

# MINI STORAGE

810 W. BELLEVUE  
SECTION 21, TOWN 1N, RANGE 1W  
CITY OF LESLIE, INGHAM COUNTY, MICHIGAN

DRAFT FOR OWNER REVIEW  
NOT FOR CONSTRUCTION

**PROPOSED DEVELOPMENT:**

DEVELOPMENT CONSISTS OF A 4 BUILDING MINI-STORAGE FACILITY WITH ASSOCIATED AMENITIES. NO OFFICE FACILITY IS PROPOSED.

**LANDSCAPING REQUIREMENTS:**

NO REQUIREMENTS

PROVIDED: RESEED GRADED PERIMETER.

**PARKING CALCULATIONS:**

REQUIRED: 1 PARKING SPACE PER 10 STORAGE CUBICLES

PROVIDED: CUSTOMERS WILL BE PARKING IN FRONT OF THEIR RESPECTIVE STORAGE CUBICAL

**PROPERTY DATA:**

LAND AREA: 4.7 AC

TAX ID NUMBER: 33-17-14-21-352-004

**ZONING:**

EXISTING PARCEL ZONING: B-2 HIGHWAY SERVICE

PROPOSED PARCEL ZONING: B-2 HIGHWAY SERVICE

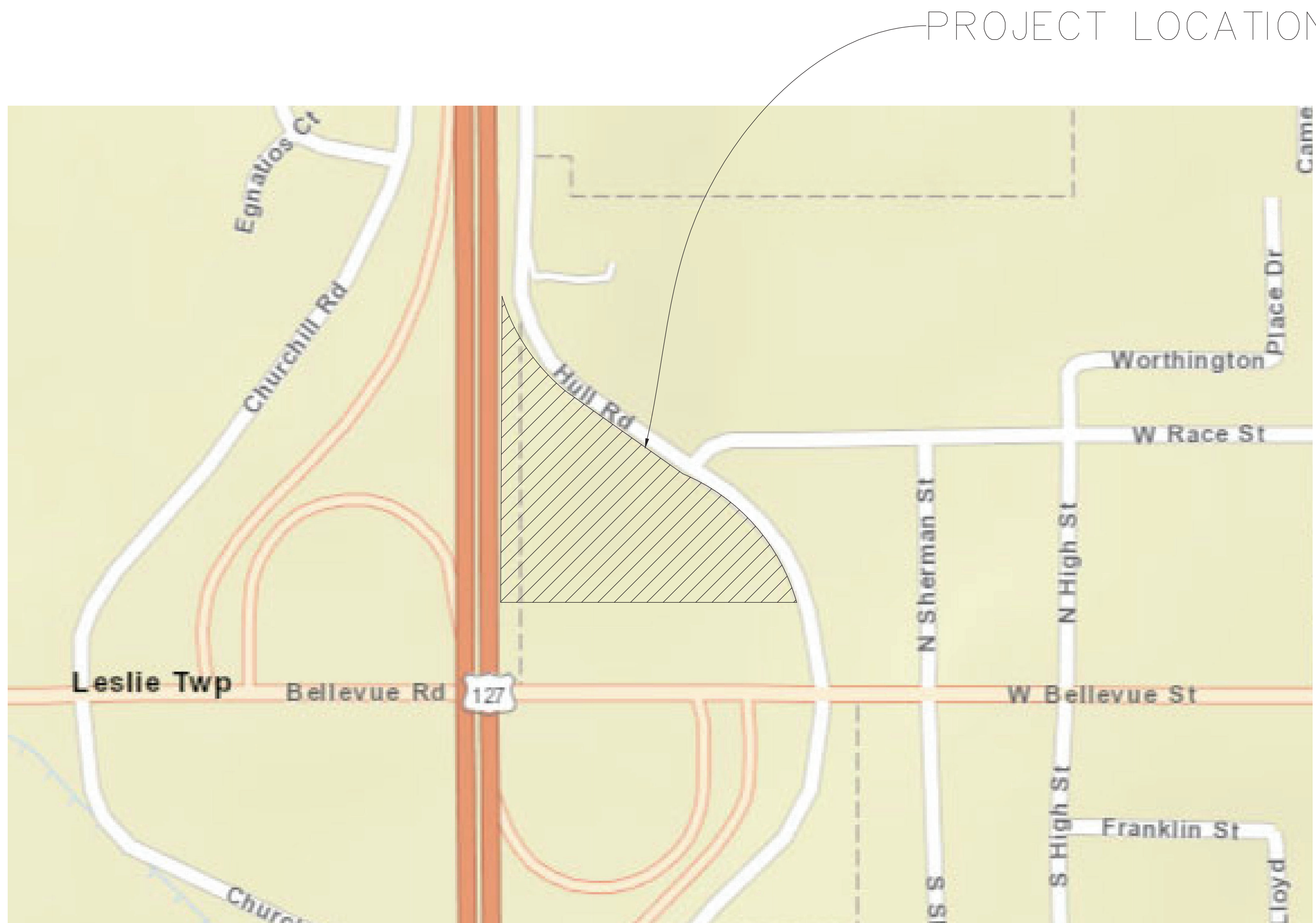
DISTRICT:

BUILDING REQUIREMENTS:  
FRONT SETBACK: 35 FT  
SIDE SETBACK: 20 FT  
SIDE SETBACK: 20 FT  
REAR SETBACK: 40 FT  
MAXIMUM BUILDING HEIGHT: 35 FT

BUFFER REQUIREMENTS: NONE

**LEGAL DESCRIPTION**

LSV 344 BEG @ A PT ON W SEC LN01D30'E 528 FT FROM THE SW COR SEC 21 -N01D30'E TO S LN OF HULL RD R/W -S33D 47'35"E ON R/W 189.29 FT -S53D54'44"E ON R/W 517.72 FT -S47D09'44"E ON R/W 129.91 FT -S33D39'44"E 129.91 FT -S20D09'44"E ON R/W 129.91 FT -S00D5'16"E 135.01 FT ON R/W TO NR/W LN BELLEVUE RD -N89D54' 44"W ON R/W 322.25 FT -N01D30'E 473 FT -N88D20'20"W 412.5 FT TO THE POB SEC 21 T1NR1W CITY OF LESLIE 4.76 AC M/L



SITE LOCATION AND ZONING MAP  
NO SCALE

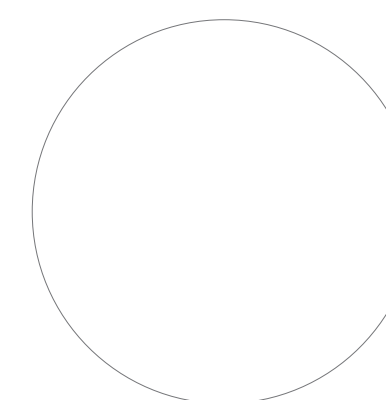
**LEGEND**

SYMBOLS	ABBREVIATIONS	LINE TYPES
⊙ ABANDONED MANHOLE	BC BACK OF CURB	PR/EX CURB AND GUTTER
⊙ PR/EX COMBINED MANHOLE	BIT BITUMINOUS	PR/EX MAJOR CONTOUR
⊙ PR/EX STORM MANHOLE/CATCHBASIN	BLD BUILDING	PR/EX MINOR CONTOUR
⊙ PR/EX STORM CATCH BASIN (CURB)	BLK BULKHEAD	PR/EX STORM SEWER
⊙ PR/EX FLARED END SECTION	BB BOTTOM OF BANK	PR/EX SANITARY SEWER
⊙ PR/EX STORM DOWNSPOUT	C CALCULATED	PR/EX UNDERGROUND ELECTRIC LINE
⊙ PR/EX SANITARY MANHOLE	CL CENTERLINE	PR/EX OVERHEAD ELECTRIC LINE
⊙ PR/EX SANITARY CLEANOUT	CB CATCH BASIN	PR/EX GAS LINE
⊙ PR/EX WATER MANHOLE	CO CLEAN OUT	PR/EX WATER LINE
⊙ PR/EX WATER VALVE	CMB COMBINED	PR/EX COMMUNICATION LINE
⊙ PR/EX WATER CURB STOP	CONC CONCRETE	PR/EX STEAM LINE
⊙ PR/EX WATER SPRINKLER	ELEC ELECTRIC	PR/EX TREE LINE
⊙ PR/EX MONITORING WELL	EL ELEVATION	PR/EX FENCE
⊙ PR/EX FIRE HYDRANT	ENC ENCROACHMENT	RIGHT-OF-WAY
⊙ PR/EX UTILITY RISER	EOM EDGE OF METAL	PROPERTY LINE
⊙ PR/EX COMMUNICATIONS MANHOLE	EX EXISTING	ADJACENT PROPERTY LINE
⊙ PR/EX GAS VALVE	FC FACE OF CURB	HISTORICAL PROPERTY LINE
⊙ PR/EX GAS METER	FS FINISH SURFACE	EASEMENT
⊙ PR/EX ELECTRIC MANHOLE	FES FLARED END SECTION	SETBACK
⊙ PR/EX ELECTRIC POWER POLE	FL FLOW LINE	SECTION LINE
⊙ PR/EX ELECTRIC POWER POLE GUY WIRE	FOIR FOUND CAPPED IRON ROD	SILT FENCE
⊙ PR/EX ELECTRIC TRANSFORMER	GAS GAS LINE	DISTURBANCE LIMITS
⊙ UTILITY HANDHOLE	LF LINEAR FEET	RUNOFF AREA
⊙ PR/EX LIGHT POLE	LS LANDSCAPE	SOIL TYPE CONTOURS (NRCS)
⊙ PR/EX POWER POLE WITH LIGHT FIXTURE	MH MANHOLE	CURB REMOVAL
⊙ PR/EX FLOOD LIGHT	(M) MEASURED	CONCRETE REMOVAL
⊙ PR/EX DECIDUOUS TREE	MON MONUMENT	BITUMINOUS PAVEMENT REMOVAL
⊙ PR/EX CONIFEROUS TREE	NO NUMBER	CONCRETE HATCHING
⊙ STUMP	OC ON CENTER	BITUMINOUS PAVEMENT HATCHING
⊙ PR/EX PARKING METER	OS OFFSET	STONE LANDSCAPE HATCHING
⊙ PR/EX MAILBOX	PL PROPERTY LINE	MULCHED LANDSCAPE HATCHING
⊙ PR/EX AC UNIT	PR PROPOSED	
⊙ PR/EX SIGN	(R) RECORDED	
⊙ PR/EX FLAG POLE	POB POINT OF BEGINNING	
⊙ PR/EX BENCH	POL POINT ON LINE	
⊙ PR/EX BIKE RACK	R.O.W. RIGHT-OF-WAY	
⊙ PR/EX PARKING SPACE COUNT	SAN SANITARY	
⊙ PR/EX CONC BALLARD	SF SQUARE FEET	
⊙ TRAFFIC LIGHT	STM STORM	
⊙ ITEM TO BE REMOVED	TB TOP OF BANK	
⊙ FOUND MONUMENTATION	TC TOP OF CURB	
⊙ SET CAPPED IRON ROD #	TR TOP OF RETAINING WALL	
⊙ SECTION CORNER	TW TOP OF WALK	
⊙ SOIL BORING	TYP TYPICAL	
⊙ BENCHMARK	WTR WATER	
SOIL XXX SOIL CLASSIFICATION (NRCS)		
→ SURFACE DRAINAGE PATH DIRECTION		

**CONTACTS:**

PLANNING	CITY OF LESLIE 602 WEST BELLEVUE STREET LESLIE, MI 49251 (517) 589-8236
TRANSPORTATION	INGHAM COUNTY ROAD COMMISSION 301 N BUSH ST. MASON, MI 48854 (517) 676-9722
GAS, ELECTRIC	CONSUMERS ENERGY 530 WEST WILLOW STREET LANSING, MI 48909 (517) 374-2375
WATER	CITY OF LESLIE 602 WEST BELLEVUE STREET LESLIE, MI 49251 (517) 589-8236
SANITARY	CITY OF LESLIE 602 WEST BELLEVUE STREET LESLIE, MI 49251 (517) 589-8236
STORM	INGHAM COUNTY DRAIN COMMISSION 707 BUHL ST. MASON, MI 48854 (517) 676-8395

I HEREBY CERTIFY THAT THESE PLANS HAVE BEEN  
PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE  
WITH ACT 240, PA OF 1937 AS AMENDED.



Kurt R. Krohulik  
LICENSE NO. 046794  
DC ENGINEERING  
1210 N. CEDAR ST. SUITE B  
LANSING, MI 48906  
(517) 853-7866

OWNER	BYRUM BUILDERS 116 CHARLES ST. LANSING, MI 48912
ARCHITECT	TO BE DETERMINED
ENGINEER	DC ENGINEERING PC 1210 NORTH CEDAR ST. SUITE B LANSING, MICHIGAN 48906 (517) 853-7866
CONTRACTOR	TO BE DETERMINED



REVISIONS

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1210 N. CEDAR ST. SUITE B  
LANSING, MICHIGAN 48906  
PH: (517) 853-7866

BYRUM BUILDERS - 810 W BELLEVUE

CIVIL - COVER

PLANS PREPARED FOR:  
BYRUM BUILDERS  
116 CHARLES ST.  
LANSING, MI 48912  
(517) 937-7743

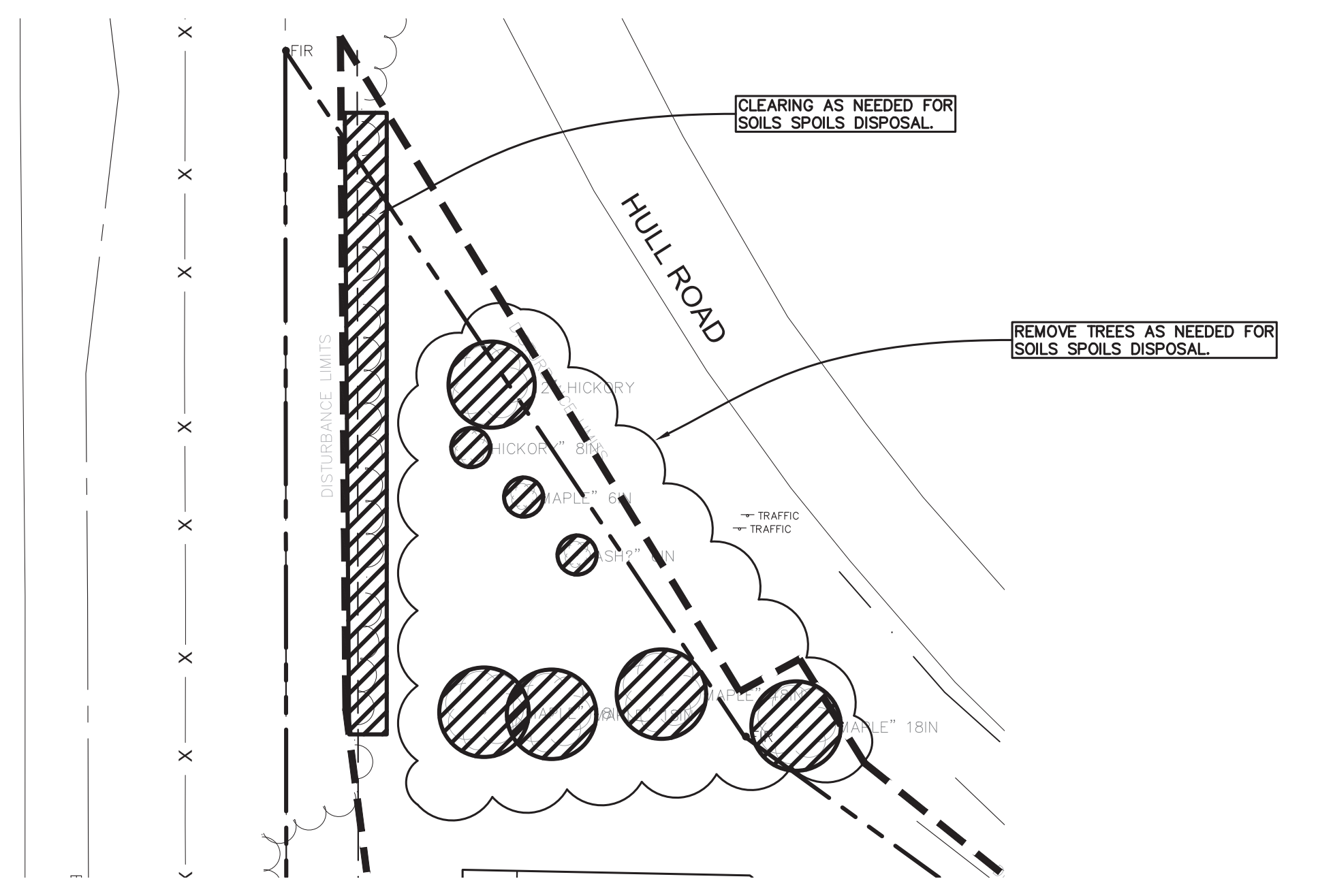
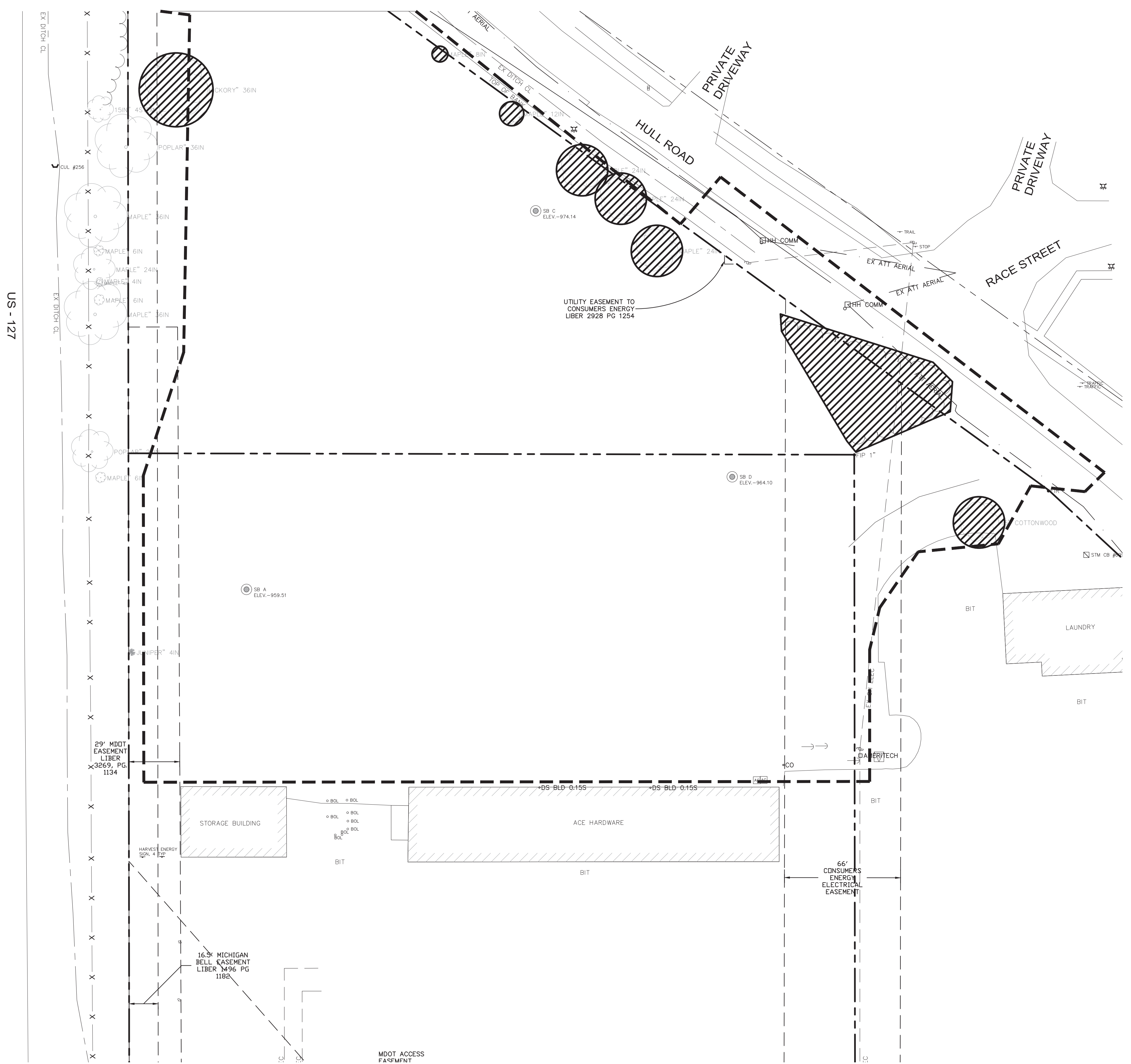
SCALE: NONE	DRAWN BY: ASD	REVIEWED BY: KRK
DATE: 08-17-2020		SHEET: 1 OF 8

BYRUM BUILDERS - 810 W BELLEVUE



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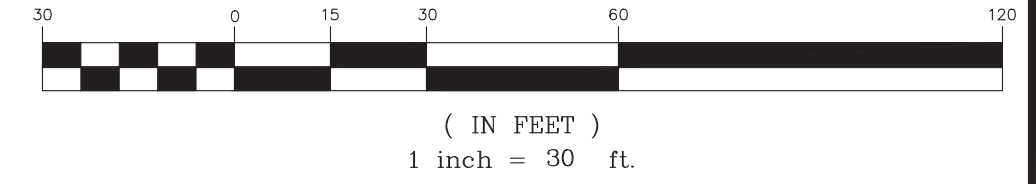
DEMOLITION NOTES

1. SAW CUT EXISTING EDGE OF PAVEMENT IMMEDIATELY PRIOR TO NEW PAVEMENT. DAMAGED EDGES SHALL BE RE-CUT PRIOR TO CONSTRUCTION OF NEW PAVEMENT.
2. CONTRACTOR RESPONSIBLE FOR DISPOSAL OF ALL MATERIALS REMOVED FROM SITE.
3. BURNING IS NOT APPROVED.

SUPPLEMENTAL LEGEND:

- DEMO LIMITS
- XXXXXX CURB REMOVAL
- XXXXXX CONCRETE REMOVAL
- ..... BITUMINOUS PAVEMENT REMOVAL
- ITEM TO BE REMOVED

GRAPHIC SCALE



REVISIONS

NO.	DATE	DESCRIPTION



1210 N. CEDAR ST. SUITE B  
LANSING, MICHIGAN 48906  
PH: (517) 853-7866

BYRUM BUILDERS - 810 W BELLEVUE  
CIVIL - DEMOLITION

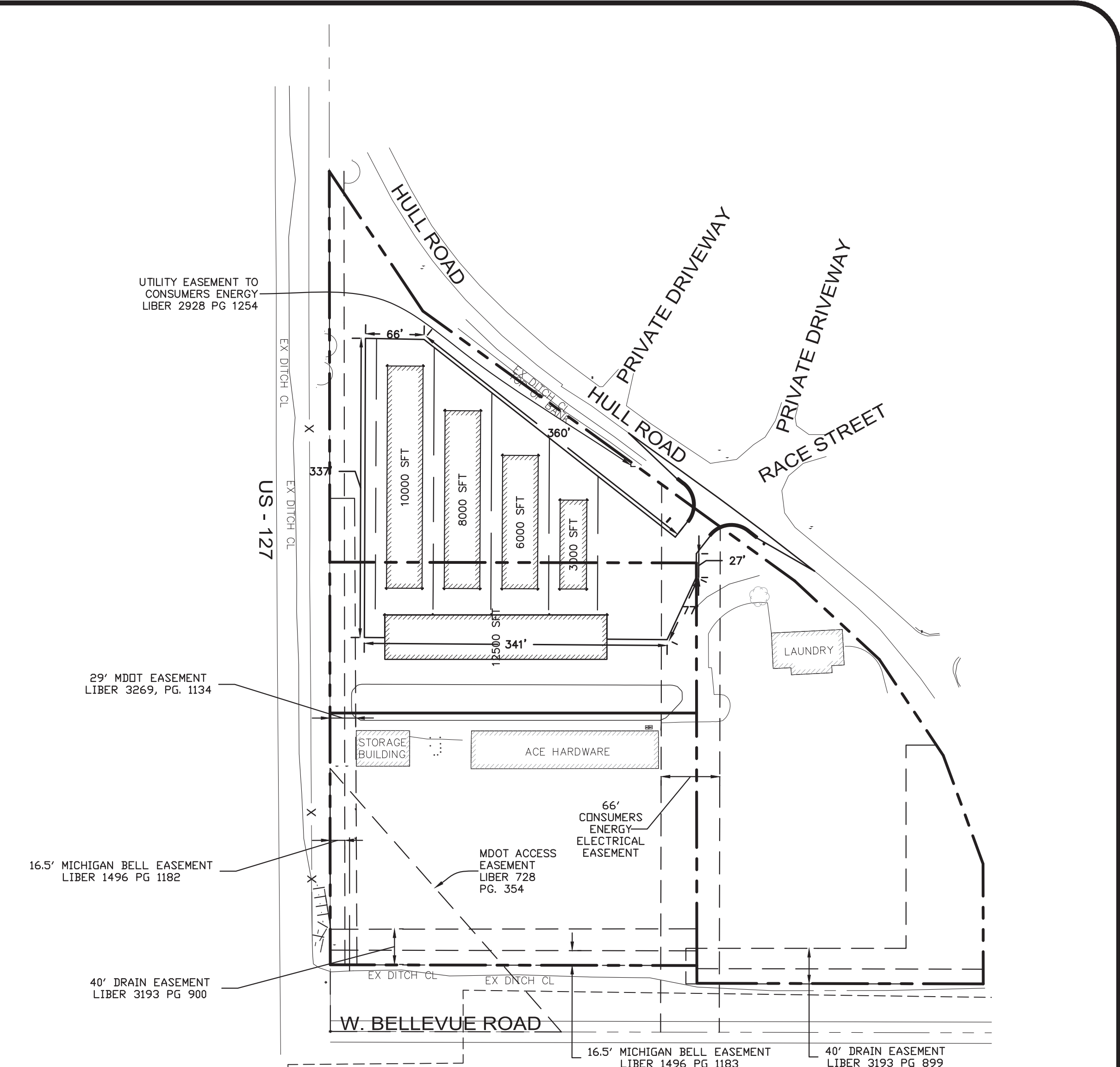
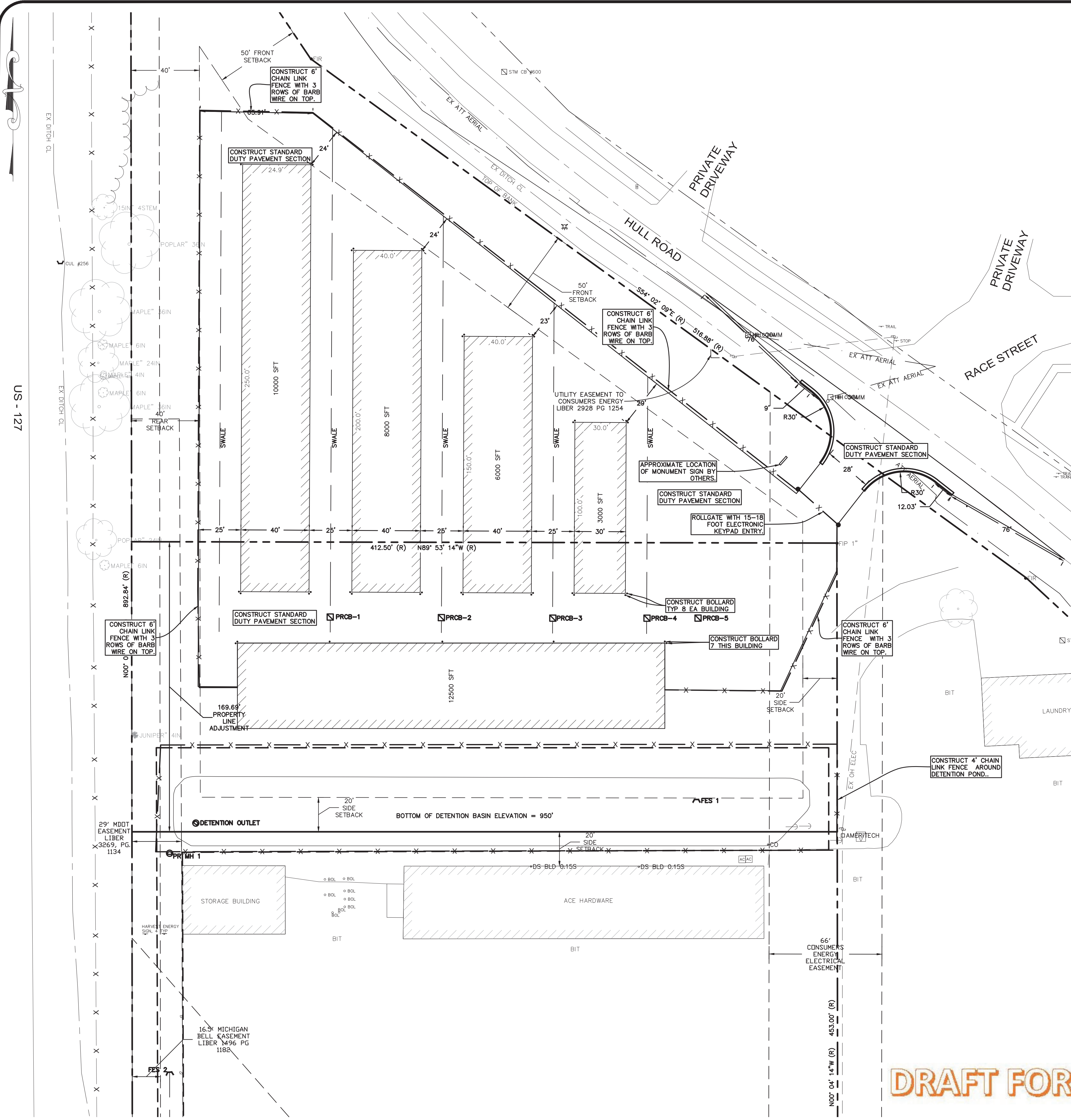
PLANS PREPARED FOR:  
BYRUM BUILDERS  
716 CHARLES ST.  
LANSING, MI 48912  
(517) 937-7743

SCALE: 1" = 30'    DRAWN BY: ASD    REVIEWED BY: KRK  
DATE: 08-17-2020    SHEET: 2 OF 8

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3 full working days before you dig.  
Michigan's One-Call Utility Notification Organization  
1-800-482-7171  
on the net at: www.missdig.org

BYRUM BUILDERS - 810 W BELLEVUE

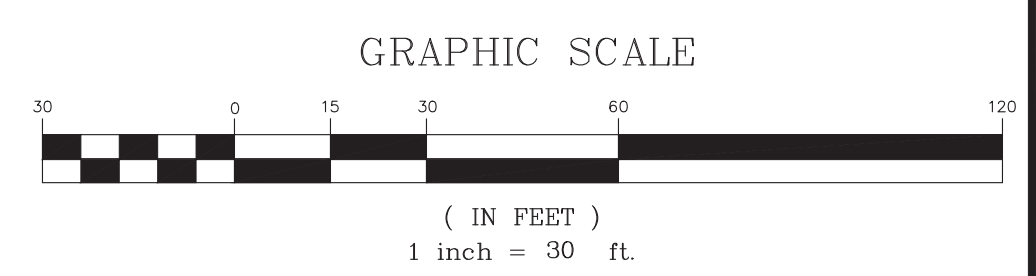




**EXISTING EASEMENTS AND PROPOSED PAVEMENT DIMENSIONS DETAIL:**  
 SCALE: 1" = 100'  
 EXISTING EASEMENTS AND PROPOSED PAVEMENT MEASUREMENTS FOR CLARITY.

**NOTES:**

- GENERAL:**
- CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO ORDERING MATERIALS.
  - STORM SEWER SHALL BE CONSTRUCTED IN ACCORDANCE WITH INGHAM COUNTY DRAIN COMMISSION STANDARDS. CONTRACTOR SHALL OBTAIN DRAIN OFFICE PERMIT FOR CONNECTION TO THE PUBLIC STORM SEWER.
  - CONTRACTOR SHALL OBTAIN AN INGHAM COUNTY ROAD COMMISSION RIGHT-OF-WAY PERMIT WORK WITHIN HULL ROAD.
  - CONTRACTOR RESPONSIBLE FOR OBTAINING ALL PERMITS, INCLUDING FEES, PRIOR TO WORK.
- BITUMINOUS PAVEMENT**
- BITUMINOUS PAVEMENT SHALL BE MDT MIXTURE 13A.
  - AGGREGATE BASE SHALL BE MDT 22A OR 21AA. AGGREGATE BASE SHALL BE COMPACTED TO 98% MAXIMUM DENSITY.
  - SUBBASE SHALL BE MDT TYPE II GRANULAR MATERIAL COMPACTED TO 98% MAXIMUM DENSITY.
  - PAVEMENTS SHALL BE CONSTRUCTED TO THE CROSS SECTION INDICATED IN THE PLANS.
- CONCRETE**
- ALL CONCRETE SHALL BE MDT TYPE P1.
  - CURB AND GUTTER SHALL BE MDT TYPE F-4.
  - PLACE 1/2" INCH EXPANSION JOINT AT ALL CONCRETE TO CONCRETE INTERFACE AND CONCRETE TO BUILDING INTERFACE.
- RESTORATION**
- LAWN-AREAS SHALL BE PREPARED WITH 3" TOPSOIL SURFACE, SEEDED, MULCHED, AND FERTILIZED. PRIOR TO PLACING TOPSOIL THE UNDERLYING MATERIALS SHALL BE LOOSENEED TO A DEPTH OF 4".
  - LANDSCAPE AREAS SHALL BE PREPARED WITH 4" TOPSOIL SURFACE AND SURFACE TREATMENT AS SPECIFIED ON THE DRAWING.
  - SEED SLOPE ON SOUTH SIDE OF PARKING LOT SWALE, BE CARNO NEW MIX SLOPE STABILIZATION. SEED WITHIN DETENTION BASIN SHALL BE CARNO NEW MIX WATER MIX. ALL OTHER LAWN AREAS TO BE MDT MIX THM.
  - SLOPES ON SOUTH SIDE OF PARKING LOT AND DETENTION BASIN SIDEWALLS SHALL BE RESTORED WITH PERMANENT MULCH BLANKET, NORTH AMERICAN GREEN P300 OR EQUAL.
  - ALL OTHER SLOPES EQUAL TO OR STEEPER THAN 1V:4H SHALL BE RESTORED WITH NORTH AMERICAN GREEN S150 OR EQUAL.
- TRAFFIC CONTROL**
- TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MMUTCD.
  - TRAFFIC CONTROL ROAD CLOSURE WITHIN HULL ROAD WILL REQUIRE PERMIT FROM THE INGHAM COUNTY ROAD COMMISSION. CONTRACTOR TO OBTAIN PERMIT PRIOR TO CONSTRUCTION.



**REVISIONS**

NO.	DATE	DESCRIPTION



1210 N. CEDAR ST. SUITE B  
 LANSING, MICHIGAN 48906  
 PH: (517) 853-7866  
**BYRUM BUILDERS - 810 W BELLEVUE**  
 CIVIL - LAYOUT  
 PLANS PREPARED FOR:  
 BYRUM BUILDERS  
 716 CHARLES ST.  
 LANSING, MI 48912  
 (517) 937-7743

SCALE: 1" = 30'	DRAWN BY: ASD	REVIEWED BY: KRK
DATE: 08-17-2020		SHEET: 3 OF 8

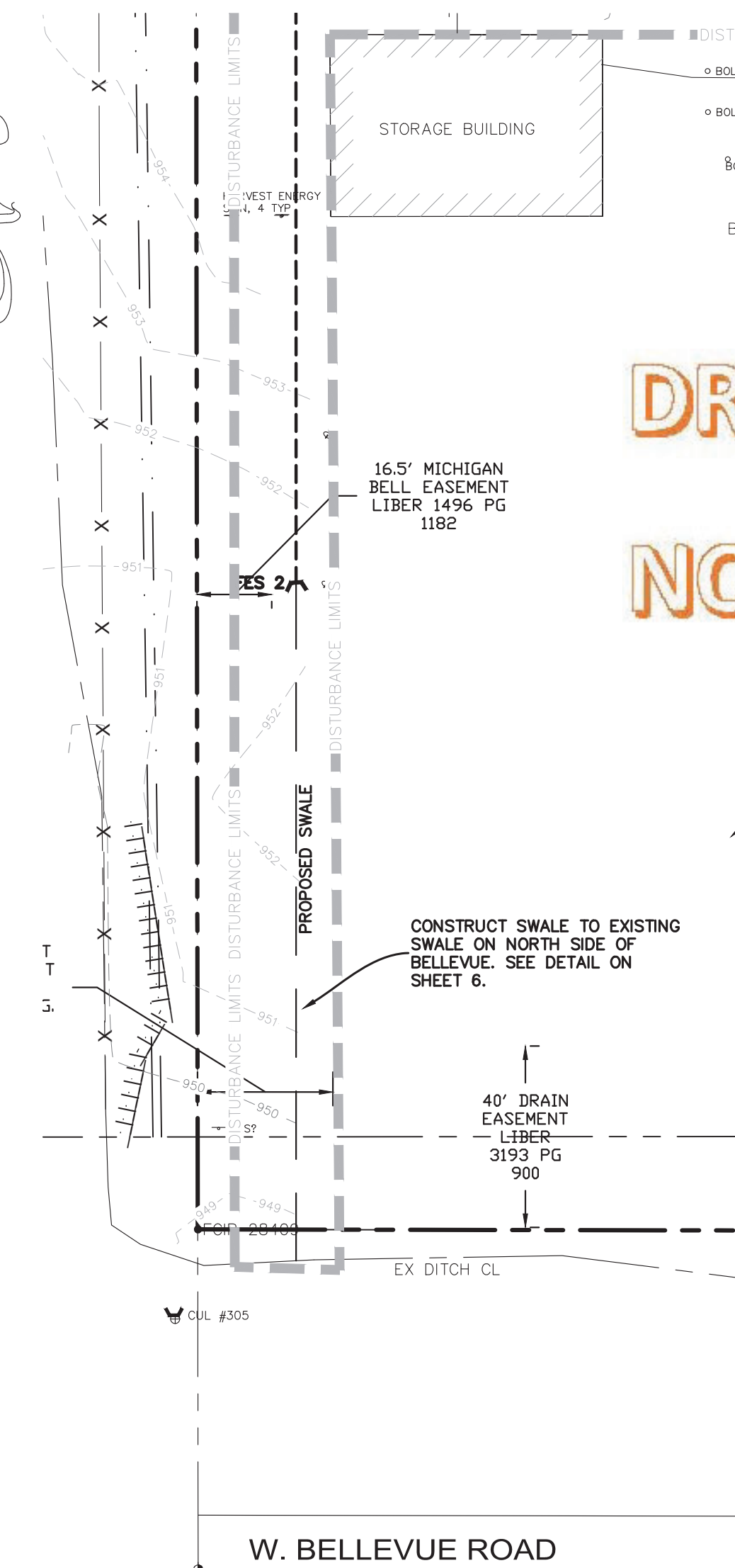
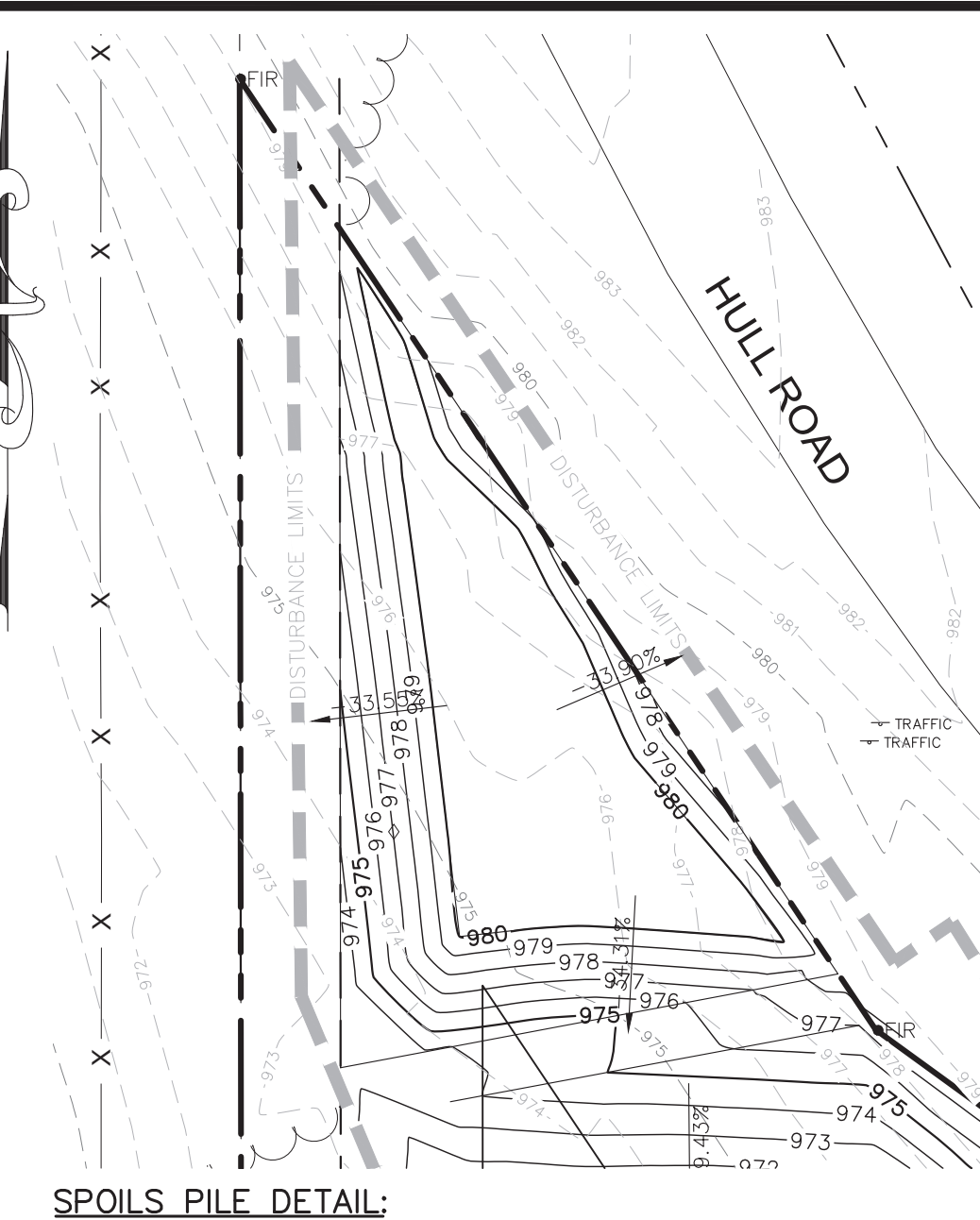
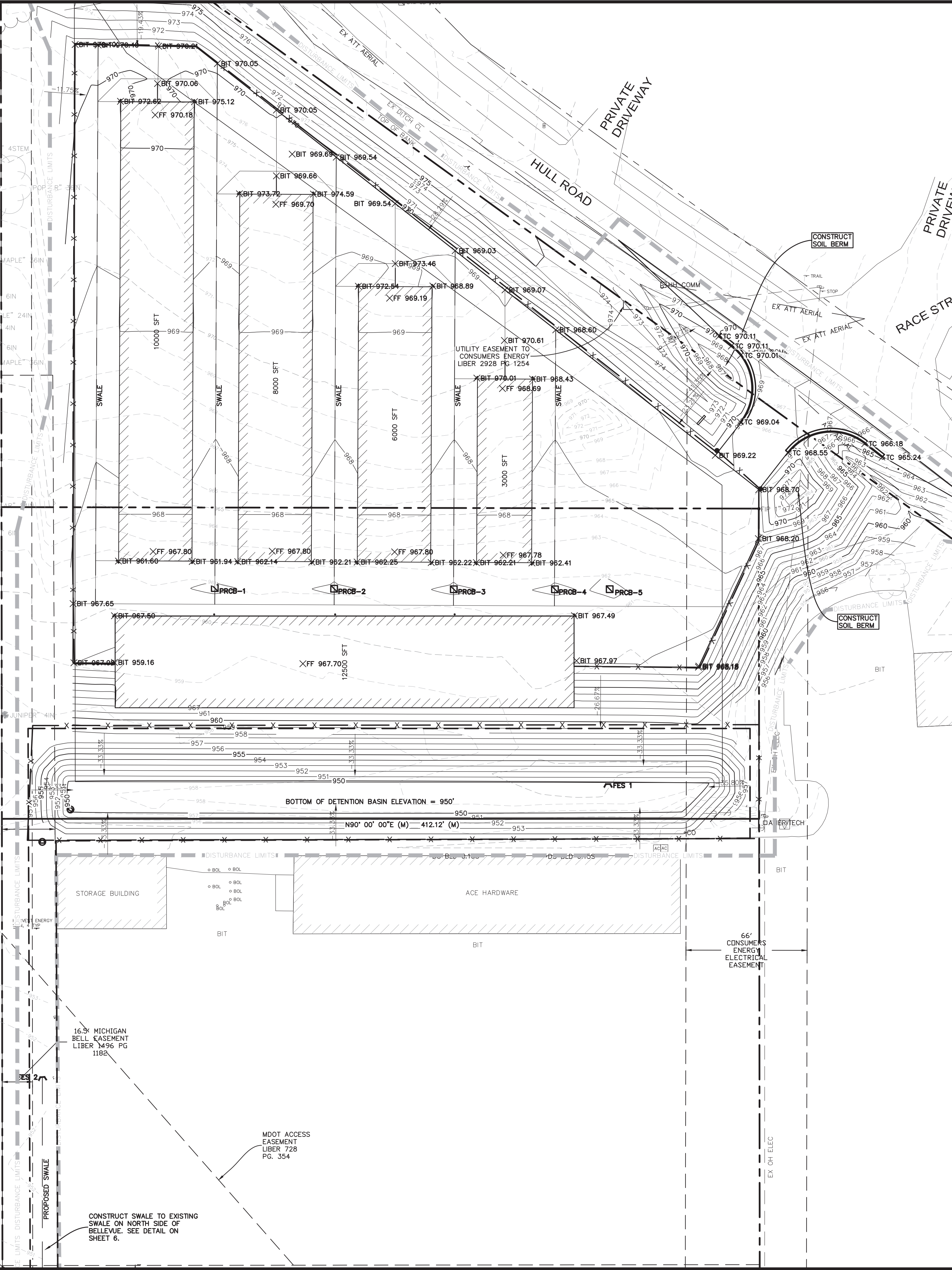
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BYRUM BUILDERS - 810 W BELLEVUE

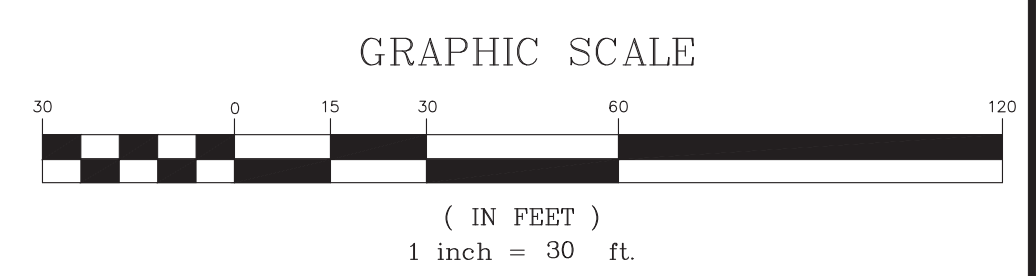


US - 127



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**BENCHMARKS:**  
BENCHMARK #789: ARROW ON TOP OF HYDRANT ACROSS FROM DRIVE. HOUSE NUMBER 4377 ON WEST SIDE OF HULL ROAD. ELEV. 987.14



REVISIONS

NO.	DATE	DESCRIPTION



1210 N. CEDAR ST. SUITE B  
LANSING, MICHIGAN 48906  
PH: (517) 853-7866

**BYRUM BUILDERS - 810 W BELLEVUE**  
CIVIL - GRADING

PLANS PREPARED FOR:  
BYRUM BUILDERS  
116 CHARLES ST.  
LANSING, MI 48912  
(517) 937-7743

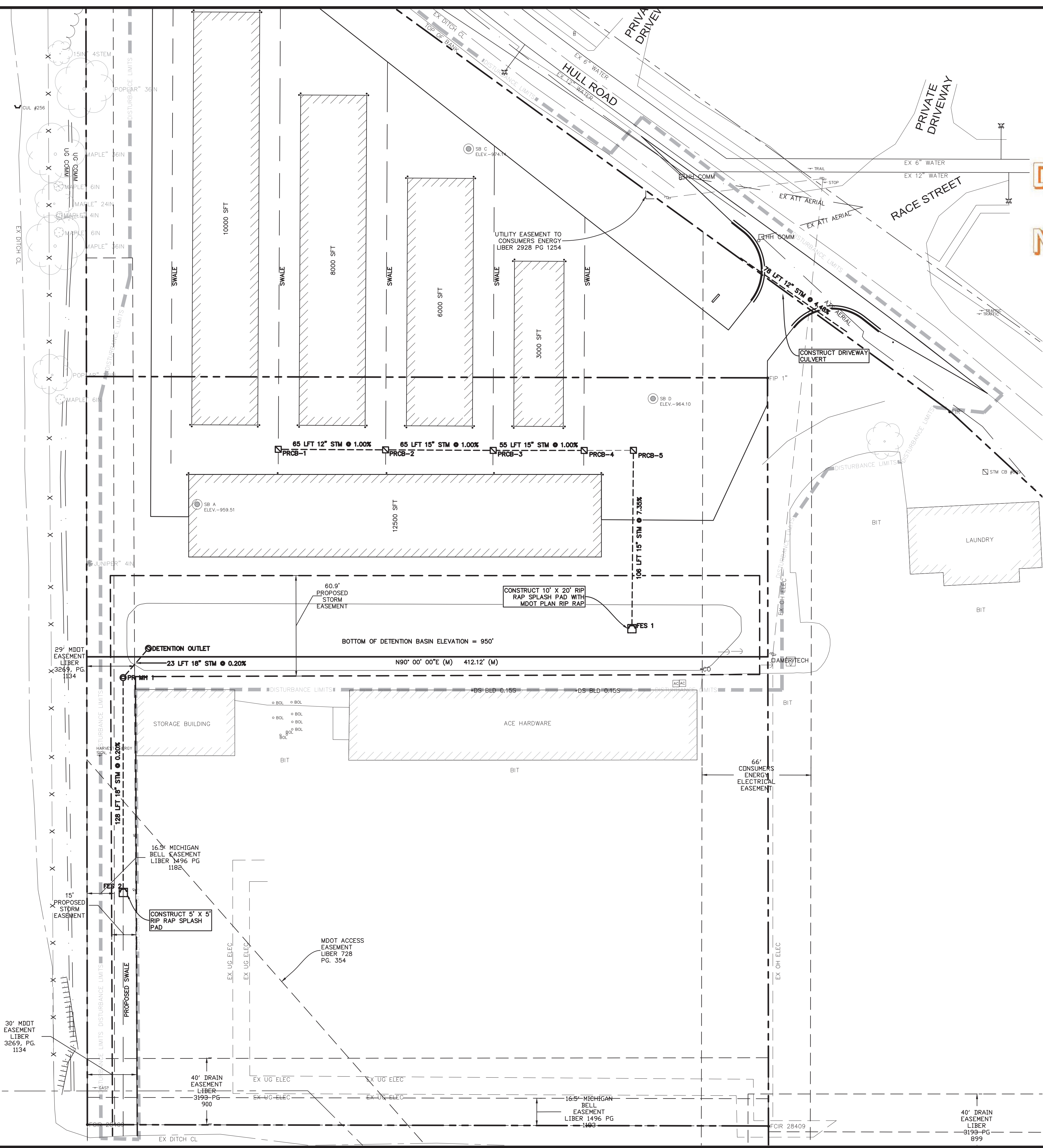
SCALE: 1" = 30'	DRAWN BY: ASD	REVIEWED BY: KRK
DATE: 08-17-2020		SHEET: 4 OF 8

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BYRUM BUILDERS - 810 W BELLEVUE



US - 127



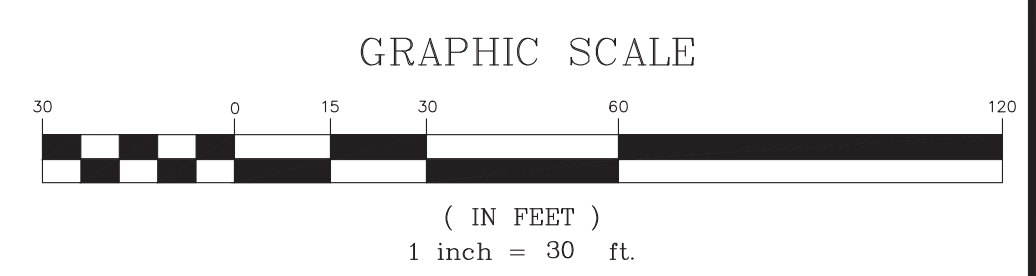
- NOTES:**  
 STORM SEWER  
 1. STORM SEWER SHALL BE CONSTRUCTED IN ACCORDANCE WITH INGHAM COUNTY DRAIN COMMISSION STANDARDS. CONTRACTOR SHALL OBTAIN DRAIN OFFICE PERMIT FOR CONNECTION TO THE PUBLIC STORM SEWER.  
 2. STORM SEWER ON-SITE SHALL BE PVC SDR 26, SCHEDULE 40, C76-IV, OR HDPE DUAL WALL N-12.  
 3. CATCH BASIN CASTING 1040 WITH TYPE M1 FLAT GRATE WITH MINIMUM 190 SQ. IN. OF OPENING.  
 4. CASTING ON MANHOLES SHALL BE EJM 1040 SEWER COVER.

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**NOT FOR CONSTRUCTION**

STORM STRUCTURE TABLE	
DETENTION OUTLET	RIM = 954.44' 18" SW INV OUT = 950.00'
PR MH 1	RIM = 954.46' 18" NE INV IN = 949.95' 18" S INV OUT = 949.85'
PRCB-1	RIM = 966.89' 12" E INV OUT = 960.30'
PRCB-2	RIM = 966.89' 12" W INV IN = 959.65' 15" E INV OUT = 959.55'
PRCB-3	RIM = 966.89' 15" W INV IN = 958.90' 15" E INV OUT = 958.88'
PRCB-4	RIM = 966.90' 15" W INV IN = 958.33' 15" E INV IN = 958.27'

FLARED END SECTION TABLE	
FES 1	15" N INV IN = 950.20
FES 2	18" N INV IN = 949.59

**BENCHMARKS:**  
 BENCHMARK #789: ARROW ON TOP OF HYDRANT ACROSS FROM DRIVE. HOUSE NUMBER 4377 ON WEST SIDE OF HULL ROAD. ELEV. 987.14



REVISIONS	

**D/C ENGINEERING PC**  
 1210 N. CEDAR ST. SUITE B  
 LANSING, MICHIGAN 48906  
 PH: (517) 853-7866

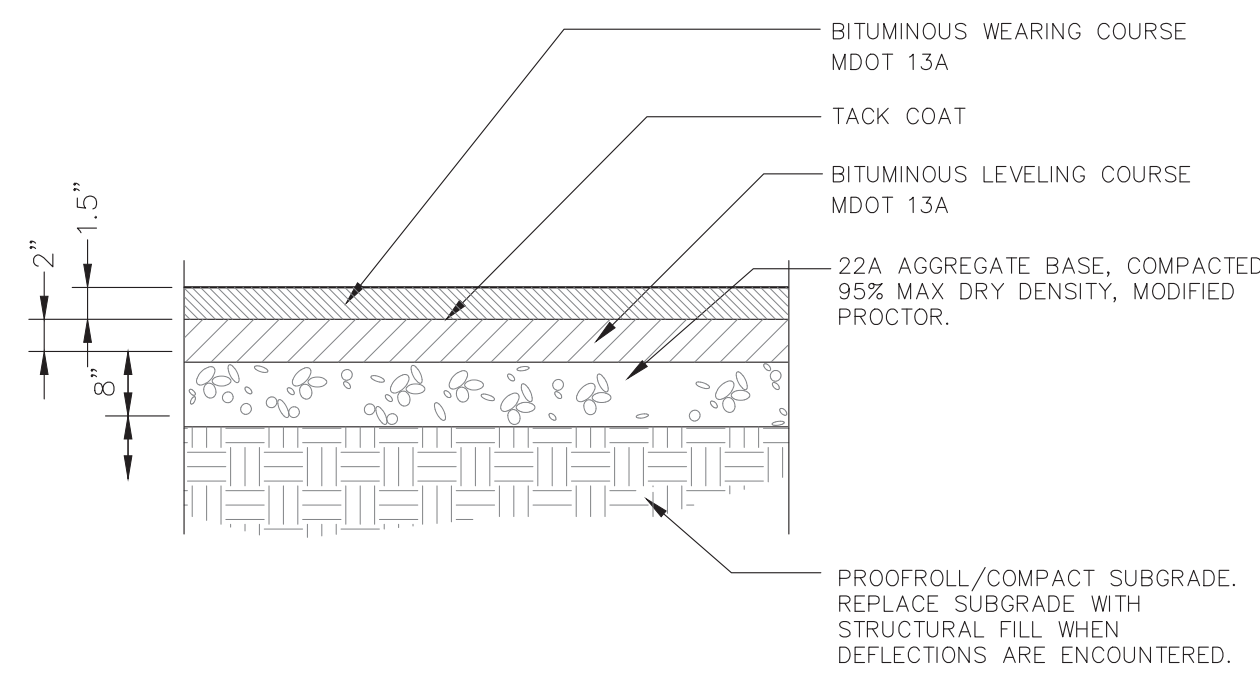
**BYRUM BUILDERS - 810 W BELLEVUE**  
 CIVIL - UTILITIES

PLANS PREPARED FOR: BYRUM BUILDERS 716 CHARLES ST. LANSING, MI 48912 (517) 937-7743	SCALE: 1" = 30'	DRAWN BY: ASD	REVIEWED BY: KRK
DATE: 08-17-2020			SHEET: 5 OF 8

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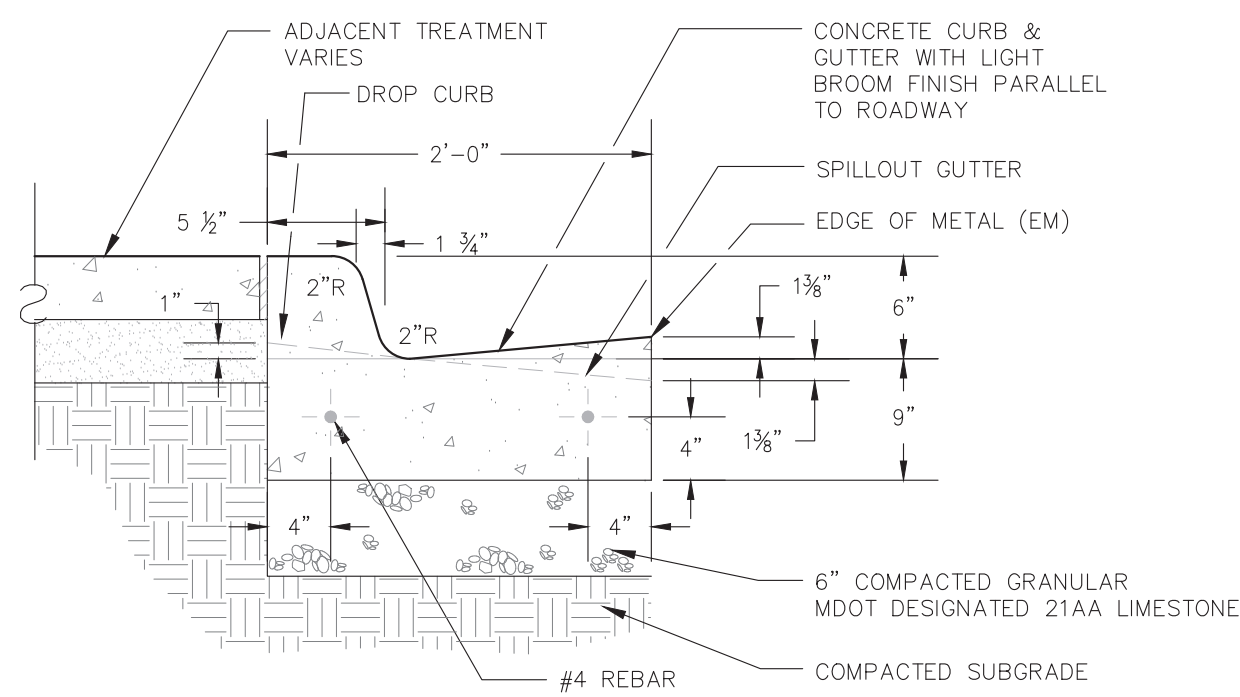
BYRUM BUILDERS - 810 W BELLEVUE





**STANDARD DUTY BITUMINOUS PAVEMENT**

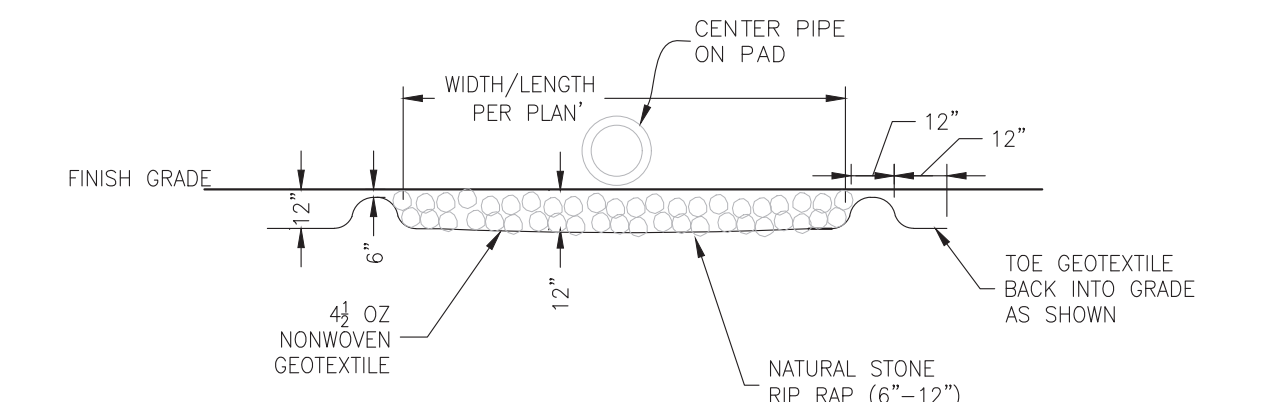
NOT TO SCALE



**MDOT TYPE F4 - CURB AND GUTTER**

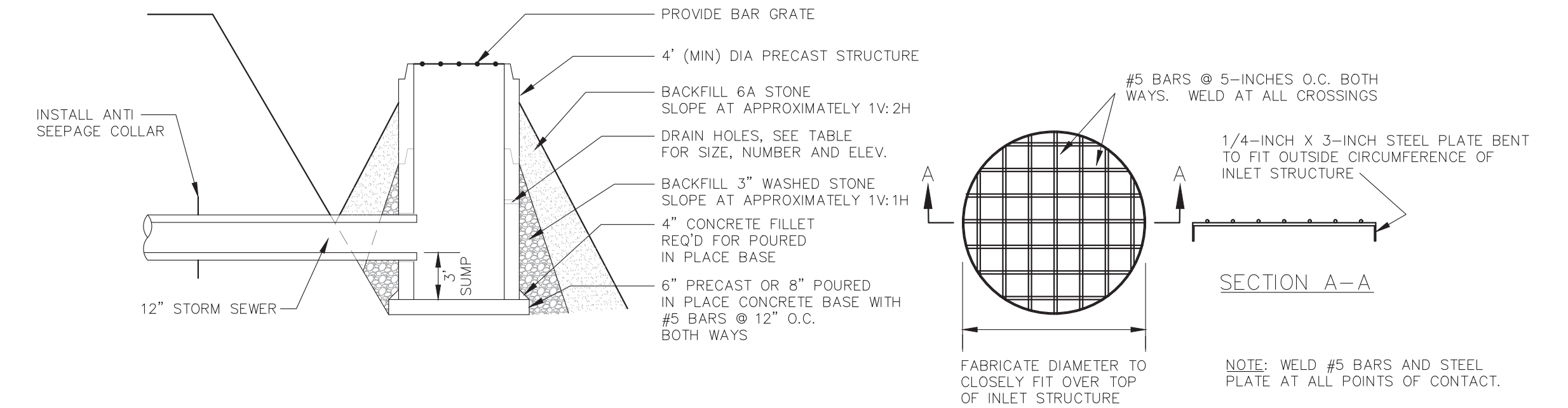
NOT TO SCALE

OUTLET STRUCTURE SCHEDULE		
DETENTION	ITEM	QTY
15\"/>		



**SPLASH PAD DETAIL**

NOT TO SCALE

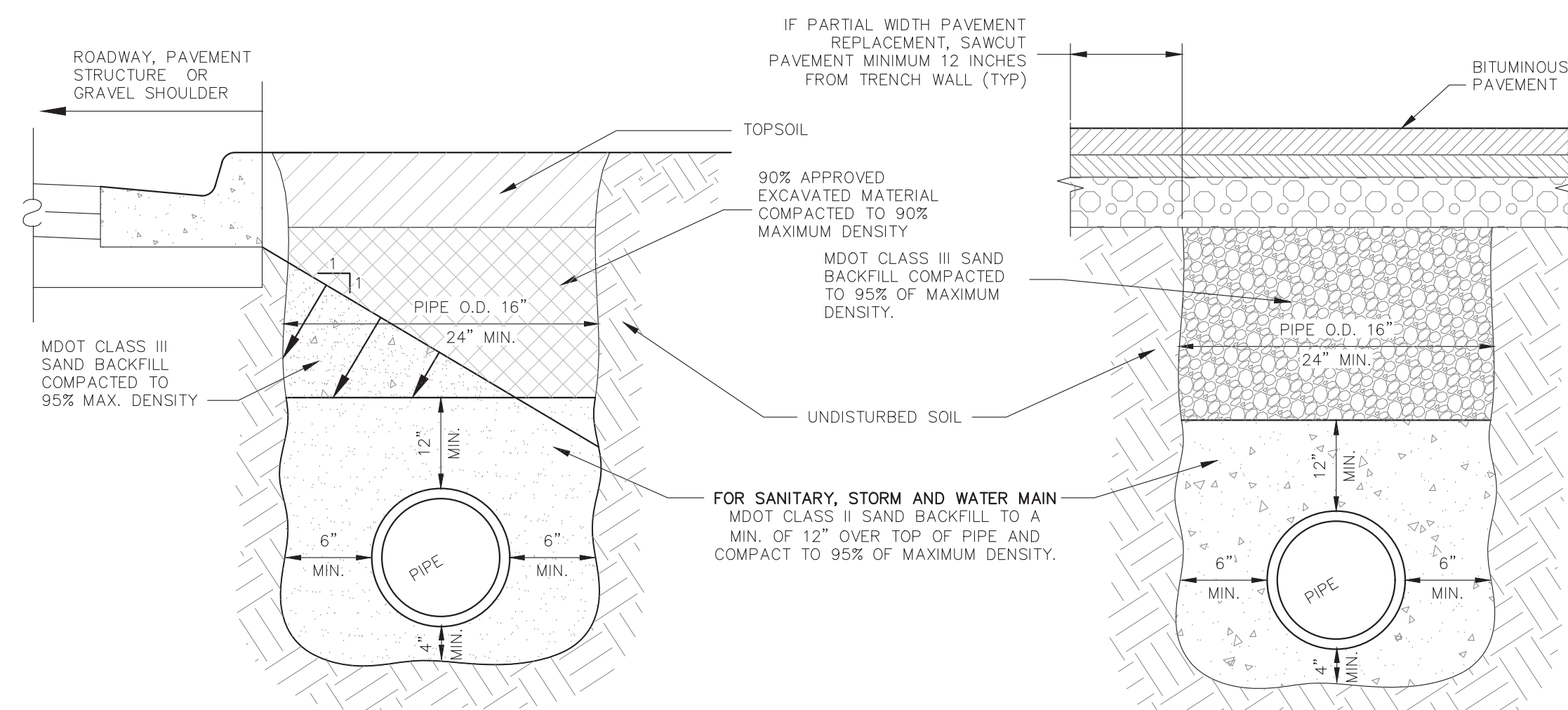


**DETENTION POND OUTLET STRUCTURE WITH STONE BACKFILL**

NOT TO SCALE

**BAR GRATE DETAIL**

NOT TO SCALE

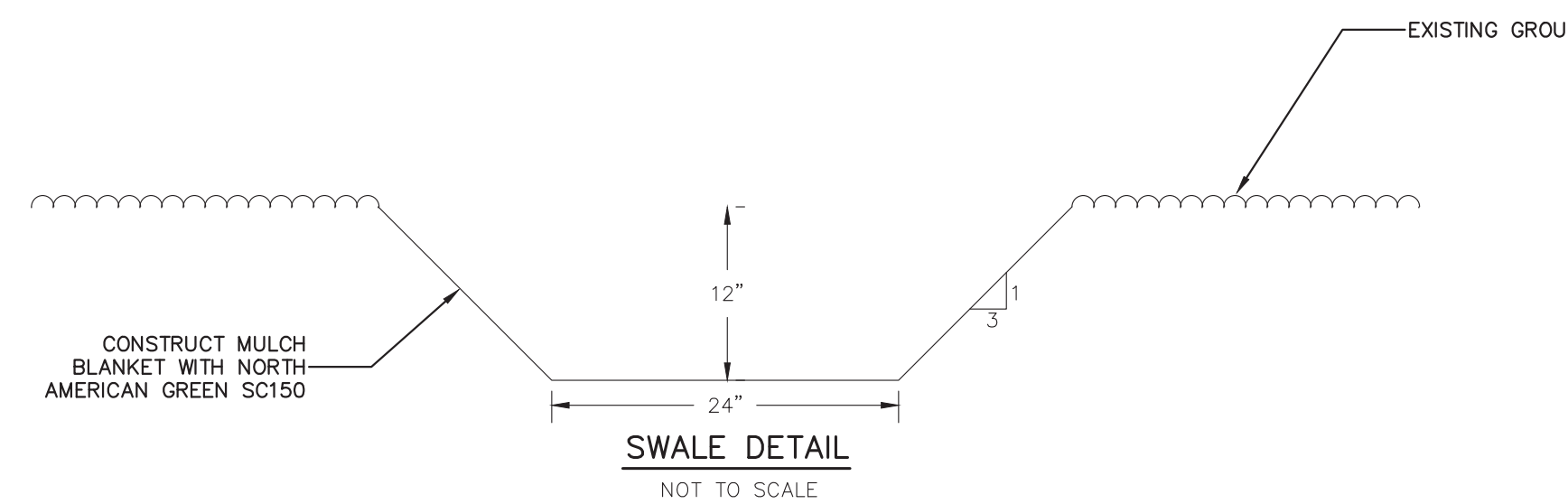


**TYPICAL UTILITIES TRENCH WITHIN 1:1 INFLUENCE OF PAVEMENT SURFACES AND/OR WITHIN GREEN SPACE AREA DETAIL**

NOT TO SCALE

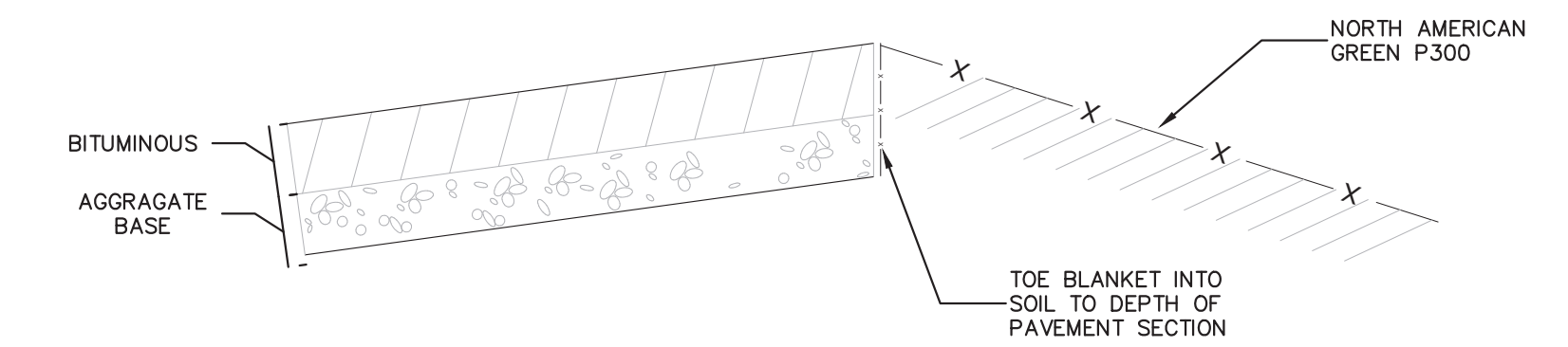
**UTILITY TRENCH UNDER PAVED AREAS DETAIL**

NOT TO SCALE



**SWALE DETAIL**

NOT TO SCALE

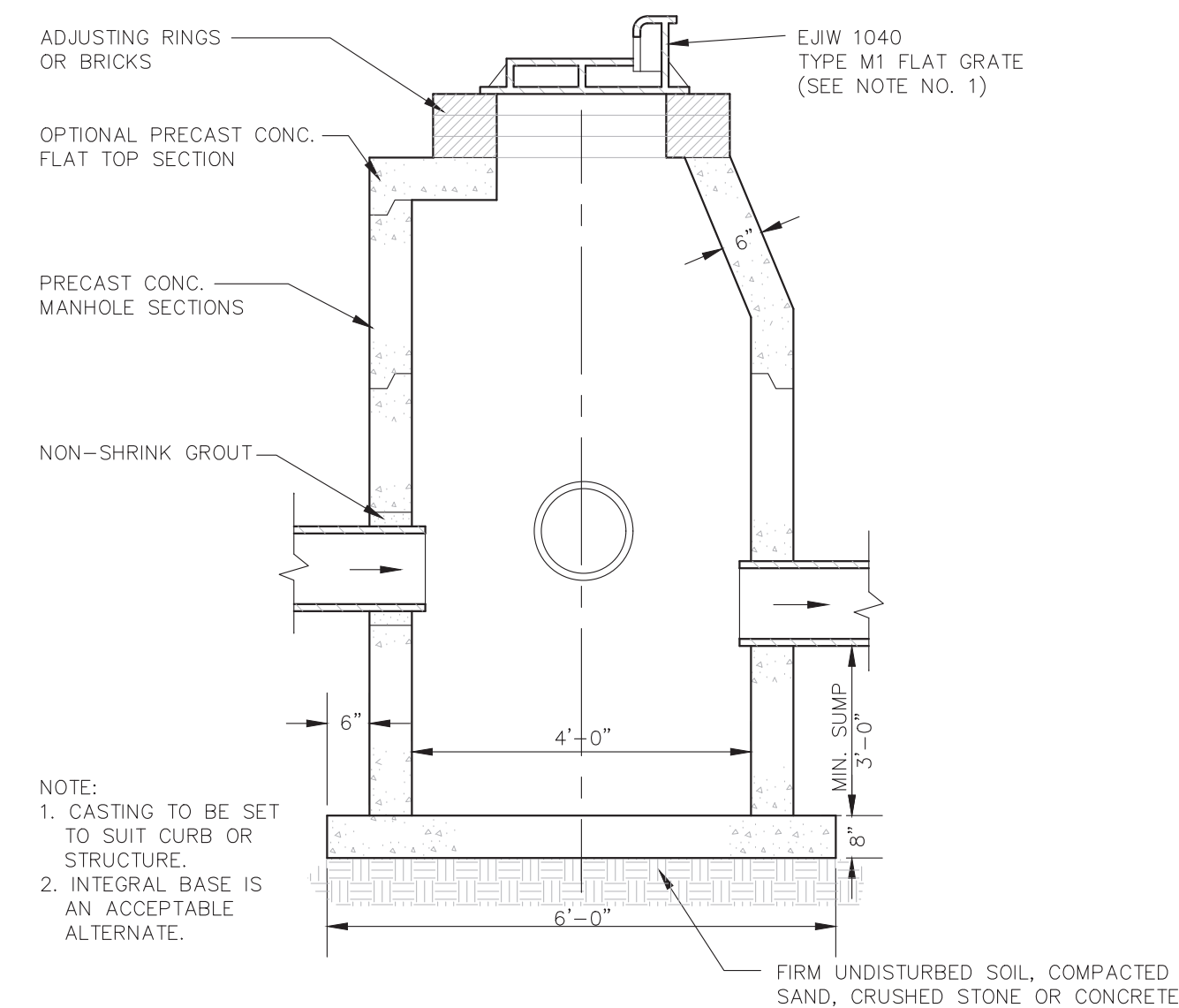


**SOIL EROSION MAT DETAIL AT SOUTH PARKING LOT**

NOT TO SCALE

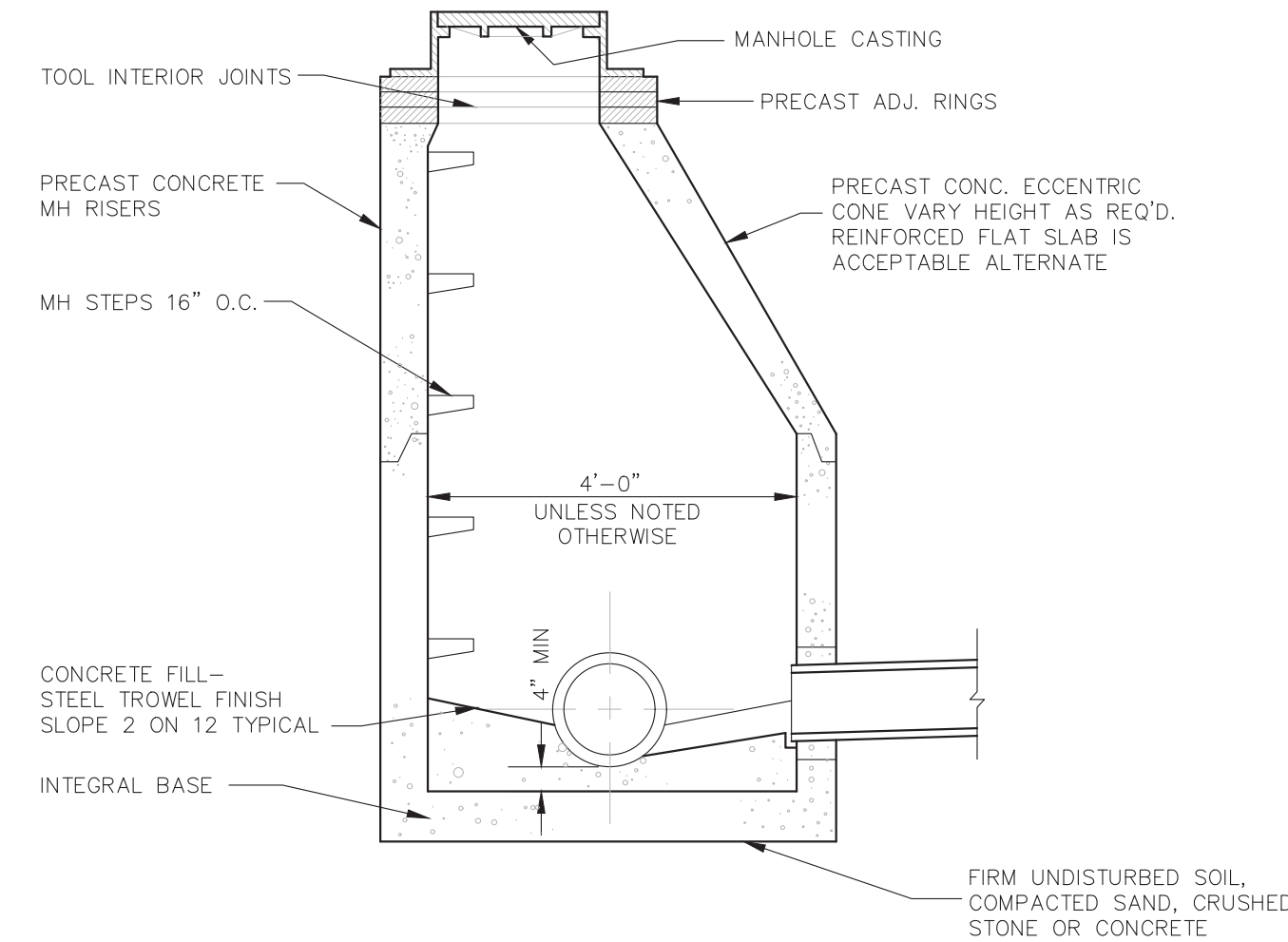
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**STANDARD CATCH BASIN**

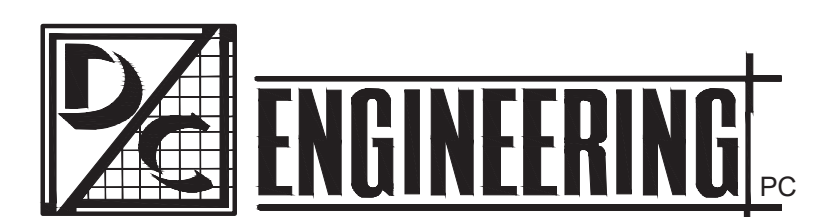
NOT TO SCALE



**STANDARD STORM MANHOLE**

NOT TO SCALE

**REVISIONS**



1210 N. CEDAR ST. SUITE B  
LANSING, MICHIGAN 48906  
PH: (517) 853-7866

**BYRUM BUILDERS - 810 W BELLEVUE**

**CIVIL - DETAILS**

PLANS PREPARED FOR:  
BYRUM BUILDERS  
116 CHARLES ST.  
LANSING, MI 48912  
(517) 937-7743

SCALE: NONE	DRAWN BY: ASD	REVIEWED BY: KRK
DATE: 08-17-2020		SHEET: 6 OF 8

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BYRUM BUILDERS - 810 W BELLEVUE



**SESC NARRATIVE**

TEMPORARY SOIL EROSION AND SEDIMENT CONTROLS SHALL CONSIST OF MULTIPLE METHODS. SILT FENCE WILL BE INSTALLED TO COLLECT SEDIMENTS AND DEBRIS PRIOR TO LEAVING THE SITE AND DISCHARGING INTO THE SEWER SYSTEM. SILT AND DEBRIS BAGS WILL ALSO BE INSTALLED IN ALL CATCH BASINS DOWN SLOPE OF THE WORK AND ANY WITHIN THE LIMITS OF DISTURBANCE. A STABILIZED CONSTRUCTION ACCESS DRIVE WILL KEEP SEDIMENT ON SITE AND STREET SWEEPING WILL REMOVE SEDIMENT AND DEBRIS FROM SURROUNDING ROADWAYS PRIOR TO ENTERING THE SEWER SYSTEM AS NEEDED.

PERMANENT CONTROLS SHALL INCLUDE THE CONSTRUCTION OF PAVED AND VEGETATED SURFACES.

**DESCRIPTION OF EARTH CHANGE**

CONSTRUCTION OF 4 MINI-STORAGE BUILDINGS WITH ASSOCIATED PARKING AND AMENITIES.

**SOILS:**

ALL SOILS ON SITE ARE:

UD: UDORTMENTS AND UDIPSAMMENTS

**FURNISHED LEGAL DESCRIPTION:**

LSV 344 BEG @ A PT ON W SEC LN01D30'E 528 FT FROM THE SW COR SEC 21 -N01D30'E TO S LN OF HULL RD R/W -S33D 47'35"E ON R/W 189.29 FT -S53D54'44"E ON R/W 517.72 FT -S47D09'44"E ON R/W 129.91 FT -S33D39'44"E 129.91 FT -S20D09'44"E ON R/W 129.91 FT -S00D51'E 135.01 FT ON R/W TO NR/W LN BELLEVUE RD -N89D54' 44"W ON R/W 322.25 FT -N01D30'E 473 FT -N89D20'20"W 412.5 FT TO THE POB SEC 21 T1NR1W CITY OF LESLIE 4.76 AC M/L

**CERTIFIED STATEMENT OF EXCAVATED AND FILL MATERIALS:**

TOTAL CUT: 8,000 CYDS  
 TOTAL FILL: 8,000 CYDS (NOT INCLUDING PAVEMENT AND BUILDING STRUCTURES)  
 TOTAL SOIL HAULED OFF SITE: 0 CYDS  
 TOTAL SOIL IMPORTED TO SITE: 0 CYDS (NOT INCLUDING PAVEMENT AND BUILDING STRUCTURES)

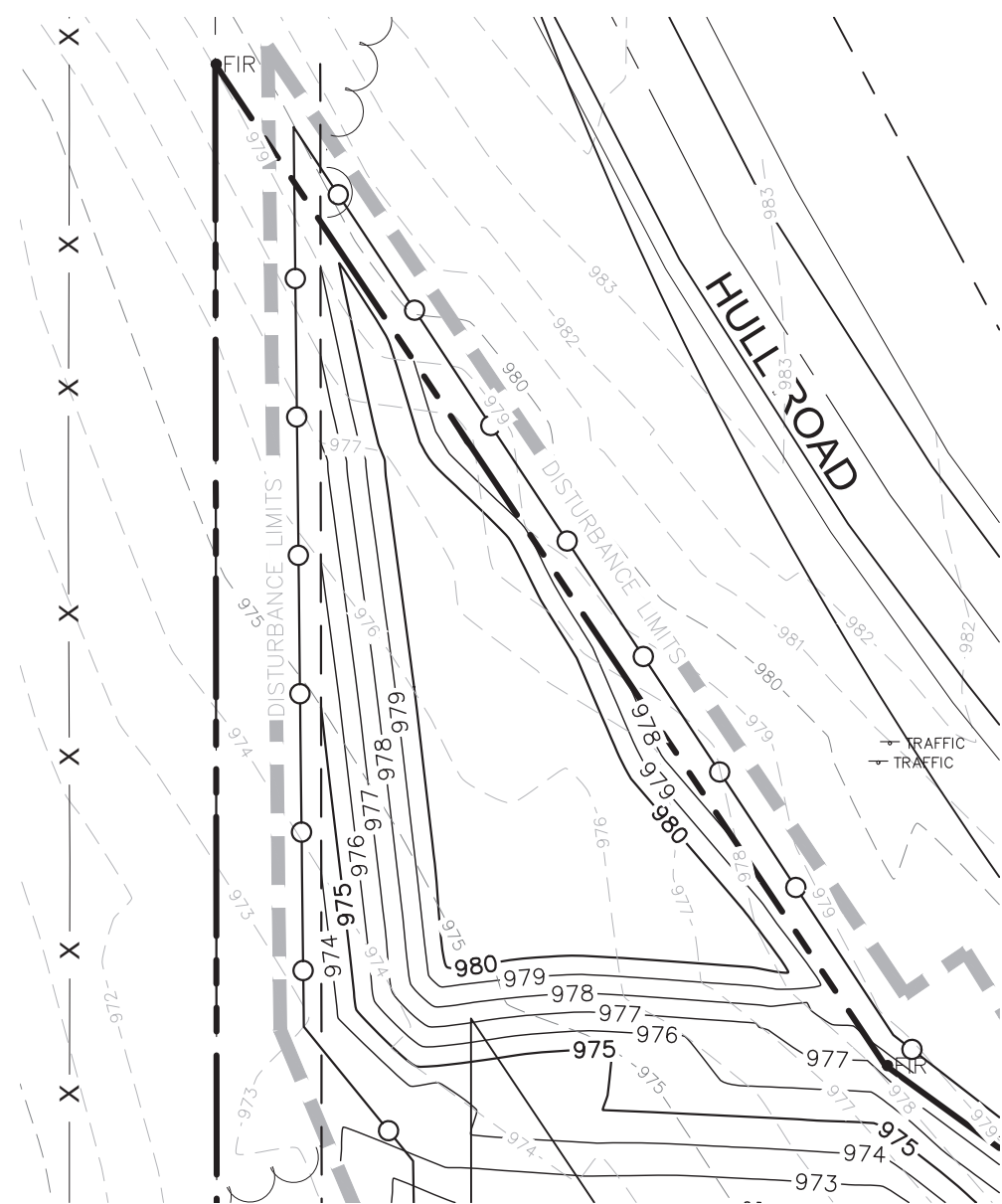
**DESCRIPTION OF EXISTING AND PROPOSED DRAINAGE SYSTEMS:**

**EXISTING:**

EXISTING PROPERTY DRAINS BY OVERLAND FLOW TO THE EXISTING NATURAL BURM APPROXIMATELY CENTER OF SITE. DRAINAGE IS DIRECTED FROM THE BERM TO THE DITCHES TO THE SOUTHEAST, NORTHEAST, AND WEST SIDES OF THE PROPERTY.

**PROPOSED:**

WATER IS DIRECTED BY PROPOSED SHEET FLOW NORTH AT A ONE (1) PERCENT GRADE AND CONVEYED TO THE PROPOSED CATCH BASIN TO THE SOUTH OF THE SIT WHICH THEN DISCHARGES TO THE DETENTION POND AT THE SOUTH END OF THE SITE.

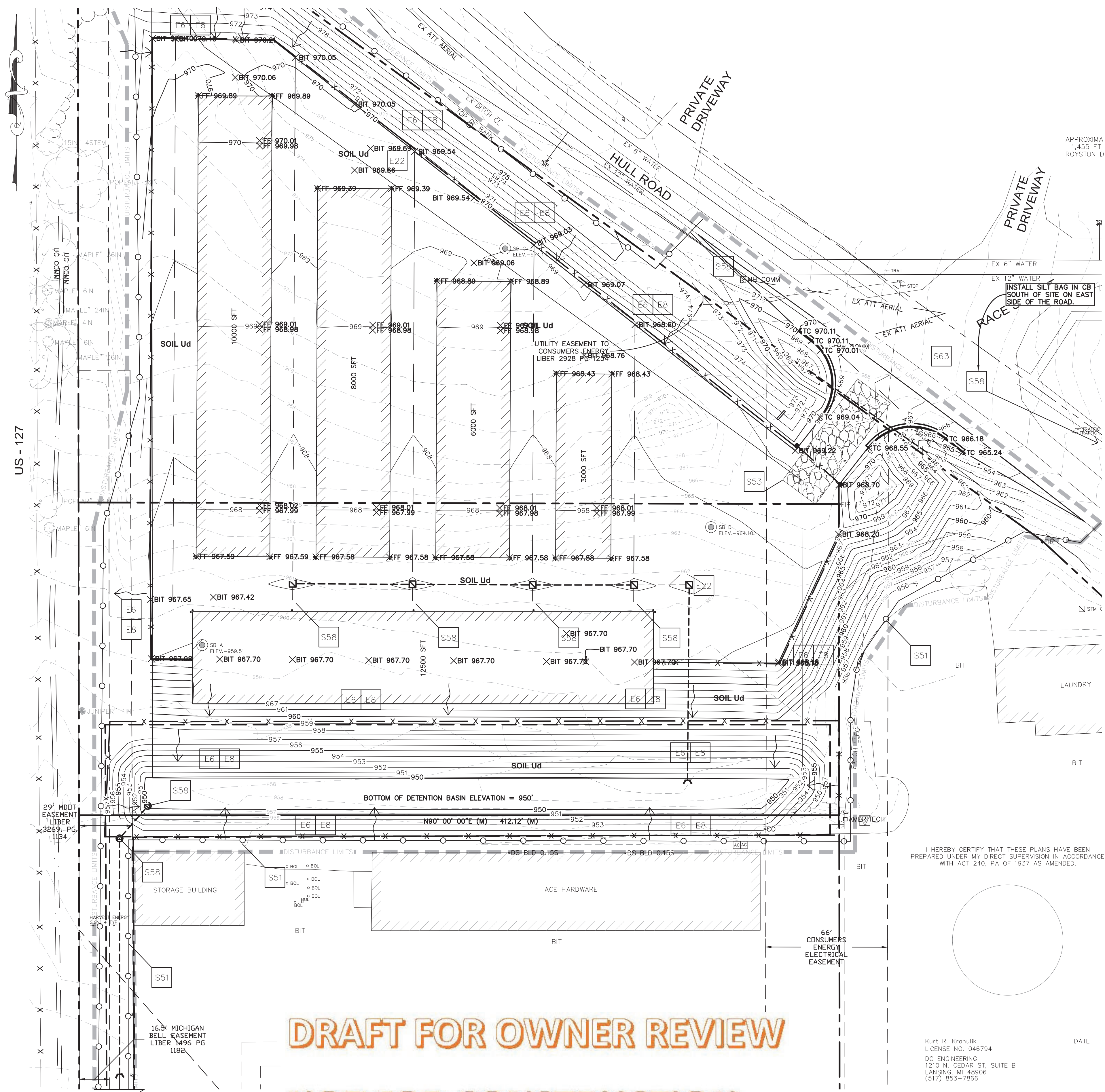


**SPOILS PILE DETAIL:**

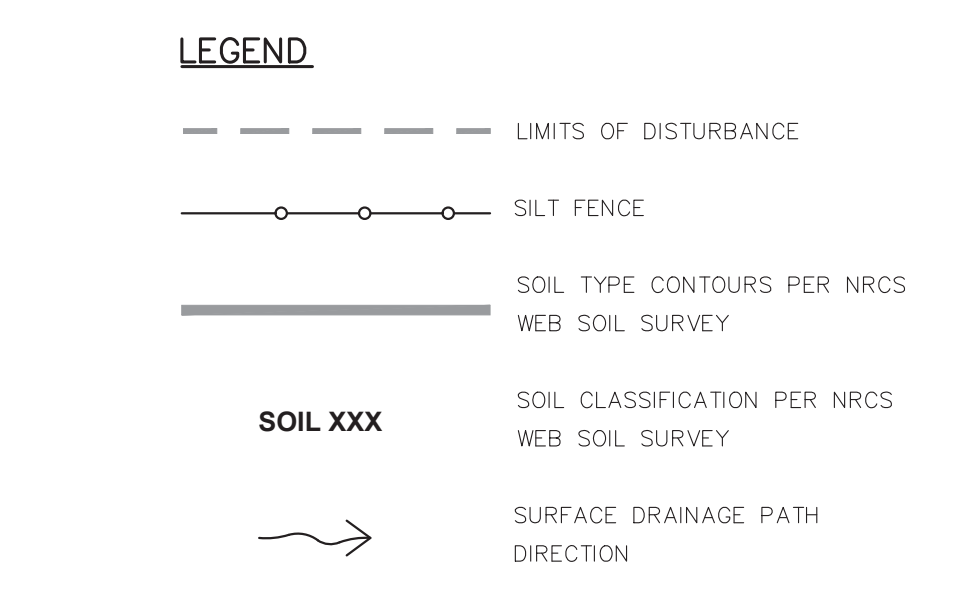
SCALE: 1" = 30'  
 SPOILS PILE LOCATED NORTH OF SITE CONSTRUCTION. EXISTING TREES TO BE REMOVED AS NEEDED TO ACCOMMODATE SPOILS FROM CONSTRUCTION.

**SESC KEYING SYSTEM:**

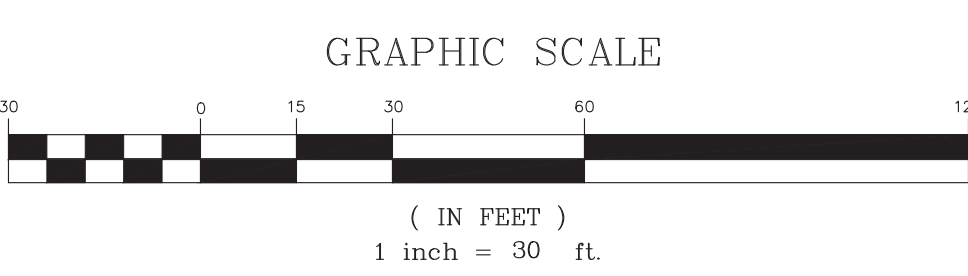
E6	MULCH		FOR USE IN AREAS SUBJECT TO EROSION SURFACE FLOWS OR SEVERE WIND OR ON NEWLY SEEDED AREAS.
E8	PERMANENT SEEDING		STABILIZATION METHOD UTILIZED ON SITES WHERE EARTH CHANGE HAS BEEN COMPLETED (FINAL GRADING ATTAINED).
E22	PAVEMENT		STABILIZATION METHOD UTILIZED ON SITE TO ESTABLISH A PERMANENT PATH OF TRAVEL.
S51	SILT FENCE		USE ADJACENT TO CRITICAL AREAS, TO PREVENT SEDIMENT LADEN SHEET FLOW FROM ENTERING THESE AREAS.
S53	STABILIZED CONSTRUCTION ACCESS		USED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE.
S58	INLET PROTECTION FABRIC DROP		USE AT STORMWATER INLETS, ESPECIALLY AT CONSTRUCTION SITES.
S62	STREET SWEEPING		USE ADJACENT TO CRITICAL AREAS, TO PREVENT SEDIMENT LADEN SHEET FLOW FROM ENTERING THESE AREAS.



**BENCHMARKS:**  
 BENCHMARK #789: ARROW ON TOP OF HYDRANT ACROSS FROM DRIVE. HOUSE NUMBER 4377 ON WEST SIDE OF HULL ROAD. ELEV. 987.14



<b>OWNER</b>	BYRUM BUILDERS 116 CHARLES ST. LANSING, MI 48912
<b>ENGINEER</b>	DC ENGINEERING PC 1210 N. CEDAR ST., SUITE B LANSING, MICHIGAN 48906 (517) 853-7866
<b>ARCHITECT</b>	TO BE DETERMINED
<b>CONSTRUCTION MANAGER</b>	TO BE DETERMINED
<b>CONTRACTOR</b>	TO BE DETERMINED
<b>CONTRACTOR</b>	TO BE DETERMINED



NO.	REVISIONS

**DC ENGINEERING PC**  
 1210 N. CEDAR ST. SUITE B  
 LANSING, MICHIGAN 48906  
 PH: (517) 853-7866

**BYRUM BUILDERS - 810 W BELLEVUE**  
 CIVIL - SESC PLAN  
 PLANS PREPARED FOR:  
 BYRUM BUILDERS  
 116 CHARLES ST.  
 LANSING, MI 48912  
 (517) 937-7743

SCALE: 1" = 30' DRAWN BY: ASD REVIEWED BY: KRK  
 DATE: 08-17-2020 SHEET: 7 OF 8

**DRAFT FOR OWNER REVIEW**  
**NOT FOR CONSTRUCTION**

**SESC CONSTRUCTION SCHEDULE:**

	SEP 2020	OCT 2020	NOV 2020	DEC 2020	JAN 2021	FEB 2021	MAR 2021	APR 2021	MAY 2021
INSTALL SILT FENCE AND CB DEBRIS BAGS	●								
SITE GRADING	█								
EXTERIOR CONC, PAVING AND BUILDING	█								
LANDSCAPE								█	█
REMOVE TEMPORARY CONTROLS									●

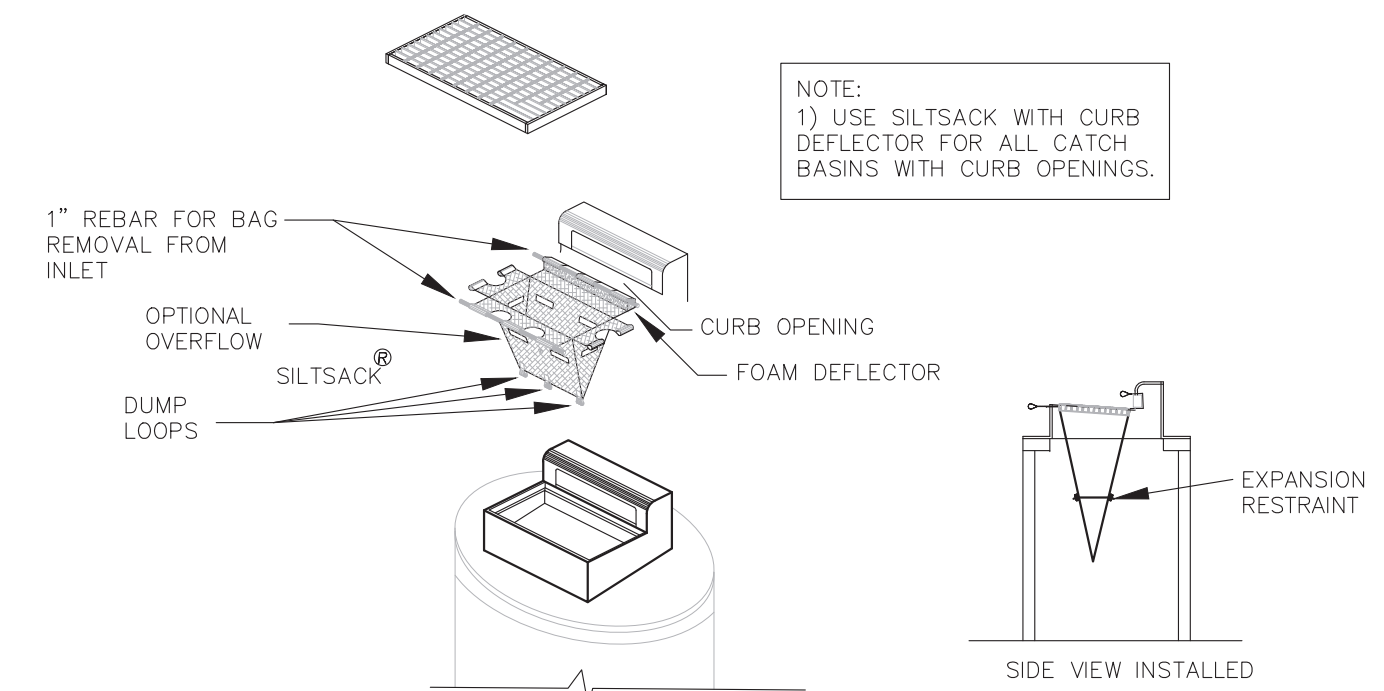
Call MISS DIG  
 3 full working days before you dig.  
 Michigan's One-Call Utility Notification Organization  
 1-800-482-7171  
 on the net at: www.missdig.org

I HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH ACT 240, PA OF 1937 AS AMENDED.

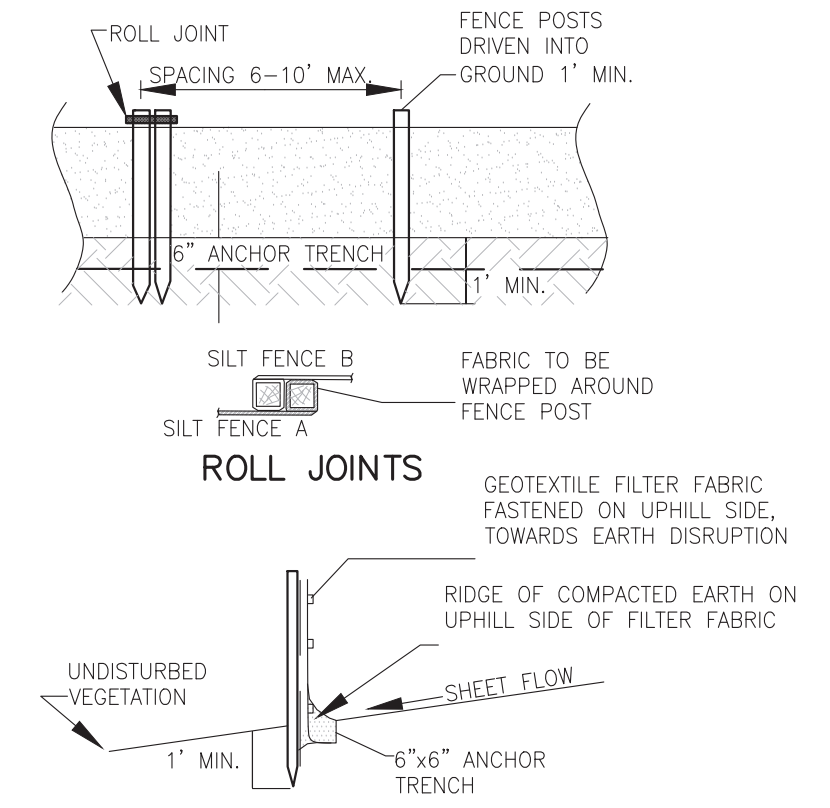
Kurt R. Krahulik  
 LICENSE NO. 046794  
 DC ENGINEERING  
 1210 N. CEDAR ST., SUITE B  
 LANSING, MI 48906  
 (517) 853-7866

BYRUM BUILDERS - 810 W BELLEVUE

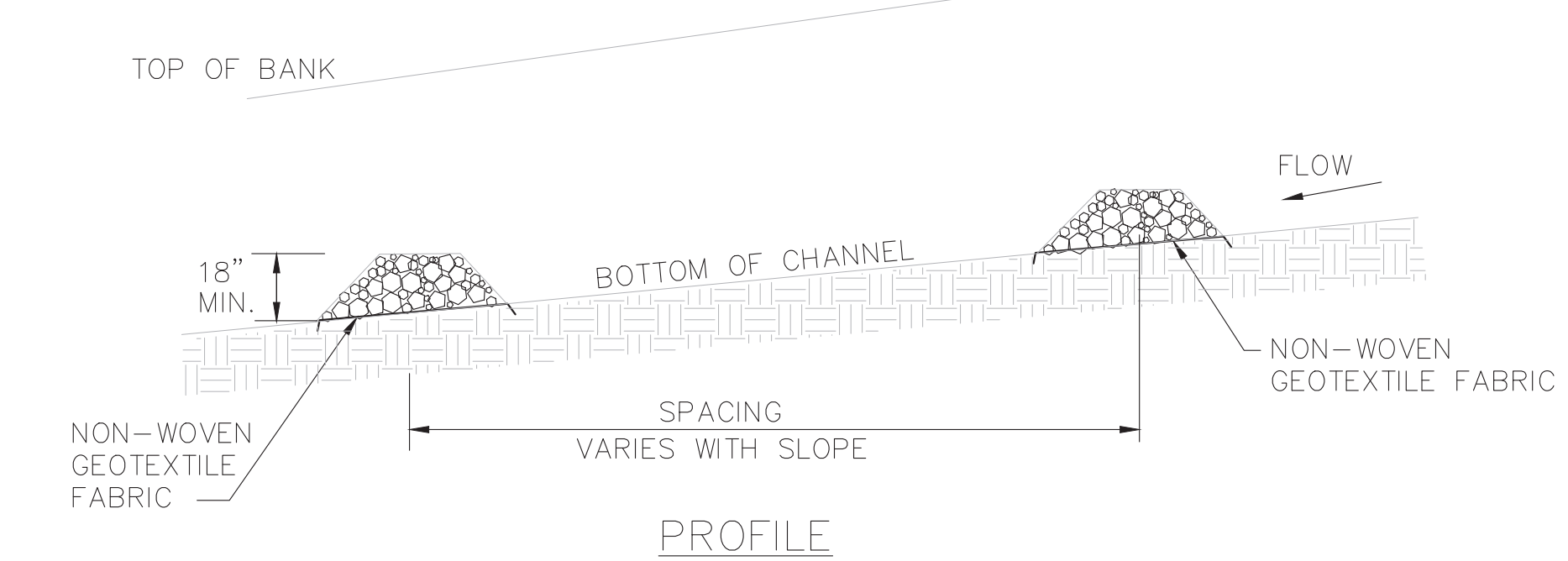




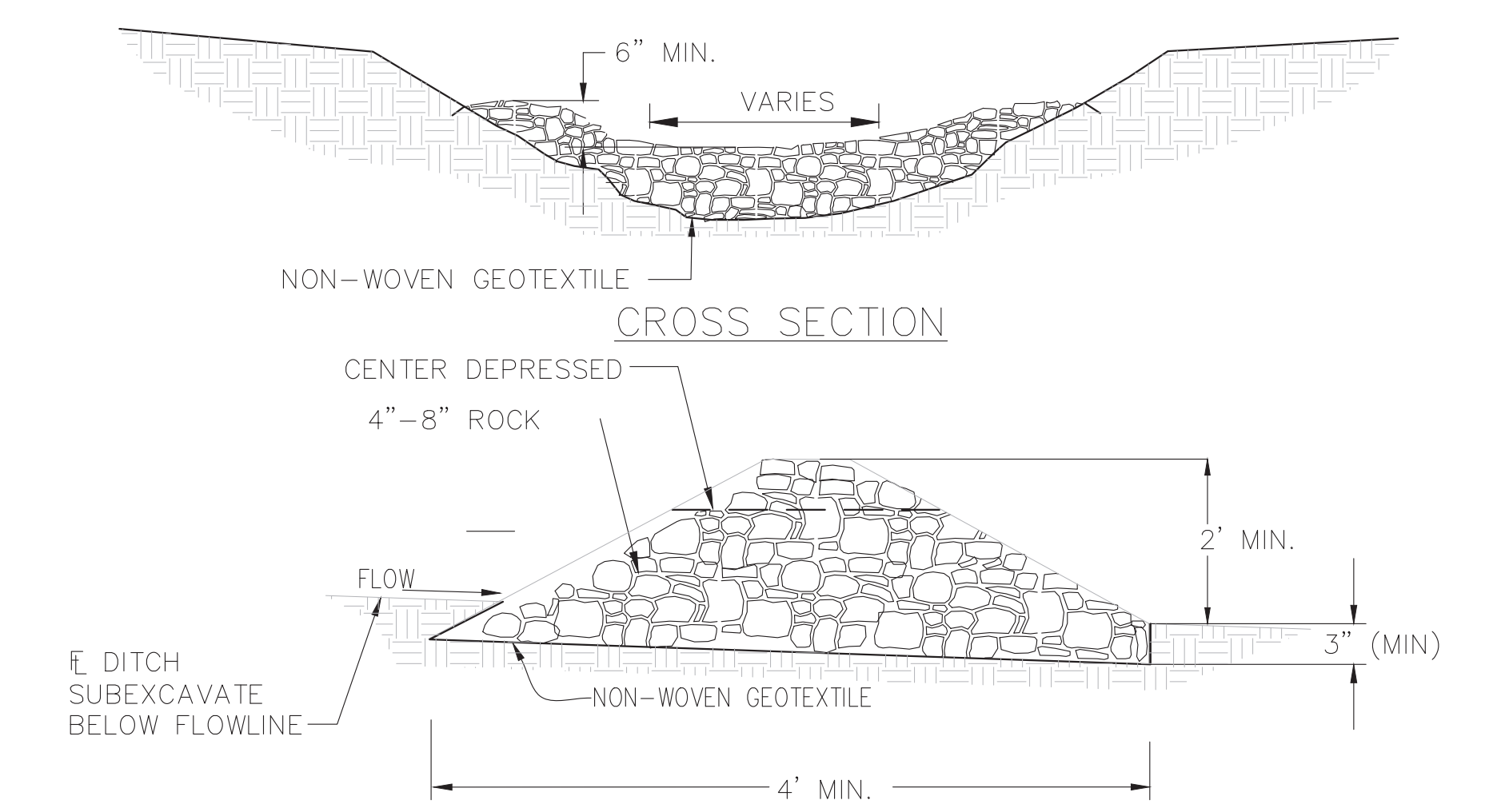
**CATCH BASIN SILT SACK DETAIL**  
NOT TO SCALE



**SILT FENCE DETAIL**  
NOT TO SCALE



**PROFILE**

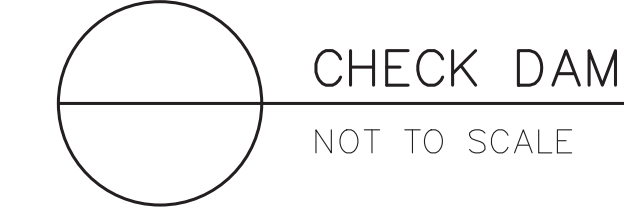


**CROSS SECTION**



**PROFILE**

NOTE: BASE WIDTH SHOULD BE AT LEAST 2X THE HEIGHT



**CHECK DAM**  
NOT TO SCALE

**SESC NOTES**

- CONTRACTOR RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ALL TEMPORARY AND PERMANENT SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES DURING CONSTRUCTION. CONTRACTOR SHALL REMOVE ALL TEMPORARY SESC MEASURES AFTER OWNERS ACCEPTANCE OF AND SUBSTANTIAL COMPLETION OF THE PROJECT. OWNER WILL BE RESPONSIBLE FOR CONTINUED MAINTENANCE OF ALL PERMANENT SESC CONTROL MEASURES AFTER SUBSTANTIAL COMPLETION OF THE PROJECT.
- CONTRACTOR SHALL SET ASIDE ENOUGH EXCAVATED MATERIAL FOR RESTORATION WORK INCLUDING FILL AND TOPSOIL MATERIAL. ALL OTHER EXCESS EXCAVATED MATERIAL SHALL BE HAULED OFF SITE IMMEDIATELY AFTER EXCAVATION.
- APPROVAL OF THIS SOIL EROSION PERMIT DOES NOT AUTHORIZE ANY EARTH DISTURBANCE ACTIVITY OFF-SITE, INCLUDING BUT NOT LIMITED TO REMOVAL OF EXCAVATED MATERIAL. SHOULD IT BECOME NECESSARY THAT EXCAVATED MATERIAL FROM THIS SITE NEEDS TO BE DEPOSITED OFF-SITE, THAT MATERIAL SHALL NOT BE REMOVED UNTIL THE DEPOSIT LOCATION AND THE RESULTING EARTH DISTURBANCE IS EVALUATED BY THE INGHAM COUNTY DRAIN COMMISSION OFFICE FOR A SOIL EROSION PERMIT AND, IF NECESSARY, THOSE SOIL EROSION PERMITS HAVE BEEN ISSUED. THE PERMITTEE IS TO INFORM THE INGHAM COUNTY DRAIN COMMISSION OFFICE OF THE NEED TO REMOVE SOILS FROM THE SITE IN A TIMELY MANNER SO THAT OTHER PERMITS, IF NEEDED, CAN BE ISSUED.
- AN INGHAM COUNTY DRAIN COMMISSION INSPECTOR IS TO VERIFY PROPER INSTALLATION OF APPROVED SESC MEASURES PRIOR TO COMMENCEMENT OF EARTH DISTURBANCE ON SITE.
- ALL TEMPORARY SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO EARTH DISTURBANCE ACTIVITY AND CHECKED DAILY FOR EFFECTIVENESS AND REPAIRED AS NEEDED.

**TRANSFER RESPONSIBILITIES**

IF PROPERTY SUBJECT TO THIS SOIL EROSION AND SEDIMENTATION CONTROL (SESC) PERMIT IS TRANSFERRED TO THE PROPERTY, THE PERMIT, INCLUDING ALL OBLIGATIONS AND CONDITIONS, ARE TRANSFERRED WITH THE PROPERTY ALONG WITH THE RESPONSIBILITY FOR ANY VIOLATIONS OF THE PERMIT THAT EXIST ON THE DATE OF THE TRANSFER OF THE PROPERTY. IF A PARCEL OF PROPERTY, BUT NOT THE ENTIRE PROPERTY IS TRANSFERRED, THE PERMIT OBLIGATIONS AND CONDITION WITH RESPECT TO THAT PARCEL ARE TRANSFERRED, BUT NOT THE PERMIT, ALONG WITH THE RESPONSIBILITY FOR ANY VIOLATIONS OF THE PERMIT WITH RESPECT TO THAT PARCEL THAT EXIST ON THE DATE OF THE TRANSFER OF THE PARCEL. NOTICE OF PROPERTY OR PARCEL TRANSFER SHALL BE SUBMITTED TO THE INGHAM COUNTY DRAIN COMMISSION OFFICE PRIOR TO TRANSFER AND SHALL OTHERWISE BE IN COMPLIANCE WITH MCL 324.9912. MAINTENANCE RESPONSIBILITIES SHALL BECOME PART OF ANY SALES AGREEMENTS FOR THE LAND ON WHICH THE PERMANENT SESC MEASURES ARE LOCATED.

**RESPONSIBILITIES OF PERMITTEE AND ITS AGENTS**

THE LANDOWNER, CONTRACTOR(S), AND ANY AGENT INVOLVED IN OBTAINING OR EXERCISING AND PERFORMING THE EARTH WORK AUTHORIZED BY A SOIL EROSION PERMIT, ARE ALL HELD RESPONSIBLE TO ENSURE THAT THE WORK IS PERFORMED IN ACCORDANCE WITH ALL APPROVED PLANS, SPECIFICATIONS, AND CONDITIONS CONTAINED AND PERMITTED THEREIN. PRIOR TO INITIATING EARTH DISTURBANCE AUTHORIZED THEREIN, THE PERMITTEE IS REQUIRED TO PROVIDE A COPY OF THE PERMIT AND APPROVED SESC PLAN TO ANY CONTRACTOR(S) AND AGENTS INVOLVED WITH EARTH DISTURBANCE WORK. THE CONTRACTOR(S) AND AGENTS ARE REQUIRED TO PROVIDE A COPY OF THE PERMIT AND APPROVED SESC PLAN TO ALL SUBCONTRACTORS INVOLVED WITH EARTH DISTURBANCE WORK.

**CONTRACTOR RESPONSIBILITY**

FOR MULTIPLE CONTRACTORS WITH SESC RESPONSIBILITIES DEFINE RESPONSIBILITIES HERE.

**TEMPORARY SESC SPECIFICATIONS**

- TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CONSTRUCTED PRIOR TO ALL OTHER WORK.
- SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED IN PROPER WORKING ORDER FOR THE DURATION OF THE PROJECT.

**SILT FENCE**

- INSTALLATION.
  - SILT FENCE SHALL BE COMMERCIALY AVAILABLE GEOTEXTILE SILT FENCE.
  - TRENCH FOR GEOTEXTILE TOE-IN ALONG THE FENCE ALIGNMENT.
  - TRENCH SHALL BE APPROXIMATELY 6" DEEP AND 6" WIDE.
  - SILT FENCE TEXTILE SHALL BE TOED INTO THE GROUND A MINIMUM OF 6 INCHES, OR DEEP ENOUGH TO MAINTAIN A TIGHT SEAL BETWEEN THE GROUND AND THE FENCE, WHICH EVER IS GREATER.
  - EXCAVATED MATERIAL SHALL BE BACKFILLED INTO THE TRENCH SUCH THAT THE MATERIAL IS ON THE UP-SLOPE SIDE OF THE GEOTEXTILE MATERIAL.
  - SILT FENCE SHALL BE SECURELY STAKED
  - SILT FENCE SHALL BE INSTALLED FOLLOWING A CONTOUR WHERE POSSIBLE
- MAINTENANCE
  - SILT FENCE SHALL BE REINSTALLED IF THE SEAL BETWEEN THE GROUND AND THE FENCE IS COMPROMISED OR IF THE FENCE BECOME LOOSE FROM ITS STAKING.
  - FENCE SHALL BE TOED IN DEEPER THAN THE ORIGINAL INSTALLATION IF THE FAILURE WAS A RESULT OF INADEQUATE DEPTH OF BURY FOR THE SPECIFIC SITE CONDITIONS.
  - SEDIMENT BUILDUP ON THE UP-SLOPE SIDE OF SILT SHALL BE REMOVED IF IT COVERS 50% OR MORE OF HEIGHT OF SILT FENCE.
- REMOVAL.
  - SILT FENCE SHALL BE REMOVED AFTER A HEALTHY GROWTH OF VEGETATIVE COVER IS ESTABLISHED.
  - REMOVE SILT FENCE FABRIC AND STAKES
  - PREPARE GROUND AND ESTABLISH VEGETATIVE GRASS SURFACE IN ACCORDANCE WITH THE PERMANENT SESC SPECIFICATIONS ITEM #2.

**STREET SWEEPING**

- SOIL AND DEBRIS TRACKED ONTO THE PUBLIC ROADS AND ADJACENT PARKING LOT AREA SHALL BE CLEANED UP IMMEDIATELY.
- STREETS SHALL BE SWEEPED WITH EQUIPMENT CAPABLE OF COLLECTING AND CONTAINING THE SOILS AND DEBRIS.
- SOIL AND DEBRIS COLLECTED SHALL BE PROPERLY DISPOSED OF.
- ROAD SURFACE SHALL BE ADEQUATELY WETTED TO PREVENT DISPERSION OF SOILS AND DEBRIS BY WIND BLOWN DUST.

**EROSION CONTROL FILTER BAGS**

- INSTALLATION
  - EROSION CONTROL FILTER BAGS SHALL BE HIGH-FLOW CATCH BASIN SILT COLLECTORS AS MANUFACTURED BY THE FOLLOWING, OR APPROVED EQUAL: A.C.F. - "SILT SACK" CONSTRUCTION SUPPLY, INC. - "BASIN BAG" DANDY PRODUCTS - "DANDY CURB SACK"
  - FILTER-FABRIC SHALL BE SECURED BY PLACING OVER CATCH BASIN FRAME AND REINSTALLING COVER. FABRIC SHALL BE SEATED AROUND THE ENTIRE PERIMETER OF FRAME.
  - FILTER BAGS SHALL BE INSTALLED PER MANUFACTURES RECOMMENDATIONS.
- MAINTENANCE
  - CLEAN FILTRATION FABRIC AND COLLECTION BAGS AS NEEDED TO OPTIMIZE PERFORMANCE.
  - CAREFULLY REMOVE FABRIC OR BAG TO PREVENT SPILLAGE OF DEBRIS INTO STORM SYSTEM. SOIL AND DEBRIS COLLECTED SHALL BE PROPERLY DISPOSED OF, CLEAN FABRIC OR BAG AND REPLACE.
- REMOVAL
  - DO NOT REMOVE UNTIL SITE IS STABILIZED AND PAVEMENTS ARE SWEEP. DO NOT REMOVE UNTIL ENGINEER APPROVES SITE.
  - CAREFULLY REMOVE AND PROPERLY DISPOSE OF FILTERS AND DEBRIS.

**TEMPORARY SEEDING**

- ALL AREAS THAT ARE TO BE LEFT INACTIVE FOR A DURATION OF MORE THAN 2 WEEKS SHALL HAVE AN APS SILT STOP TACKIFIER OR APPROVED EQUAL INSTALLED.

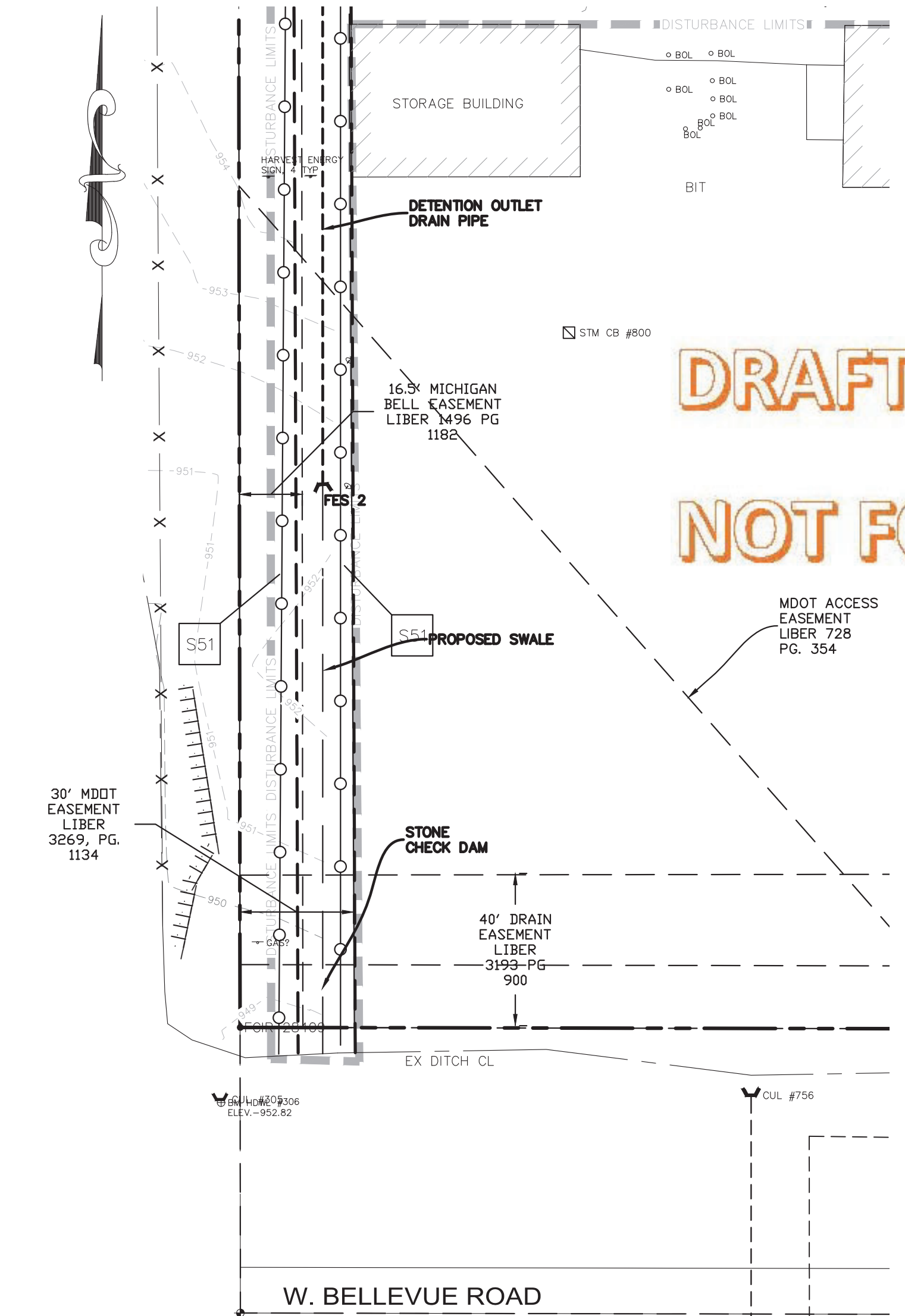
**MULCH BLANKETS**

- FOR SLOPES LESS THAN 1 VERTICAL TO 3 HORIZONTAL, MULCH BLANKETS SHALL BE "NORTH AMERICAN GREEN D575" OR APPROVED EQUAL. MULCH BLANKET SHALL HAVE AN ACCELERATED BIO-OR PHOTODEGRADABLE MULCH BLANKET NETTING WITH AN APPROXIMATE FUNCTIONAL LONGEVITY OF 60 DAYS.
- FOR SLOPES GREATER THAN 1 VERTICAL TO 3 HORIZONTAL, MULCH BLANKETS SHALL BE "NORTH AMERICAN GREEN SC150" OR APPROVED EQUAL
- FOR SLOPES ON SOUTH SIDE OF PARKING LOT AND WITHIN SIDEWALLS OF DETENTION BASIN SHALL BE NORTH AMERICAN GREEN P300 OR EQUAL..

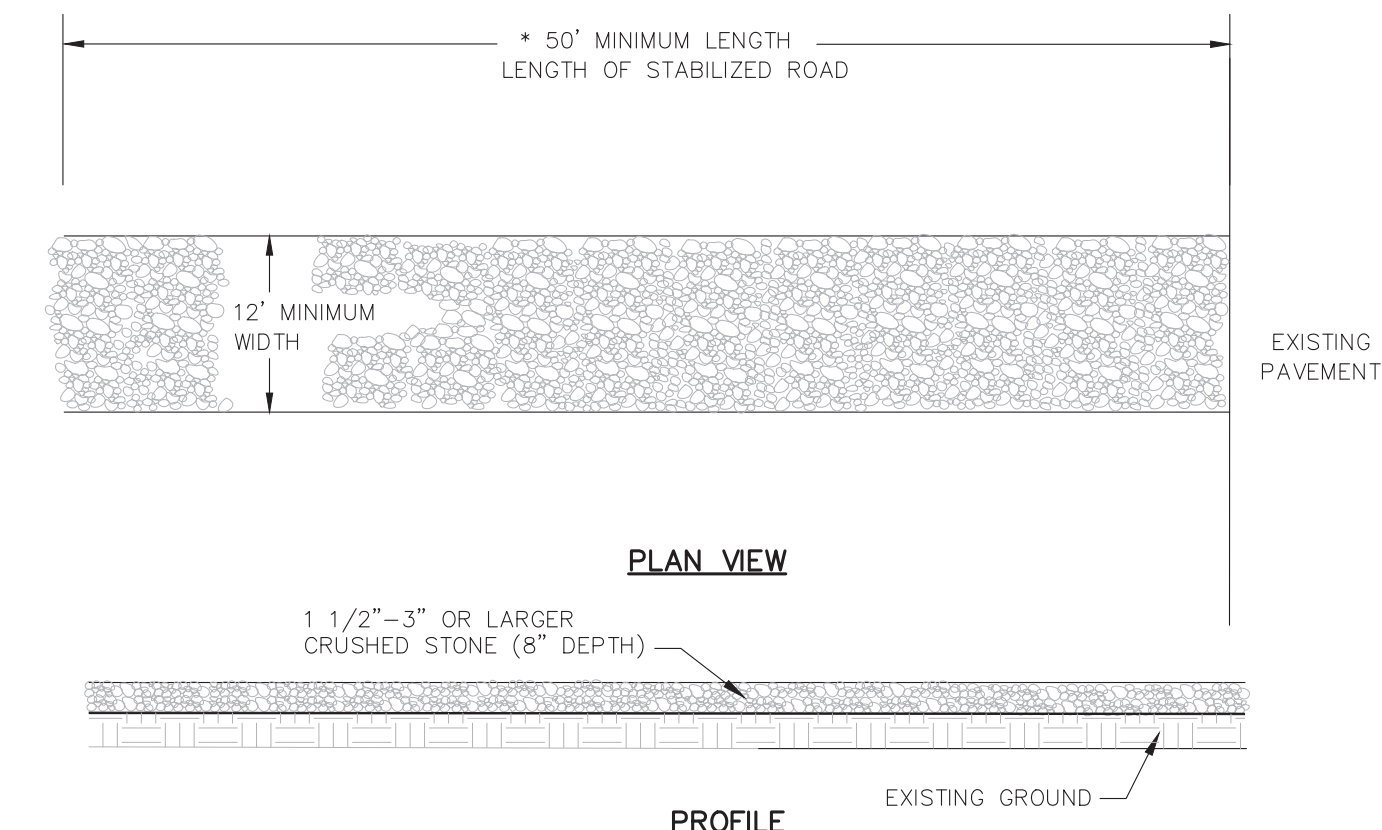
**PERMANENT SESC SPECIFICATIONS**

- MAINTENANCE
  - REMOVE DEBRIS AND SEDIMENT FROM ALL CATCH BASINS.
  - MAINTAIN LAWN AREAS SUCH THAT GRASS IS THICK AND HEALTHY, WATER AND RE-SEED AS NEEDED.
  - CLEAN STORM SEWER OF DEBRIS AND SEDIMENT ON AN AS NEEDED BASIS TO MAINTAIN PROPER DRAINAGE AND OVERALL FUNCTION OF THE SYSTEMS.
- PERMANENT SEEDING
  - SOIL PREPARATION
    - LIMIT PREPARATION TO AREAS THAT SHALL BE PLANTED IN IMMEDIATE FUTURE.
    - LOOSEN SUBGRADE TO A MINIMUM DEPTH OF 3 INCHES. REMOVE TRASH, DEBRIS, STONES LARGER THAN 1-1/2 INCHES DIAMETER, STICKS, ROOTS, RUBBISH, AND OTHER OBJECTS THAT MAY INTERFERE WITH PLANTING OR MAINTENANCE OPERATIONS.
    - GRADE LAWN AND GRASS AREAS TO A SMOOTH, EVEN SURFACE WITH LOOSE, UNIFORMLY FINE TEXTURE. ROLL AND RAKE, REMOVE RIDGES AND FILL DEPRESSIONS TO MEET FINISH GRADES. LIMIT FINE GRADING TO AREAS THAT CAN BE PLANTED WITHIN IMMEDIATE FUTURE.
    - RESTORE PREPARED AREAS TO SPECIFIED CONDITION IF ERODED OR OTHERWISE DISTURBED AFTER FINE GRADING AND BEFORE PLANTING.
  - SEED MIXTURE
    - FERTILIZER SHALL BE COMMERCIAL, READY-MIXED GRANULAR OR LIQUID MATERIAL CONTAINING EQUAL AMOUNTS BY WEIGHT OF AVAILABLE NITROGEN (N), READILY AVAILABLE PHOSPHORIC ACID (P205) AND TOTAL AVAILABLE POTASH (K2O).
    - GRASS SEED SHALL BE FRESH, CLEAN, NEW-CROP SEED COMPLYING WITH TOLERANCE FOR PURITY AND GERMINATION ESTABLISHED BY OFFICIAL SEED ANALYSTS OF NORTH AMERICA, PROVIDE SEED OF GRASS SPECIES AND PROPORTIONS AS SCHEDULED, AND MINIMUM PERCENTAGES OF PURITY, GERMINATION, AND MAXIMUM PERCENTAGE OF WEED SEED AS SPECIFIED.

Proportion by Weight	Common Name	Botanical Name	Min. % Germ	Min. % Pure Seed	Max. % Weed Seed
15%	PARK KENTUCKY BLUEGRASS	POA PRATENSIS VAR.	85%	98%	0.20
35%	AQUILA KENTUCKY BLUEGRASS	POA PRATENSIS VAR.	85%	98%	0.20
20%	RUBY CREEPING RED FESCUE	FRETUCA RUBRA, F. LONGIFOLIA	85%	97%	0.20
10%	PENNFINE PERENNIAL RYEGRASS	LOLIUM PERENNE	85%	97%	0.20
20%	SCALDIS HARD FESCUE	FRETUCA RUBRA, F. LONGIFOLIO	85%	97%	0.20



**DRAFT FOR OWNER REVIEW**  
**NOT FOR CONSTRUCTION**



- NOTES:**
- ESTABLISH STABILIZED CONSTRUCTION ENTRANCE PRIOR TO THE INITIATION OF SITE CONSTRUCTION ACTIVITIES.
  - CARE SHOULD BE TAKEN TO PREVENT MATERIAL MOVEMENT INTO ADJACENT WETLANDS/WATERBODIES.
  - CARE SHOULD BE TAKEN TO MAINTAIN EXISTING ROADSIDE DRAINAGE VIA CULVERT INSTALLATION, WITH SEDIMENT SUMP PLACED DOWNFLOW OF CULVERT.

**STABILIZED CONSTRUCTION ACCESS**  
NOT TO SCALE

**REVISIONS**

NO.	DATE	DESCRIPTION



1210 N. CEDAR ST. SUITE B  
LANSING, MICHIGAN 48906  
PH: (517) 853-7866

**BYRUM BUILDERS - 810 W BELLEVUE**

**CIVIL - SESC NOTES**

PLANS PREPARED FOR:  
BYRUM BUILDERS  
716 CHARLES ST.  
LANSING, MI 48912  
(517) 937-7743

SCALE: NONE	DRAWN BY: ASD	REVIEWED BY: KRK
DATE: 08-17-2020		SHEET: 8 OF 8



PR SWALE:  
SCALE: 1" = 30'  
PROPOSED SWALE TO EXISTING DITCH ON NORTH SIDE OF BELLEVUE ROAD.

BYRUM BUILDERS - 810 W BELLEVUE