



Richard J. Berry, Mayor

March 7, 2017

Mike Balaskovits
Bohannon Huston, Inc.
7500 Jefferson St NE
Albuquerque, NM 87109

**RE: Headline Blvd (Legacy at Journal Center)
 Grading Plan
 Engineer's Stamp Date 2/21/2017
 Hydrology File: D17D106**

Dear Mr. Balaskovits:

PO Box 1293

Based upon the information provided in the submittal received on 2/21/2017 the above-referenced Grading Plan is not approved for Grading, SO-19, or Paving Permit. The below items must be addressed prior to approval.

Albuquerque

New Mexico 87103

www.cabq.gov

1. Inlet structure and connection to the 42" storm drain.
 - a. The existing 42" storm drain is HDPE, show how the connection will be made to the new 8.51' section of 42" RCP storm drain.
 - b. The type double-D inlet will need to be rotated 90 degrees as the width is only 2' 1 1/2" wide and won't connect to the 42" storm drain. A larger junction box is likely needed here as explained below.
 - c. Determine the grate capacity, and head required to allow 46 cfs into the type double-D inlet structure with 15% clogging. The sump around the inlet will need to contain this plus freeboard. A larger junction is likely needed here to provide more capacity.
2. Drainage along former Headline.
 - a. Provide a section cut of the new Headline Blvd parking area, showing flow depths through this area. The cross-slope pushing all flows to the west side does not appear adequate for conveying 46 cfs. An inverse crown with valley gutter (alley) may be more effective here; this would also keep flows from being obstructed by the parking islands.
 - b. Provide elevations along the western edge of the property; a waterblock may be needed to keep flows from entering the property to the west.

CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

3. Pond.
 - a. The proposed pond includes 8.5' vertical walls all around. Provide a fence or barricade around the pond at least 42" high and provide emergency access into and out of the pond.
 - b. The pond needs to be sized to retain the first flush volume for basin B2-A. If other storm water quality facilities are proposed for treating Basin B2-A water, include those in the Grading and Drainage Plan.
 - c. Add water surface elevations for the first flush elevation and the 100-yr, 6hr elevation.
4. General.
 - a. The curb access ramp for the bike path needs to be as wide as the bike path.
 - b. The finished floor of the 9,000SF retail space is below the proposed grade. Should this be raised?
 - c. Add areas (square-footage) for area of grading and area of new paving.
 - d. Call out work items to be performed by SO-19.

PO Box 1293

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Sincerely,

Albuquerque

New Mexico 87103

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services

www.cabq.gov

Courtyard I
7500 Jefferson St. NE
Albuquerque, NM
87109-4335
www.bhinc.com
voice: 505.823.1000
facsimile: 505.798.7988
toll free: 800.877.5332

CLIENT/COURIER TRANSMITTAL

To: Shahab Biazar
City of Albuquerque
600 2nd St. NW
Albuquerque, NM 87102

Requested by: Mike Balaskovits

Date: February 21, 2017

Time Due: ☐ This A.M.
☒ This P.M.
☐ Rush _____
☐ By Tomorrow

DELIVERY VIA

☒ Courier ☐ Federal Express
☐ Mail ☐ UPS
☐ Other

PICK UP

Item: _____

Phone: 924-3999

Job No.: 20170053

Job Name: Headline Blvd. (Legacy @
Journal Center)

<u>ITEM NO.</u>	<u>QUANTITY</u>	<u>DESCRIPTION</u>
1	2	Drainage Info Sheet
2	2	Grading & Drainage Plan
3	2	Paving Plan
4	2	Drainage Management Plan
5	2	Appendix DP2-C from the "Part 2 Drainage Report for the I-25 / Paseo del Norte Interchange Reconstruction Design Build Project"

COMMENTS / INSTRUCTIONS

Shahab,

Please find attached the Grading Plan, Paving Plan, and Drainage Management Plan for Headline Blvd (a part of Legacy @ Journal Center). We are requesting Rough Grading, Paving, & SO-19 Permit Approval. Let me if you have any questions.

Thanks,
Mike

REC'D BY: _____ DATE: _____ TIME: _____



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: HEADLINE BLVD (LEGACY @ JOURNAL CENTER) **Building Permit #:** _____ **City Drainage #:** D17/D106
DRB#: 1010228 **EPC#:** _____ **Work Order#:** _____
Legal Description: TRACT A-1 PLAT OF TRACT A-1, A-2, & A-3 LEGACY AT JOURNAL CENTER
City Address: HEADLINE BLVD NE ALBUQUERQUE, NM 87109

Engineering Firm: BOHANNAN HUSTON, INC. **Contact:** MIKE BALASKOVITS
Address: 7500 JEFFERSON ST NE ALBUQUERQUE, NM 87109
Phone#: 505-823-1000 **Fax#:** 505-798-7988 **E-mail:** MBALASKOVITS@BHINC.COM

Owner: TITAN DEVELOPMENT CENTER LAND, LLC **Contact:** BRIAN PATTERSON
Address: 6300 RIVERSIDE PLAZA LANE NW #200
Phone#: 505-998-0163 **Fax#:** _____ **E-mail:** BPATTERSON@TITAN-DEVELOPMENT.COM

Architect: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Other Contact: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Check all that Apply:

DEPARTMENT:

☒ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION
☐ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

☐ ENGINEER/ ARCHITECT CERTIFICATION
☐ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
☐ DRAINAGE MASTER PLAN
☐ DRAINAGE REPORT
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
☐ OTHER (SPECIFY) _____

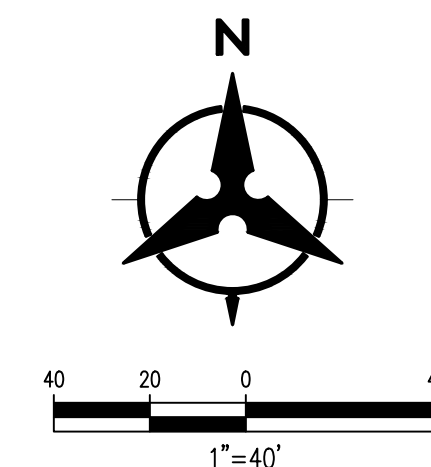
CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY
☐ PRELIMINARY PLAT APPROVAL
☐ SITE PLAN FOR SUB'D APPROVAL
☐ SITE PLAN FOR BLDG. PERMIT APPROVAL
☐ FINAL PLAT APPROVAL
☐ SIA/ RELEASE OF FINANCIAL GUARANTEE
☐ FOUNDATION PERMIT APPROVAL
☒ GRADING PERMIT APPROVAL
☒ SO-19 APPROVAL
☒ PAVING PERMIT APPROVAL
☐ GRADING/ PAD CERTIFICATION
☐ WORK ORDER APPROVAL
☐ CLOMR/LOMR
☐ PRE-DESIGN MEETING
☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ☐ Yes ☒ No

DATE SUBMITTED: 02/21/2017 **By:** Mike Balaskovits

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

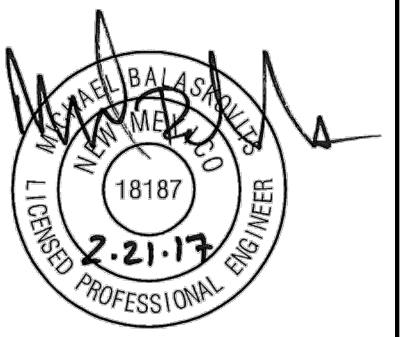


◆ DEMOLITON KEYNOTES

1. REMOVE & DISPOSE OF EXISTING ASPHALT PAVEMENT
2. REMOVE & DISPOSE OF EXISTING SIDEWALK
3. REMOVE & DISPOSE OF EXISTING CURB & GUTTER
4. REMOVE & DISPOSE OF EXISTING CONCRETE PAVEMENT
5. REMOVE & DISPOSE OF EXISTING TREE
6. EXISTING ASPHALT PAVEMENT TO REMAIN. PROTECT IN PLACE.
7. EXISTING SIDEWALK TO REMAIN. PROTECT IN PLACE.
8. EXISTING CURB & GUTTER TO REMAIN. PROTECT IN PLACE.
9. EXISTING WATER LINE TO REMAIN. PROTECT IN PLACE.
10. EXISTING GAS LINE TO REMAIN. PROTECT IN PLACE.
11. EXISTING UNDERGROUND UTILITIES & APPURTENANCES TO REMAIN. PROTECT IN PLACE
12. REMOVE & DISPOSE OF EXISTING CHAIN LINK FENCE.
13. REMOVE & DISPOSE OF EXISTING POST.
14. EXISTING TREE TO REMAIN . PROTECT IN PLACE.




CALL BEFORE YOU DIG
FOR UTILITY LOCATES
DIAL 811 OR
1-800-321-ALERT

ENGINEER'S SEAL



			BENCH MARKS	AS-BUILT INFORMATION	
				CONTRACTOR DATE	
				WORK STARTED BY DATE	
				INSPECTOR'S ACCEPTANCE BY DATE	
				FIELD VERIFICATION BY DATE	
				DRAWINGS CORRECTED BY DATE	
			REVISIONS		
			DESIGN		
DESIGNED BY	MJB	DATE	02/2017		
CHECKED BY	MJB	DATE	02/2017		
DRAWN BY	EON	DATE	02/2017		

DEMOLITION LEGEND

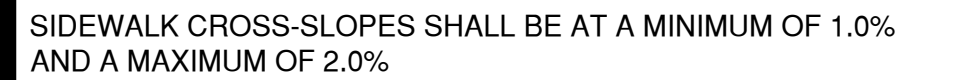
- | | |
|---|--|
| ---- | PROPERTY LINE |
|  | REMOVE EXISTING ASPHALT PAVEMENT
(±1035 SY) |
|  | REMOVE EXISTING CONCRETE PAVEMENT
(±546 SY) |
|  | REMOVE EXISTING SIDEWALK (±240 SY) |
| ===== | DEMO CURB |
| ----- | DEMO SIDEWALK |
| ----- | DEMO CHAINLINK FENCE |

Bohannon  **Huston**
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HEADLINE BLVD CONSTRUCTION DOCUMENTS

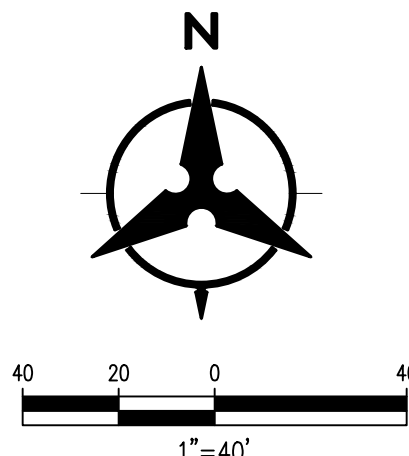
DEMOLITION PLAN

BHI PROJECT NO.	20170053	DWG NO.	C100	SHEET	1	OF	3
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1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF-WAY.	3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) FOR LOCATION OF EXISTING UTILITIES.	5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #7 AMENDMENT 1.	4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF CONSTRUCTIONS. SHOULD CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.	6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
		7. WORK ON ARTERIAL STREET SHALL BE PERFORMED ON A 24-HOUR BASIS.

APPROVAL	NAME	DATE
INSPECTOR		



<p>A. ALL WORK DETAILED ON THESE PLANS AND PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THE PROJECT GEOTECHNICAL REPORT. WHERE APPLICABLE, CITY OF ALBUQUERQUE PUBLIC WORKS STANDARDS SHALL APPLY.</p>	<p>F. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND APPROVED BY THE CONSTRUCTION OBSERVER.</p>	<p>L. ALL BARRICADES AND CONSTRUCTION SIGNING SHALL CONFORM TO APPLICABLE SECTIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), US DEPARTMENT OF TRANSPORTATION LATEST EDITION.</p>
<p>B. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA REQUIREMENTS WITH RESPECT TO STORM WATER DISCHARGE.</p>	<p>G. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT PROPERTIES RESULTING FROM THE CONSTRUCTION PROCESS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.</p>	<p>M. THE CONTRACTOR SHALL MAINTAIN ALL CONSTRUCTION BARRICADES AND SIGNING AT ALL TIMES. THE CONTRACTOR SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADING AT THE END AND BEGINNING OF EACH DAY.</p>
<p>C. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL OBSTRUCTIONS AND UNDERGROUND UTILITIES. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION OBSERVER OR ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.</p>	<p>H. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT ORIGINALLY OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE PUBLIC RIGHT-OF-WAY.</p>	<p>N. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO CONFORM WITH EPA REQUIREMENTS, INCLUDING COMPLIANCE WITH NPDES PHASE 2 REQUIREMENTS.</p>
<p>D. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT LINE LOCATING SERVICE FOR LOCATION OF EXISTING UTILITIES.</p>	<p>I. THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FOR THE PROJECT PRIOR TO COMMENCING CONSTRUCTION (I.E., BARRICADING, TOPSOIL DISTURBANCE, EXCAVATION PERMITS, EPA STORM WATER PERMITS, ETC.).</p>	<p>O. EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.</p>
<p>E. ALL ELECTRICAL, TELEPHONE, CABLE TV, GAS AND OTHER UTILITY LINES, CABLES, AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION THAT REQUIRE RELOCATION, SHALL BE COORDINATED WITH THAT UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL NECESSARY UTILITY ADJUSTMENTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DELAYS OR INCONVENIENCES CAUSED BY UTILITY COMPANY WORK CREWS. THE CONTRACTOR SHALL BE REQUIRED TO RESCHEDULE HIS ACTIVITIES TO ALLOW UTILITY CREWS TO PERFORM THEIR REQUIRED WORK.</p>	<p>J. ALL PROPERTY CORNERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ALL PROPERTY CORNERS MUST BE RESET BY A REGISTERED LAND SURVEYOR.</p>	<p>P. THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.</p>
	<p>K. THE CONTRACTOR SHALL PREPARE A CONSTRUCTION TRAFFIC CONTROL AND SIGNING PLAN AND OBTAIN APPROVAL OF SUCH PLAN FROM THE CITY OF ALBUQUERQUE'S TRAFFIC ENGINEERING DEPARTMENT, PRIOR TO BEGINNING ANY CONSTRUCTION WORK ON OR ADJACENT TO EXISTING STREETS.</p>	<p>Q. ALL WORK RELATIVE TO FOUNDATION CONSTRUCTION, SITE PREPARATION, AND PAVEMENT INSTALLATION, AS SHOWN ON THIS PLAN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "GEOTECHNICAL INVESTIGATION". ALL OTHER WORK SHALL, UNLESS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT, (FIRST PRIORITY) SPECIFICATIONS, AND/OR THE CITY OF ALBUQUERQUE (COA) STANDARD SPECIFICATIONS FOR PUBLIC WORKS (SECOND PRIORITY)</p>
		<p>R. EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.</p>

- S. IT IS THE INTENT OF THESE PLANS THAT THIS CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE OF THE PROPERTY BOUNDARIES EXCEPT AS REQUIRED BY THIS PLAN.
- T. THE CONTRACTOR IS TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHT-OF-WAY.
- U. A DISPOSAL SITE FOR ANY & ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL AND/OR A BORROW SITE CONTAINING ACCEPTABLE FILL MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE OBSERVER. ALL COSTS INCURRED IN OBTAINING A DISPOSAL OR BORROW SITE AND HAUL TO OR FROM SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.
- V. PAVING AND ROADWAY GRADES SHALL BE +/- 0.1' FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE +/- 0.05' FROM BUILDING PLAN ELEVATION.
- W. ALL PROPOSED CONTOURS REFLECT TOP OF PAVEMENT ELEVATIONS IN THE PARKING AREA AND MUST BE ADJUSTED FOR MEDIANS AND ISLANDS.
- X. VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION PRIOR TO BEGINNING CONSTRUCTION.



ENGINEER'S SEAL

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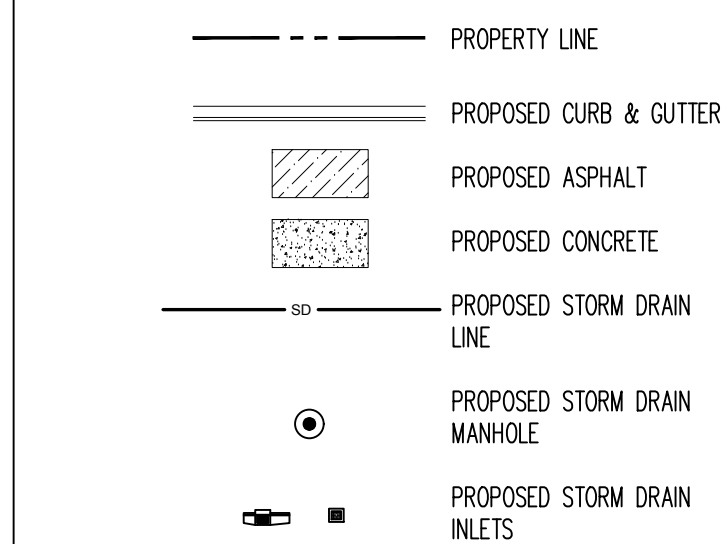
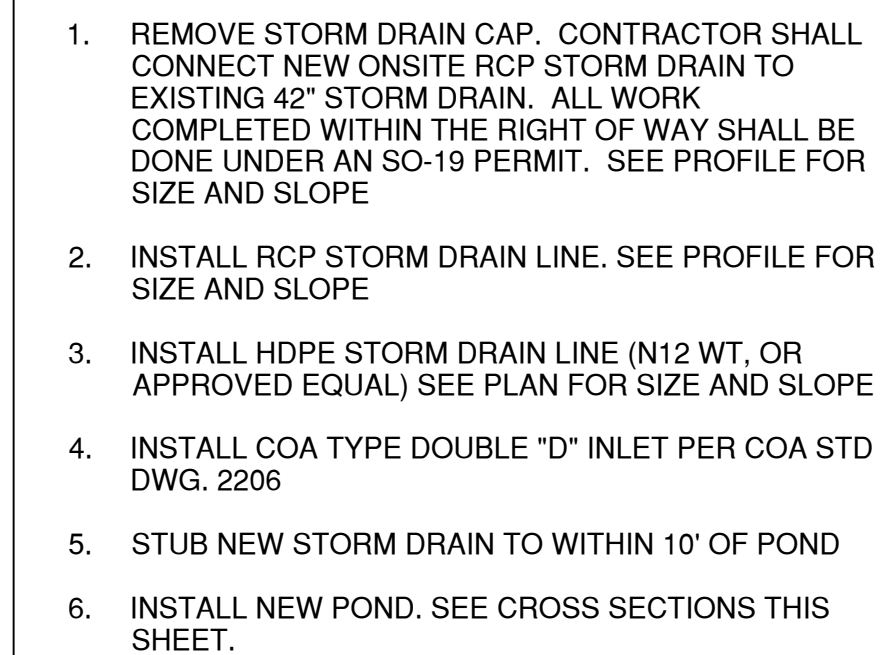
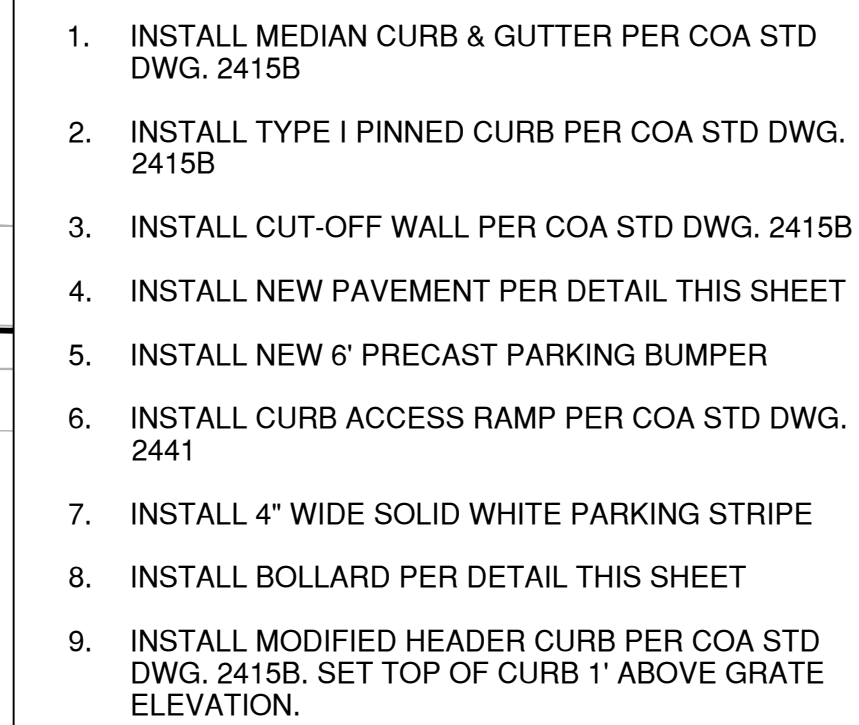
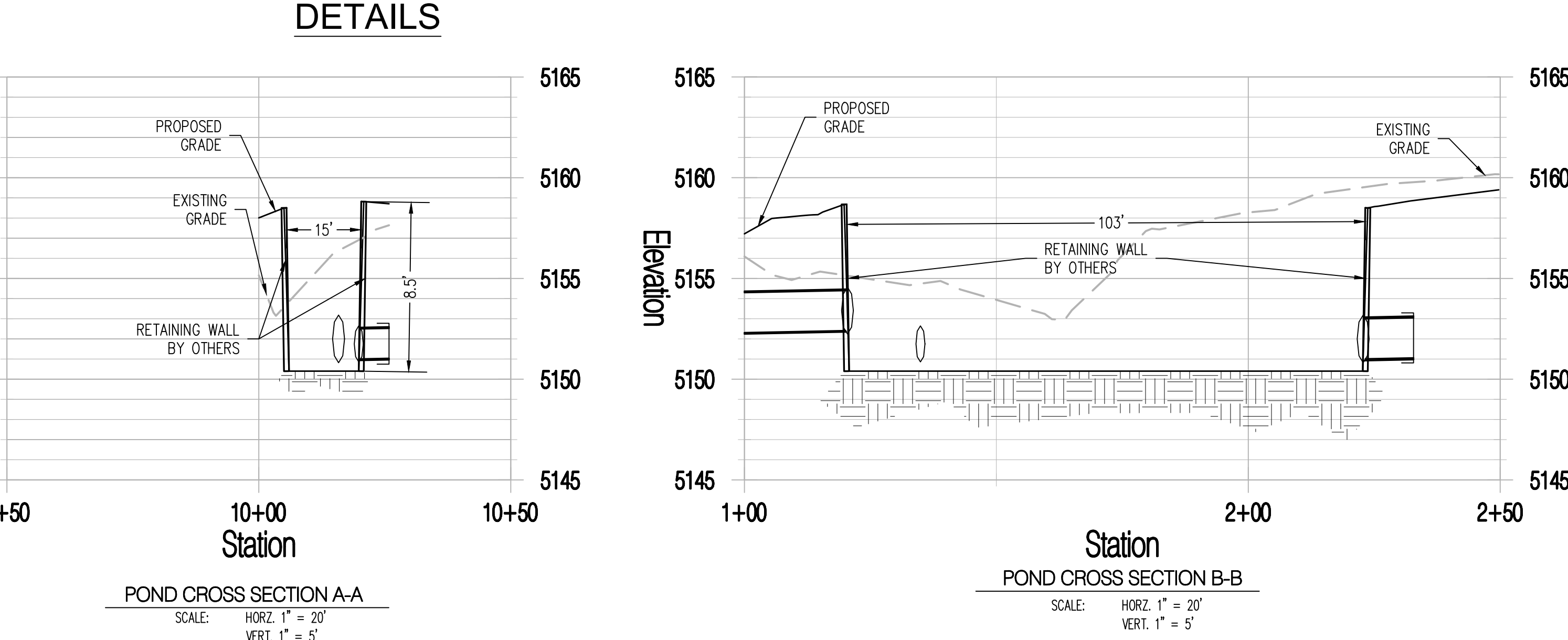
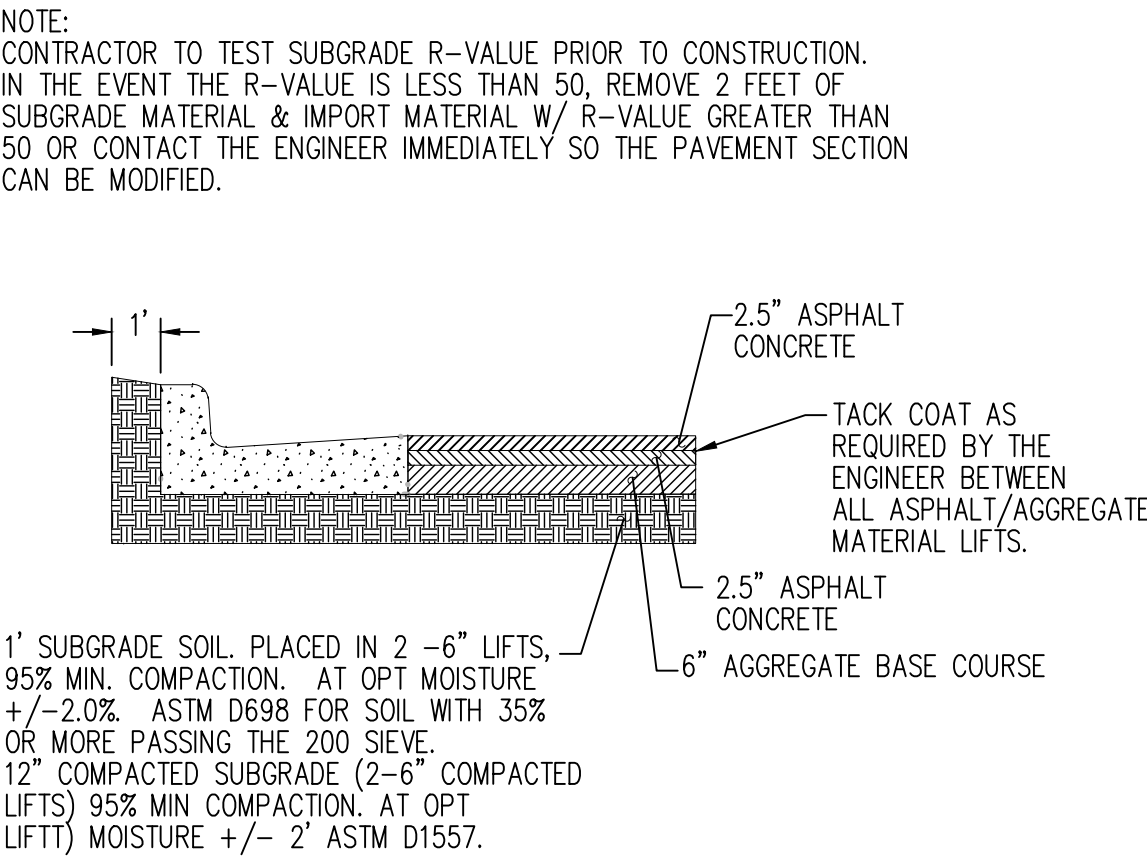
	PROPERTY LINE
	PROJECT LIMITS OF GRADING
	EXISTING INDEX CONTOUR
	EXISTING INTERMEDIATE CONTOUR
	EXISTING GROUND SPOT ELEVATION
	PROPOSED INDEX CONTOUR
	PROPOSED INTERMEDIATE CONTOUR
	PROPOSED FLOW LINE
	PROPOSED FINISHED GRADE SPOT ELEVATION TC=TOP OF CURB, FL=FLOW LINE, TS=TOP OF SIDEWALK TG=TOP OF GRATE, FGH=FINISH GROUND HIGH, FGL=FINISH GROUND LOW
	PROPOSED CURB & GUTTER
	DIRECTION OF FLOW
	WATER BLOCK/GRADE BREAK
	PROPOSED STORM DRAIN LINE
	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN INLETS
	PROPOSED RETAINING WALL
	EASEMENT

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HEADLINE BLVD CONSTRUCTION DOCUMENTS

GRADING AND DRAINAGE PLAN

BHI PROJECT NO.	20170053	DWG NO.	C101	SHEET	2	OF	3
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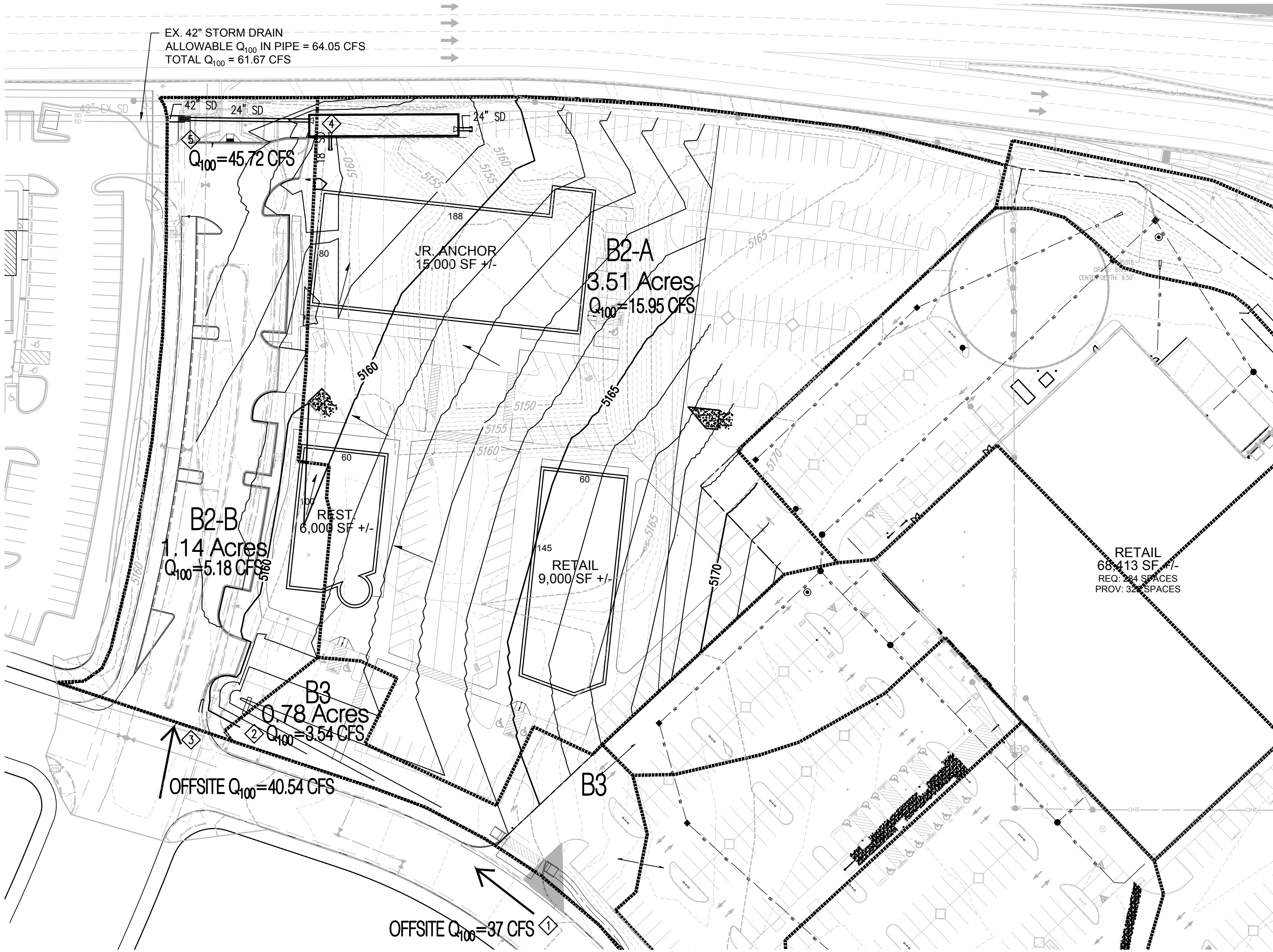
BHI PROJECT NO.	20170053	DWG NO.	C102	SHEET	3	OF	3
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FOR UTILITY LOCATES
DIAL 811 OR
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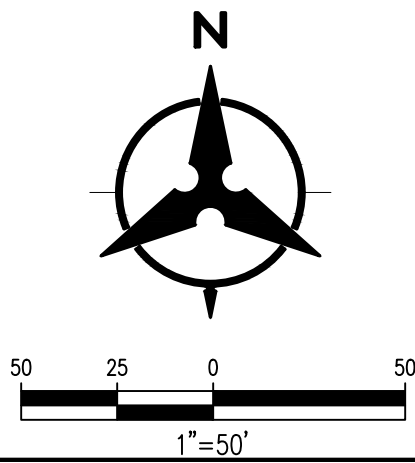


DESIGNED BY		MJB		DATE 02/2017		BENCH MARKS		AS-BUILT INFORMATION	
CHECKED BY		MJB		DATE 02/2017				CONTRACTOR	
DRAWN BY		EGN		DATE 02/2017				WORK STAGED BY	
REVISIONS						BY		DATE	
DESIGN								INSPECTOR'S ACCEPTANCE BY	
						FIELD VERIFICATION BY		DATE	
								DRAWINGS CORRECTED BY	
								DATE	



GRADING LEGEND

--- PROPERTY LINE	PROPOSED CURB & GUTTER
--- PROJECT LIMITS OF GRADING	DIRECTION OF FLOW
--- EXISTING INDEX CONTOUR	WATER BLOCK/GRADE BREAK
--- EXISTING INTERMEDIATE CONTOUR	PROPOSED STORM DRAIN LINE
EXISTING GROUND SPOT ELEVATION	PROPOSED STORM DRAIN MANHOLE
PROPOSED INDEX CONTOUR	PROPOSED STORM DRAIN INLETS
PROPOSED INTERMEDIATE CONTOUR	PROPOSED RETAINING WALL
ULTIMATE CONDITIONS BASIN BOUNDARY	EASEMENT
ULTIMATE CONDITIONS BASIN ID	ULTIMATE CONDITIONS Q
DISCHARGE POINT	



Legacy @ Journal Center
ULTIMATE Developed Conditions Basin Data Table

This table is based on the DPM Section 22.2, Zone: 2

Basin ID	Area (SQ. FT)	Area (AC.)	Land Treatment Percentages				Q(100yr) (cfs/ac.)	Q(100yr) (CFS)	Q(10yr) (CFS)	V(100yr) (inches)	V(100yr-6hr) (CF)	V(100yr-24hr) (CF)	V(100yr-10day) (CF)	FIRST FLUSH (CF)
			A	B	C	D								
Detailed Proposed Basins														
B1-A	136778	3.14	0.0%	0.0%	10.0%	90.0%	4.54	14.27	9.41	2.02	23036	27139	27141	3488
B1-B	74923	1.72	0.0%	0.0%	10.0%	90.0%	4.54	7.82	5.15	2.02	12618	14866	14867	1911
B1-C	39640	0.91	0.0%	0.0%	10.0%	90.0%	4.54	4.14	2.73	2.02	6676	7865	7866	1011
B1-D	52272	1.20	0.0%	0.0%	10.0%	90.0%	4.54	5.45	3.60	2.02	8803	10372	10372	1333
B1-E	59242	1.36	0.0%	0.0%	10.0%	90.0%	4.54	6.18	3.30	2.02	9977	11755	11755	1511
B1-F	57499	1.32	0.0%	0.0%	50.0%	50.0%	3.92	5.17	3.96	1.63	4456	5414	5415	815
B2-A	152896	3.51	0.0%	0.0%	10.0%	90.0%	4.54	15.95	10.52	2.02	25750	30337	30339	3899
B2-B	49658	1.14	0.0%	0.0%	10.0%	90.0%	4.54	5.18	3.42	2.02	8363	9853	9854	1266
B3	33977	0.78	0.0%	0.0%	10.0%	90.0%	4.54	3.54	2.34	2.02	5722	6742	6742	866
TOTAL	656885	15.08	-	-	-	-	-	67.70	44.42	-	105403	124342	124351	16099

OVERALL DRAINAGE NARRATIVE

EXISTING CONDITIONS:

THE SITE IS LOCATED AT THE NORTHEAST INTERSECTION OF HEADLINE BLVD AND LANG AVE. THE 4.8 ACRE SITE IS CURRENTLY DIVIDED INTO ONE PARTIALLY DEVELOPED TRACT (TRACT A-1) THAT INCLUDES A PREVIOUSLY VACATED HEADLINE BLVD. THE SITE SLOPES FROM EAST TO WEST INTO AN EXISTING RETENTION POND IN THE MIDDLE OF THE BASIN.

REVIEW OF CITY OF ALBUQUERQUE AND NEW MEXICO DEPARTMENT OF TRANSPORTATION HYDROLOGY FILES AND REPORTS AND THE EXISTING TOPOGRAPHIC SURVEY REVEALS THE LOCATIONS OF EXISTING AND FUTURE DISCHARGE POINTS. ACCORDING TO THE "PART 2 DRAINAGE REPORT FOR THE I-25 / PASEO DEL NORTE INTERCHANGE RECONSTRUCTION DESIGN BUILD PROJECT" (HEREON REFERRED TO AS NMDOT DRAINAGE REPORT) THERE IS ONE INTENDED DISCHARGE POINT FOR THIS SITE.

THERE IS AN EXISTING 42" LOCATED AT THE NORTHWEST CORNER OF THE SITE THAT WILL BE EXTENDED FOR FUTURE USE. PER THE NMDOT DRAINAGE REPORT, THE SITE IS ANTICIPATED TO DISCHARGE TO THIS OUTFALL UNDER DEVELOPED CONDITIONS. CURRENTLY THE REMAINDER OF THE SITE DRAINS DIRECTLY TO THE EXISTING LARGE RETENTION POND.

BASED ON THE NMDOT DRAINAGE REPORT ALL EXISTING INFRASTRUCTURE CURRENTLY IN PLACE TO SERVE THE SITE WILL ALLOW FOR FREE DISCHARGE WITH NO DETENTION REQUIREMENTS.

OFFSITE DRAINAGE CONSIDERATIONS

PER THE NMDOT DRAINAGE REPORT, THERE IS CURRENTLY 37 CFS WITHIN LANG AVE. THAT HEADS WEST AND NORTH INTO HEADLINE AND EVENTUALLY INTO THE EXISTING RETENTION POND. THIS DRAINAGE WILL ULTIMATELY OUTFALL DIRECTLY INTO THE EXISTING 42" PUBLIC STORM DRAIN SOUTH OF PASEO DEL NORTE.

FEMA FLOOD MAP CONSIDERATIONS

PER THE RECENTLY REVISED FEMA MAP PANEL 35001C0137H, THE SITE NO LONGER LIES WITHIN A DESIGNATED FEMA FLOOD ZONE DUE TO THE RECENT IMPROVEMENTS ASSOCIATED WITH THE PASEO/I-25 CONSTRUCTION.

PROPOSED CONDITIONS:

THE SITE WILL BE DEVELOPED IN PHASES, WITH HEADLINE BLVD BEING PAVED FIRST. THIS PLAN IS ADHERING WITH THE OVERALL DRAINAGE MANAGEMENT PLAN FOR LEGACY @ JOURNAL CENTER DATED 8.26.16 (HEREON REFERRED TO LEGACY MASTER PLAN), COA HYDROLOGY FILE # D17/D106.

ONSITE BASINS WILL BE DIVIDED INTO TWO CATEGORIES. ONSITE BASINS B2-A & B2-B WILL OUTFALL INTO THE EXISTING PUBLIC 42" STORM DRAIN AT THE NORTHWEST CORNER OF THE SITE AND A SMALLER BASIN 3 WILL HAVE TO OUTFALL DIRECTLY INTO LANG AVE, WHICH ULTIMATELY DRAINS TO THE EXISTING 42" PUBLIC STORM DRAIN VIA SURFACE FLOW. SUBBASINS FOR B2 HAVE BEEN SHOWN BASED ON THE CURRENT GRADING AND DRAINAGE (SEE BASIN MAP AND ULTIMATE DEVELOPED CONDITIONS BASIN TABLE FROM THE LEGACY MASTER PLAN). PONDS AND WATER HARVESTING AREAS WILL BE CONSTRUCTED WITHIN BASIN B2 TO AIDE IN ACHIEVING THE FIRST FLUSH REQUIREMENTS.

BASINS B2-A & B2-B WILL DISCHARGE APPROXIMATELY 21.1 CFS TO EXISTING CITY OF ALBUQUERQUE STORM DRAIN SYSTEM PARALLELING PASEO DEL NORTE. THIS IS LESS THAN THE ALLOWABLE Q WHICH IS 30 CFS. AN ONSITE POND IS BEING INSTALLED IN THIS PHASE TO ACCOUNT FOR THE FUTURE DEVELOPED FLOW CONDITIONS OF BASIN B2-A AND TO AIDE IN ACHIEVING THE CITY OF ALBUQUERQUE'S FIRST FLUSH REQUIREMENTS. IN THE INTERIM, THE FLOW FROM BASIN B2-A WILL BE CONVEYED TO THE POND VIA SHEET FLOW TO A PROPOSED SWALE WHICH DISCHARGES TO THE PROPOSED POND AND ULTIMATELY TO THE EXISTING 42" STORM DRAIN.

A SMALL BASIN (BASIN 3) WILL DISCHARGE APPROXIMATELY 3.5 CFS DIRECTLY TO LANG AND AS NOTED ABOVE WILL DRAIN WEST AND THEN NORTH INTO THE VACATED HEADLINE ROAD WHERE IT WILL ENTER THE EXISTING 42" STORM DRAIN VIA PROPOSED INLET. THIS DOUBLE "D" INLET IS SIZED TO ALLOW FOR THE OFFSITE FLOWS AND HEADLINE FLOWS TO DRAIN TO IT.

GIVEN THE ABOVE INFORMATION, WE ARE REQUESTING CITY HYDROLOGY APPROVAL FOR PAVING/ROUGH GRADING AND SO-19 APPROVAL.

Bohannon & Huston
www.bhinc.com 800.877.5332

HEADLINE BLVD CONSTRUCTION DOCUMENTS
DRAINAGE MANAGEMENT PLAN

BHI PROJECT NO. 20170053 DWG NO. C001 SHEET 1 OF 1

CALL BEFORE YOU DIG
FOR UTILITY LOCATES
DIAL 811 OR
1-800-321-ALERT

ENGINEER'S SEAL



AS-BUILT INFORMATION

BENCH MARKS

REMARKS

REVISIONS

DESIGN

NO. DATE

DESIGNED BY

CHECKED BY

DRAWN BY

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

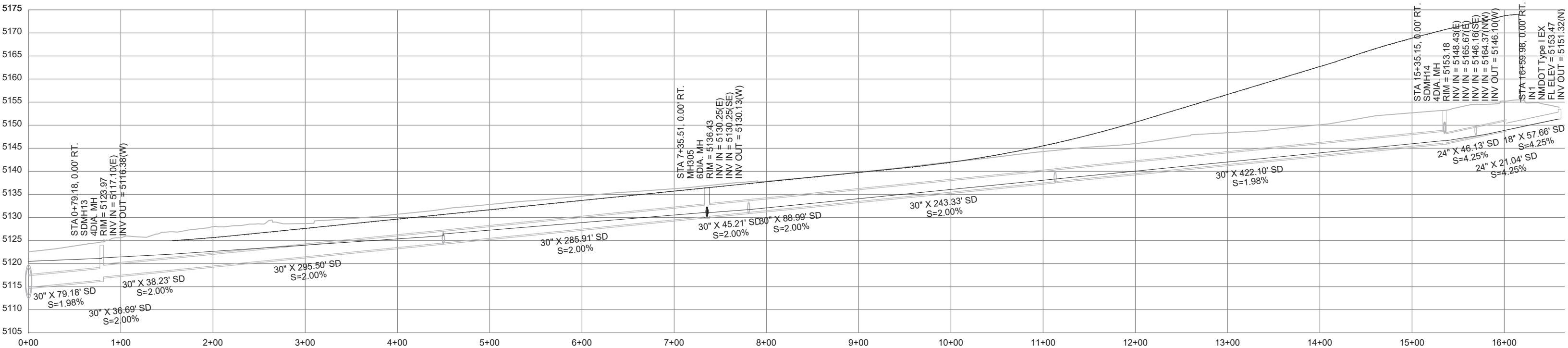
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DATE

APPENDIX DP2-C STORM DRAIN
HYDRAULIC CALCULATIONS



SD NORTH OF PDN



FOR REFERENCE ONLY

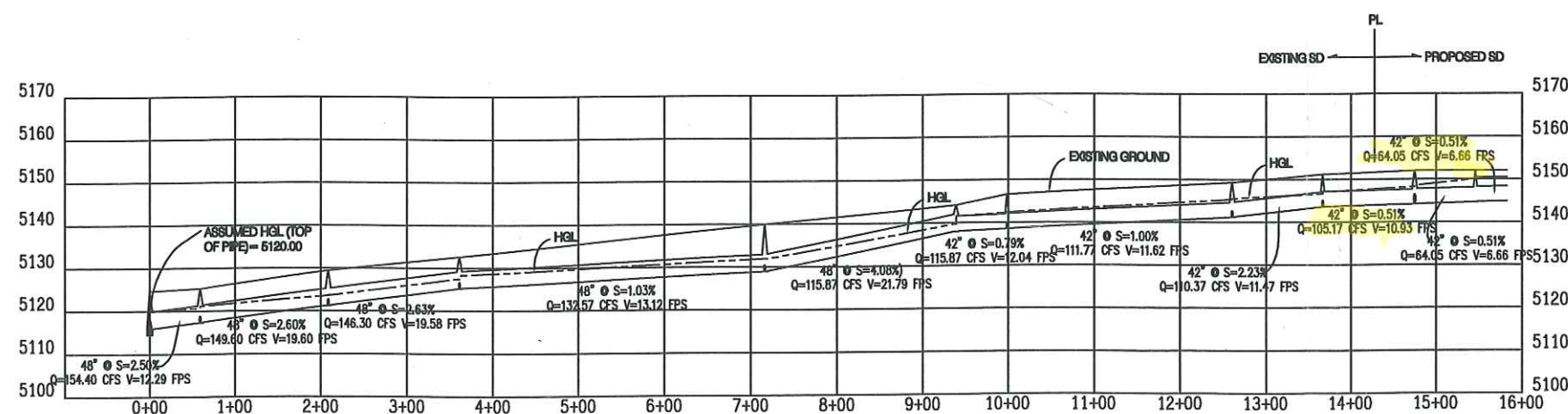


TOTAL OF
BASINS A-G=49.2
cfs

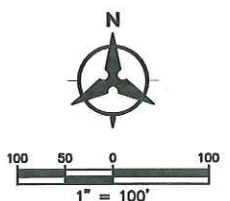
BASIN	AREA (AC)	Q (CFS)
Basin A	1.05	4.80
Basin B	0.71	3.25
Basin C	3.00	13.73
Basin D	3.65	16.70
Basin E	0.89	4.07
Basin F	1.18	5.40
Basin G	0.28	1.28
Basin H	0.89	4.07
Basin I	13.96	63.87
Lang Ave.		37.00*
TOTAL	25.61	154.17

* FLOW FROM 'DRAINAGE
MASTER PLAN' DATED
10-31-94 BY BHI.

#	Q ENTER (CFS)	FLows FROM:
1	64.05	BASIN I
2	41.12	BASIN H & LANG AVE
3	5.20	BASIN F
4	1.40	BASIN G
5	4.10	BASIN E
6	16.70	BASIN D
7	13.73	BASIN C
8	3.30	BASIN B
9	4.80	BASIN A

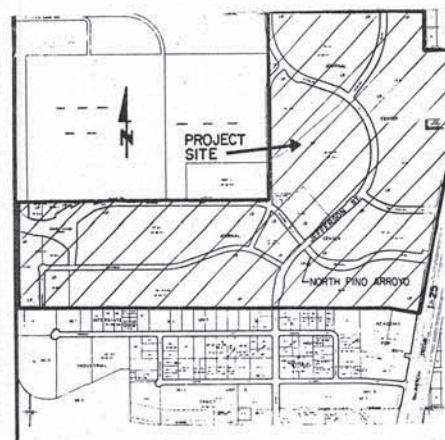


FOR REFERENCE ONLY



JOURNAL CENTER
EXHIBIT
AUGUST 30, 2013

Bohannon  Huston



LOCATION MAP
ZONE ATLAS D-17-Z

REVISED DRAINAGE MANAGEMENT PLAN FOR: JOURNAL CENTER

REVISED: NOVEMBER, 1990
PREPARED BY: BOHANNAN-HUSTON, INC.

The purpose of this revised drainage management plan is to update the plan to reflect the development of Journal Center since the plan was first approved in 1984. Since that time, Journal Center has been replatted, new streets constructed and new businesses have moved in. All new development has conformed to the 1984 plan and individual development plans have been approved by the City. The drainage concepts and basins remain substantially identical to the 1984 drainage management plan.

The purpose of this plan is to outline drainage patterns, flow rates and facility capacities for the Journal Center Industrial/Commercial Park. The plan also serves to update recommendations made in an October 1980 report entitled *Journal Center Interim Drainage Report* based on current thinking outlined in the Drainage Ordinance and Development Process Manual (DPM).

It is proposed that runoff from sites be allowed to discharge to street rights-of-way or facilities in a free discharge manner. This runoff will be directed to three primary outfalls: the North Pino Arroyo Channel, Jefferson Street storm drain and Los Angeles Blvd. The North Pino Arroyo Channel is a concrete lined with grass free board and discharges runoff into the North Diversion Channel. The Jefferson Street storm drain discharges into the Dominga Baca Arroyo, north of Los Angeles Blvd. Runoff collected in Los Angeles Blvd. discharges into the North Diversion Channel. The accompanying plan identifies flow directions and the location of the primary outfalls.

Runoff rates and facility capacities are contained in the tables below. Based on this information, three points should be highlighted:

1. Current runoff criteria yields flow rates less than those used in the 1980 report.
2. Approximately 112 cfs will be directed to Los Angeles Blvd. during the 100-year storm. 226 cfs is collected in the storm drain system and conveyed to the Dominga Baca Arroyo. The 112 cfs represents a figure less than the undeveloped flow rate from the site prior to its development.

Additional functions of the updated plan will be to guide engineers in preparing future drainage plans and aiding City review of these future plans. Drainage basins which have been altered slightly have been re-analyzed and are shown in the table below to have no significant nor adverse impact on drainage facilities.

The criteria used for the minor re-analysis performed in this updated plan remained identical to that previously used and approved in the original 1984 plan.

3. Section 8C of the Drainage Ordinance stipulates that the curb flow line depth shall not exceed 0.5 feet during the 10-year storm in arterial street sections. As the values indicate, this criteria is exceeded at several locations along Jefferson Street.

As provided in Section 6H of the Ordinance, a variance to the requirement outlined in No. 3 is requested for the following reasons:

1. Considerable expense has already been applied to the construction of drainage facilities in the area. The Pino Arroyo Channel and Jefferson Street storm sewer represent an investment of approximately 2 million dollars. Design was guided and approved based upon criteria in effect at the time assuming free discharge from all parcels.
2. The total length of street over which the criteria is exceeded is approximately 3000 feet. This represents a relatively short distance compared to the total length of Jefferson Street running through and south from the project.

BASED ON THE INFORMATION PRESENTED IN THIS PLAN, IT IS PROPOSED THAT A FREE DISCHARGE MANAGEMENT APPROACH BE APPROVED FOR ALL PARCELS WITHIN THE PARK, AND THAT A VARIANCE TO SECTION 8C BE GRANTED FOR THE 10-YEAR FLOW CRITERIA IN JEFFERSON STREET.

BASIN HYDROLOGY (Developed Conditions)

BASIN ID	AREA	DISCHARGES TO	LONGEST REACH (FT.)	SLOPE (AVERAGE)	TC (MIN.)	INTENSITY (IN./HR.)	Q 100	Q 100 REPORT
A	5.4	Headline	1200	0.02	10.0	4.7	61	95
B-1	18.0	Jefferson	1650		10.0	4.7	68	N.A.
C	27.6	Diversion Berm	1200		10.0	4.7	102	112
D-1	14.3	Tiburon	1000		10.0	4.7	54	N.A.
E-1	13.1	Jefferson	1100		10.0	4.7	49	N.A.
F	19.6	Pino Arroyo	1250		10.4	4.6	72	73
G	22.5	Pino Arroyo	1250		10.4	4.6	83	84
GST	3.0	Jefferson	500		10.0	4.7	12	12
H-1	29.1	Tiburon	1600		10.0	4.7	109	N.A.
I	5.2	Pino Arroyo	450		10.0	4.7	20	21
J	4.6	Pino Arroyo	450		10.0	4.7	17	19
JST	0.6	Masthead	1000		10.0	4.7	3	2
K	15.6	Pino Arroyo	1200		10.0	4.7	59	63
KST	1.3	Masthead	1300		10.0	4.7	5	5
L	16.4	Pino Arroyo	1200		10.0	4.7	58	64
LST	1.4	Masthead	1200		10.0	4.7	5	6
M	25.5	Masthead	1200		10.0	4.7	96	87
N	13.0	Masthead	1200		10.0	4.7	42	51
NCH	3.4	Masthead	650		10.0	4.7	13	14
O	5.3	Snayroll	650	0.02	10.0	4.7	20	22
A-1	19.6	Headline	N.A.	N.A.	N.A.	N.A.	85	N.A.

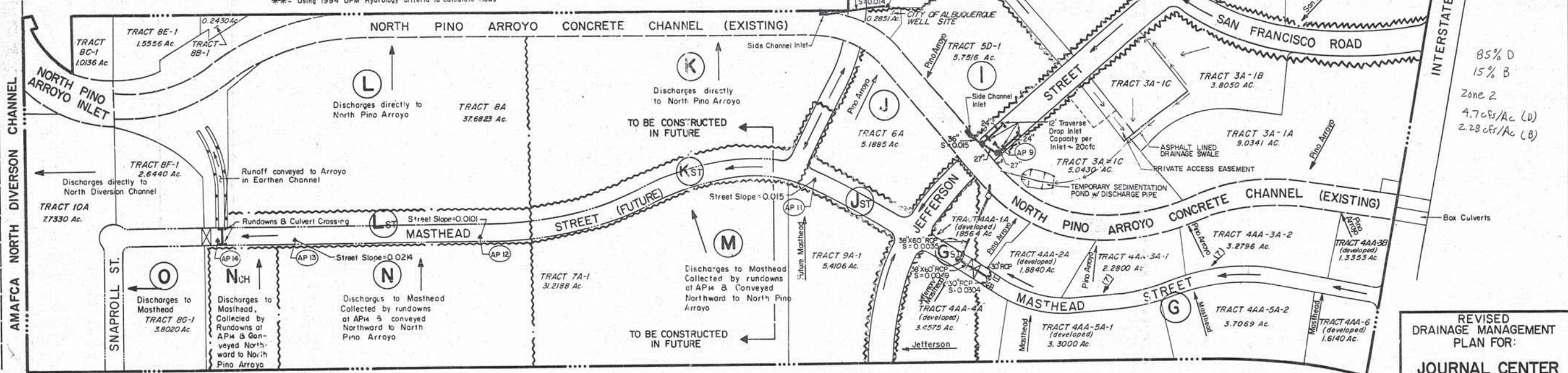
STREET & STORM SEWER HYDRAULICS

BASIN ID	CONTRIBUTING BASIN(S)	10-YEAR STORM (all values cfs)				100-YEAR STORM (all values cfs)				COMMENTS
		Q	STREET CAPACITY	SEWER CAPACITY	FLOW IN STREET	Q	STREET CAPACITY	SEWER CAPACITY	FLOW IN STREET	
1	A, OF-1	64	112	N.A.	64	98	112	N.A.	98	Street has adequate capacity
2	B-1	45	18-East half of street	N.A.	45	68	200	N.A.	45	10 year street capacity exceeded
3	OF-1, A, B-1	109	36-Full street section (30" RCP)	59	69	166	200	59	126	" " "
4	A, B-1, Street	115	30-Full street section	59	73	176	170	59	136	" " "
5	D-1	35	107 (48" RCP)	0	35	54	100	107	0	Basin D-1 runoff collected in Triple 'C' inlets
6	C	67	N.A.	N.A.	67	102	N.A.	120	N.A.	100% runoff collected in 48" RCP inlet
7	Street OF-1	211	36 (72" RCP)	64	147	321	180	232	96	90 cfs discharged to Paseo del Norte
8	E-1	32	9-East half of street	N.A.	32	49	104	N.A.	49	10 year street capacity exceeded
9	E-1, Street	46	25-East half of street	85 (36" RCP)	0	69	200	83	0	7 cfs collected by inlets
10	H-1	72	N.A.	(42" RCP)	N.A.	109	N.A.	1.0	N.A.	Runoff conveyed to Pino Arroyo
11	GST, JST	10	160	N.A.	10	15	160	N.A.	1.0	" " "
12	API, KST, M	76	N.A.	N.A.	76	116	130	N.A.	116	" " "
13	AP2, N	108	N.A.	N.A.	108	165	160	N.A.	165	" " "
14	API, NCH	117	N.A.	N.A.	N.A.	178	N.A.	N.A.	N.A.	Runoff collected in concrete runways
15	A, OFFSITE	N.A.	N.A.	N.A.	N.A.	43.1	64.7	N.A.	43.1	" " "

N.A. - Not Applicable
See Note 4.5
*- Using 1994 DPM Hydrology criteria to calculate flows

NOTES

1. Basin Hydrology based on DPM Criteria, Chapter 22 (DPM Edition, 1984).
 - a. To-Plate 22.2 13-1 (10 minute minimum)
 - b. Intensity - Plate 22.2 D-2
 - c. 'C' for 85% Impervious = 0.80
 - d. Plate 22.2 C-1
 - e. 100 year rainfall = 2.2 in. - Plate 22.2 D-1
2. Street capacities determined using DPM Criteria, Chapter 22, Plates 22.3 D-1 thru 22.3 D-4 (DPM Edition, 1984).
3. Storm sewer sized to operate under pressure flow - Plate 22.3 B-5.
4. $Q_{10} = 0.657(Q_{100})$ - Plate 22.2 D-1 (DPM Edition, 1984).
5. Jefferson Street classified as min. arterial - 10 year street capacities based on 0.5' at curb flowline.
6. Double 'B' and 'C' inlets assumed to collect an average of 10cfs during 100-year flow.
7. The south half (max.) of these lots may drain to Masthead Street as necessary.
8. The drainage basin for this 37 cfs (100-year storm) discharge is located east of and within the right-of-way of I-25. Calculations for this discharge can be found under City Drainage file D-17/D30. Handling of this 37 cfs discharge will occur as follows:
 - a. Interim (undeveloped) Basin A and B-1 Plan - As shown, flow is discharged to the surface and will drain by overland flow to Headline Road.
 - b. Ultimate Plan - With the development of Basins A and B-1, the flow will be carried by surface facilities or underground storm drains to the Dominga Baca Arroyo or to Headline Road. This extension of drainage facilities may be performed in phases, i.e., each development will construct only its required portion of the facility, in accordance with the Drainage Ordinance and approved site-specific drainage plans.
9. The 37 cfs (100-year) offsite flow is labeled OF-1. The 10-year storm value is 24 cfs.
10. The high point in Headline Blvd. is located at the Lang Ave. intersection. This condition will cause a flow split. Approximately 37 cfs is assumed to flow north on Headline Blvd.



LEGEND

- PROPERTY LINE
- BASIN DIVIDE
- WATER BLOCK
- DOUBLE 'B' INLET
- DOUBLE 'C' INLET
- DOUBLE 'D' INLET
- TRIPLE 'C' INLET
- STORM SEWER & MANHOLE
- MAJOR FLOW DIRECTION & DISCHARGE LOCATION
- ANALYSIS POINT
- DEVELOPED TRACTS ARE NOTED AS SUCH

REVISED DRAINAGE MANAGEMENT PLAN FOR: JOURNAL CENTER

DECEMBER 1992

ORIGINAL PLAN JULY 1984
REVISION NO. 4 NOVEMBER 1990
REVISION NO. 5 DECEMBER 1992

JOB NO. 901001