLING FACILITY OR EQUALLY EFFECTIVE DEVICE PRIOR TO DISCHARGE FROM THE SITE.
- STAGING, STORAGE, FUELING AND VEHICLE PARKING ARE SHOWN ON THE SWPP PLAN. IF THE CONTRACTOR WANTS TO UTILIZE A DIFFERENT LOCATION FOR THESE FUNCTIONS, THEY SHALL REVISE THE SWPP PLAN AND SUBMIT IT TO CUYAHOGA S.W.C.D. FOR APPROVAL.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION AND SEDIMENT CONTROL MEASURES.
- DISTURBED AREAS REMAINING DORMANT FOR OVER A YEAR AT THE FINAL GRADE WILL HAVE A PERMANENT COVER APPLIED WITHIN 7 DAYS OF LAST DISTURBANCE.

MAINTENANCE AND INSPECTION:
PERMANENT RECORDS OF MAINTENANCE AND INSPECTION MUST BE MAINTAINED THROUGHOUT CONSTRUCTION A MINIMUM OF ONCE EVERY 7 DAYS AND AFTER STORM EVENTS GREATER THAN 0.5 INCH IN A 24 HOUR PERIOD. PROVIDE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION, CERTIFICATION OF COMPLIANCE AND CORRECTIVE MEASURES TAKEN.

REPAIRS:
ANY EROSION CONTROL MEASURES, STRUCTURES, DEVICES, OR RELATED ITEMS IN NEED OF REPAIR WILL BE MADE WITHIN 7 DAYS.

MATERIAL MANAGEMENT PRACTICES:
THE FOLLOWING PRACTICES SHALL BE EXECUTED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORMWATER RUN-OFF. THE JOB SITE SUPERINTENDENT IS RESPONSIBLE FOR ENSURING THESE PRACTICES ARE FOLLOWED:

- STORE THE MINIMUM AMOUNT OF PRODUCT REQUIRED TO COMPLETE THE JOB, IF POSSIBLE, UNDER ROOF OR IN A CONTAINMENT AREA. PRODUCTS SHALL REMAIN IN THEIR ORIGINAL CONTAINER. LABEL MUST BE LEGIBLE.
- MANUFACTURER'S RECOMMENDATION SHALL BE FOLLOWED FOR USE AND DISPOSAL.
- PRODUCT TO BE USED ENTIRELY (WHEN POSSIBLE) PRIOR TO DISPOSING.
- MATERIAL SAFETY DATA SHEETS (MSDS) FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES USED ON THE SITE SHALL BE OBTAINED AND POSTED IN THE IMMEDIATE AREA OF PRODUCT STORAGE AND SHALL BE USED FOR PROPER MANAGEMENT OF POTENTIAL WASTE.
- ALL HAZARDOUS WASTE MATERIAL WILL BE DISPOSED BY THE CONTRACTOR IN A MANNER SPECIFIED BY LOCAL, STATE OR FEDERAL REGULATIONS AND PER MANUFACTURERS RECOMMENDATIONS.
- ALL PERSONNEL SHALL BE TRAINED IN THE PROPER HANDLING AND CLEAN UP OF SPILLED MATERIALS. NO SPILLED HAZARDOUS MATERIALS OR WASTE SHALL BE ALLOWED TO COME IN CONTACT WITH STORMWATER DISCHARGES. IF NECESSARY, THE CONTAMINATED STORMWATER WILL BE HELD ON SITE UNTIL IT MEETS LOCAL, STATE AND FEDERAL REGULATIONS.
- IN THE EVENT OF A SPILL THE FOLLOWING PROCEDURES MUST BE FOLLOWED:
 - ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
 - THE PROJECT MANAGER AND ENGINEER OF RECORD IMMEDIATELY NOTIFIED.
 - ANY SPILLS OF TOXIC OR HAZARDOUS MATERIALS MUST BE REPORTED TO THE APPROPRIATE LOCAL, STATE AND FEDERAL AGENCY. THE EPA NATIONAL RESPONSE CENTER (1-800-424-8802) MUST BE NOTIFIED WHEN A SPILL EXCEEDS THE REPORTABLE QUANTITY OF A SUBSTANCE. THE SUBSTANCES AND AMOUNTS ARE LOCATED IN FEDERAL REGULATIONS (40 CFR 110, 114 AND 302).
 - IF A SPILL EXCEEDS A REPORTABLE QUANTITY, THE SWPP PLAN MUST BE MODIFIED WITHIN 7 DAYS PROVIDING A DESCRIPTION, DATE AND INCIDENT OF THE RELEASE.

PRODUCT SPECIFIC PRACTICES:

- PETROLEUM – PETROLEUM PRODUCTS WILL BE STORED IN CLEARLY LABELED TIGHTLY SEALED CONTAINERS. ANY ON SITE PETROLEUM STORAGE TANKS WILL HAVE A CONTAINMENT STRUCTURE AROUND IT FOR POTENTIAL SPILLS. DRIP PANS SHALL BE PROVIDED FOR ALL DISPENSERS. MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED WHEN ANY ASPHALT SUBSTANCES ARE USED ON SITE.
- FERTILIZERS – THE MANUFACTURER'S RECOMMENDED MINIMAL AMOUNTS SHALL BE APPLIED AND WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER. THE CONTENTS OF ANY PARTIALLY USED BAGS WILL BE TRANSFERRED TO SEALABLE PLASTIC BINS AND STORED UNDER COVER, AWAY FROM STORMWATER DRAINAGE WAYS.

SITE LOCATION INFORMATION

CLEVELAND, OHIO		LATITUDE: 41°28'53.3" N
CITY, VILLAGE, TOWNSHIP		LONGITUDE: 81°43'49.4" W
CITY OF CLEVELAND COMBINED SEWER SYSTEM		CUYAHOGA COUNTY OHIO STATE
NAME OF WATERSHED/IMMEDIATE RECEIVING WATER(S)		
EAST SIDE OF W. 65TH FROM W. CLINTON AVE. TO WAKEFIELD AVE.		
SITE ADDRESS		
THE DETROIT SHOREWAY COMMUNITY DEVELOPMENT ORGANIZATION		216-961-4242
DEVELOPER		PHONE
6516 DETROIT AVENUE, CLEVELAND, OHIO 44102		
DEVELOPER ADDRESS		
HYDROLOGIC SOIL GROUPS:		
UoB – Urban land-Osherno complex, undulating		

MAJOR CONSTRUCTION OPERATIONS SCHEDULE

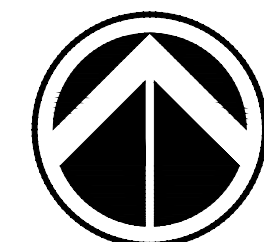
	2018											
	J	F	M	A	M	J	J	A	S	O	N	D
CLEARING/DEMOLITION					•	•						
ROUGH GRADING					•	•	•	•				
UTILITIES				•	•	•						
FINE GRADING					•	•	•	•				
PAVING						•	•	•	•			
TOPSOIL AND SEEDING									•	•		
LANDSCAPING									•	•	•	
POST CONSTRUCTION BMPS									•	•	•	
TEMPORARY EROSION CONTROL	•	•	•	•	•	•	•	•	•	•	•	•

ACCEPTABLE EROSION CONTROL TIMETABLE

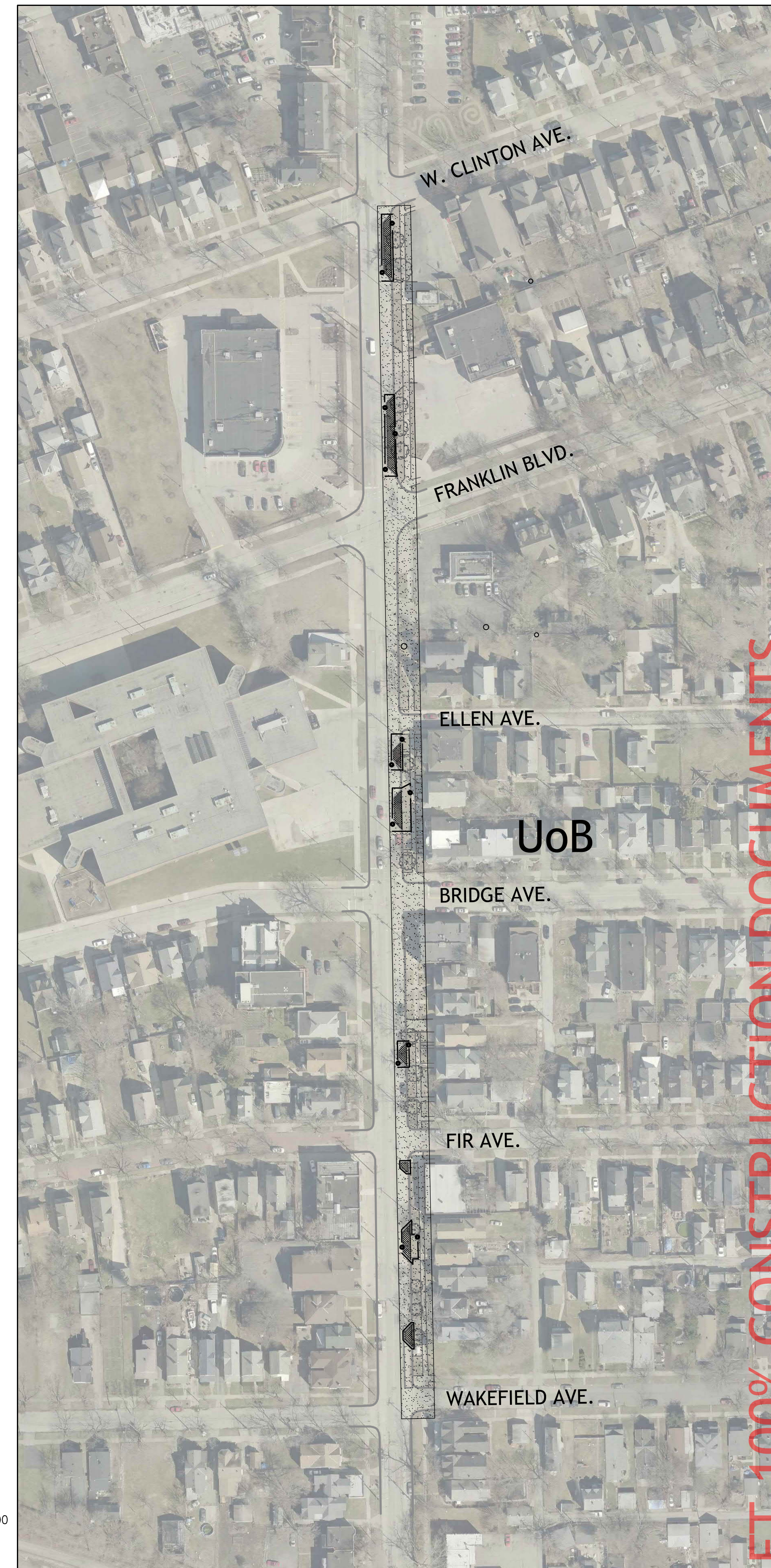
	2018											
	J	F	M	A	M	J	J	A	S	O	N	D
TEMPORARY SEEDING				•	•	•	•	•	•	•	•	•
PERMANENT SEEDING				•	•	•	•	•	•	•	•	•
LANDSCAPING									•	•	•	•
MULCHING	•	•	•	•	•	•	•	•	•	•	•	•
MAINTENANCE	•	•	•	•	•	•	•	•	•	•	•	•

SITE DESCRIPTION

MARK ONE	TOTAL DISTURBED AREA	AC	0.14
SUBDIVISION	PRE-DEV RUNOFF COEFF	-	0.80
COMMERCIAL	POST DEV RUNOFF COEFF	-	0.54
RESIDENTIAL	AREA TO BE CLEARED	AC	0.06
PUD	AREA TO BE EXCAVATED	AC	0.06
OTHER	• GI RETROFITS IN ROW	PRE-DEV IMPERVIOUSNESS	% 97
		POST DEV IMPERVIOUSNESS	% 44



NORTH
0 100 200
GRAPHIC SCALE IN FEET



SOILS MAP

Environmental Design Group
450 GRANT STREET AKRON, OH 44311
806 LITERARY ROAD 2ND FLOOR, SUITE 206 CLEVELAND, OH 44113
T: 330.375.1390 F: 330.375.1590 WWW.ENVDESIGNGROUP.COM

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

W. 65TH STREET GREEN
INFRASTRUCTURE RETROFIT
DETROIT SHOREWAY COMMUNITY DEVELOPMENT ORGANIZATION



DRAFT 100% CD'S

DATE: _____

REVISIONS		
Δ	DATE	DESCRIPTION

PROJECT NO.: 15-00383-010
DRAWN BY: EDG
CHECKED BY: HAH
DATE ISSUED: 2017/11/30

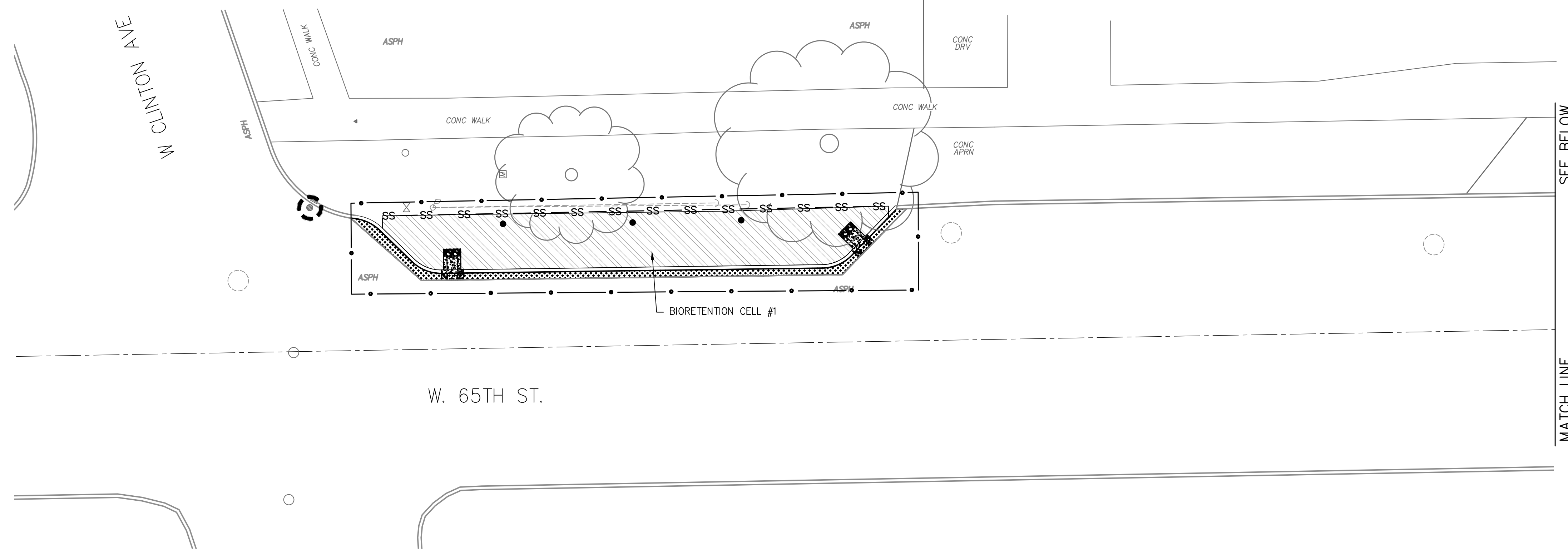
SWPPP NOTES

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W. 65TH STREET GREEN INFRASTRUCTURE RETROFIT
 DETROIT SHOREWAY COMMUNITY DEVELOPMENT ORGANIZATION

DRAFT 100% CONSTRUCTION DOCUMENTS

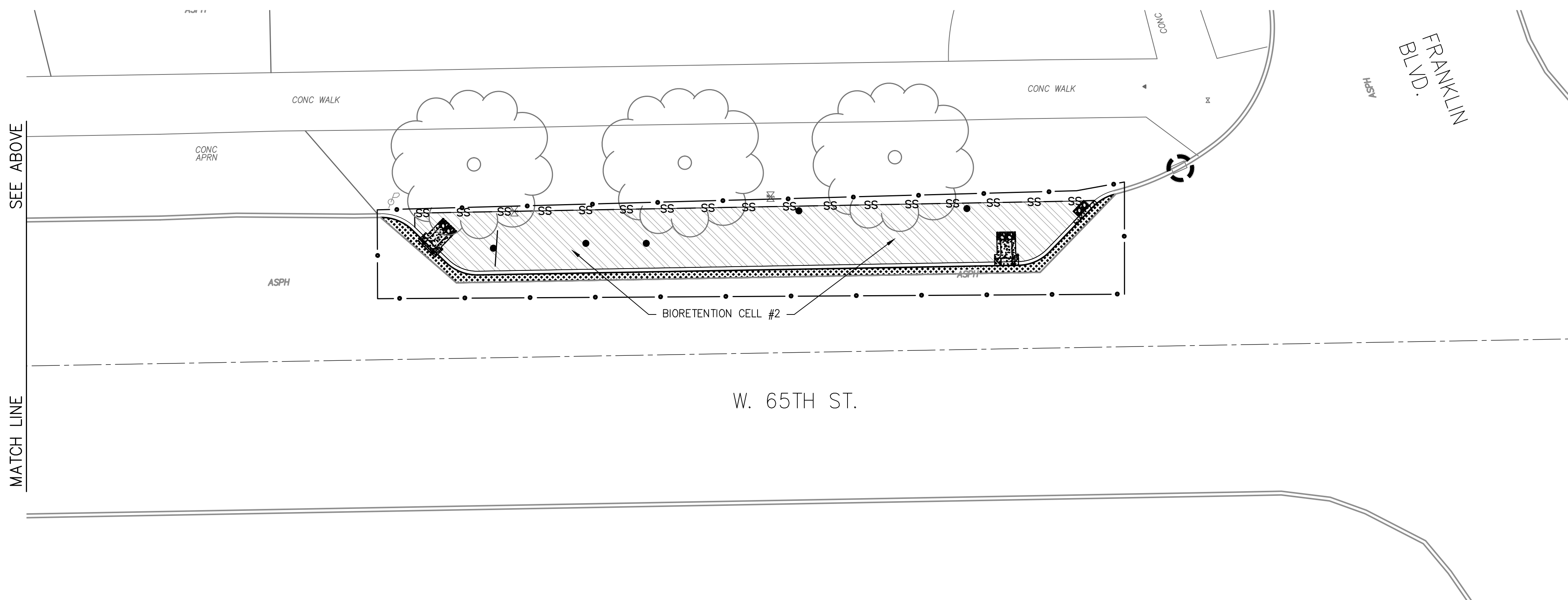
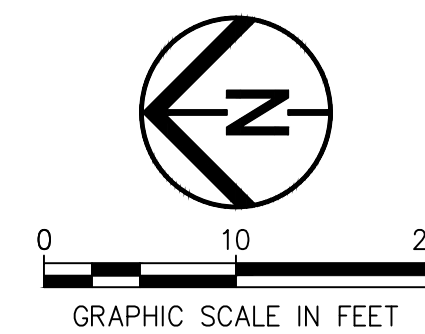


PLAN VIEW NOTES

1. ALTHOUGH SILT FENCE/SILT SOCK IS SHOWN AS CONTINUOUS LINE ON PLAN, CONTRACTOR SHALL INSTALL SILT FENCE IN SECTIONS PARALLEL WITH THE CONTOURS ON STEEPLY SLOPED AREAS TO ENSURE SEDIMENT IS TRAPPED BY SILT FENCE/SILT SOCK.
2. ALL DISTURBED AND PROPOSED SWALES SHALL HAVE DITCH EROSION PROTECTION ALONG THE ENTIRE LENGTH OF THE SWALE AS SHOWN ON THE DETAILS.
3. ALL CONCRETE CURB INLETS SHALL HAVE SILT SOCK INLET PROTECTION.

PLAN VIEW LEGEND

- SS — SS — SILT SOCK $\frac{2}{15}$
- • — LIMITS OF DISTURBANCE
- INLET PROTECTION SILT SCREEN $\frac{1}{15}$



DRAFT 100% CD'S

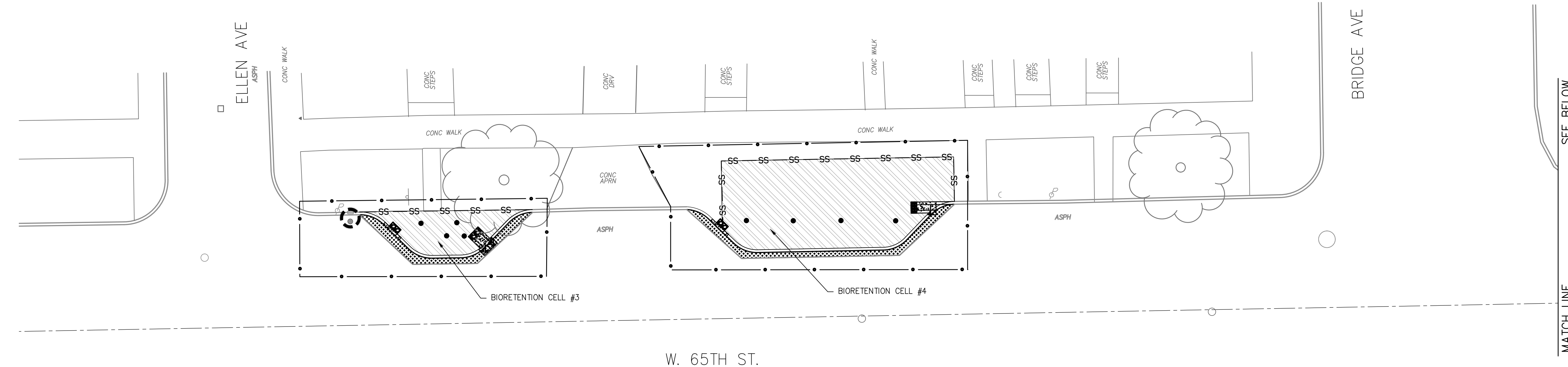
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SWPPP NORTH

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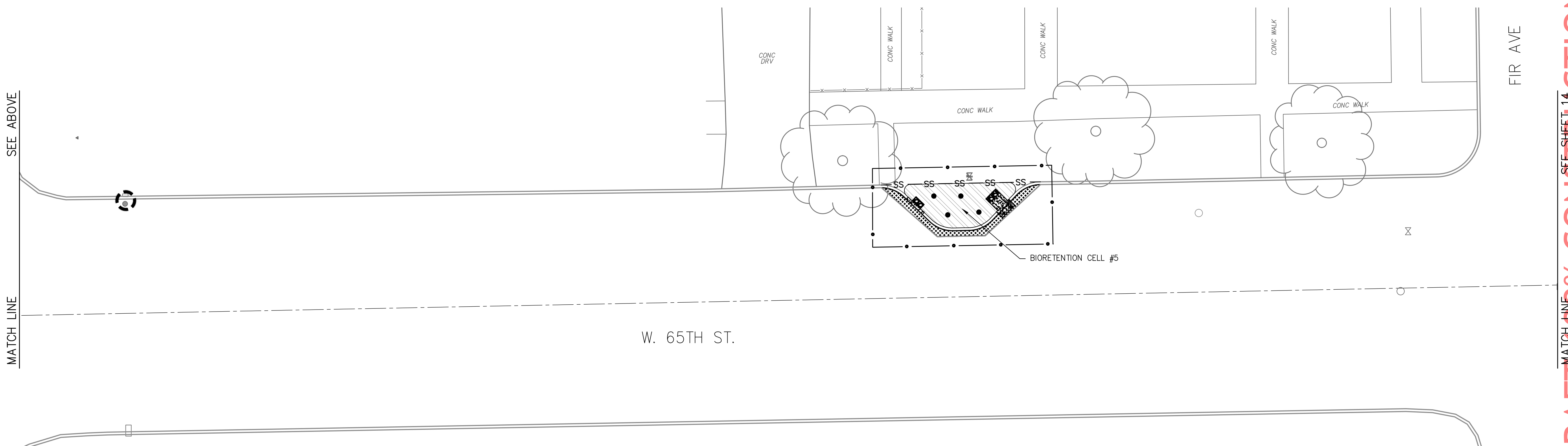
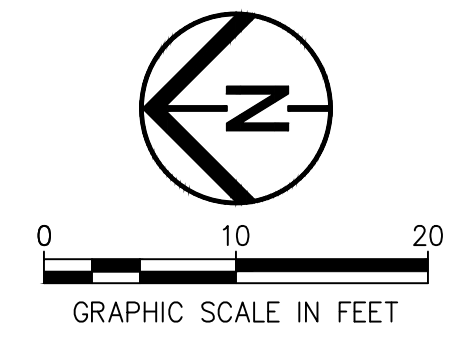


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PLAN VIEW LEGEND

- SS — SS — SILT SOCK (2/15)
- • — LIMITS OF DISTURBANCE
- ⊙ INLET PROTECTION SILT SCREEN (1/15)



DRAFT 100% CONSTRUCTION DOCUMENTS



W. 65TH STREET GREEN INFRASTRUCTURE RETROFIT
 DETROIT SHOREWAY COMMUNITY DEVELOPMENT ORGANIZATION

DRAFT 100% CD'S

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SWPPP MIDDLE



W. 65TH STREET GREEN INFRASTRUCTURE RETROFIT
 DETROIT SHOREWAY COMMUNITY DEVELOPMENT ORGANIZATION

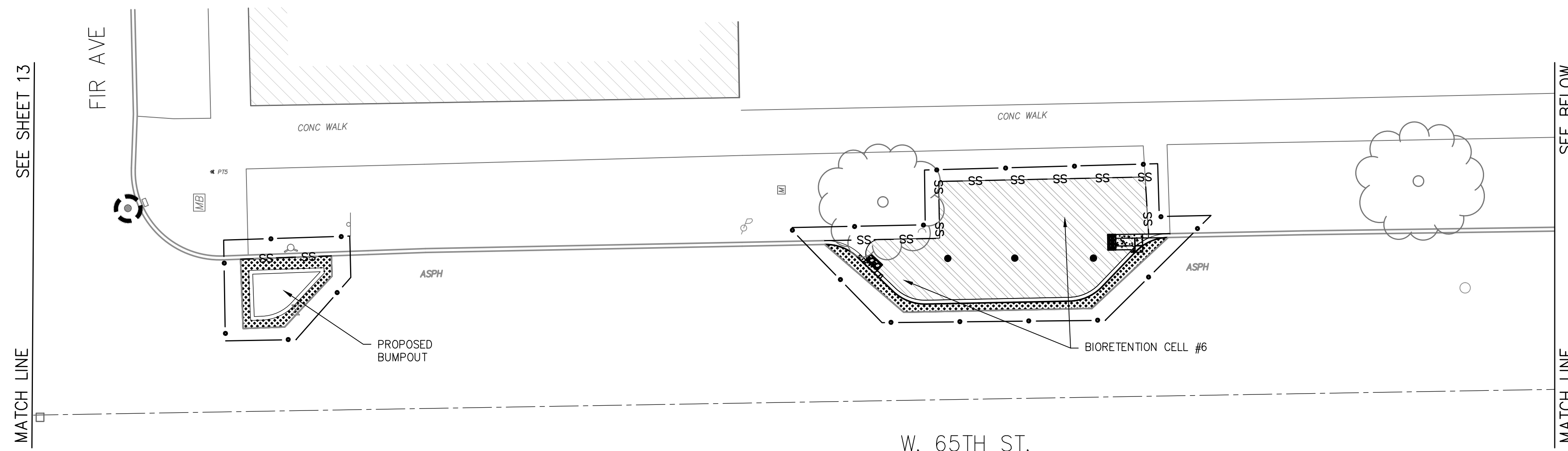
DRAFT 100% CD'S

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REVISIONS		
Δ	DATE	DESCRIPTION

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SWPPP SOUTH

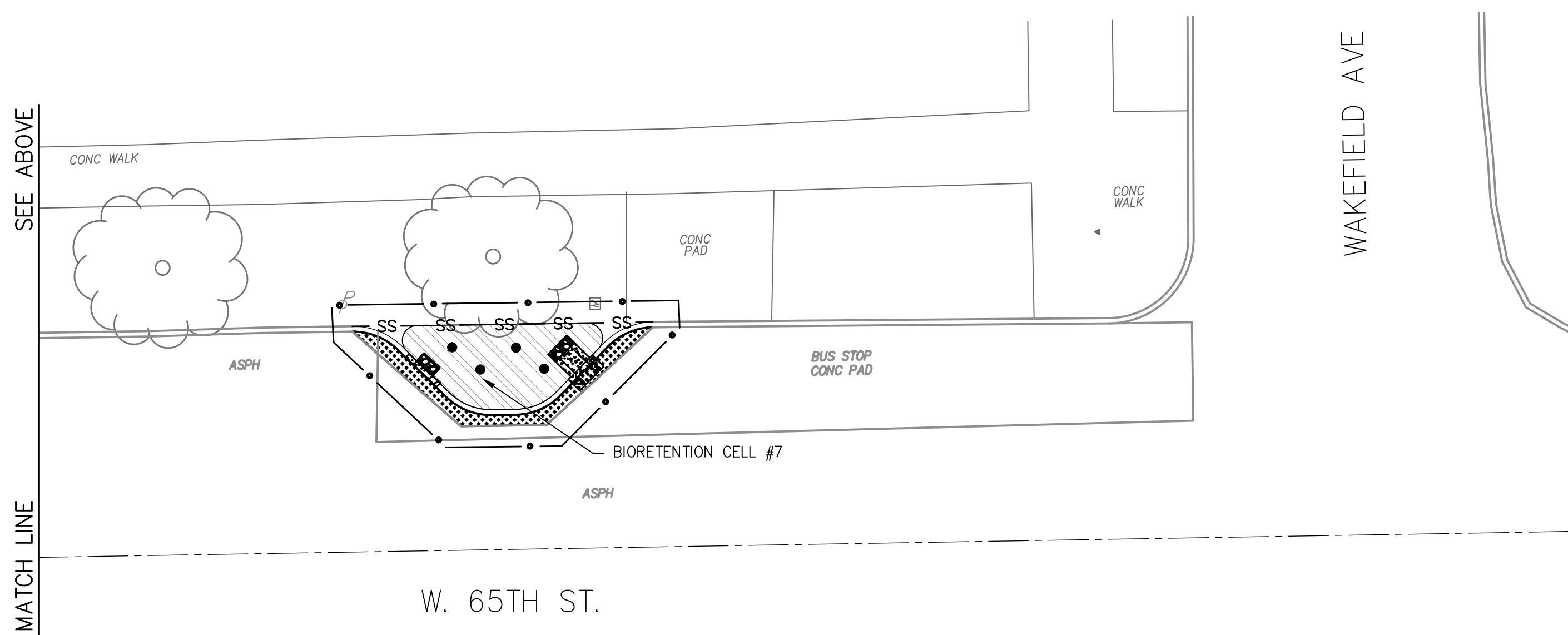
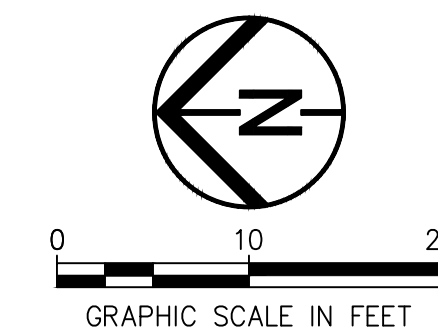


PLAN VIEW NOTES

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- ALL DISTURBED AND PROPOSED SWALES SHALL HAVE DITCH EROSION PROTECTION ALONG THE ENTIRE LENGTH OF THE SWALE AS SHOWN ON THE DETAILS
- ALL CONCRETE CURB INLETS SHALL HAVE SILT SOCK INLET PROTECTION.

PLAN VIEW LEGEND

- SS — SS — SILT SOCK (2/15)
- • — LIMITS OF DISTURBANCE
- ⊙ INLET PROTECTION SILT SCREEN (1/15)



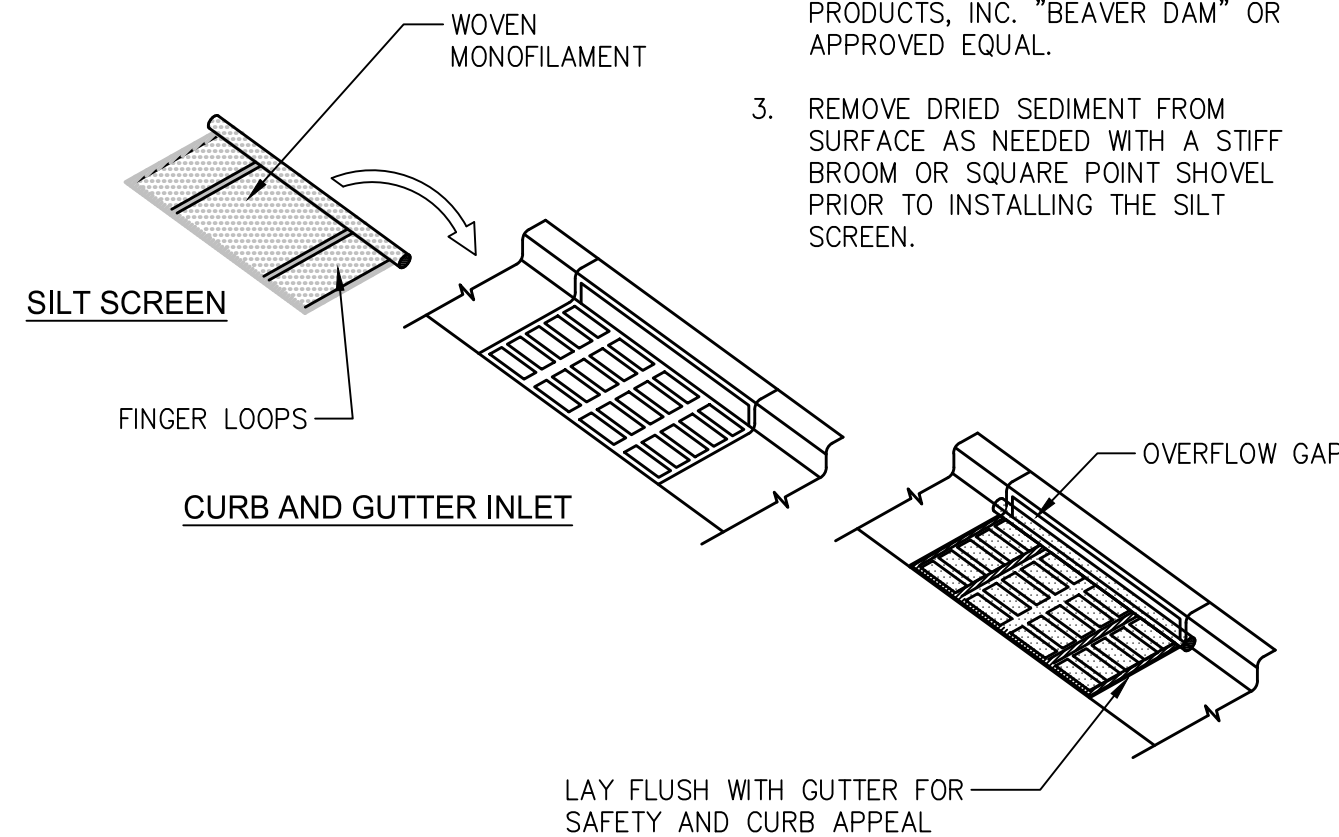
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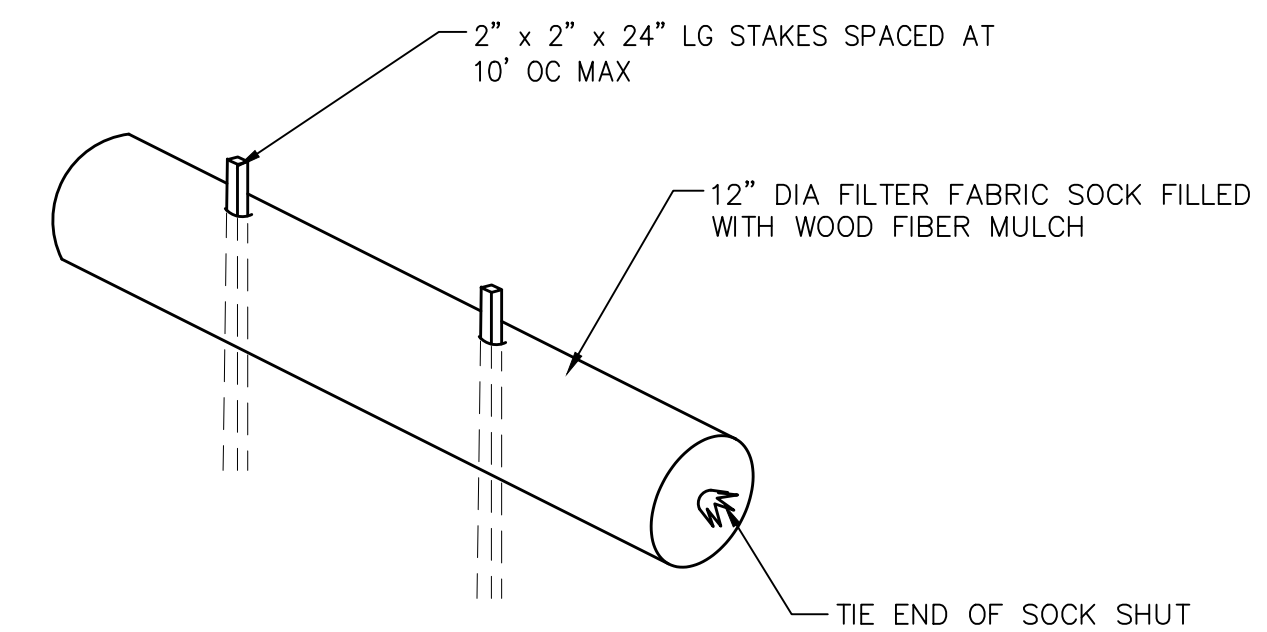
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NOTES

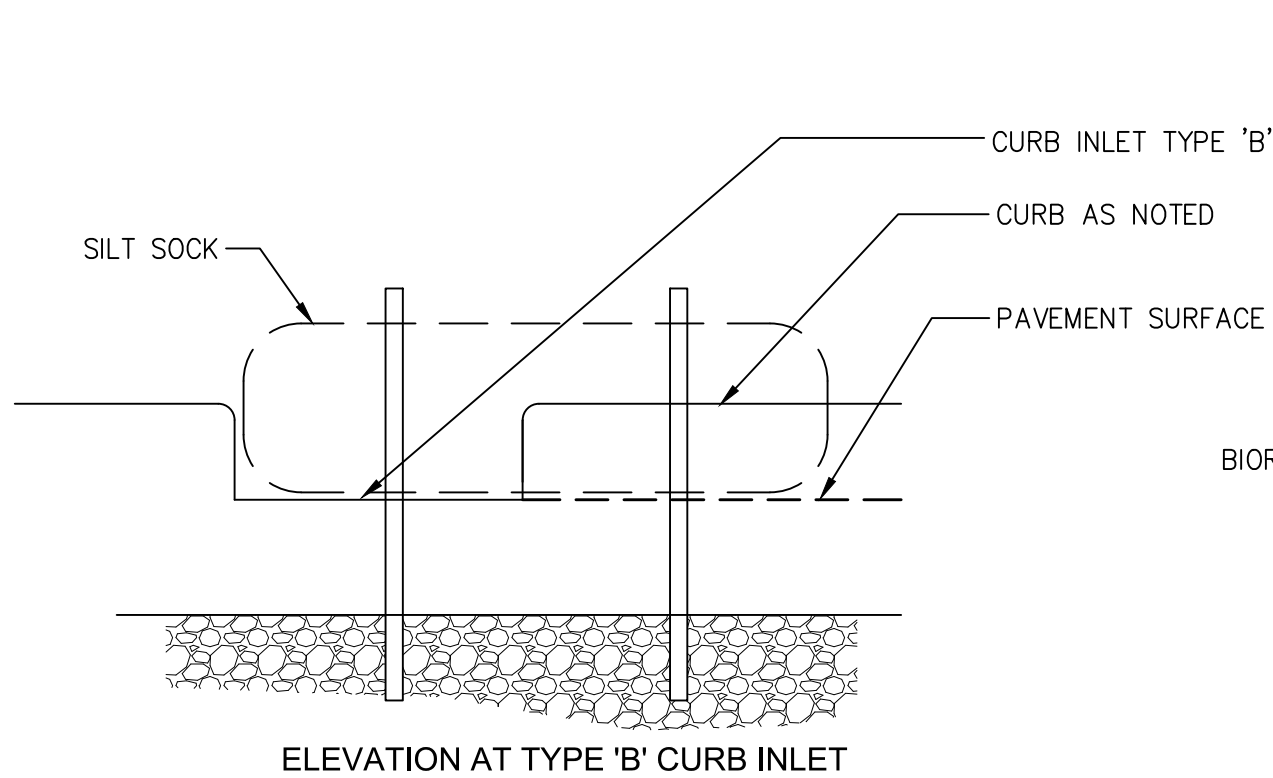
1. THIS METHOD OF INLET PROTECTION IS APPLICABLE FOR INLETS IN CURBED AREAS.
2. SILT SCREEN SHALL BE DANDY PRODUCTS, INC. "BEAVER DAM" OR APPROVED EQUAL.
3. REMOVE DRIED SEDIMENT FROM SURFACE AS NEEDED WITH A STIFF BROOM OR SQUARE POINT SHOVEL PRIOR TO INSTALLING THE SILT SCREEN.



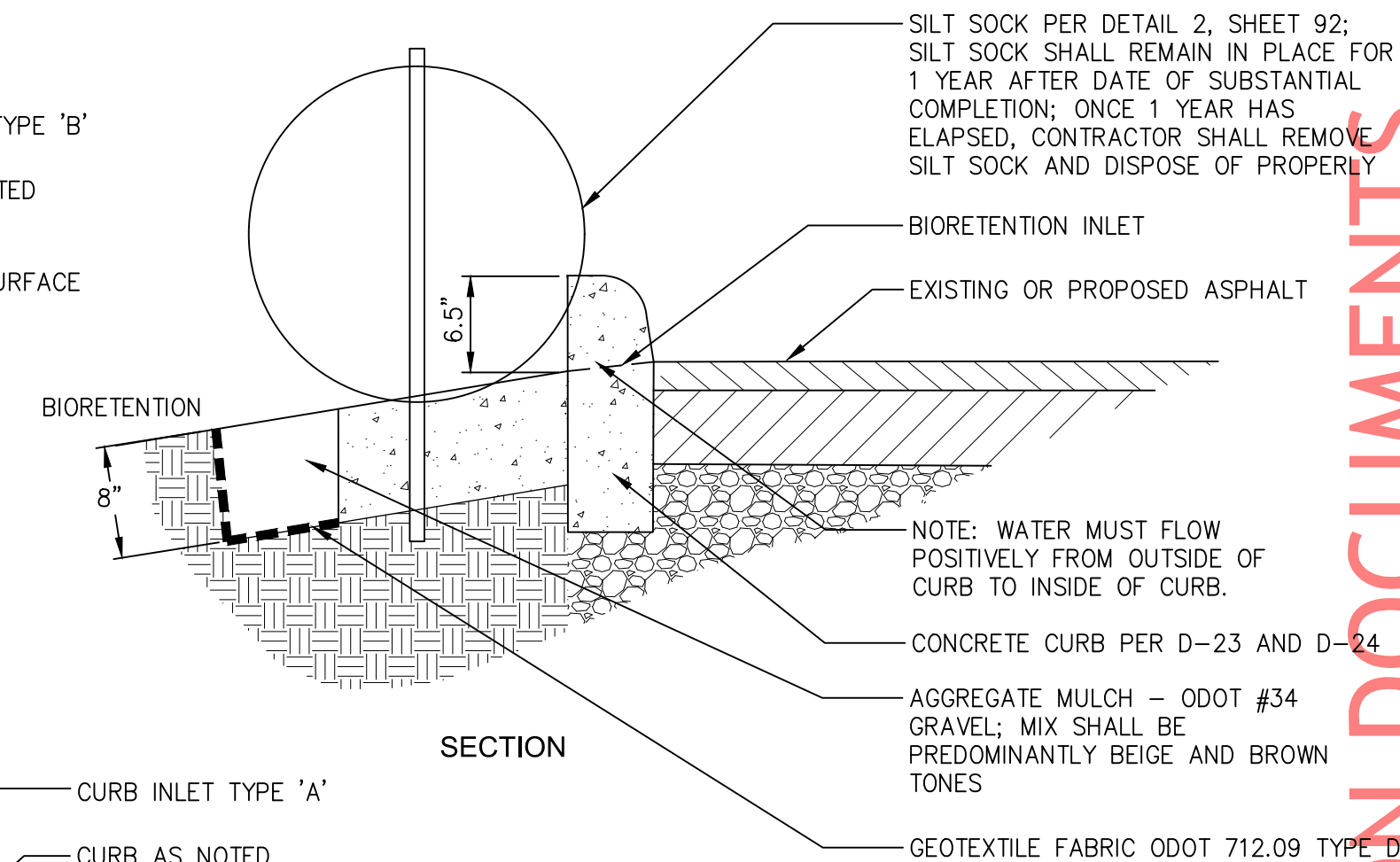
1 INLET PROTECTION - SILT SCREEN
 15 NOT TO SCALE



2 SILT SOCK
 15 NOT TO SCALE



ELEVATION AT TYPE 'B' CURB INLET

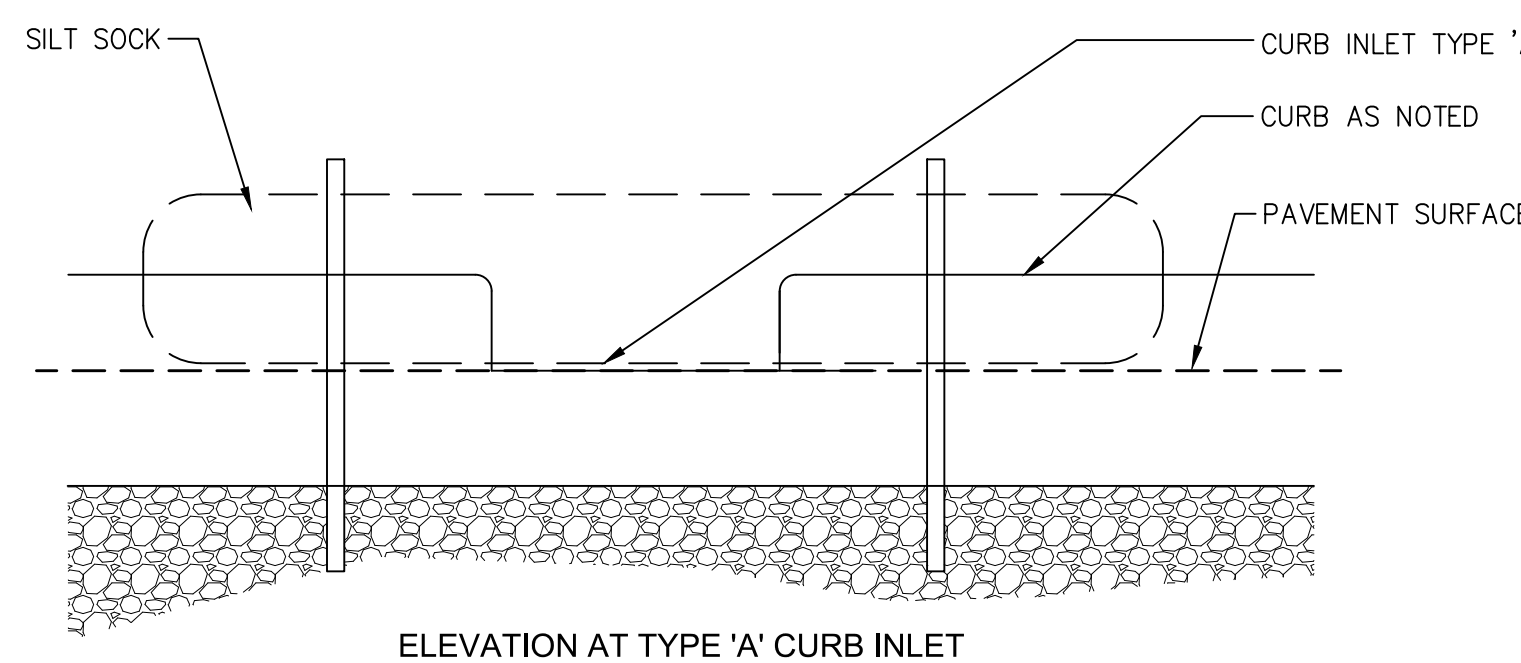


SECTION

SILT SOCK PER DETAIL 2, SHEET 92; SILT SOCK SHALL REMAIN IN PLACE FOR 1 YEAR AFTER DATE OF SUBSTANTIAL COMPLETION; ONCE 1 YEAR HAS ELAPSED, CONTRACTOR SHALL REMOVE SILT SOCK AND DISPOSE OF PROPERLY

NOTE: WATER MUST FLOW POSITIVELY FROM OUTSIDE OF CURB TO INSIDE OF CURB.

NOTE: FINAL CURB INLET LOCATIONS TO BE APPROVED IN THE FIELD BY THE LANDSCAPE ARCHITECT.



ELEVATION AT TYPE 'A' CURB INLET

3 BIORETENTION CURB INLET SILT SOCK
 15 NOT TO SCALE

DRAFT 100% CD'S

DATE: _____

REVISIONS		
NO.	DATE	DESCRIPTION

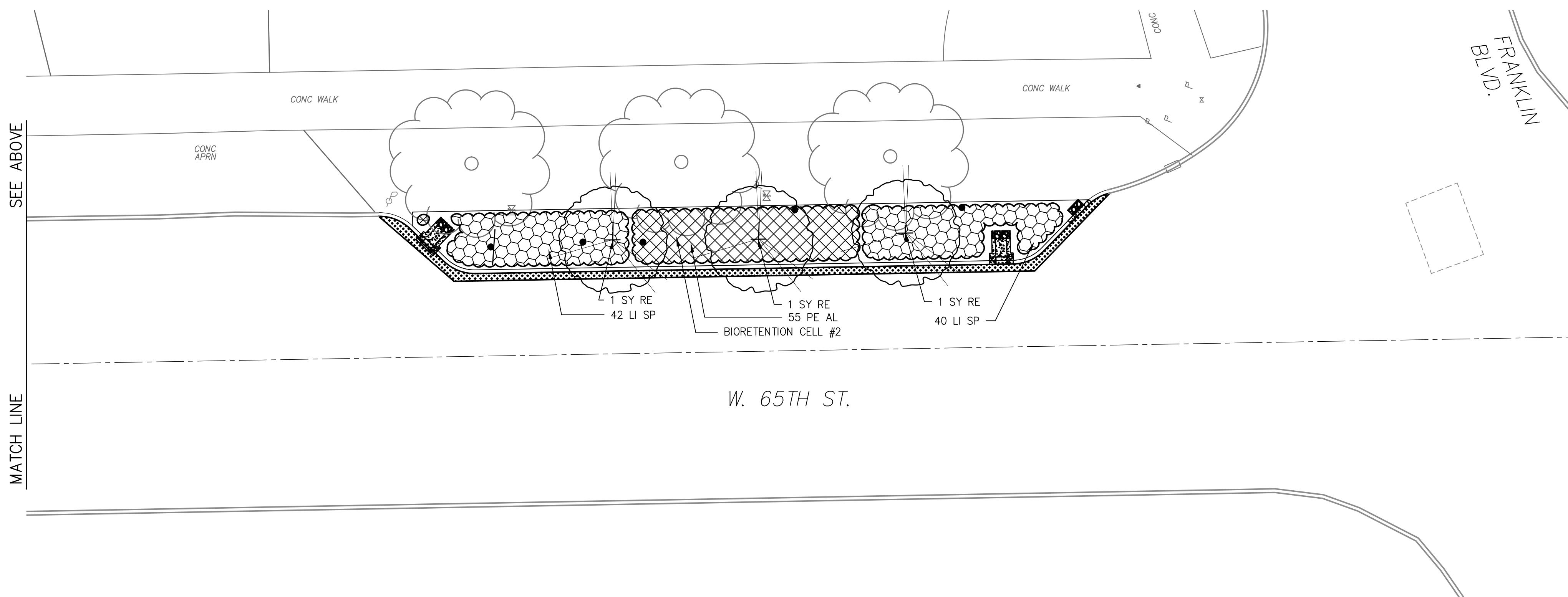
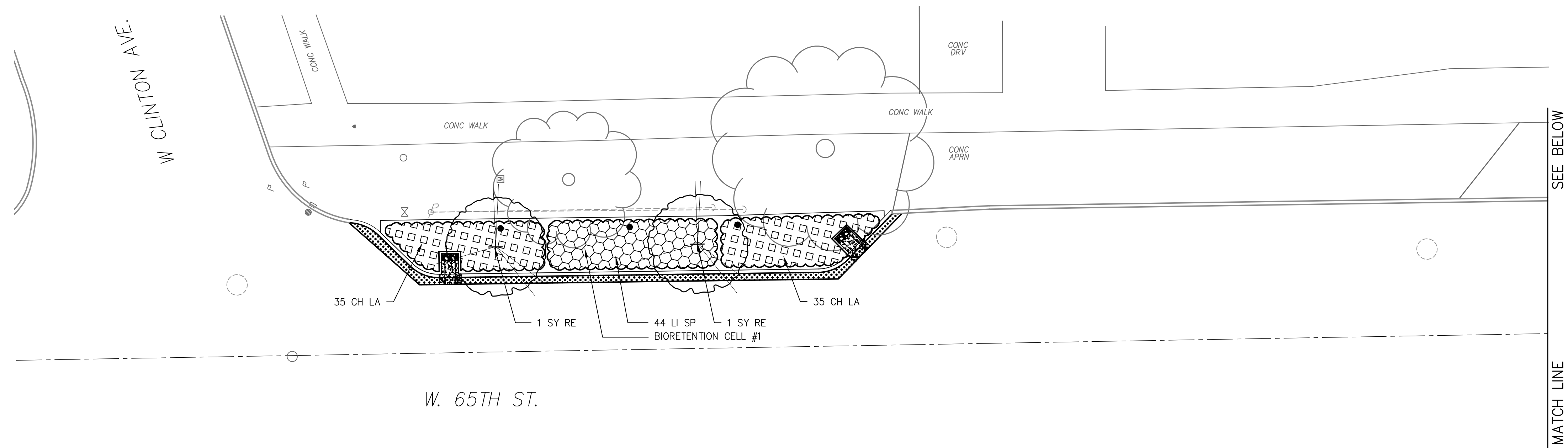
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SWPPP NOTES & DETAILS

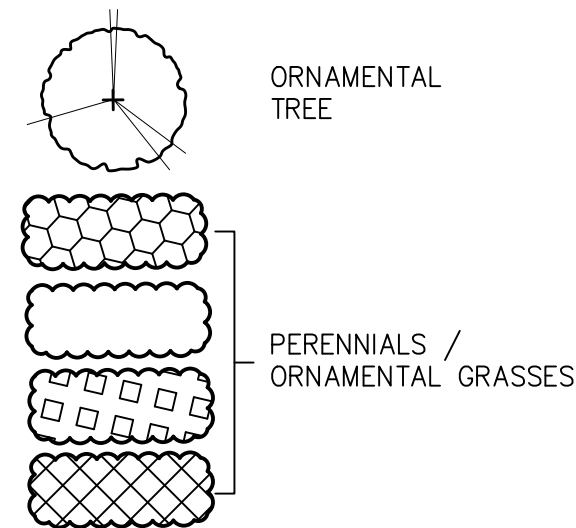


W. 65TH STREET GREEN INFRASTRUCTURE RETROFIT
 DETROIT SHOREWAY COMMUNITY DEVELOPMENT ORGANIZATION

DRAFT 100% CONSTRUCTION DOCUMENTS

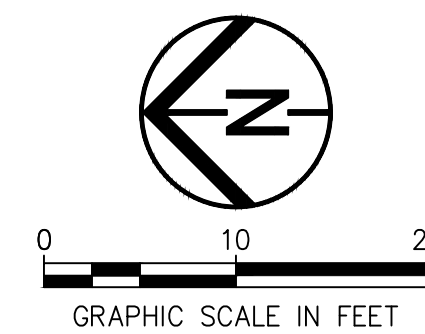


LEGEND:



NOTES

1. FOR LANDSCAPE NOTES SEE SHEET 18 - LANDSCAPE SOUTH.
2. FOR PLANT LIST SEE SHEET 18 - LANDSCAPE SOUTH.



DETROIT SHOREWAY COMMUNITY DEVELOPMENT 15-00383-010 W 65TH STREET CD 100% 15-00383-010 - 11/30/2017 09:11:50 AM

DRAFT 100% CD'S

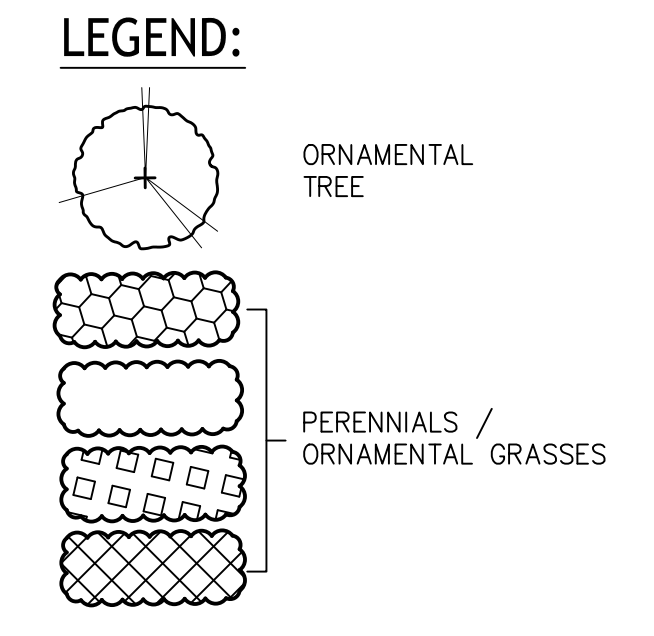
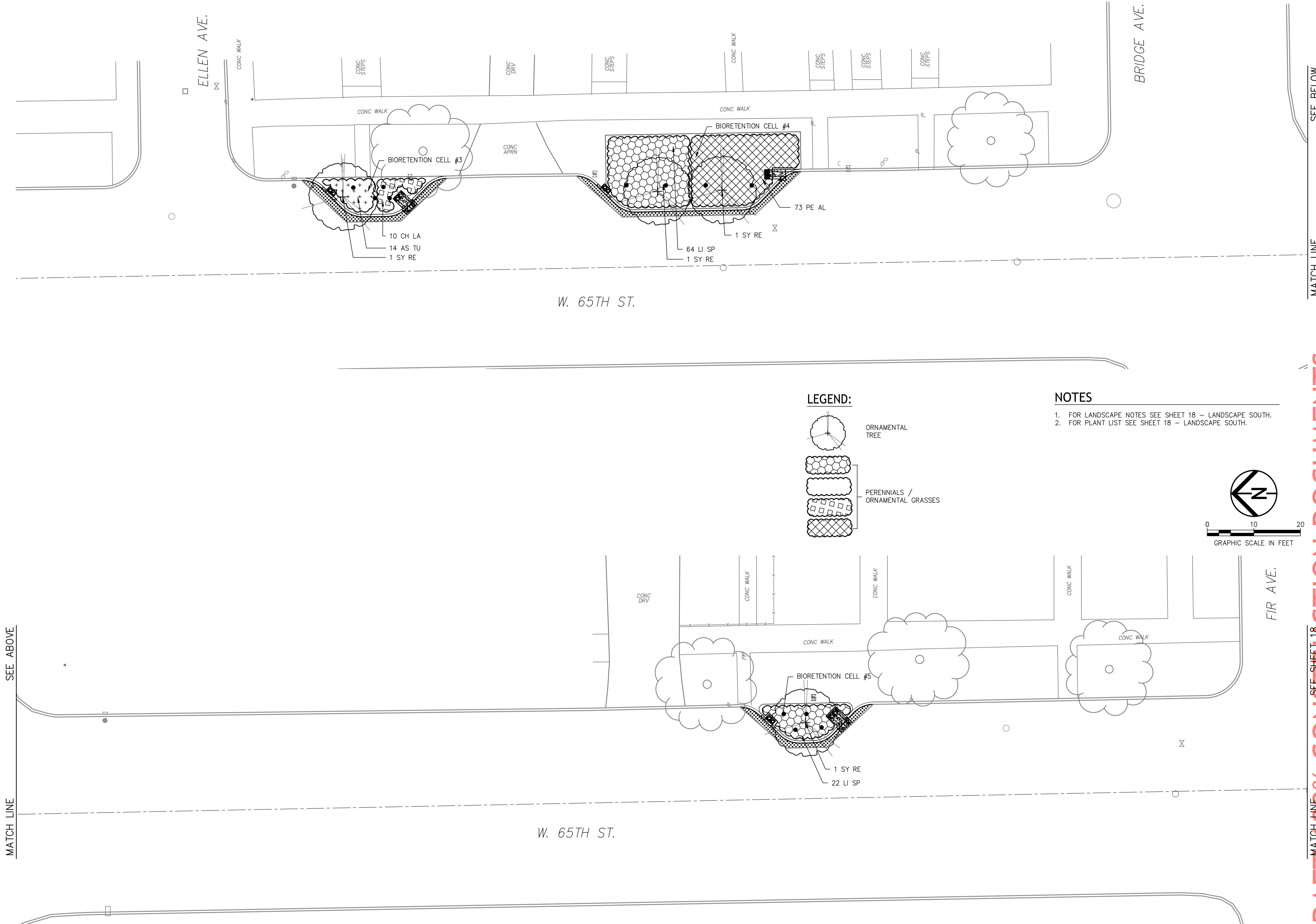
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REVISIONS		
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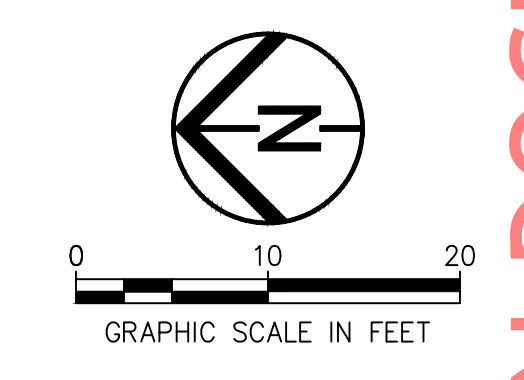
PROJECT NO.: 15-00383-010
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 DATE ISSUED: 2017/11/30

LANDSCAPE NORTH

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- NOTES**
1. FOR LANDSCAPE NOTES SEE SHEET 18 – LANDSCAPE SOUTH.
 2. FOR PLANT LIST SEE SHEET 18 – LANDSCAPE SOUTH.



DRAFT 100% CONSTRUCTION DOCUMENTS



W. 65TH STREET GREEN INFRASTRUCTURE RETROFIT
 DETROIT SHOREWAY COMMUNITY DEVELOPMENT ORGANIZATION

DRAFT 100% CD'S

DATE: _____

REVISIONS		
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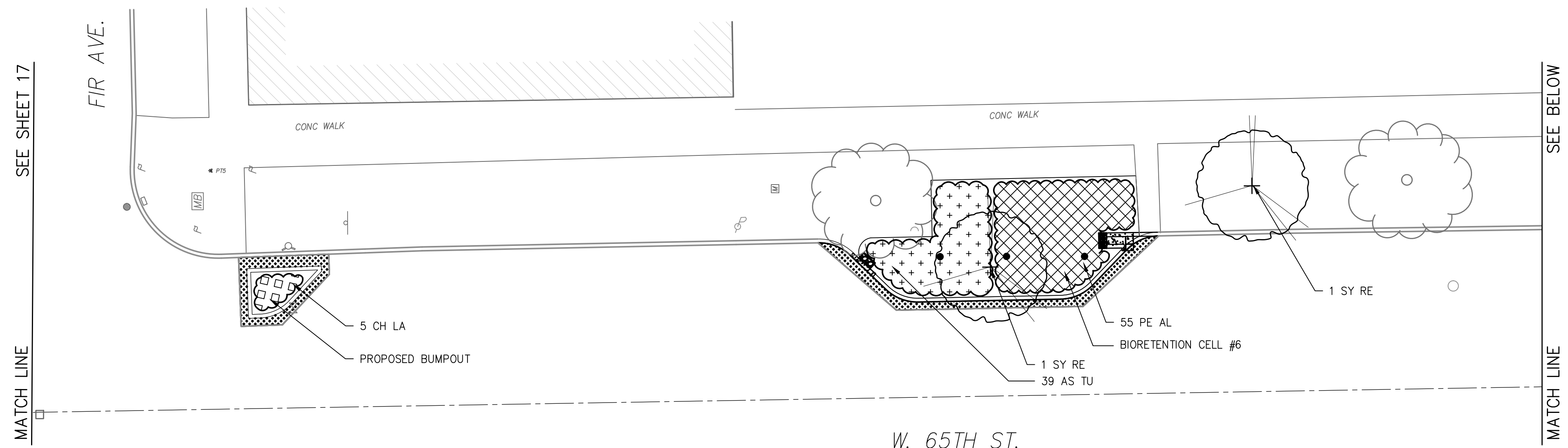
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LANDSCAPE MIDDLE

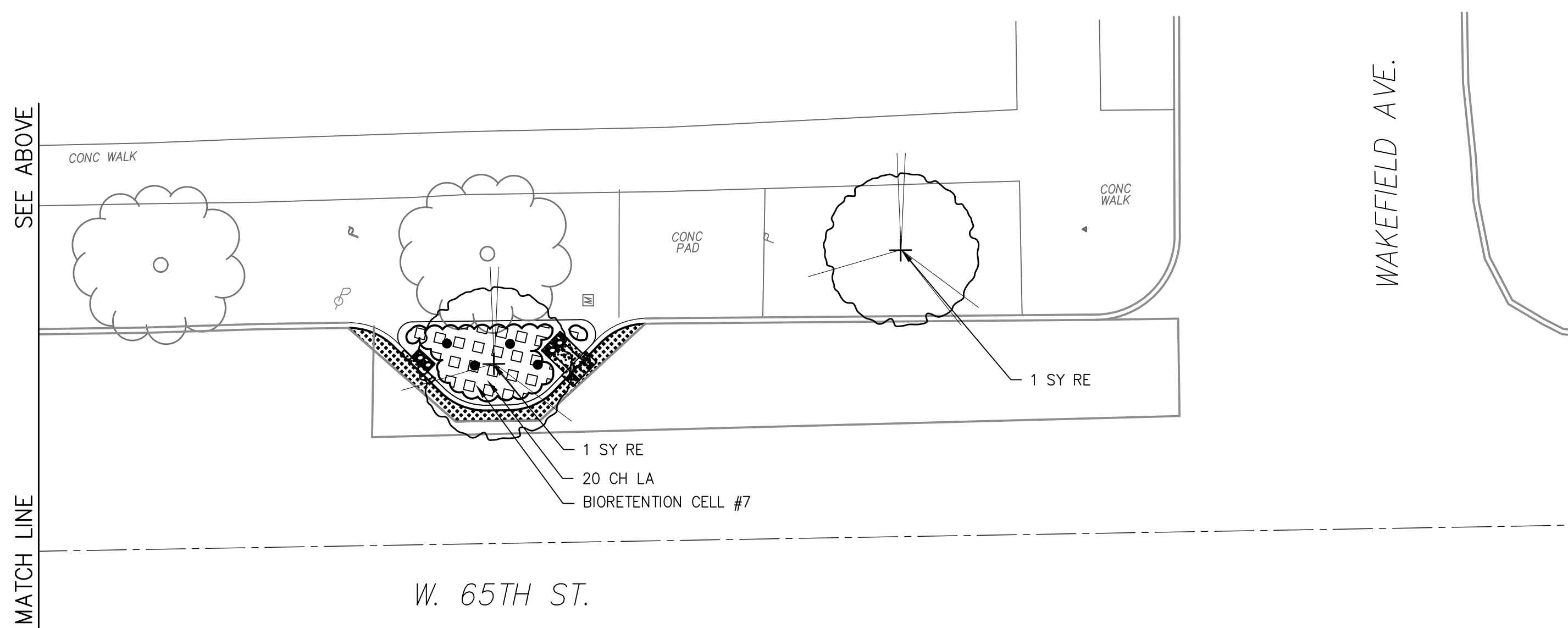
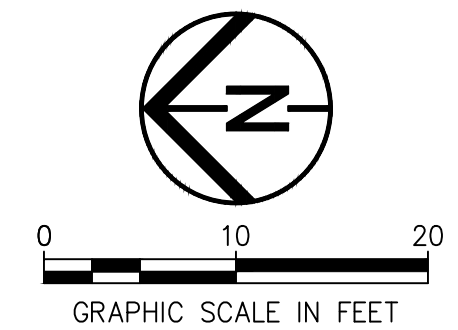
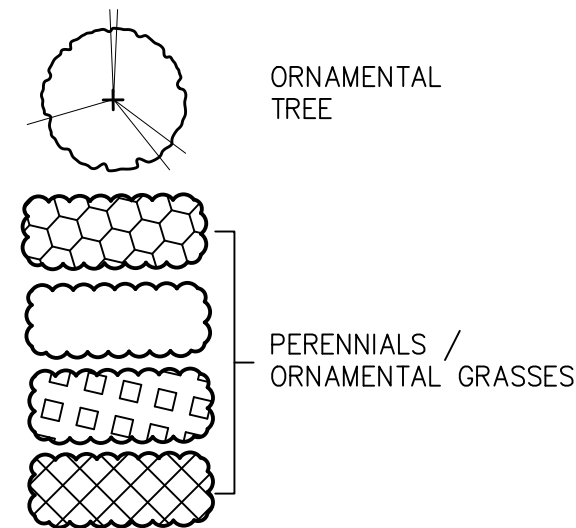


W. 65TH STREET GREEN INFRASTRUCTURE RETROFIT
 DETROIT SHOREWAY COMMUNITY DEVELOPMENT ORGANIZATION

DRAFT 100% CONSTRUCTION DOCUMENTS



LEGEND:



LANDSCAPE NOTES

- CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS IN THE FIELD PRIOR TO BEGINNING WORK. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES ASSOCIATED WITH WORK. UTILITIES SHALL BE REPAIRED TO SATISFACTION OF THE UTILITY OWNER AND/OR OPERATING AUTHORITY AT NO ADDITIONAL COST.
- IN CASE OF DISCREPANCIES BETWEEN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE. IF IN QUESTION, CONTACT THE LANDSCAPE ARCHITECT.
- FINAL PLACEMENT OF PLANT MATERIALS, ETC. SHALL BE APPROVED BY LANDSCAPE ARCHITECT BEFORE PLANTING OPERATIONS ARE TO PROCEED. ALL TREE LOCATIONS SHALL BE MARKED WITH A WOODEN STAKE INDICATING VARIETY AND SIZE OF TREE IN FIELD BY CONTRACTOR FOR LANDSCAPE ARCHITECTS APPROVAL.
- NO SUBSTITUTIONS OF PLANT MATERIAL WILL BE ALLOWED. IF PLANTS ARE UNAVAILABLE, THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT PRIOR TO BID DATE IN WRITING. ALL PLANTS SHALL BE INSPECTED AND TAGGED WITH PROJECT IDENTIFICATION AT NURSERY OR CONTRACTOR'S OPERATION PRIOR TO MOVING TO JOB SITE. PLANTS MAY ALSO BE INSPECTED AND APPROVED OR REJECTED ON THE JOB SITE.
- ALL PLANTS ARE TO MEET OR EXCEED AMERICAN STANDARDS FOR NURSERY STOCK, 2004 EDITION, AS SET FORTH BY AMERICAN ASSOCIATION OF NURSERYMEN.
- PLANTS AND ALL OTHER MATERIALS TO BE STORED ON SITE WILL BE PLACED WHERE THEY WILL NOT CONFLICT WITH CONSTRUCTION AND AS DIRECTED BY OWNER.
- MAINTENANCE OF PLANT MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL PLANT MATERIALS ARE ACCEPTED BY OWNER. MAINTENANCE INCLUDES BUT IS NOT LIMITED TO WATERING, WEEDING, PEST CONTROL, AND OTHER ACTIONS AS REQUIRED TO MAINTAIN PLANT MATERIALS IN A HEALTHY CONDITION.
- ALL NEW LANDSCAPE PLANTINGS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FOLLOWING FINAL INSPECTION BY LANDSCAPE ARCHITECT. AT END OF THIS PERIOD, PLANT MATERIAL DEEMED DEAD OR UNSATISFACTORY BY LANDSCAPE ARCHITECT SHALL BE REPLACED AT NO ADDITIONAL CHARGE BY THE LANDSCAPE CONTRACTOR, AS PER ODOT 661.
- SEED ALL DISTURBED AREAS WITH LAWN SEED UNLESS OTHER PLANT MATERIAL OR PAVEMENT ARE SHOWN, AS PER ODOT 653.

PLANT LIST

QTY.	ABBR.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	CONDITION	COMMENTS
Ornamental Trees							
13	SY RE	<i>Syringa reticulata</i> 'Ivory Silk'	Ivory Silk Lilac	5' HT	AS SHOWN	B&B	Tree Form
Perennials / Grasses							
105	CH LA	<i>Chasmanthium latifolium</i>	Indian Woodoats	CLUMP	24" O.C.	#2 CONT.	
53	AS TU	<i>Asclepias tuberosa</i>	Butterfly Weed	CLUMP	24" O.C.	#1 CONT.	
212	LI SP	<i>Liatris spicata</i>	Blazing Star	CLUMP	24" O.C.	#2 CONT.	
183	PE AL	<i>Pennisetum alopecuroides</i>	Fountain Grass	CLUMP	24" O.C.	#2 CONT.	

DRAFT 100% CD'S

DATE: _____

REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT NO.: 15-00383-010

DRAWN BY: EDG

CHECKED BY: HAH

DATE ISSUED: 2017/11/30

LANDSCAPE SOUTH



W. 65TH STREET GREEN INFRASTRUCTURE RETROFIT
 DETROIT SHOREWAY COMMUNITY DEVELOPMENT ORGANIZATION

DRAFT 100% CONSTRUCTION DOCUMENTS

- NOTES:**
- SEE SITE PLANS FOR LOCATIONS, LENGTHS AND WIDTHS.
 - CONTRACTOR TO FIELD STAKE LENGTH, WIDTH AND BIORETENTION CURB INLET LOCATIONS FOR OWNER APPROVAL PRIOR TO INSTALLATION.
 - SEE SITE PLANS FOR LOCATIONS OF CONCRETE CURB INLETS.
 - CONTRACTOR TO FIELD STAKE CONCRETE CURB INLET LOCATIONS FOR OWNER APPROVAL PRIOR TO INSTALLATION.

BIORETENTION SPECIFICATION

A FULLY FUNCTIONING BIORETENTION AREA INCLUDES BIORETENTION SOIL, CLEAN SAND, WASHED PEA GRAVEL, WASHED #57 AGGREGATE, RIVER ROCK MULCH WITH WEED BARRIER, AND LANDSCAPE PLANTS. SUBGRADE SHALL BE SCARIFIED.

BIORETENTION SOIL SHALL BE HAYDITE BIOBLEND B HIGH FLOW RATE MEDIA (80 INCHES / HR) AS MANUFACTURED BY DIGERONIMO AGGREGATES, INDEPENDENCE, OHIO 888-593-0395.

1. CONTRACTOR SHALL SUBMIT BIORETENTION SOIL SAMPLE AND PRODUCT TESTING SHEET FOR APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

CLEAN SAND SHALL BE PER ASTM C-33.

SCARIFY SUBGRADE SOIL SURFACES THAT HAVE BEEN SMEARED TO A SMOOTH SURFACE DURING EXCAVATION OF THE PROPOSED BIORETENTION CELL AREAS. SCARIFY USING A TOOTHED BUCKET TO A DEPTH OF 2"-3". DO NOT COMPACT SOILS. HEAVY EQUIPMENT SHALL NOT BE USED WITHIN THE BIORETENTION CELL AREAS.

MIXING OR PLACING BIORETENTION SOIL WILL NOT BE ALLOWED IF THE AREA RECEIVING BIORETENTION SOIL IS WET OR SATURATED OR HAS BEEN SUBJECTED TO MORE THAN 1-INCH OF PRECIPITATION WITHIN 48 HOURS PRIOR TO MIXING OR PLACEMENT. OWNER'S REPRESENTATIVE SHALL HAVE FINAL AUTHORITY TO DETERMINE IF WET OR SATURATED CONDITIONS EXIST.

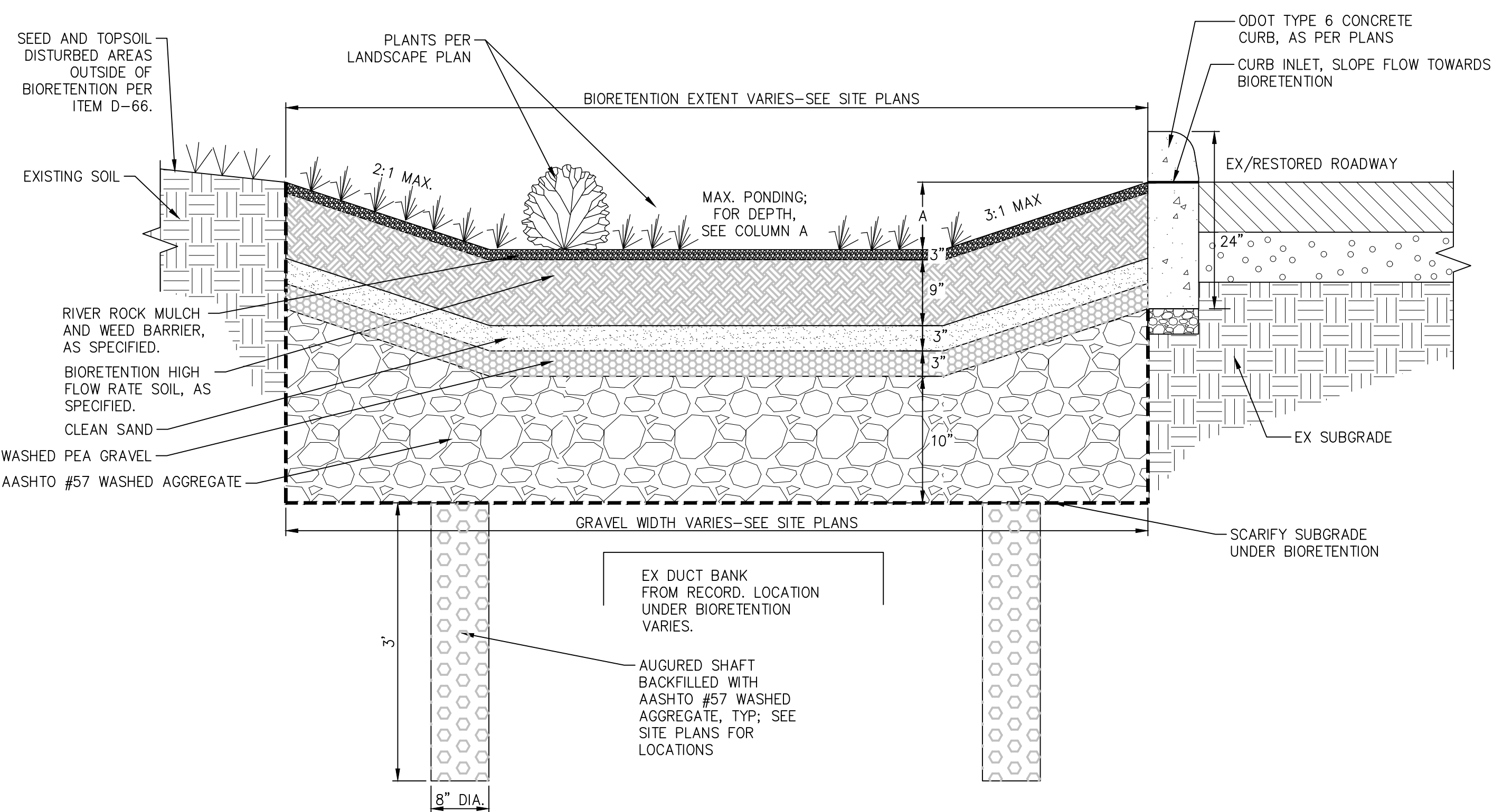
PLACE BIORETENTION SOIL LOOSELY IN LIFTS NOT TO EXCEED 10". FINAL GRADE SHALL BE MEASURED ONLY AFTER THE SOIL HAS BEEN WATER COMPACTED, WHICH REQUIRES FILLING THE BIORETENTION CELL WITH WATER, WITHOUT CREATING ANY SCOUR OR EROSION, TO AT LEAST 1 INCH OF PONDING. IF WATER COMPACTION IS NOT AN OPTION, FINAL GRADE SHALL BE MEASURED AT 1/2 INCH ABOVE THE GRADE SPECIFIED ON THE PLANS TO ALLOW FOR SETTLING AFTER THE FIRST STORM.

INSTALL PLANTS PER ODOT 661 EXCEPT DO NOT PERFORM FERTILIZATION AND BACKFILL PLANT PITS WITH HAYDITE BIOBLEND. PROVIDE RIVER ROCK MULCH INSTEAD OF WOOD MULCH.

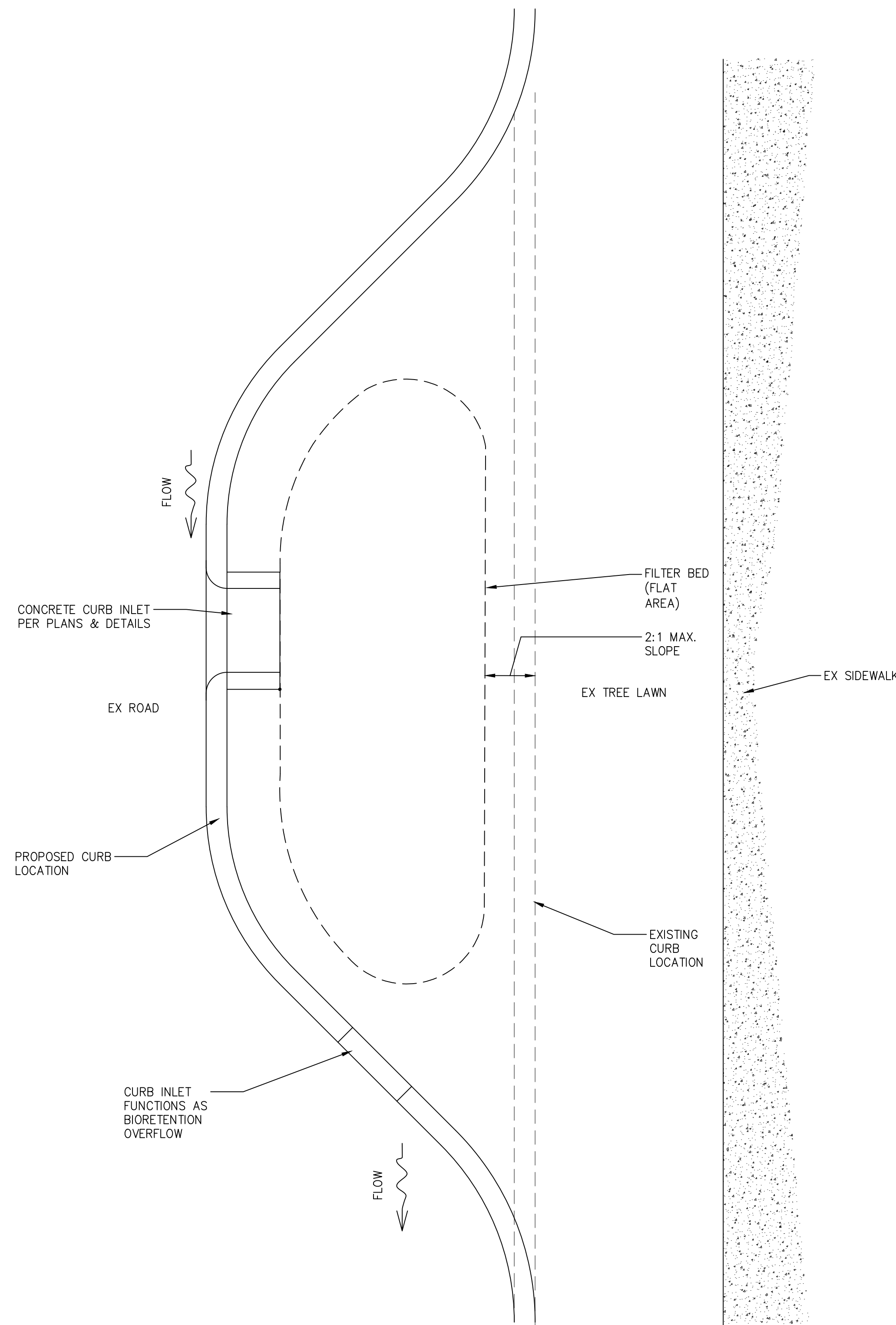
RIVER ROCK MULCH SHALL BE #34 WASHED GRAVEL ON WEED BARRIER. RIVER ROCK MULCH SHALL BE A MIX OF PREDOMINANTLY BEIGE AND BROWN TONES. WEED BARRIER SHALL BE HEAVY DUTY WOVEN POLYPROPYLENE WITH UV INHIBITORS. MINIMUM WEIGHT 4.75 OZ/SQ YD. MINIMUM WATER FLOW RATE 12 GPM/SQ FT PER ASTM D-4491. MINIMUM PUNCTURE STRENGTH OF 50 LBS PER ASTM D-4833

- NOTES:**
- SEE TABLE FOR DEPTH A.
 - SEE SITE PLAN SHEETS FOR LOCATIONS OF BIORETENTION.

BIORETENTION	A
1	9"
2	6"
3	6"
4	6"
5	6"
6	12"
7	6"



1 BIORETENTION BUMPOUT WITH TREE LAWN TYPICAL SECTION
 19 NOT TO SCALE



2 BIORETENTION GENERAL LAYOUT WITH FLOW
 19 NOT TO SCALE

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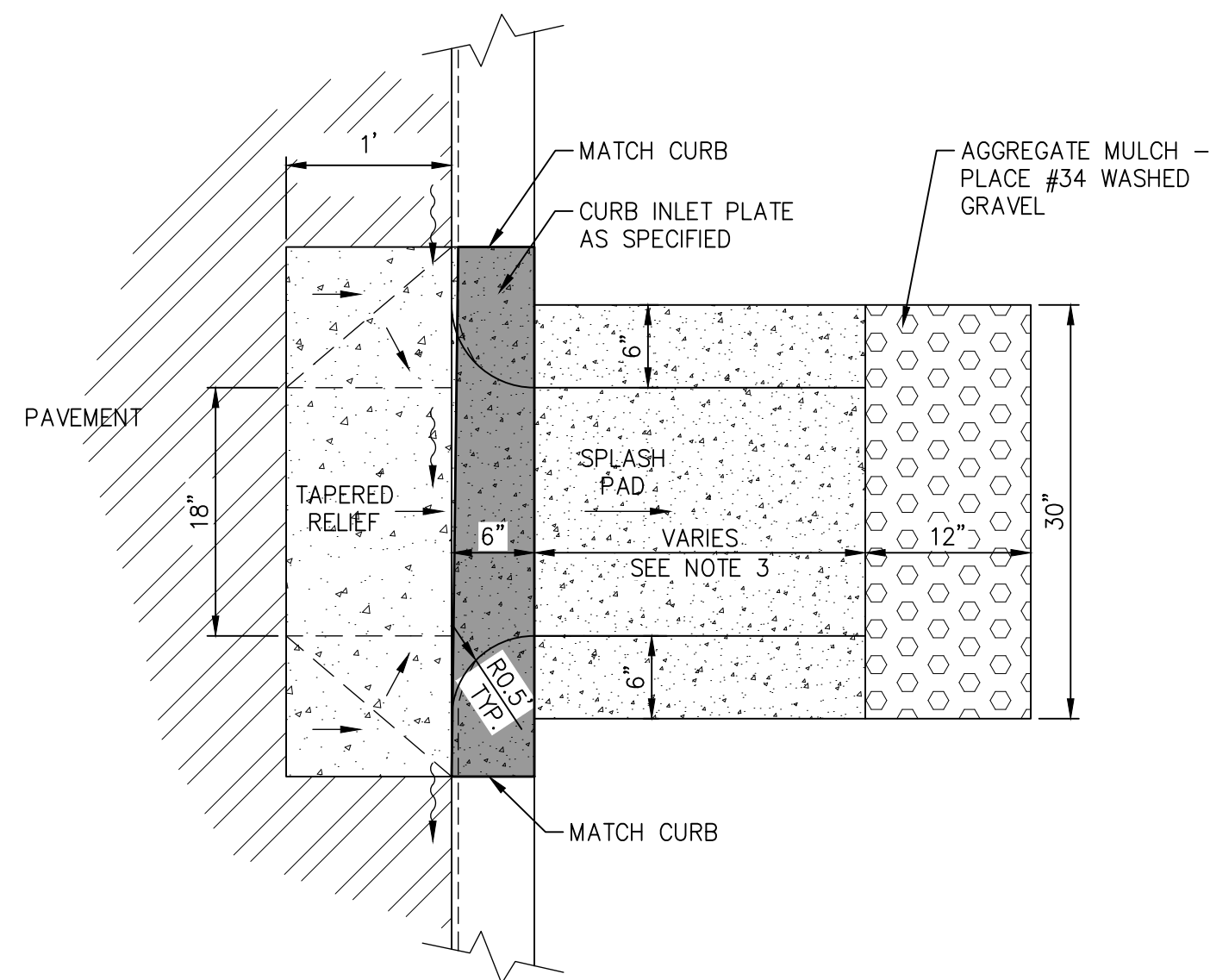
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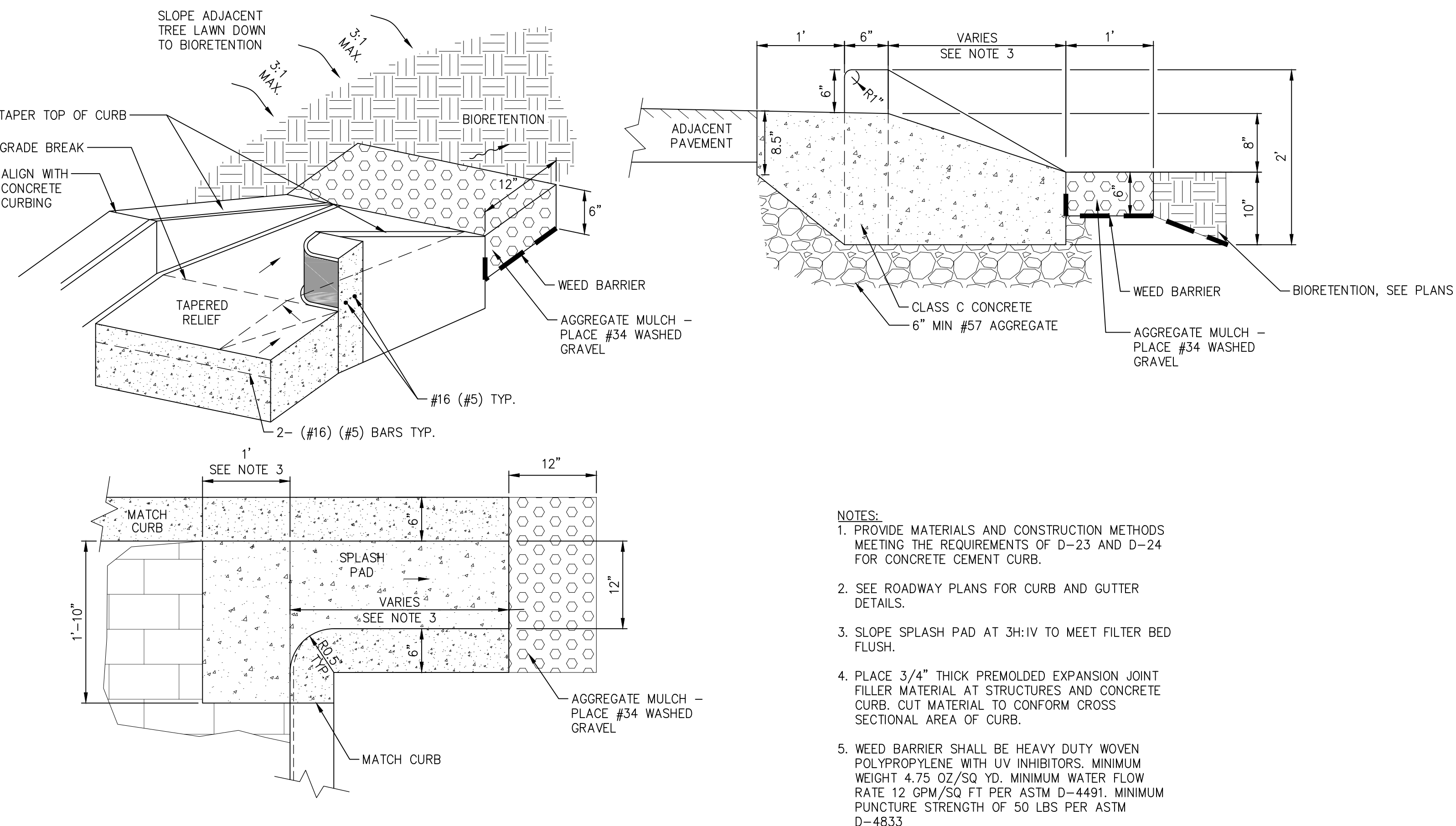
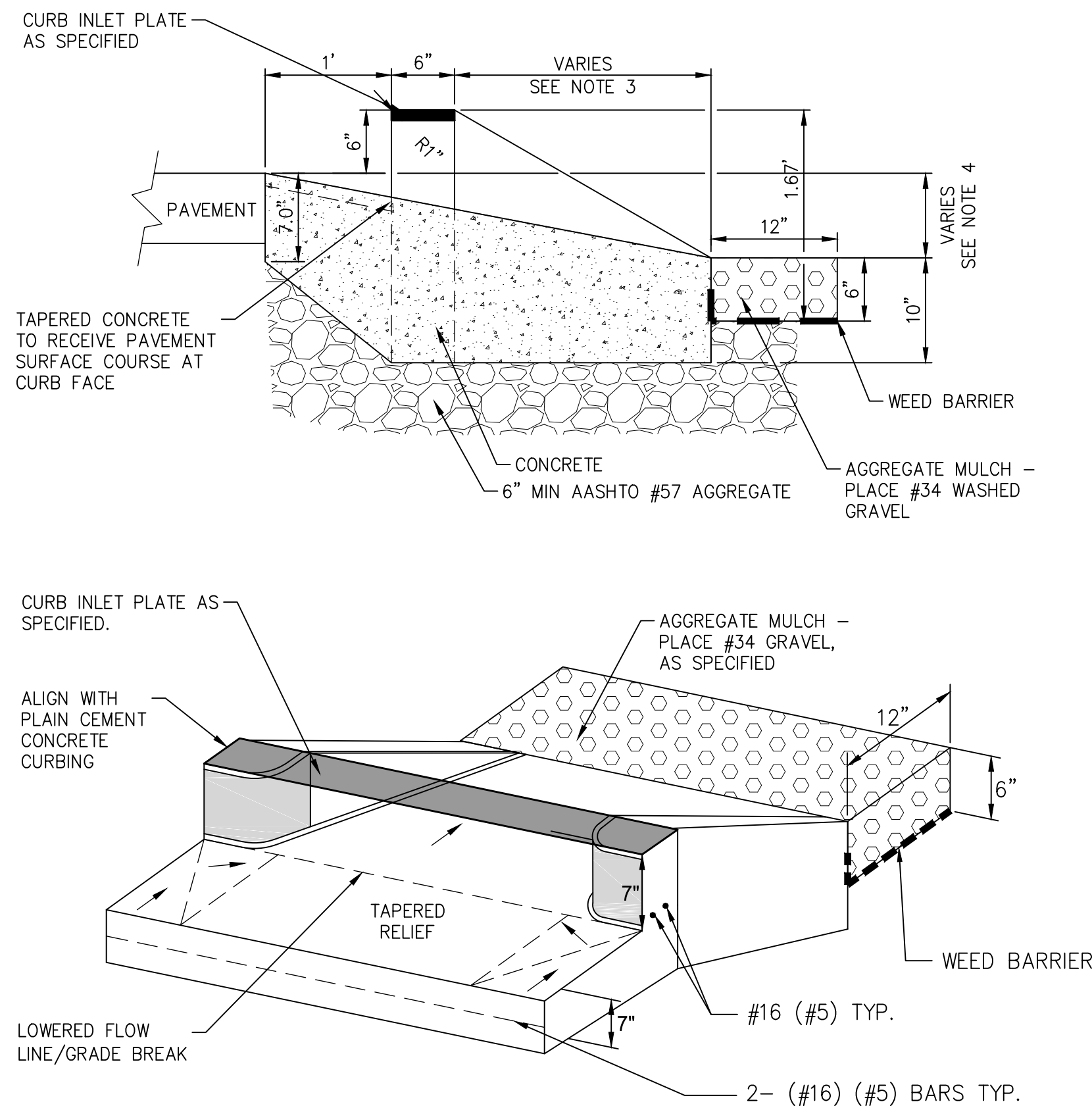
DATE ISSUED: 2017/11/30

CONSTRUCTION DETAILS

- NOTES:**
1. PROVIDE MATERIALS AND CONSTRUCTION METHODS MEETING THE REQUIREMENTS OF D-23 AND D-24 FOR CONCRETE CEMENT CURB.
 2. PLACE 3/4" THICK PREMOLDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND CONCRETE CURB. CUT MATERIAL TO CONFORM TO CROSS SECTIONAL AREA OF CURB.
 3. SLOPE SPLASH PAD AT 3H:IV TO MEET FILTER BED FLUSH.
 4. CURB INLET PLATE SHALL BE MODEL 7597P1 BY EJ OR APPROVED EQUIVALENT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
 5. WEED BARRIER SHALL BE HEAVY DUTY WOVEN POLYPROPYLENE WITH UV INHIBITORS. MINIMUM WEIGHT 4.75 OZ/SQ YD. MINIMUM WATER FLOW RATE 12 GPM/SQ FT PER ASTM D-4491. MINIMUM PUNCTURE STRENGTH OF 50 LBS PER ASTM D-4833

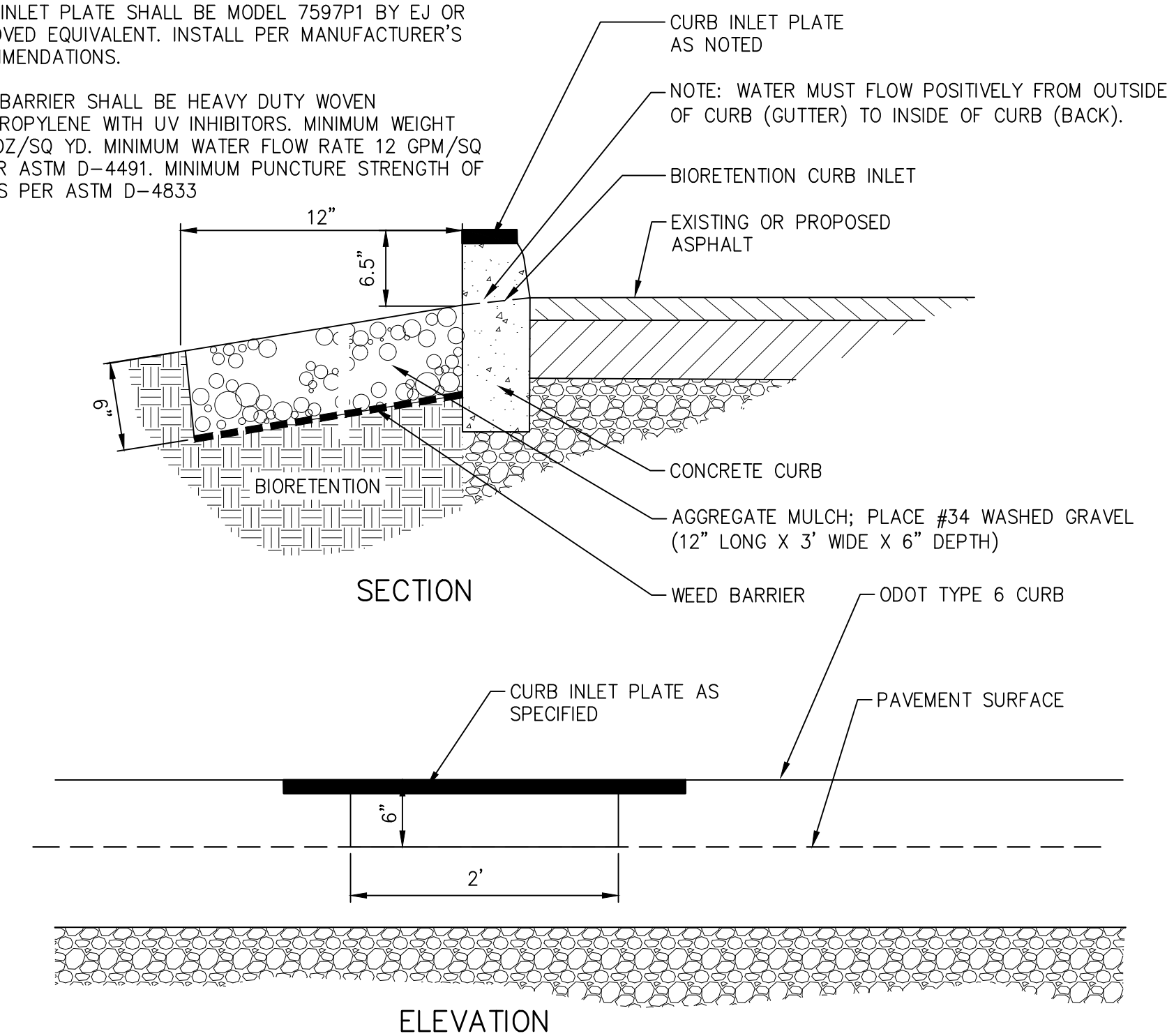


1 CONCRETE CURB INLET TYPE A1 AND A2
20 NOT TO SCALE



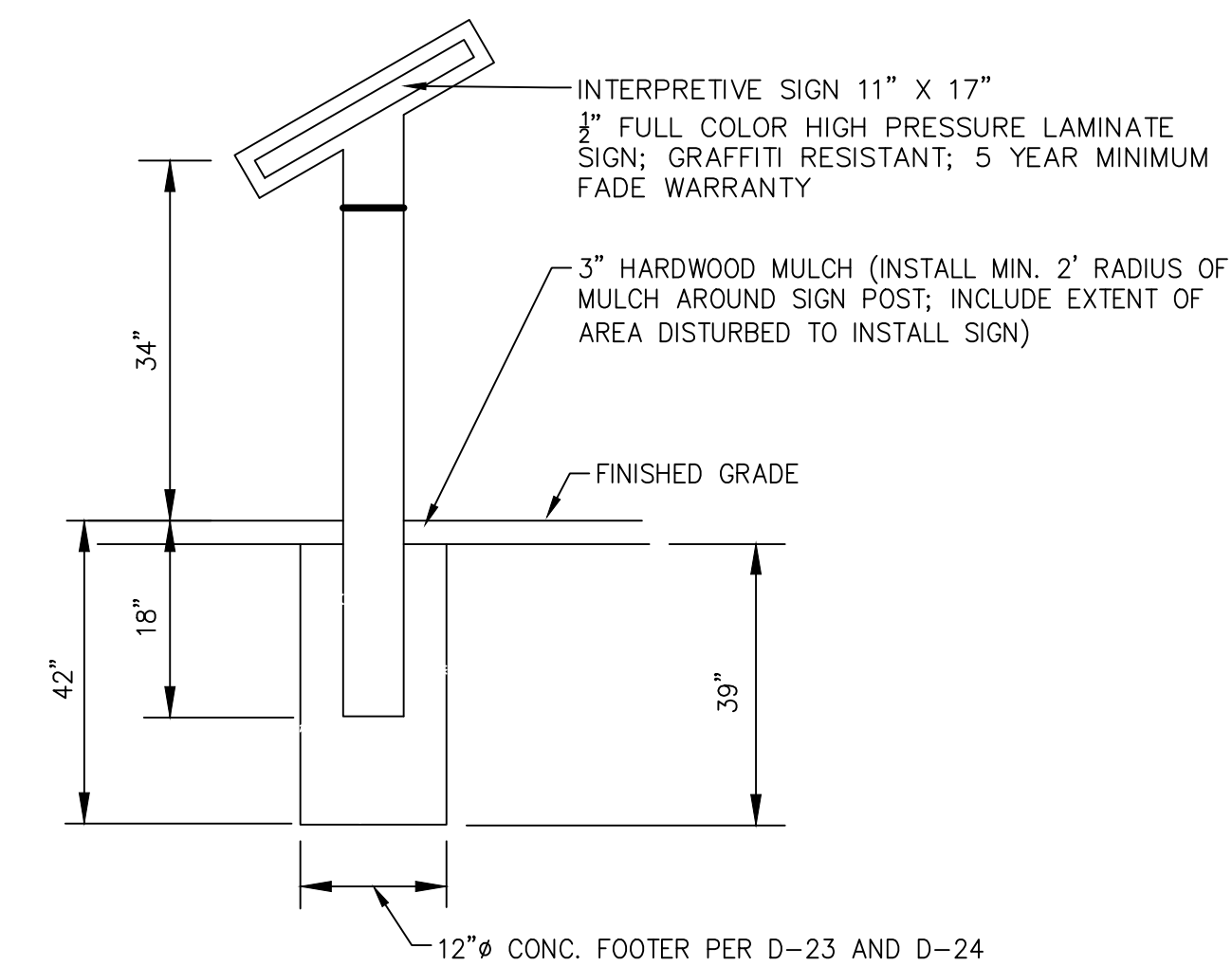
3 CONCRETE CURB INLET TYPE B
20 NOT TO SCALE

- NOTES:**
1. PROVIDE MATERIALS AND CONSTRUCTION METHODS MEETING THE REQUIREMENTS OF D-23 AND D-24 FOR CONCRETE CEMENT CURB.
 2. PLACE 3/4" THICK PREMOLDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND CONCRETE CURB. CUT MATERIAL TO CONFORM CROSS SECTIONAL AREA OF CURB.
 3. CURB INLET PLATE SHALL BE MODEL 7597P1 BY EJ OR APPROVED EQUIVALENT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
 4. WEED BARRIER SHALL BE HEAVY DUTY WOVEN POLYPROPYLENE WITH UV INHIBITORS. MINIMUM WEIGHT 4.75 OZ/SQ YD. MINIMUM WATER FLOW RATE 12 GPM/SQ FT PER ASTM D-4491. MINIMUM PUNCTURE STRENGTH OF 50 LBS PER ASTM D-4833



2 BIORETENTION CURB INLET TYPE C
20 NOT TO SCALE

- NOTES:**
1. CONTRACTOR SHALL BE FURNISHED ELECTRONIC IMAGE FILE OF SIGN SUITABLE FOR REPRODUCTION FROM OWNER.
 2. SIGN SHALL BE BACK MOUNTED, WITH 4-INCH METAL POST, POWDER COAT BLACK.
 3. CONTRACTOR TO LAYOUT SIGN LOCATION IN FIELD FOR OWNER APPROVAL PRIOR TO INSTALLATION
 4. CONTRACTOR TO PROVIDE SHOP DRAWING OF INTERPRETIVE SIGN FOR OWNERS APPROVAL PRIOR TO MANUFACTURE.



4 INTERPRETIVE SIGN
20 NOT TO SCALE

DRAFT 100% CONSTRUCTION DOCUMENTS

DRAFT 100% CD'S

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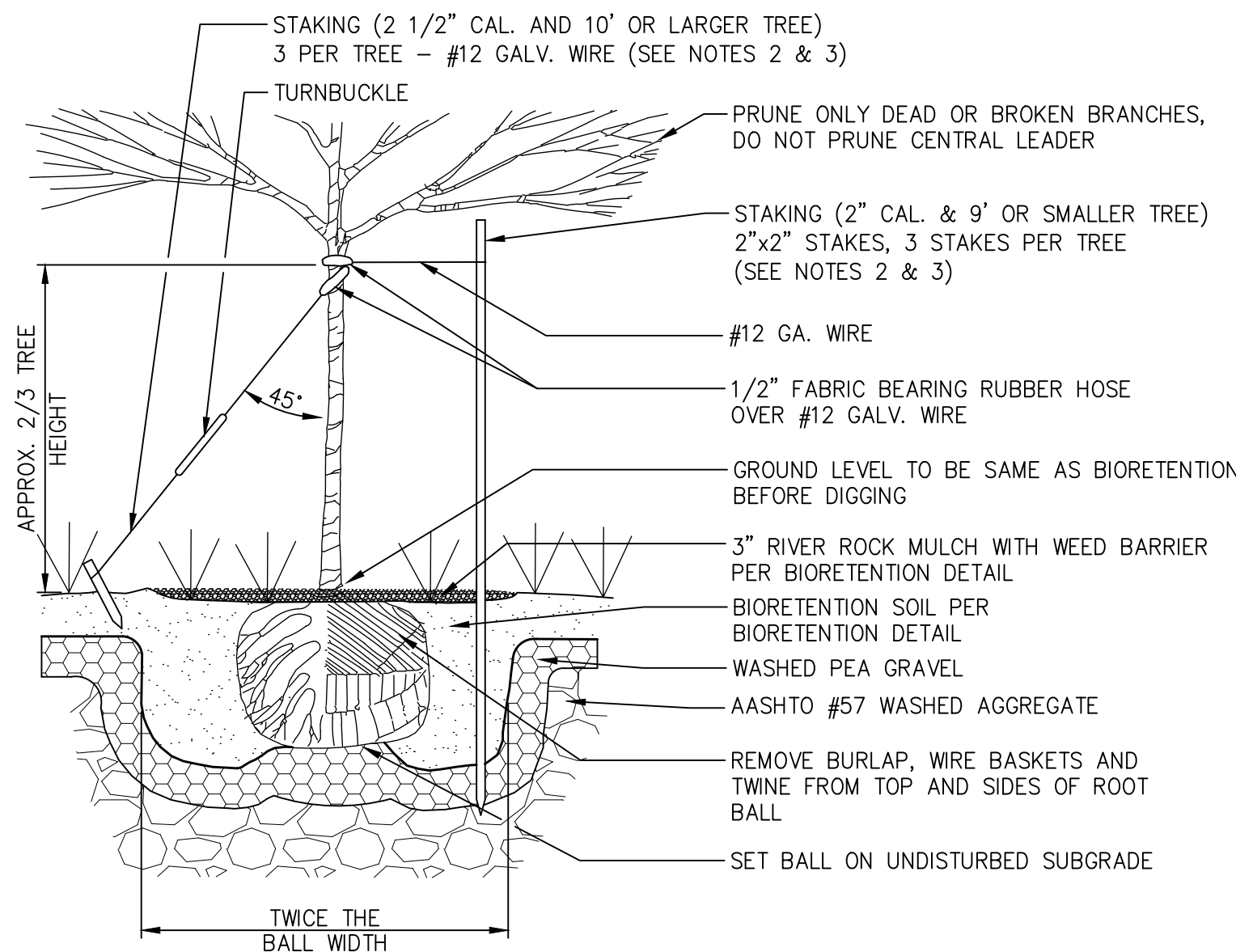
DATE ISSUED: 2017/11/30

CONSTRUCTION DETAILS

W. 65TH STREET GREEN INFRASTRUCTURE RETROFIT
 DETROIT SHOREWAY COMMUNITY DEVELOPMENT ORGANIZATION

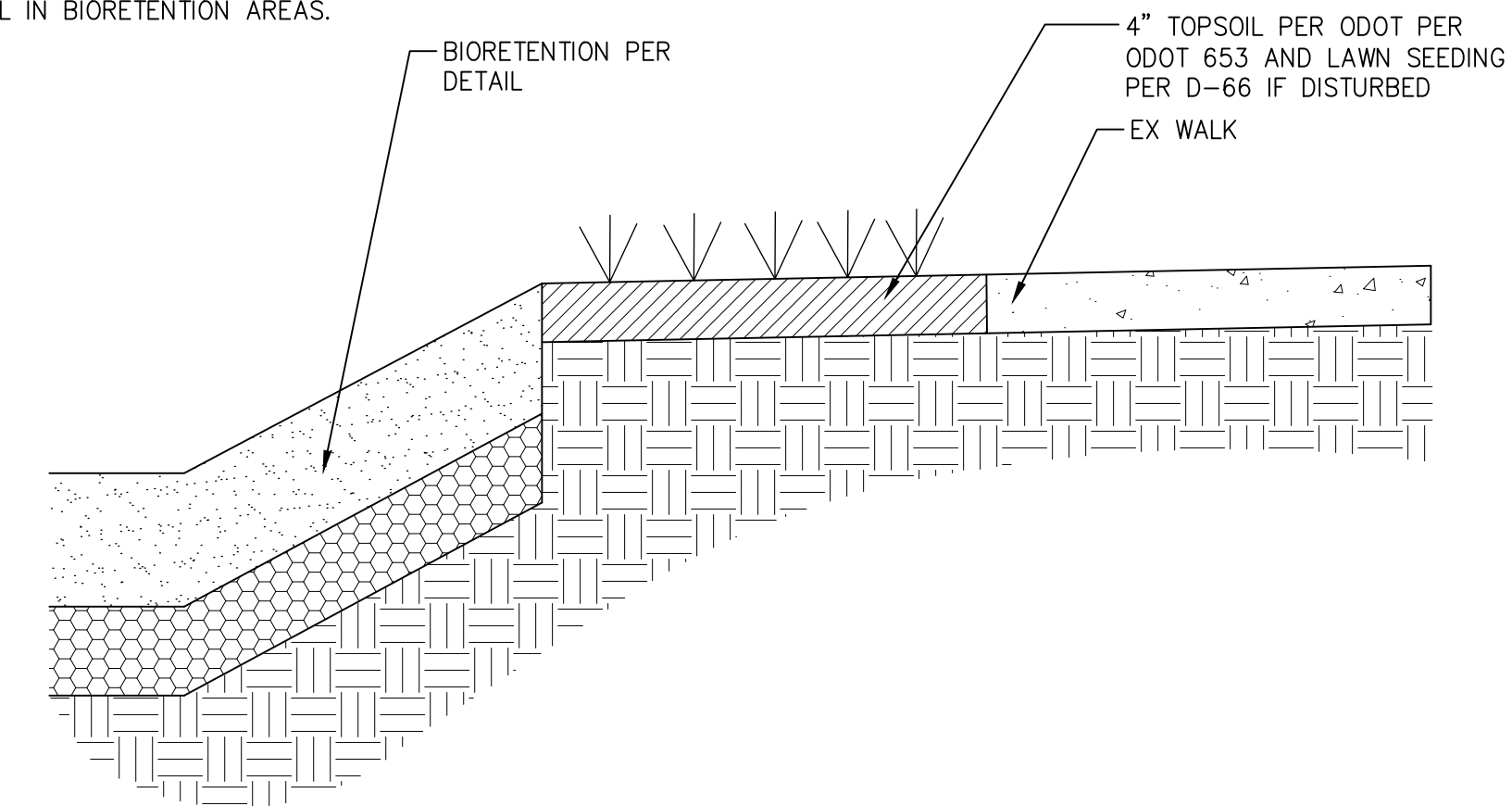
DRAFT 100% CONSTRUCTION DOCUMENTS

- NOTES:**
1. REMOVE BURLAP, WIRE BASKETS AND TWINE FROM TOP AND SIDES OF ROOT BALL. CENTER TREE IN HOLE SET TOP OF BALL 1" ABOVE FINISH GRADE.
 2. STAKING & GUYING TREES IS OPTIONAL, HOWEVER THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLED TREES STAYING PLUMB AND STABLE. IF A NON-STAKED TREE MOVES OUT OF PLUMB DURING THE WARRANTY PERIOD THE CONTRACTOR SHALL STRAIGHTEN & STAKE THE TREE AT NO ADDITIONAL COST TO THE OWNER.
 3. THE CONTRACTOR SHALL RETURN TO REMOVE ALL STAKES, GUYS & ASSOCIATED HARDWARE ON THE TREES ONE YEAR AFTER STAKING OR PER THE DIRECTION OF THE OWNER OR LANDSCAPE ARCHITECT.



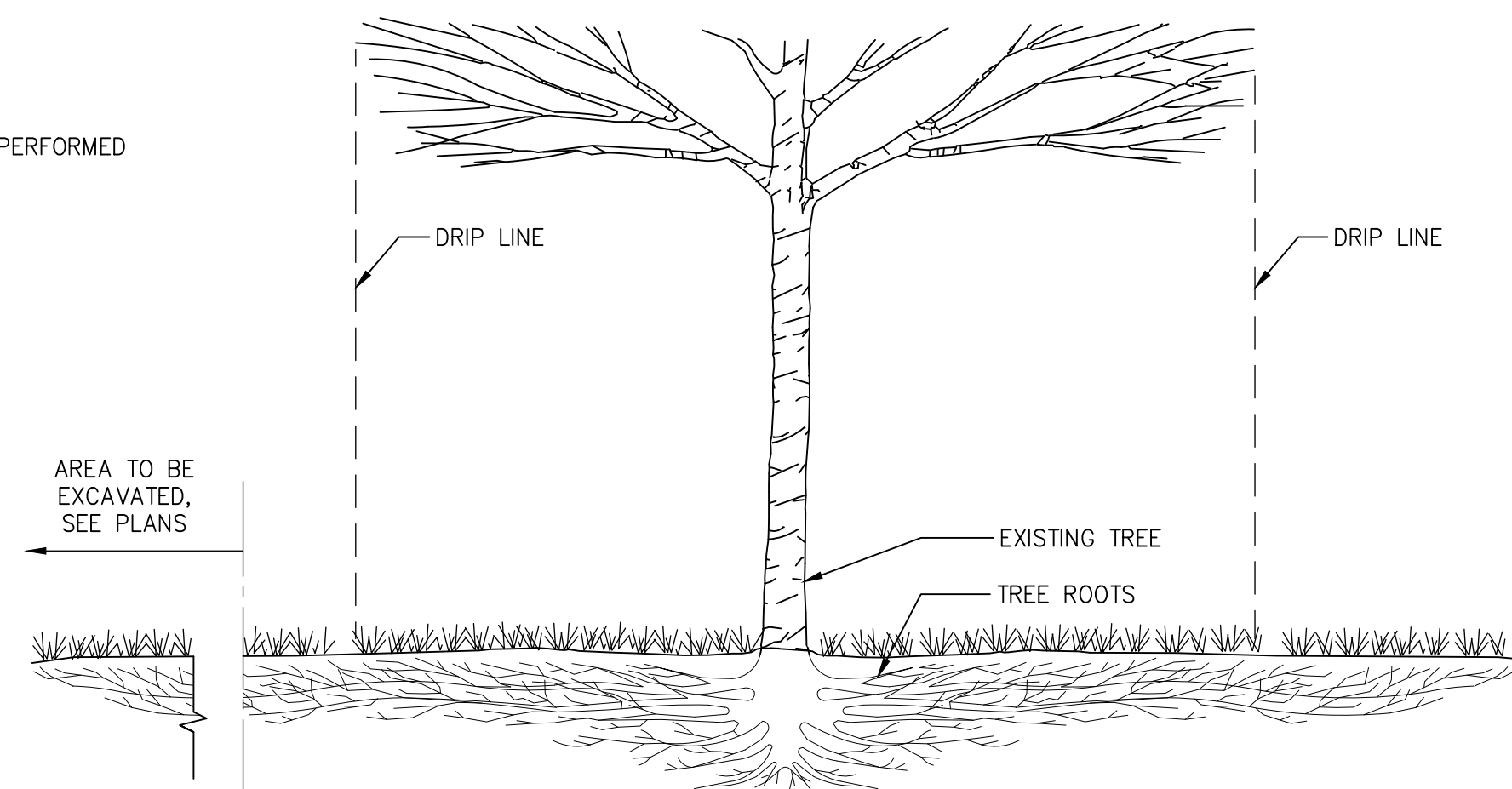
1 DECIDUOUS TREE PLANTING IN BIORETENTION CELL DETAIL
 21 NOT TO SCALE

- NOTES:**
1. CONTRACTOR TO SEED AND MULCH DISTURBED AREAS NOT TO BE LANDSCAPED.
 2. CONTRACTOR SHALL NOT PLACE TOPSOIL IN BIORETENTION AREAS.

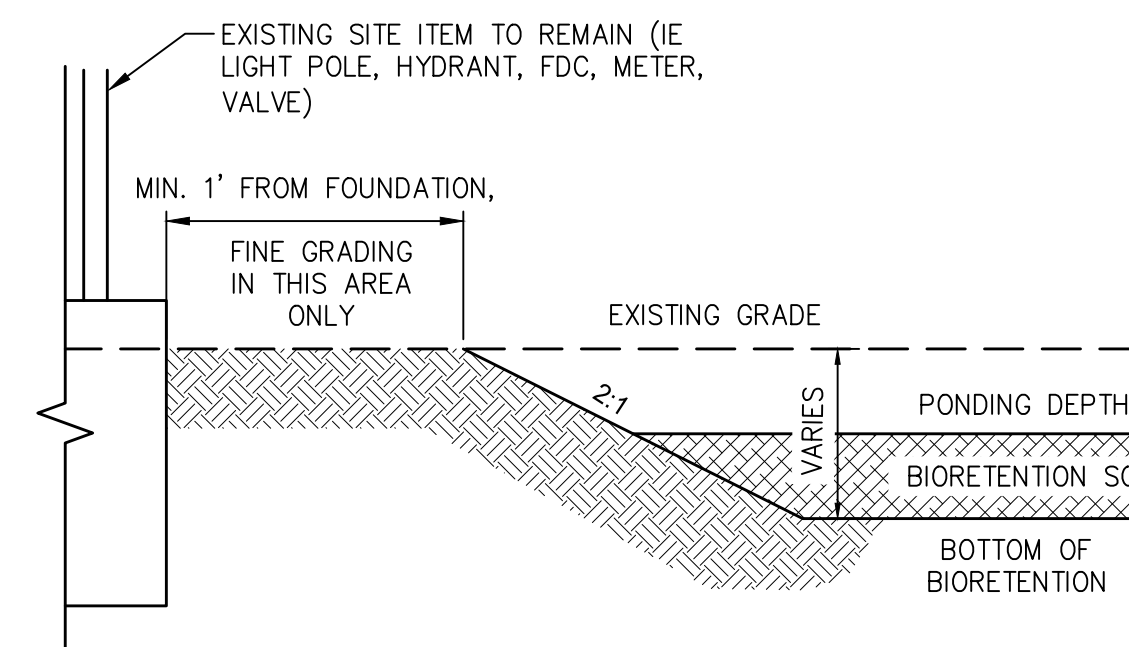


2 TOPSOIL APPLICATION DETAIL
 21 NOT TO SCALE

- NOTES:**
1. ROOT CUTTING SHALL BE PERFORMED PER D-71.

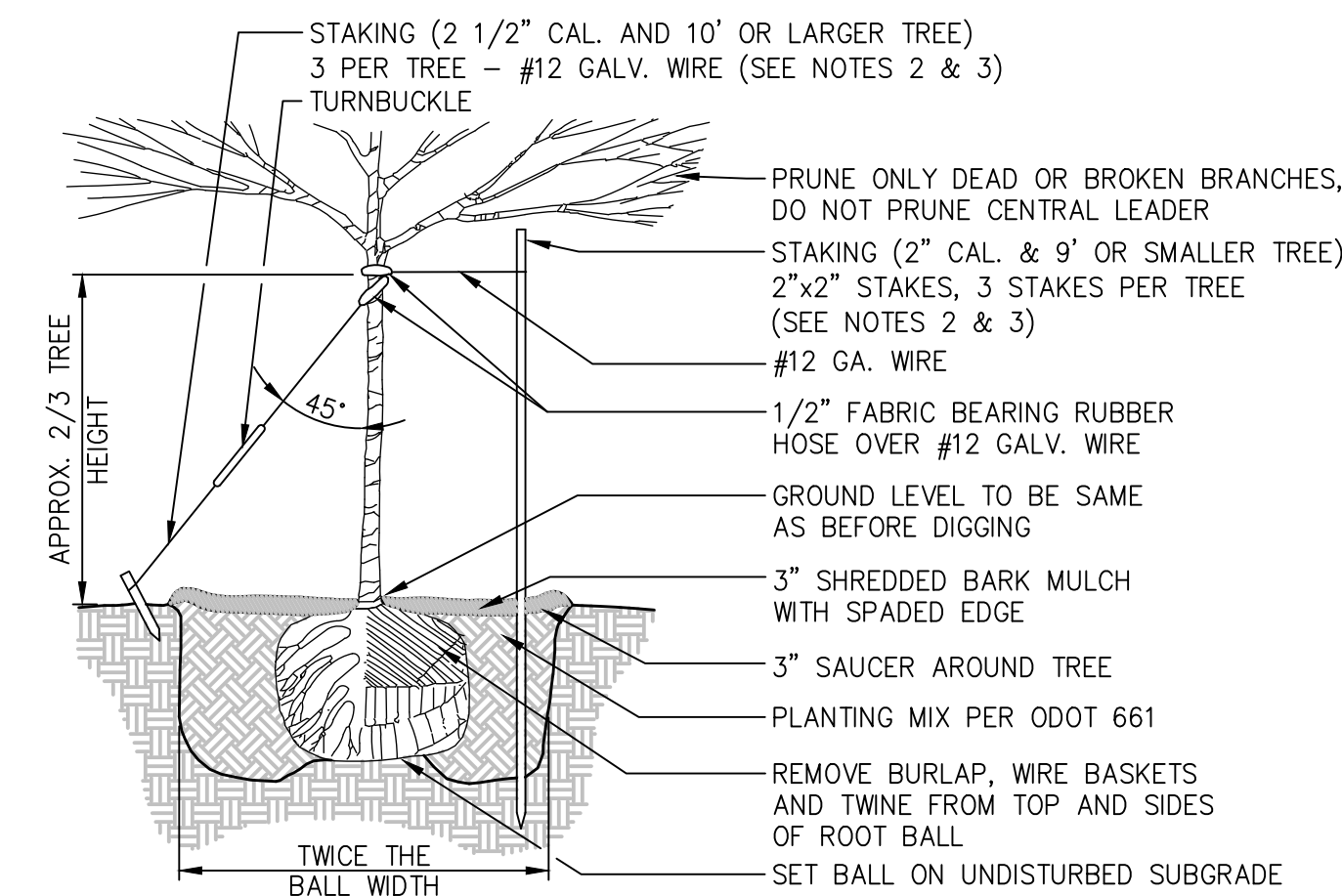


3 ROOT CUTTING (PRE-EXCAVATION) DETAIL
 21 NOT TO SCALE



4 EXISTING SITE ITEM PROTECTION DETAIL
 21 NOT TO SCALE

- NOTES:**
1. REMOVE BURLAP, WIRE BASKETS AND TWINE FROM TOP AND SIDES OF ROOT BALL. CENTER TREE IN HOLE SET TOP OF BALL 1" ABOVE FINISH GRADE.
 2. STAKING & GUYING TREES IS OPTIONAL, HOWEVER THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLED TREES STAYING PLUMB AND STABLE. IF A NON-STAKED TREE MOVES OUT OF PLUMB DURING THE WARRANTY PERIOD THE CONTRACTOR SHALL STRAIGHTEN & STAKE THE TREE AT NO ADDITIONAL COST TO THE OWNER.
 3. THE CONTRACTOR SHALL RETURN TO REMOVE ALL STAKES, GUYS & ASSOCIATED HARDWARE ON THE TREES ONE YEAR AFTER STAKING OR PER THE DIRECTION OF THE OWNER OR LANDSCAPE ARCHITECT.



5 DECIDUOUS TREE PLANTING OUTSIDE OF BIORETENTION CELL DETAIL
 21 NOT TO SCALE

DRAFT 100% CD'S

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DATE ISSUED: 2017/11/30

CONSTRUCTION DETAILS