

PLANNING COMMISSION- SPECIAL MEETING

Thursday, March 27, 2025 at 6:30 PM Council Chambers, 60 West Main, Hyrum, Utah

AGENDA

Public notice is hereby given of a Hyrum Planning Commission- Special Meeting to be held in the Council Chambers, 60 West Main, Hyrum, Utah at 6:30 PM, March 27, 2025. The proposed agenda is as follows:

- 1. ROLL CALL
- 2. PLEDGE OF ALLEGIANCE
- 3. INVOCATION
- 4. AGENDA APPROVAL
- 5. SCHEDULED DELEGATIONS
 - <u>A.</u> <u>Jesse Elsmore, Jardine Builders, LLC</u> To request site plan approval for two (2) two-story mixed-use buildings located at 139 West Main Street & 127 West Main Street, consisting of 0.96 acres.
- 6. ADJOURNMENT

Shara Toone Secretary

Commission Members may participate in the meeting via telephonic communication. If a Commission Member does participate via telephonic communication, the Commission Member will be on speakerphone. The speakerphone will be amplified so that the other Commission Members and all other persons present in the Commission Chambers will be able to hear all discussions. In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify Hyrum City Planning Commission at 435-245-6033 at least three working days before the meeting.

CERTIFICATE OF POSTING - The undersigned, duly appointed and acting City Secretary of Hyrum City, Utah, does hereby certify that a copy of the foregoing Notice was posted on the Utah Public Notice Website and Hyrum City's Website, provided to each member of the governing body, and posted at the City Offices, 60 West Main, Hyrum, Utah, this 24th day of March, 2025. Shara Toone, Secretary



PLANNING COMMISSION STAFF EVALUATION – SECOND REVIEW

APPLICATION NO: 25-002A APPLICANT: Jesse Elsmore, Jardine Builders, LLC PROPERTY OWNER: Andrea Nielsen / John Kimball Jr & Virginia Francis PROPERTY ADDRESS: 139 West Main Street & 127 West Main Street PARCEL NUMBER: 01-050-0023 & 01-050-0024 PARCEL AREA: 01-050-0023 = .33 Acres / 01-050-0024 = 0.63 Acres (0.96 Acres) ZONE: Commercial Zone C-2 DATE: March 25, 2025

PLANNING COMMISSION MEETING: PLANNING COMMISSION ROLE: APPLICATION TYPE:

March 27, 2025 (Special Meeting) Recommending Body to City Council Site Plan Approval

NATURE OF REQUEST:

Permitted Use: Mixed Use Commercial.

CURRENT ZONING DISTRICT:

Commercial Zone C-2: The C-2 Downtown Mixed-Use Zone is designed to preserve the mixed-use nature and feel of downtown Hyrum, providing for office, commercial, and residential uses within a mixed-use setting. A major objective of the C-2 Downtown Mixed-Use Zone is to create aesthetically pleasing streetscapes with landscaping that buffers sidewalks from major vehicular traffic ways, landscape features, recreational amenities, and social gathering areas that promote a walkable community.

OVERVIEW:

The applicant would like to develop the 0.96 acres with two (2), two-story mixed-use buildings facing the streetscape on Main Street. Each main floor level of each building will be divided into two (2) north and south commercial units for a combined four (4) ground level commercial use units. The applicant provided potential uses (see attached Hyrum Market 1860 Scope Narrative) that include a mix of open conference, market space, demonstration kitchen, community events, home-school groups, classrooms and small training classrooms, farmer's or craft markets, non-profit organizations, and more. The upper level of each building will consist of six (6) short-term hotel style residential units in each building with single and double-bed units that will be accessible by a stairway inside each building and secured at main level doors to the exterior of the building.

UTILITIES: Existing Power, Sewer, Water, Irrigation servicing 127 West Main Street are for a Single-Family Residential Home. Upgrades will need to be built/installed.

STAFF COMMENTS:

Planning and Zoning:

- 1. The Planning Commission recommend site plan approval to the City Council based on the applicants compliance with staff evaluations and staff comments, applicant submittals, and any additional Planning Commission recommendations. The City Council can require revisions as necessary.
- 2. The dwelling unit(s) in each building engage the following code requirements to require a separate sewer lateral to each building for a total of two (2) sewer laterals:
 - a. Hyrum City Code 17.04.070 Definitions: "Dwelling unit" means one or more rooms in a dwelling, apartment hotel or apartment motel, designed to be occupied by one family for living and sleeping purposes.
 - b. Hyrum City General Requirements and Specifications for Sanitary Sewer Installations 5.2.1.C. Design Regulations: Each dwelling unit shall be served by an individual lateral.
 - c. (Reference Sewer Department Comment #1 in Staff Evaluation First Review)

Engineering:

- 1. See attached comments contained on Site Plan Second Review.
- 2. Provide stormwater calculations and data. Table A was not provided in the submittal, see Engineering comments on sheet: 2 of 10.
- 3. The utility plan is lacking information, see Engineering comments on sheet: 2 of 10.
- 4. Streetscape requirements are not being shown as required by Hyrum City Code 17.45.090 Streetscape Features.

Sewer Department:

 Each dwelling unit shall be served by an individual lateral per Construction Standard 5.2.1.C. Drawings show one shared lateral for two dwellings which is not to standard. (*Reference Sewer Department Comment #1 in Staff Evaluation First Review*)

Water / Irrigation Department:

- If the original water meter and lateral is used as part of the total of four (4) new, the existing water meter and lateral will need to be updated to comply with Hyrum City Code 13.04 Water System; Hyrum City General Requirements and Specifications for Potable Water Mains, Service Lines and Secondary Pressure Irrigation Installations. (*Reference Water / Irrigation Comment #1 in Staff Evaluation First Review*)
- 2. If the existing water meter and lateral is not used as part of the total of four (4) new, the existing water meter shall be removed, and the existing water lateral will be removed at main line and the main line be capped. (*Reference Water / Irrigation Comment #1 in Staff Evaluation First Review*)

STAFF EVALUATION FIRST REVIEW - Planning Commission: February 13, 2025 Requestor responses in red

Planning and Zoning:

- 1. Staff supports a Mixed Use of Commercial and Hotel as permitted in HCC 17.45.020 Use Regulations.
 - Yes!
- 2. Staff did not receive the required Lighting Plan submittal. HCC 17.45.120 requires that each site plan shall include a lighting plan.
 - Lighting Plan has since been completed and submitted with Site Plan documents
- 3. Staff does not support the west building crossing the east property line of property parcel: 01-050-0023 as proposed on the site plan and recommends combining the two property parcels. HCC 17.45.050 Yard Regulations Commercial Use may permit a zero-yard setback at a property line at a qualifying location; however, it does not qualify a building to encroach beyond a property parcel. If the applicant desires to relocate the

said building to a conforming location on the parcel, Staff will request the following revisions to the site plan:

- a. Each property parcel is serviced by separate power, sewer, water and water meters, fire line (if required), and irrigation connections to main lines; and
- Parcel 0023 and 0024 are owned by individual Market 1860 partners; partners are in process of selling & transferring ownership to the Market 1860 entity which will result in single ownership. Applicant requests that Commission allow Site Plan Approval on condition that this is completed before issue of building permit
- b. Cross access agreements need to be prepared and recorded to each property parcel for UDOT driveway approach interior parking.
- Cross access agreement has been addressed with UDOT and per UDOT will not be signed until issue of building permit
- 4. The site plan proposes parking stalls to be a minimum of eight (8) feet in width and does not identify the proposed parking stall depth. In the C-2 Zone, HCC 17.45.210.C. Off-Street Parking – Special Requirements requires the site plan to provide nine (9) feet by twenty (20) feet parking stalls.
 - Parking stall sizes have been revised to 9 feet wide by 20 feet deep
- 5. The applicant did not submit a total parking stall count on the site plan. Staff supports the required parking of one (1) space per each unit, room, or guest accommodation as regulated in HCC 17.45.200 Off Street Parking Specific Requirements which reserves a total of twelve (12) parking spaces for the Hotel Use.
 - Parking totals 54 stalls, includes 1 ADA stall & 1 ADA Van Accessible Stall
- 6. Without the applicant providing the exact square feet of proposed commercial uses (excluding storage areas, restrooms, office areas, etc.) Staff cannot verify the required off-street parking requirements regulated in HCC 17.45.200 Off-Street Parking Specific Requirements to conclude parking requirements.
 - Total commercial floor space is 4,050 SF (2,100 SF in West, 1,950 SF in East)
 - Breakdown of estimated commercial use is as follows:
 - Retail / Market = 2,100 SF (requires 1 per 250 SF = 8 stalls)
 - Single Office = 224 SF (requires 1 per employee = 1 stall)
 - Restaurant / Café = 1,275 (requires 1 per 40 SF = 32 stalls)
 - Hotel Space = 13 units (requires 1 per unit = 13 stalls)
 - Total stalls required = 54
- 7. The site plan shows the cedar fence terminating at the south portion of the paved parking lot. The parking lot is still facing adjoining neighbor properties. HCC 17.45.050 Yard Regulations Commercial Use requires the fence to continue south on both east and west property line and along the south property line enclosing the development.
 - Cedar fence continues along west, south, and east property lines
- 8. The Trash Enclosure requirements in the C-2 Zone, HCC 17.45.055 Trash Enclosure Regulations – Commercial Use requires that enclosures shall be located away from main traffic areas and sheltered from street sight as much as possible. Staff recommends relocating the Trash Enclosure from the current location within the main traffic area and street sight to a conforming location on the site.
 - Trash enclosure relocated to back of parking lot, hidden from street view behind west building, >50' from residential zoning. Have assumed doublesize dumpster enclosure in site plan
- 9. A building permit will be required for building structures as regulated by HCC Section 15.08 Building Permits.
 - Understood
- 10. All construction shall comply with Hyrum City Design Standards and Construction Specifications.
 - Understood

Engineering:

- 1. See comments contained on Site Plan.
 - Site Plan updated per comments

Fire Department:

- 1. Water flow, we need 1750 GPM at the hydrant for 2 hours. If it is less than that the entire building will need to be sprinklered.
 - Fire sprinklers are planned for each building, on both floor levels
- 2. The upstairs hotel/apartments is a R-1, it is required to have Sprinklers.
 - Fire sprinklers are planned for each building, on both floor levels
- 3. We need 26' of clearance on driveway and on all sides of parking for fire apparatus access lot see drawings.
 - 26' driveway clearance has been provided and extends to back side of buildings
- 4. What type of building construction?
 - Wood frame construction with structural steel elements
- 5. Each unit will need to be reviewed and inspected as built out.
 - Understood

Parks Department:

1. No comments or concerns.

• Yes!

- Power Department:
 - 1. Staff requests the applicant contact the Power Department to schedule an initial onsite meeting to verify all existing electrical utilities.
 - Understood, this will happen immediately following site plan approval
 - 2. The applicant must complete and submit the required Commercial Structure Load Data Sheet to the Power Department. The Load Data Sheet is available in Section 7 General Requirements and Specifications for Electrical Installations in Hyrum City Design Standards and Construction Specifications.
 - Load data sheet has been completed and will be submitted immediately following site plan approval
 - 3. All construction specific to electrical work shall verify compliance with Section 7 General Requirements and Specifications for Electrical Installations in Hyrum City Design Standards and Construction Specifications.
 - Understood, electrical systems will be designed by Sine Source Engineering
 - 4. Applicant must maintain and clearance of 10 feet around the interior overhead service line on the property. At the applicant's request, the Power Department can provide visual ribbon indicators on the overhead line to help maintain visual clearance.

Understood, visual ribbon indicators will be requested during construction

Road / Stormwater Department:

- 1. An NOI is generally not required for disturbances less than one (1) acre that are not part of a larger common plan of development project, however, it is the responsibility of the applicant to confirm any and all exemptions pursuant to HCC 13.18.110 Notice of Intent (NOI) – Exemptions. While an NOI is not typically required, applicant is responsible to control Stormwater and Erosion & Pollution on and from the site.
 - If required, contractor will file an NOI; regardless; BMPs will be installed and maintain during construction until all permanent landscaping and stormwater systems are completed
- 2. All public rights of way permits, construction and improvements, and traffic control on Main Street are the Powers and Duties of Utah Department of Transportation.
 - Understood, applicant has already engaged in permits and discussions with UDOT regarding this project and will continue to do so
- 3. Hyrum City may enforce provisions and all other ordinances relating to the maintenance and use of streets, culverts, drains, ditches, waterways, curbs, gutters, sidewalks and

other public ways; and the repair or cause to be repaired, all defects coming to the Hyrum City Department of Streets attention and make reasonable precautions to protect the public from injuries due to such defects pending their repair pursuant to HCC 2.36.030. Powers and Duties.

Understood

Sewer Department:

- Staff recommends the engineer verify the existing sewer lateral and design a new lateral for peak flow for both buildings, and demonstrate on the plans the material, quality and specifications as regulated by HCC 13.12.200 Service and Other Pipes – Material, Quality and Specifications – Alteration or Inspection.
 - Understood, sewer line size shown on Site Plan, existing laterals to be abandoned
- 2. For any proposed use or future use that will introduce or cause to be introduced into the Publicly Owned Treatment Works (POTW) or any pollutant or wastewater which causes to pass through or interference, the applicant must comply with HCC Section 13.13 Wastewater Pretreatment, whether or not the source is subject to categorical Pretreatment Standards or any other National, State or Local Pretreatment Standards for requirements.
 - Understood, additionally it is anticipated that a grease trap will be provided for restaurant spaces
- 3. All construction specific to sanitary sewer shall verify compliance with Section 5 General Requirements and Specifications for Sanitary Sewer Installations in Hyrum City Design Standards and Construction Specifications.

Understood

Water / Irrigation Department:

- HCC 13.04.180 Separate Connections Required for Each User regulates that each service user cannot be supplied from the same service pipe, connection or water meter unless special permission for such combination usage has been granted by the governing body. Staff recommends that each user have its own water service (tentatively 2 meters for main level commercial uses, and 1 meter for upper-level hotel uses for each building).
 - Understood, owner would like to request a single meter for each floor-level in each building (4 meters total)
- Staff recommends that all meters be installed in a meter vault for multiple meters for 3/4" to 1-1/2" meters as approved in Section 6 of the Hyrum City General Requirements and Specifications for Potable Water Mains, Service Lines, and Secondary Pressure Irrigation Installations.
 - Understood
- 3. Staff recommends that each service to commercial uses be a minimum of 1-1/2" to ensure adequate future flows.
 - Understood
- 4. If the mixed commercial use and hotel use requires a fire sprinkler system required by the International Fire Code and requires an additional fire line connection to the water main, the fire line connections shall comply with Section 6 Hyrum City General Requirements and Specifications for Potable Water Mains, Service Lines, and Secondary Pressure Irrigation Installations.
 - Understood
- All construction specific to sanitary sewers shall verify compliance with Section 5 General Requirements and Specifications for Potable Water Mains, Service Lines, and Secondary Pressure Irrigation Installations in Hyrum City Design Standards and Construction Specifications.
 - Understood

PLANNING COMMISSION RESPONSIBILITY:

- 1. Site plan approval is a function of the Planning Commission which has a wide latitude in specifying conditions and requirements for approval.
- 2. The Planning Commission should have a thorough discussion of the site plan, staff comments, and specifying conditions and requirements for approval.
- 3. The Planning Commission is a recommending body to the City Council and should be specific in their motion to the City Council.

STAFF RECOMMENDATION:

1. The Planning Commission recommend site plan approval to the City Council based on the applicants compliance with staff evaluations and staff comments, applicant submittals, and any additional Planning Commission recommendations. The City Council can require revisions as necessary.

STIPULATIONS:

- 1. The City Council may approve, disapprove, approve with additional conditions and requirements, or require the requestor to return to the Planning Commission with revisions; or require the applicant to return revisions to the City Council.
- 2. Final Approval must be obtained from the City Council. Following final approval, the requestor will provide final approval documents to staff for the issuance of a permitted use permit, issuance of Hyrum City Approval final approval documents, and issuance of notification to attend a pre-construction meeting.

FINDINGS OF FACT:

- 1. The property is located in the Commercial Zone C-2.
- 2. Mixed Commercial Uses are a permitted use in the Commercial Zone C-2.

ATTACHMENTS:

- 1. Cache County Parcel and Zoning Viewer Aerial View
- 2. Hyrum Market 1860 Scope Narrative Updated
- 3. Hyrum Market 1860 Conceptual Building Exterior Elevation
- 4. Hyrum Market 1860 Site Plan Submittal Updated (With Engineering Comments)



Cache County Parcel and Zoning Viewer – Aerial Image

Hyrum City 60 West Main Street Hyrum, UT 84319

Subject: Market 1860 Site Plan Approval

Attn: Planning and Zoning Commission

Scope Narrative

The Market 1860 project includes two identical mixed-use buildings consisting of first-level commercial space and second-level residential rental units. The footprint of each building is planned at 40-feet by 70-feet with a conventional peaked roof line down the longitudinal center of the building. The first-floor commercial space in each building will be divided into two (north and south) units. Parking and landscape areas will be constructed behind the buildings and open patio and outdoor dining areas will wrap the building perimeter.

The two commercial spaces in the west building will consist of open classrooms, conference, and market space with a small demonstration kitchen, restrooms, storage and mechanical room. The two units will be constructed with an open hallway so that the spaces can be used simultaneously if needed. One purpose of these units is to provide a place for community events available for rent or use depending on the function or activity. It may be utilized by home-school groups, small training classrooms, farmer's or craft markets, non-profit organizations, and more.

The commercial space in the east building will consist of two café, bakery, or restaurant-type lease units. The owner's intent is to construct the two units as shell-space and allow tenants an opportunity to finish the space according to business needs.

The second level in each building will consist of six and seven short-term hotelstyle residential units with single and double-bed units. Each building will also include a common laundry facility on the same floor. The residential units will be accessible by two stairways and secured first-level exterior door located on the shared patio side between buildings. An elevator will be provided in the East Building for ADA access to the second floor.

Landscaping Plan

Landscaping will include 15-foot-wide green spaces along the east and west edges of the site as well as small landscape islands in the parking lot. Storm water retention ponds will occupy a portion of the landscape area but will be maintained as usable or manicured swales. Vegetation will include trees, lawn, native grass, flowers, and shrubs. Landscaping will be meticulously maintained to attract renters to the short-term rental units.

Market 1860 -

<u>Ownership</u>

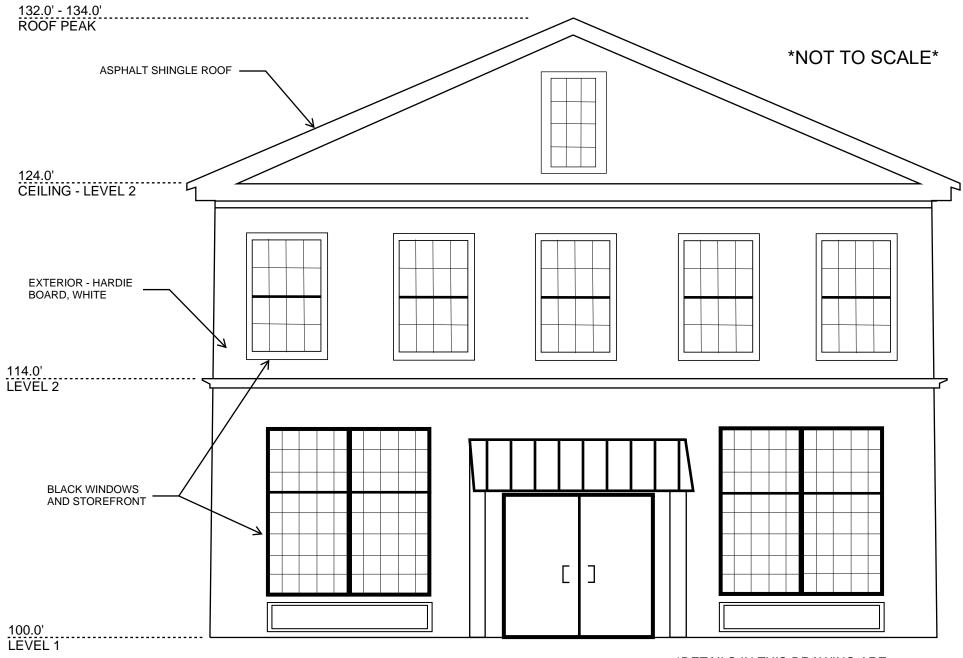
Annette Francis (Hyrum, UT) Andrea Nielsen (Hyrum, UT) Amy Knight (Park City, UT)

Design-Builder

Jardine Builders, LLC (Millville & Centerville, UT)

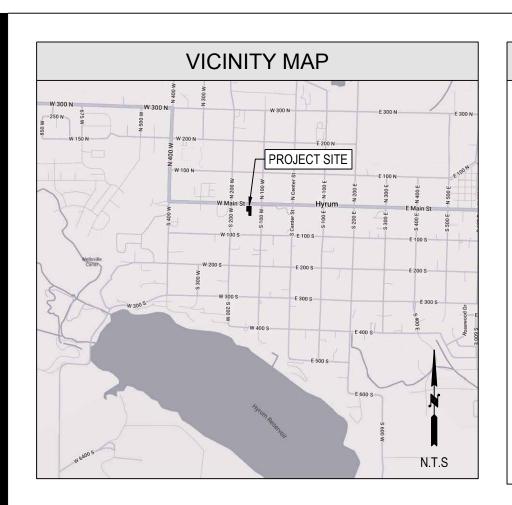
Architect & Engineers

Architect – Gary Hunt Architect, P.C. (Syracuse, UT) Civil & Structural – Beyler Engineering (Lakewood, WA) Mechanical – VBFA (Logan, UT) Electrical – Sine Source Engineering (Logan, UT) Geotechnical – Civil Solutions Group (Logan, UT)



MARKET 1860 - EXTERIOR ELEVATION

*DETAILS IN THIS DRAWING ARE CONCEPTUAL. BUILDING TRIM, WINDOW AND DOOR LAYOUT, AND OTHER ELEMENTS MAY VARY AT FINAL DESIGN.



	CIVIL ABBREVIATIONS
BSBL	BUILDING SETBACK LINE
CB	CATCH BASIN
CO	CLEAN OUT
CONC	CONCRETE
DI	DUCTILE IRON
FH	FIRE HYDRANT
HP	HIGH POINT LOW POINT
LP MH	MANHOI F
PGHS	POLI UTION GENERATING HARD SURFACE
PVC	POLYVINYI CHI ORIDE
RPBA	REDUCED PRESSURE BACKFLOW PREVENTOR
SD	STORM DRAIN
SDCO	STORM DRAIN CLEAN OUT
SDMH	STORM DRAIN MANHOLE
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEAN OUT
SSFM	SANITARY SEWER FORCE MAIN
SSMH	SANITARY SEWER MANHOLE
UBC	UNIFORM BUILDING CODE
WM	WATER METER
XFMR	
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

EXISTING UTILITIES

EX WATER LINE

EX METER

EX GAS LINE

EX U/G POWER LINE

EX LIGHT POLE

EX POWER POLE

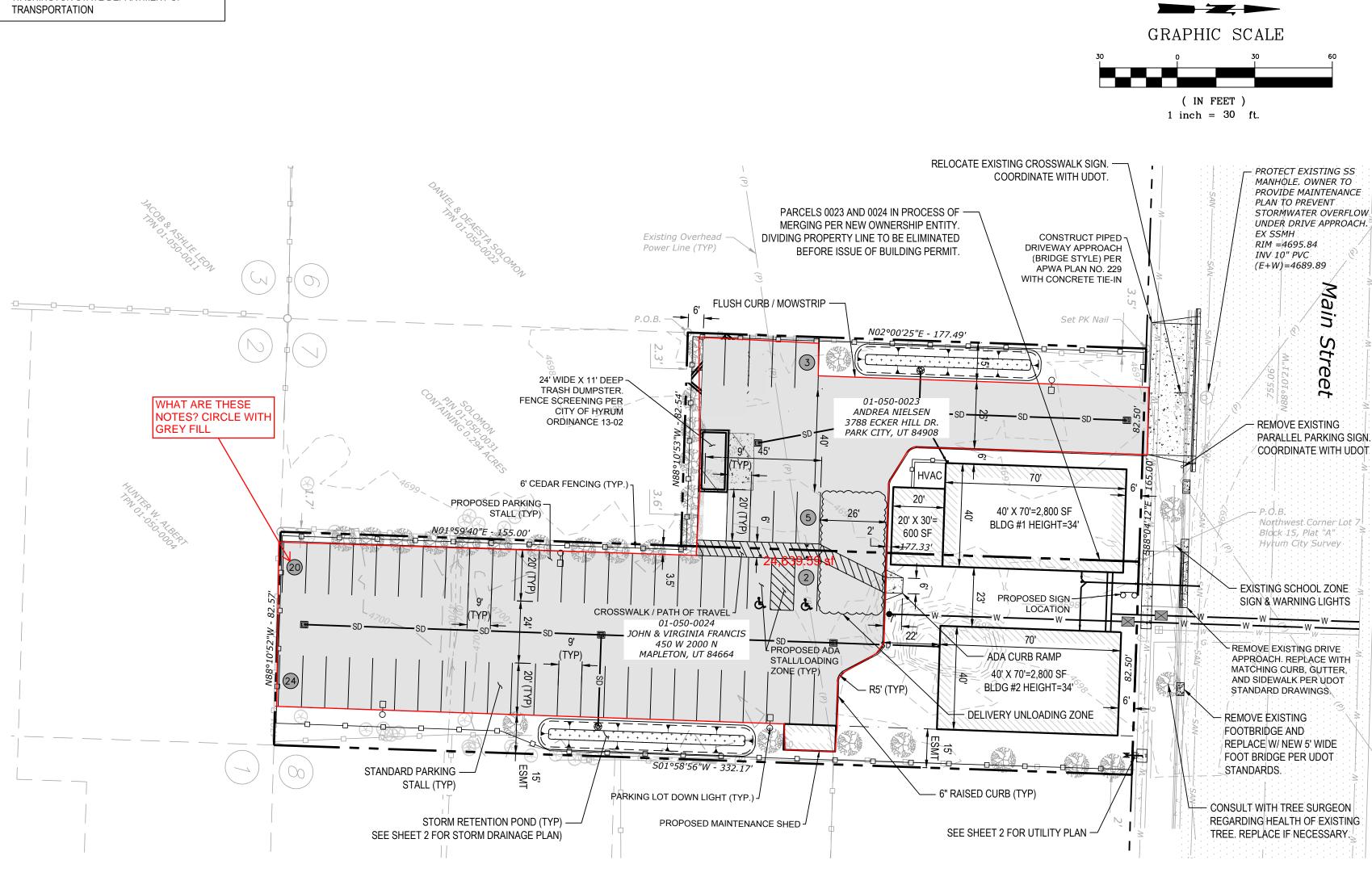
EX SEWER PIPE

EX OVERHEAD POWER LINE

EX U/G COMMUNICATION LINE

W		W
	G —	
P		— P ———
	(P) —	
	СОМ —	
	$\dot{\mathbf{x}}$	
	-0-	
		SAN
(\bigcirc	0

() o	EX SANITARY MH/CO			
LEGEND				
	EX PROPERTY BOUNDARY			
	EX RIGHT-OF-WAY			
	EX CENTERLINE			
	EX LOT LINE			
/	EX MAJOR CONTOURS			
	EX MINOR CONTOURS			
	EX ASPHALT			
	EX CONCRETE			
	EX CURBING			
oo	EX WOOD FENCE			
	EX SIGN			
	ASPHALT PAVEMENT			
	CONCRETE			
	BUILDING			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	LANDSCAPING			
· · ·	BUILDING SETBACK			
<u>0</u> 0	WOOD FENCE			
willing a starting	WHEEL STOP			
	TREE			
SD SD SD	STORM DRAINAGE PIPE			
$\left[\begin{array}{cccccccccccccccccccccccccccccccccccc$	POND BOTTOM			
E D	RIP RAP PAD			
• DS	ROOF DOWNSPOUT			
ø ^{SDCO}	STORM CLEANOUT			
	AREA DRAIN / CATCH BASIN TYPE 1			
	FLOW ARROW/SLOPE ARROW			
SSSSSS	SANITARY SEWER LATERAL			
Ø	SANITARY CLEANOUT			
WW	WATER SERVICE / FIRE LINE			
	WATER METER			
	IRRIGATION CONTROL VALVE			
	LIGHT POLE			



UDOT UTILITY SPECIFICATIONS & NOTE

1. CONTRACTOR TO USE TRENCHLESS CONSTRUCTION UNLESS SUFFICIENT REASON IS GI CONSTRUCTION.

2. ALL UTILITY TRENCHES TO BE CUT AT RIGHT ANGLES TO TRAVEL LANES. TEMPORARY PA LEAST 2-INCH ROTOMILING APPROACHING AND LEAVING THE PATCH IN ALL TRAVEL LANES IMPA T-PATCH ASPHALT PLACEMENT PER APWA PLAN NO. 255.

3. ALL FINAL PARALLEL SAWCUT LINES OR ROTOMILLING MUST BE LOCATED EITHER AT DES DESIGNED CENTER OF LANE. SAWCUTS MUST BE CLEANED AND TACK-COAT APPLIED BEFORE A

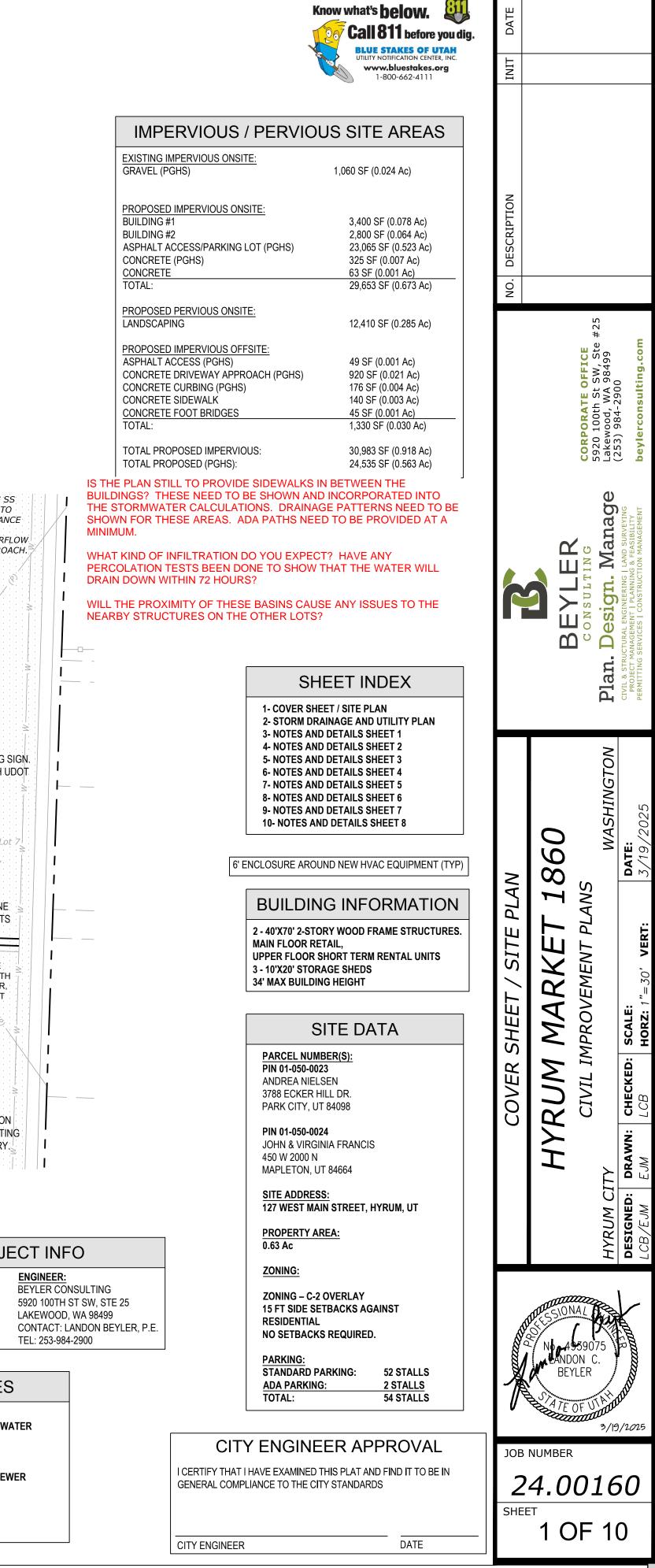
4. ALL TRENCHES FOR LATERALS WITHIN A 100FT DISTANCE MUST HAVE 2 INCH MILL AND R PATCH. SINGLE LATERALS REQUIRE A 2 INCH MILL FOR 20FT EACH DIRECTION

5. ALL ASPHALT CONSTRUCTION WITHIN UDOT RIGHT-OF-WAY TO MATCH EXISTING. HOT MI BE PG-GRADE 64-34 ASPHALT BINDER, 1/2 INCH NOMINAL MAX, 7-75-115 GYRATION PER UDOT ST 02741; OVER 6 INCHES UNTREATED BASE COURSE (UTBC) PER UDOT SPECIFICATION 02721; OVE BORROW (GB) PER UDOT SPECIFICATION 02056 (WHICHEVER IS GREATER). PROVIDE DOCUMENT FROM A UDOT-QUALIFIED LABORATORY.

6. PAVEMENT SEALING - CHIP SEAL TYPE II WITH EMULSION LMCRS-2 PER UDOT STANDARI (ESTIMATED APPLICATION RATE OF 0.45 GAL/SQ YD) IS REQUIRED ON ALL NEW PAVEMENT WITHIN UDOT RIGHT-OF-WAY.

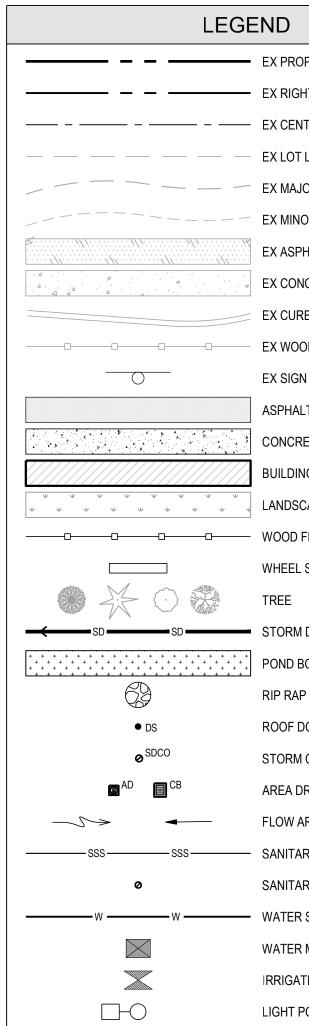
HYRUM MARKET 1860 CIVIL IMPROVEMENT PLANS PARCEL #'s 01-050-0023 & 01-050-0024

ES	UDOT RIGHT-OF-WAY (MAIN STREET) NOTES	PROJE
GIVEN FOR OPEN TRENCH	1. ALL CONSTRUCTION WITHIN THE UDOT RIGHT-OF-WAY SHALL CONFORM TO THE MOST CURRENT UDOT STANDARD (INCLUDING SUPPLEMENTAL) DRAWINGS AND SPECIFICATION. APPLICABLE UDOT STANDARD AND SUPLEMENTAL DRAWINGS ARE INCLUDED IN THIS PLAN SET.	CLIENT: MARKET 1860 LLC
PATCHES REQUIRE AT IPACTED BEFORE FINAL	2. THE CONTRACTOR IS TO OBTAIN AN ECROACHMENT PERMIT FROM THE APPLICABLE UDOT REGION PERMIT OFFICE PRIOR TO COMMENCING WORK WITHIN THE UDOT RIGHT-OF-WAY. WORKING HOUR LIMITATIONS WILL BE LISTED IN THE LIMITATIONS SECTION OF THE ENCROACHMENT PERMIT.	
DESIGNED LANE LINES OR	3. UDOT RESERVES THE RIGHT, AS ITS OPTION, TO INSTALL A RAISED MEDIAN ISLAND OR RESTRICT THE ACCESS TO A RIGHT-IN OR	
E ASPHALT PLACEMENT	RIGHT-OUT AT ANY TIME.	UTILITIES
D REPLACED AS A SINGLE	4. OWNER, DEVELOPER, AND CONTRACTOR ARE RESPONSIBLE FOR ANY DAMAGES DIRECTLY OR INDIRECTLY WITHIN THE UDOT RIGHT-OF-WAY AS A RESULT OF DEVELOPMENT ACTIVITIES.	WATER: HYRUM CITY CULINARY WA
MIX ASPHALT (HMA) SHALL STANDARD SPECIFICATION	5. OWNER, DEVELOPER, AND/OR CONTRACTOR IS REQUIRED TO HIRE AN INDEPENDENT COMPANY FOR ALL TESTING WITHIN THE UDOT RIGHT-OF-WAY.	AUTHORITY SEWER:
OVER 11 INCHES GRANULAR ENTATION OF COMPACTION	6. ALL SIGNS INSTALLED ON THE UDOT RIGHT-OF WAY MUST BE HIGH INTENSITY GRADE (TYPE XI SHEETING) WITH A B3 SLIP BASE. INSTALL ALL SIGNS PER UDOT SN SERIES STANDARD DRAWINGS.	GRAVITY HYRUM CITY SEW AUTHORITY
RD SPECIFICATION 02785 THIN UDOT RIGHT-OF-WAY.	7. COMPLY WITH THE REQUIREMENTS OF UTAH CODE 17-23-14 (DISTURBED CORNERS - COUNTY SURVEYOR TO BE NOTIFIED - COORDINATION WITH CERTAIN STATE AGENCIES).	POWER: HYRUM CITY POWER

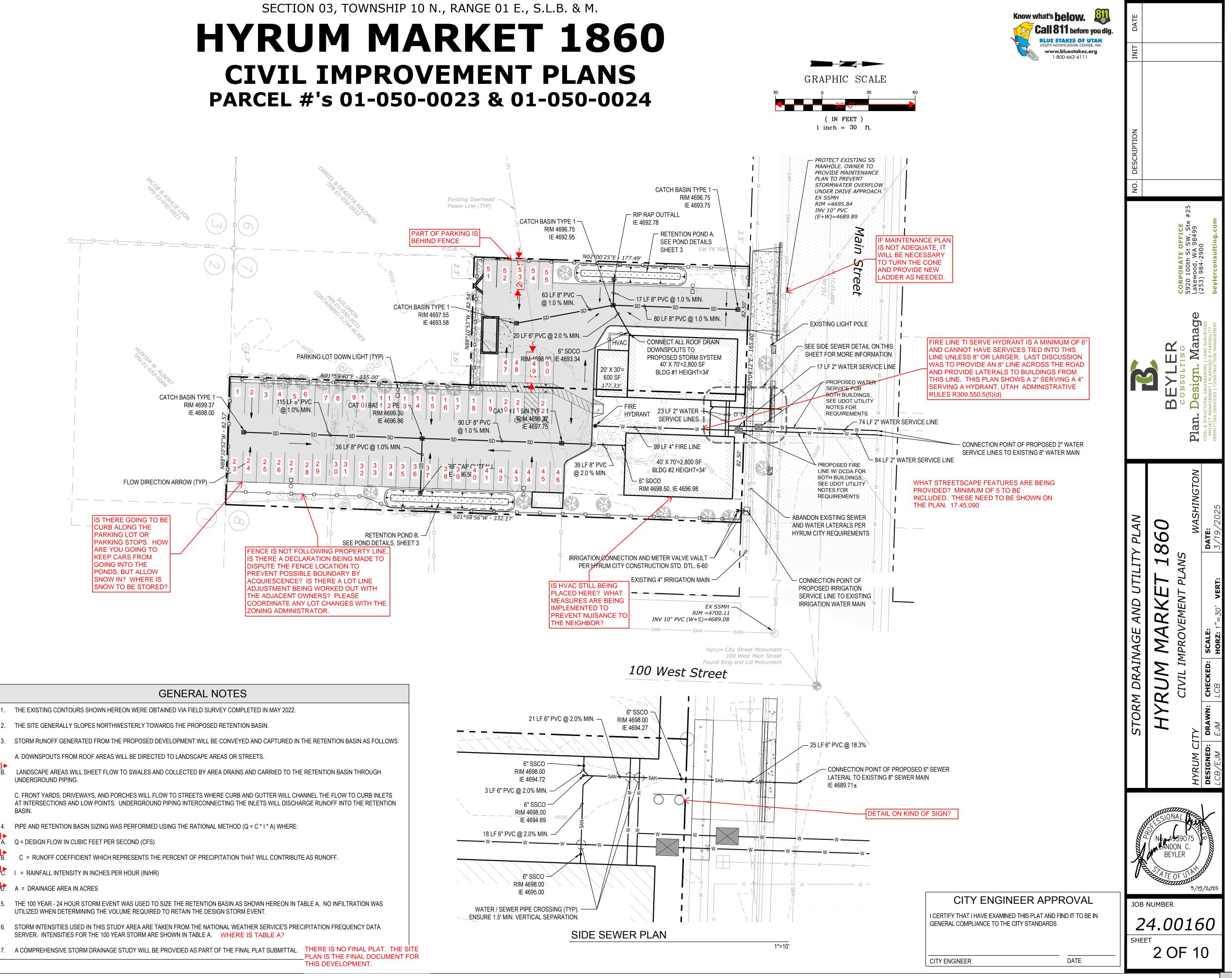


CIVIL IMPROVEMENT PLANS PARCEL #'s 01-050-0023 & 01-050-0024

EXISTING UTILITIES				
	W	EX WATER LINE		
		EX METER		
G		EX GAS LINE		
P	P	EX U/G POWER LINE		
(P)		EX OVERHEAD POWER LINE		
COM ·		EX U/G COMMUNICATION LINE		
¢.		EX LIGHT POLE		
-0-		EX POWER POLE		
SAN	— SAN ——	EX SEWER PIPE		
\bigcirc	\oslash	EX SANITARY MH/CO		

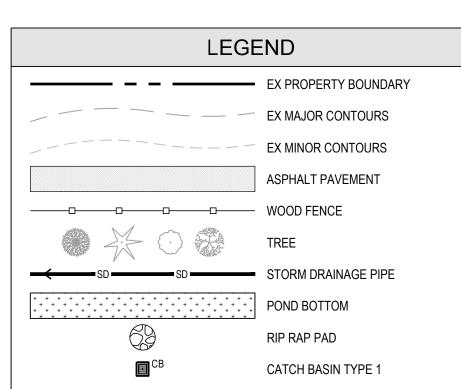


EX POWER POLE	
EX SEWER PIPE	
EX SANITARY MH/CO	
IND	
EX PROPERTY BOUNDARY	
EX RIGHT-OF-WAY	
EX CENTERLINE	
EX LOT LINE	
EX MAJOR CONTOURS	
EX MINOR CONTOURS	
EX ASPHALT	
EX CONCRETE	
EX CURBING	
EX WOOD FENCE	
EX SIGN	
ASPHALT PAVEMENT	
CONCRETE	
BUILDING	
LANDSCAPING	
WOOD FENCE	
WHEEL STOP	
TREE	
STORM DRAINAGE PIPE	
POND BOTTOM	
RIP RAP PAD	
ROOF DOWNSPOUT	
STORM CLEANOUT	
AREA DRAIN / CATCH BASIN TYPE 1	
FLOW ARROW/SLOPE ARROW	
SANITARY SEWER LATERAL	
SANITARY CLEANOUT	
WATER SERVICE / FIRE LINE	
WATER METER	
IRRIGATION CONTROL VALVE	
LIGHT POLE	
	1 1

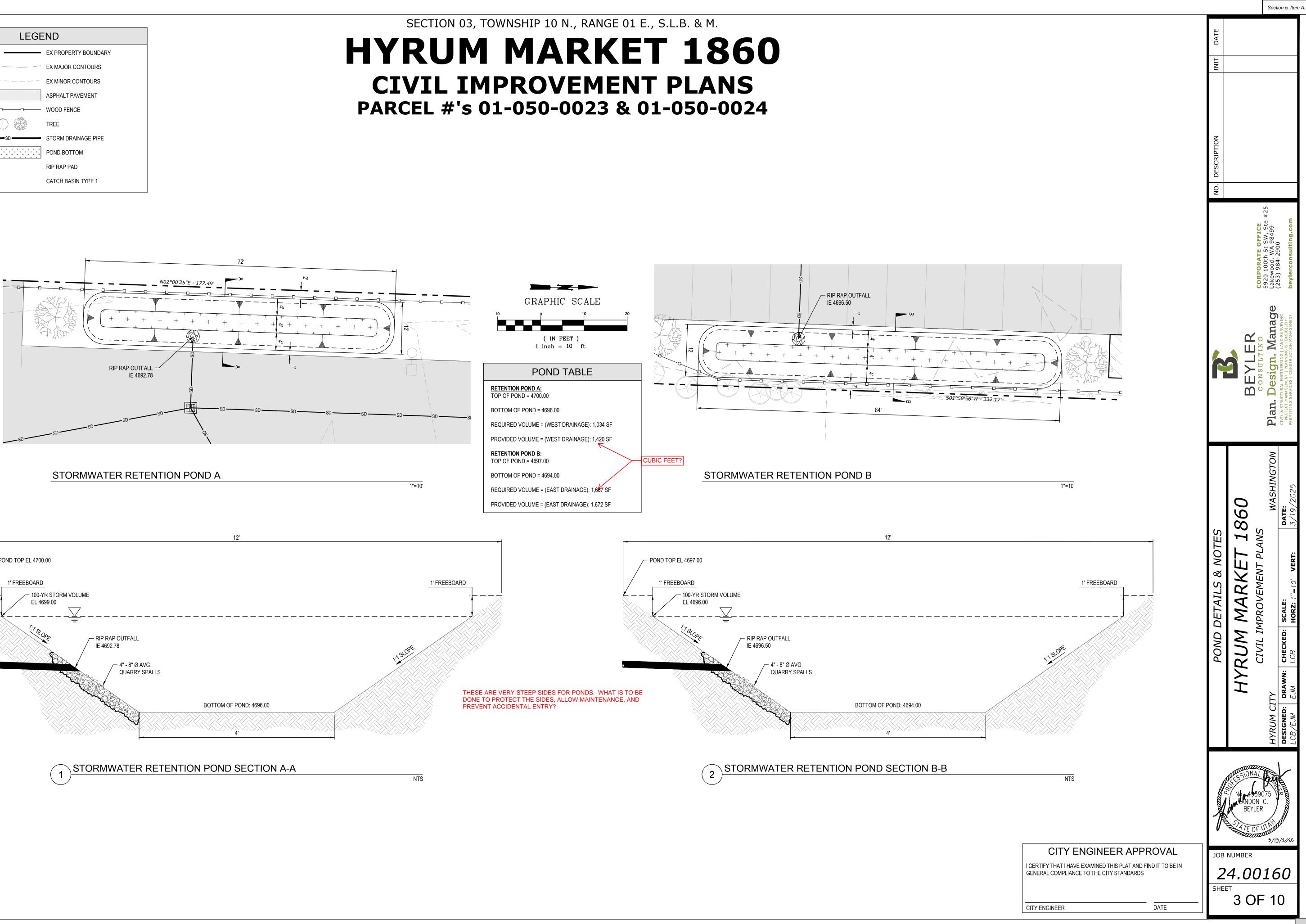


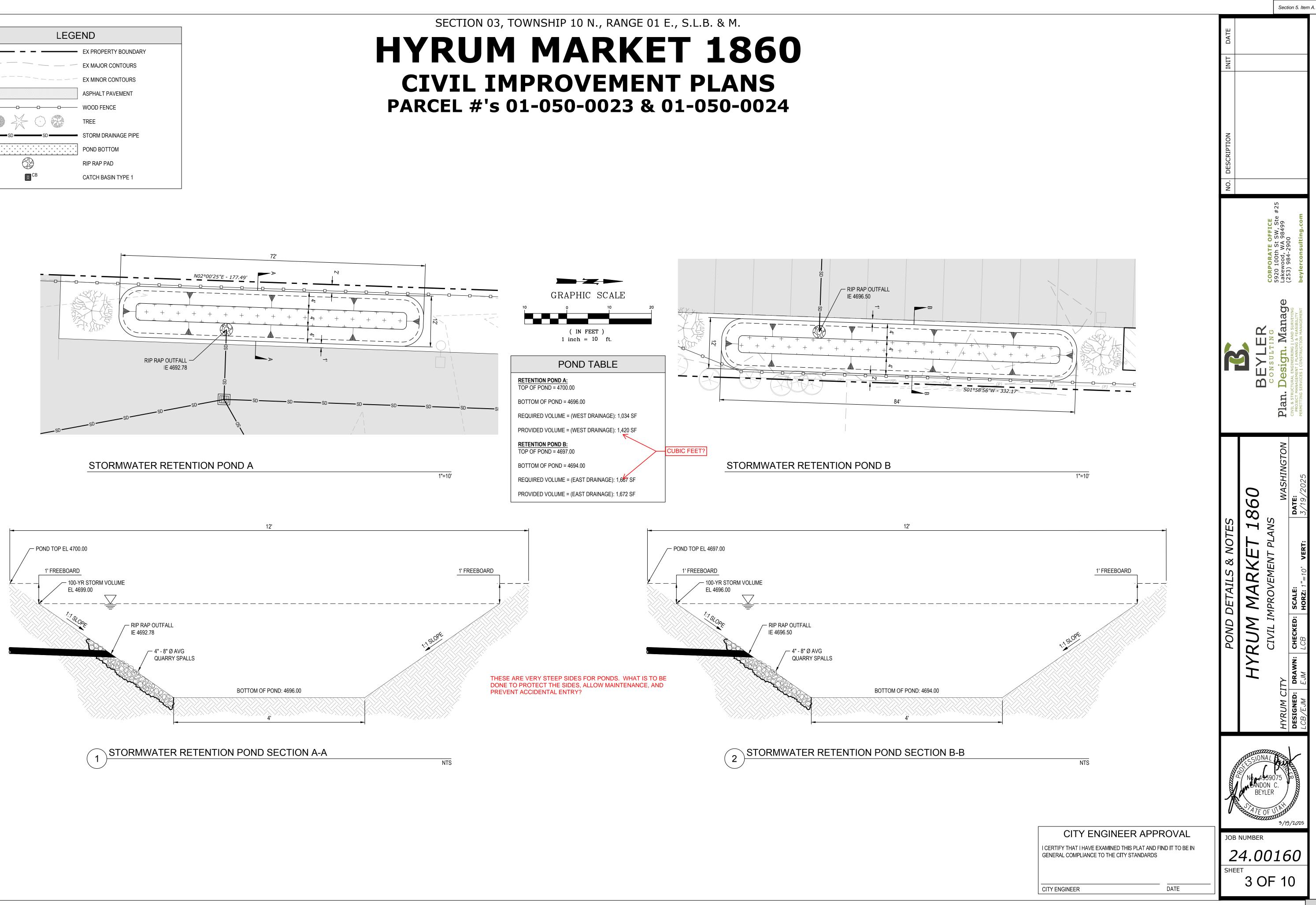
	GENERAL NOTES
1.	THE EXISTING CONTOURS SHOWN HEREON WERE OBTAINED VIA FIELD SURVEY COMPLE
2.	THE SITE GENERALLY SLOPES NORTHWESTERLY TOWARDS THE PROPOSED RETENTION
3.	STORM RUNOFF GENERATED FROM THE PROPOSED DEVELOPMENT WILL BE CONVEYED
	A. DOWNSPOUTS FROM ROOF AREAS WILL BE DIRECTED TO LANDSCAPE AREAS OR STR
₽ .	LANDSCAPE AREAS WILL SHEET FLOW TO SWALES AND COLLECTED BY AREA DRAINS AI UNDERGROUND PIPING.
	C. FRONT YARDS, DRIVEWAYS, AND PORCHES WILL FLOW TO STREETS WHERE CURB AN AT INTERSECTIONS AND LOW POINTS. UNDERGROUND PIPING INTERCONNECTING THE I BASIN.
4.	PIPE AND RETENTION BASIN SIZING WAS PERFORMED USING THE RATIONAL METHOD (Q
A.	Q = DESIGN FLOW IN CUBIC FEET PER SECOND (CFS)
B.	C = RUNOFF COEFFICIENT WHICH REPRESENTS THE PERCENT OF PRECIPITATION THA
₽ <mark>₽</mark>	I = RAINFALL INTENSITY IN INCHES PER HOUR (IN/HR)
₿.	A = DRAINAGE AREA IN ACRES
5.	THE 100 YEAR - 24 HOUR STORM EVENT WAS USED TO SIZE THE RETENTION BASIN AS SHUTILIZED WHEN DETERMINING THE VOLUME REQUIRED TO RETAIN THE DESIGN STORM E
6.	STORM INTENSITIES USED IN THIS STUDY AREA ARE TAKEN FROM THE NATIONAL WEATH SERVER. INTENSITIES FOR THE 100 YEAR STORM ARE SHOWN IN TABLE A. WHERE IS
7	

Section 5. Item A.









PIPED DRIVEWAY APPROACH

1. UNTREATED BASE COURSE: Provide material specified in APWA Section 32 11 23. A. Do not use gravel as a substitute for untreated base course without ENGINEER's permission.

B. Place material per APWA Section 32 05 10.

C. Compact per APWA Section 31 23 26 to a modified proctor density of 95 percent or greater. Maximum lift thickness before compaction is 8 inches when using riding compaction equipment or 6 inches when using hand held compaction equipment.

2. CONCRETE: Class 4000 per APWA Section 03 30 04.

A. If necessary, provide concrete that achieves design strength in less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air temperature exceeds 90 degrees F.

B. Place concrete per APWA Section 03 30 10.

C. Provide 1/2 inch radius on concrete edges exposed to public view.

D. Cure concrete per APWA Section 03 39 00 with type ID Class A or B (clear with fugitive dye) membrane forming compound unless specified otherwise.

3. EXPANSION JOINT: Make expansion joints vertical, full depth 1/2 inch wide with type F1

filler material per APWA Section 32 13 73. Set top of filler flush with surface of concrete. CONTRACTION JOINT: Make contraction joints vertical.

A. 1/8 inch wide and 2 inches deep or 1/4 slab thickness if slab is greater than 8 inches thick. B. Maximum length to width ratio for non-square panels is 1.5 to 1.

C. Maximum panel length (in feet) is .2.5 times the slab thickness (in inches) to a maximum of 15 feet

5. REINFORCEMENT: ASTM A 615, grade 60, galvanized or epoxy coated deformed steel. See APWA Section 03 20 00 requirements . Not required if driveway ramp is constructed without a cold joint.

6. FIELD CHANGES TO SLOPE REQUIREMENTS: The following design parameters are to be used as a guide. Specific uses or site conditions may require profile design submittal for review and acceptance.

A. As a rule, driveway grades may have a 6 percent change in slope over a 11 feet wheel base run for both crest or sag vertical curves.

B. Where heavy truck use and fire truck access applies, or to improve design speed, design grades should be cut in half.

C. Grades subject to roadway crown and gutter span to be reviewed by ENGINEER for high centering and vehicle approach speed.

7. FINISH: Broomed.

8 PROTECTION AND REPAIR:

A. Fill flow-line with water. Repair construction that doesn't drain

B. Protect concrete from deicing chemicals during cure period.



1. ASPHALT CONCRETE: As specified in APWA Section 32 12 05. Compaction to be

within range of 92 to 96 percent relative to ASTM D 2041 (Rice Method).

2. CONCRETE: Class 4000 per APWA Section 03 30 04. A. If necessary, provide concrete that achieves design strength in

less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air

temperature exceeds 90 degrees F.

B. Place concrete per APWA Section 03 30 10.

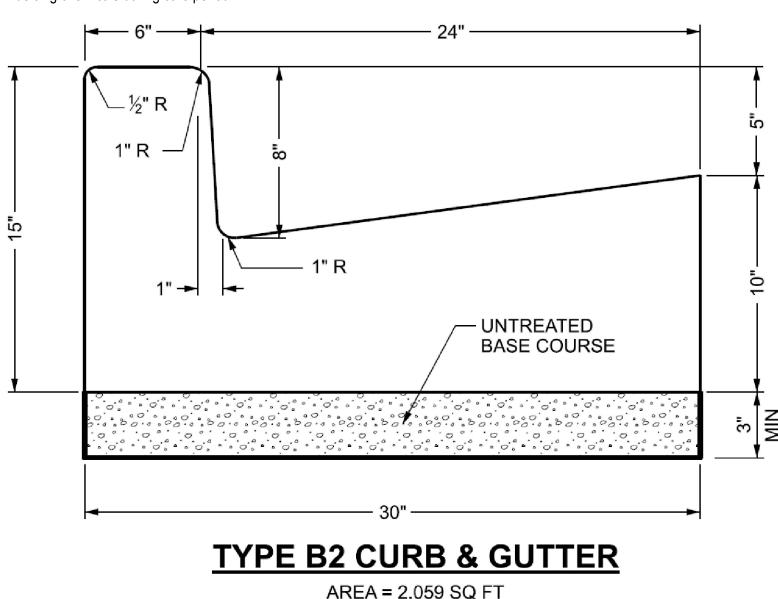
C. Provide 1/2 inch radius on concrete edges exposed to public view. D. Cure concrete per APWA Section 03 39 00 with type ID Class A or

B (clear with fugitive dye) membrane forming compound unless specified

otherwise.

3. REINFORCEMENT: ASTM A 615, grade 60, galvanized or epoxy coated deformed

steel. See APWA Section 03 20 00 requirements.



NOTES:

- USE ³/₄ INCH DEFORMED DOWELS ON 5 FT MAXIMUM CENTERS.
- PRECAST CURBS: 2.
 - MINIMUM OF 10 FT IN LENGTH. Α.
 - DOWELS AT A MINIMUM OF 3 PER 10 FT LENGTH.
 - INCLUDE ADEQUATE REINFORCING STEEL TO WITHSTAND HANDLING STRESSES.
- MEASURE CURB HEIGHT VERTICALLY FROM THE FLOW LINE OF THE GUTTER TO TOP BACK OF CURB.
- 4. REFER TO STD DWG GW 2B FOR CURB AND GUTTER AT ADA ACCESSES.

- ALL CONSTRUCTION AND MATERIALS SHELL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. CITY OF HYRUM STANDARDS, STATE OF UTAH AND ANY OTHER APPLICABLE STANDARDS ISSUED BY THE CONTROLLING AGENCY. CONTRACTOR AND DEVELOPER ARE TO FAMILIARIZE THEMSELVES WITH THE STANDARDS.
- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE CONSTRUCTION. ANY DISCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS AND FIELD CONDITIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE OWNER. ANY WORK DONE WITHOUT VERIFICATION IS DONE SO AT THE CONTRACTORS RISK AND EXPENSE IF ERRORS OCCUR.
- CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY AREAS AND/OR MATERIALS DAMAGED DURING CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN ALL ADJACENT PROPERTY (PUBLIC AND PRIVATE) FROM ALL CONSTRUCTION DEBRIS.
- CONTRACTOR SHALL PROVIDE SMOOTH TRANSITION FROM ALL NEW CONSTRUCTION TO EXISTING CONDITIONS.

- 6. CONTRACTOR SHALL PROVIDE ALL NECESSARY AUTOMOBILE AND PEDESTRIAN TRAFFIC CONTROL DEVICES REQUIRED BY LOCAL, STATE AND FEDERAL CODES AND ORDINANCES.
- CONTRACTOR SHALL REPLACE SURVEY MONUMENTS DAMAGED DURING CONSTRUCTION. SURVEY MONUMENTS TO BE REPLACED BY A REGISTERED, LICENSED LAND SURVEYOR.
- CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, INCLUDING FIBER OPTIC. ANY DAMAGES TO EXISTING UTILITIES WILL BE REPAIRED AT CONTRACTORS EXPENSE.
- DIMENSIONS SHOWN ARE TO THE CENTER OF THE PIPELINE UNLESS OTHERWISE NOTED.
- 10. DISTANCES SHOWN ALONG PIPELINES ARE HORIZONTAL DISTANCE AND NOT ACTUAL PIPE LENGTHS. MORE PIPE MAY BE REQUIRED TO COMPLETE CONSTRUCTION THAN IS DIMENSIONED IN THE PLANS.
- 11. THRUST BLOCKS SHALL BE PLACED ON WATERLINES AT ALL DIRECTIONAL CHANGES, FITTINGS, BENDS, ELBOWS, FIRE HYDRANTS AND GATE VALVES AS SHOWN IN THE PROJECT PLANS.

- GENERAL NOTES (APPLICABLE TO ALL CIVIL SHEETS)
 - 12. CONTRACTOR IS REQUIRED TO HAVE A SET OF PLANS 17. ON SLOPING AREAS THE CONTRACTOR SHALL TAKE ON THE SITE AT ALL TIMES. ANY WORK COMPLETED WITHOUT A SET PRESENT IS DONE SO AT THE CONTRACTORS RISK AND EXPENSE IF ERRORS OCCUR.
 - 13. CONTRACTOR IS RESPONSIBLE FOR PROVIDING WATER NECESSARY FOR DUST ABATEMENT, COMPACTION, ETC. THIS MAY BE COORDINATED WITH HYRUM WATER DEPARTMENT.
 - 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING SOURCES FOR GRANULAR MATERIALS, WATER, WASTE SITES, AND ANY OTHER MATERIALS SOURCES AS REQUIRED FOR PROJECT COMPLETION.
 - 15. ANY WORK DONE WITHIN A PUBLIC RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE TRANSPORTATION AGENCY AND SHALL MEET THAT AGENCY AND THE REQUIREMENTS OF ANY RIGHT-OF-WAY OR SPECIAL USE PERMITS.
 - 16. THE CONTRACTOR SHALL COORDINATE ALL LIVE TAPS AND ANY OTHER WORK OR MANIPULATION OF THE EXISTING WATER SYSTEM WITH THE CITY.

ASPHALT CONCRETE

ASHIET INCOMENT

(NOTE: 1)

We are an end that had not be

CONCRETE

(NOTE 2)

WATCH EXISTING.

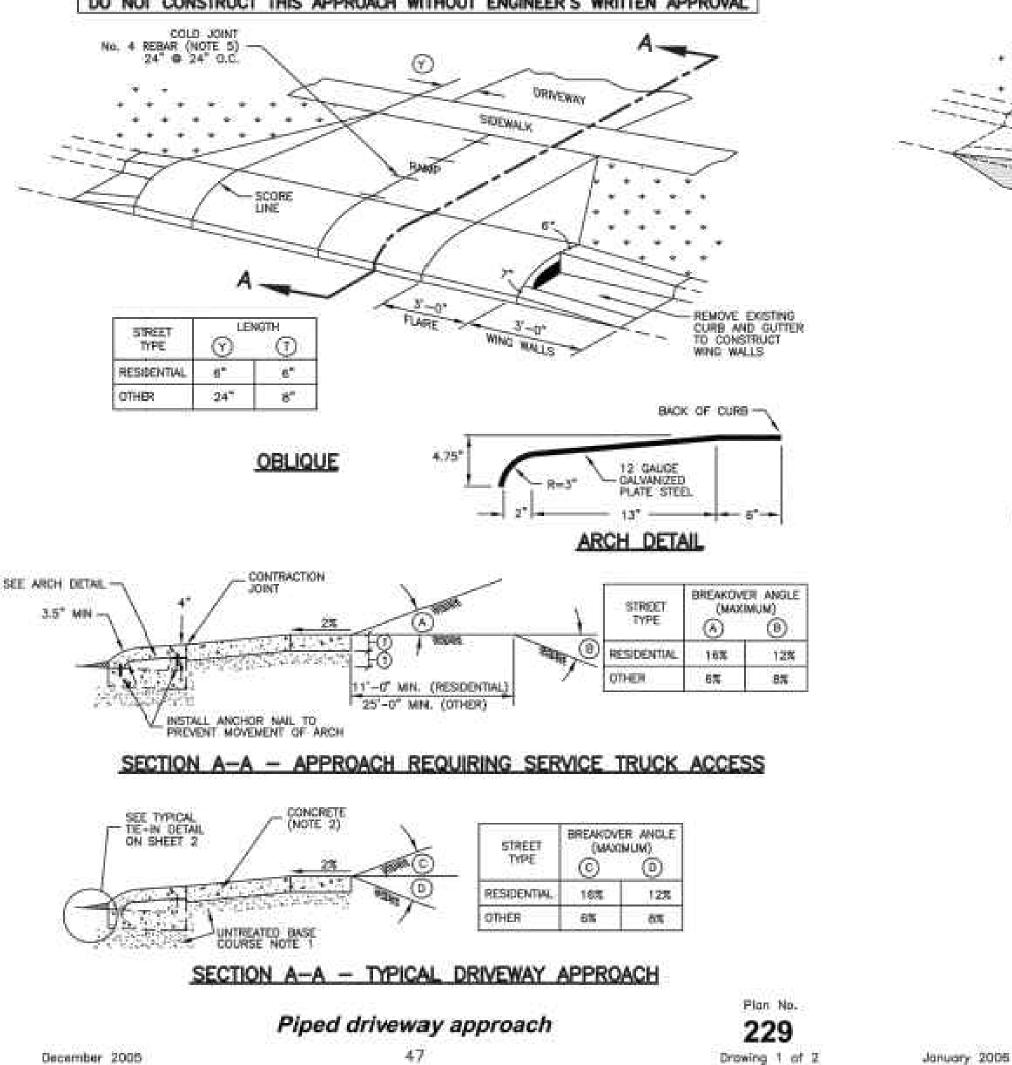
THORESS

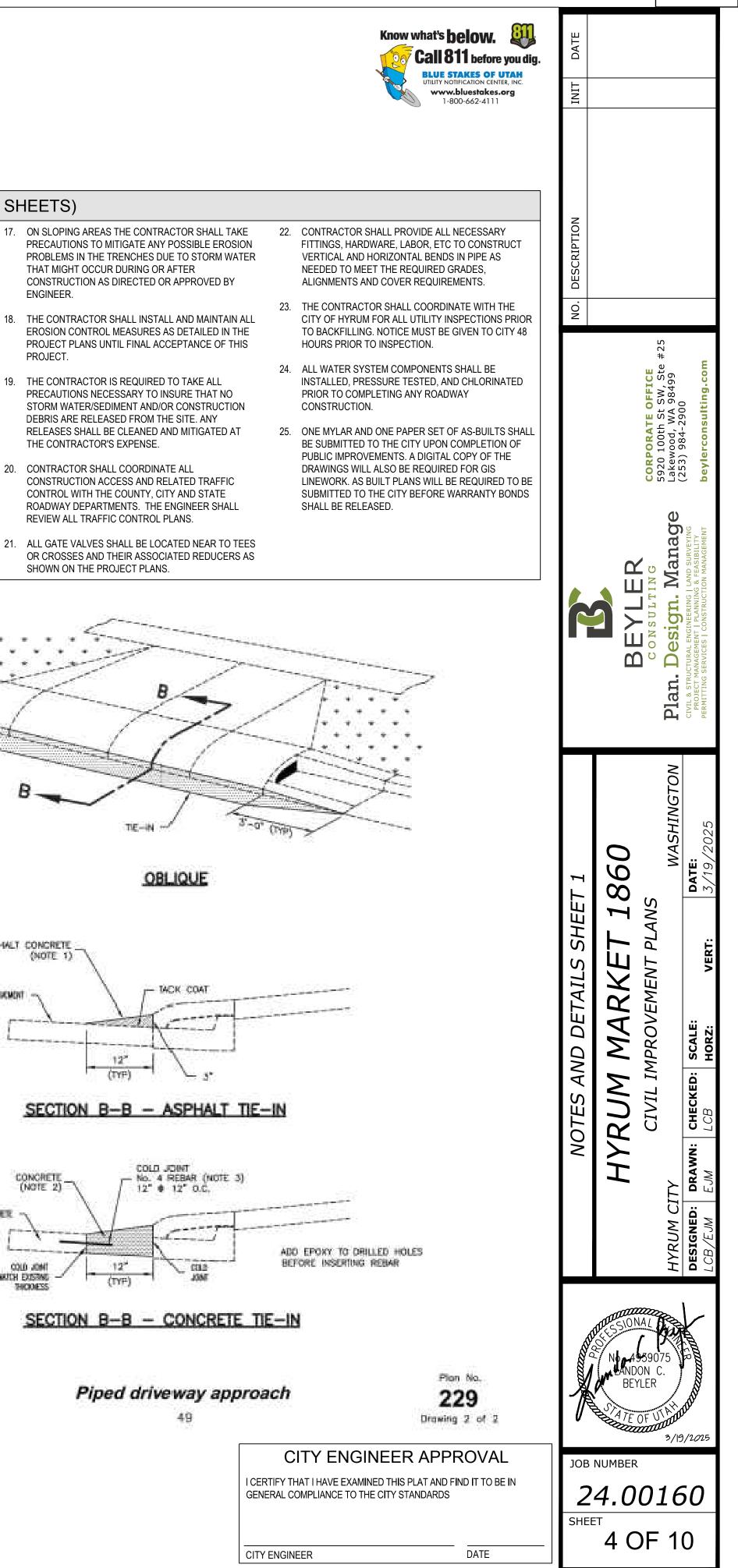
STECHOS

ENGINEER.

PROJECT.







ASPHALT CONCRETE T-PATCH

1. ADDITIONAL PAVEMENT REMOVAL: Remove additional pavement to a painted lane stripe, a lip of gutter, a curb, an existing pavement patch, or an edge of the pavement if such street feature is within 2 feet of the second saw-cut.

2. UNTREATED BASE COURSE: Provide material specified in APWA Section 32 11 23. A. Do not use gravel as a substitute for untreated base course without ENGINEER's permission.

B. Place material per APWA Section 32 05 10.

C. Compact per APWA Section 31 23 26 to a modified proctor density of 95 percent or greater. Maximum lift thickness before compaction is 8 inches when using riding compaction equipment or 6 inches when using hand held compaction equipment. 3. FLOWABLE FILL: Provide 28 day 60 psi controlled low strength material as specified in APWA Section 31 05 15. Use fill material which flows easily and vibration is not required.

Cure to initial set before placing aggregate base or asphalt pavement. Use flowable fill in excavations that are too narrow to receive compaction equipment. 4. TACK COAT: APWA Section 32 12 14. Full tack coat coverage on all vertical surfaces.

5. ASPHALT PAVEMENT: Use asphalt concrete specified in APWA Section 33 05 25. A. Install in lifts no greater than 3 inches after compaction.

B. Compact to 94 percent of ASTM D 2041 (Rice Method) plus or minus 2 percent. 6. REINFORCEMENT: ASTM A 615, Grade 60, No. 5 galvanized or epoxy coated deformed

steel 12 inches on center. A. Required if existing concrete thickness is 6 inches or greater.

B. Not required if (1) existing concrete is less than 6 inches thick, (2) existing concrete is deteriorating, (3) excavation is less than 3 feet square, (4) asphalt pavement is substituted for concrete substrate.

7. CONCRETE SUBSTRATE: Class 4000 per APWA Section 03 30 04. Place concrete per APWA Section 03 30 10. Cure to initial set before placing new asphalt concrete patch. 8. JOINT REPAIR: If a crack occurs at the "T" patch connection to existing pavement or at any street fixture, seal the crack per APWA Section 32 01 17.

9. PATCH REPAIR: Repair the asphalt pavement patch if any of the following conditions within the patch occur.

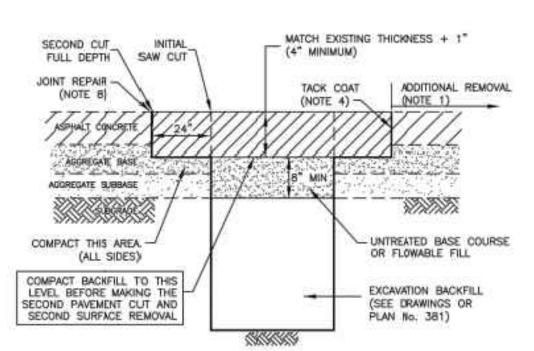
A. Pavement surface distortion exceeds 1/4 inch deviation in 10 feet. Repair option: Plane off surface distortions. Coat planed surfaces with a cationic or anionic emulsion that complies with APWA Section 32 12 03 and provide sand blotter.

B. Cracks at least 1-foot long and 1/4 inch wide occur more often than 1 in 10 square feet. Repair option: Crack seal.

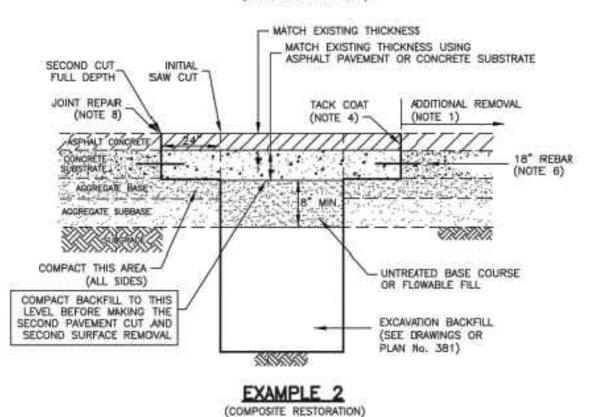
C. Asphalt raveling is greater than 1 square foot per 100 square feet. Repair option: Mill and inlay.

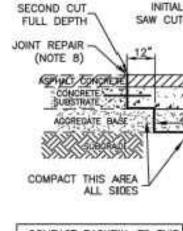
SHALLOW EXCAVATION

(LESS THAN 4-8 INCHES FROM PAVEMENT SURFACE TO BOTTOM OF EXCAVATION)

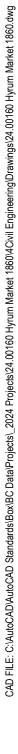








COMPACT BACKFILL TO THIS LEVEL BEFORE MAKING THE SECOND PAVEMENT CUT AND SECOND SURFACE REMOVAL



Merch 2006

ASPHALT CONCRETE T-PATCH

- 1. ADDITIONAL PAVEMENT REMOVAL: Remove additional pavement to a painted lane stripe, a lip of gutter, a curb, an existing pavement patch, or an edge of the pavement if such street feature is within 2 feet of the second saw-cut.
- 2. UNTREATED BASE COURSE: Provide material specified in APWA Section 32 11 23. A. Do not use gravel as a substitute for untreated base course without ENGINEER's
- B. Place material per APWA Section 32 05 10.

permission.

within the patch.

and inlay.

SECOND CUT_

JOINT REPAIR -

(NOTE 8)

KERE KAGEE

AGGREGATE BASI

TATE THE ATE

< A high set

COMPACT THIS AREA

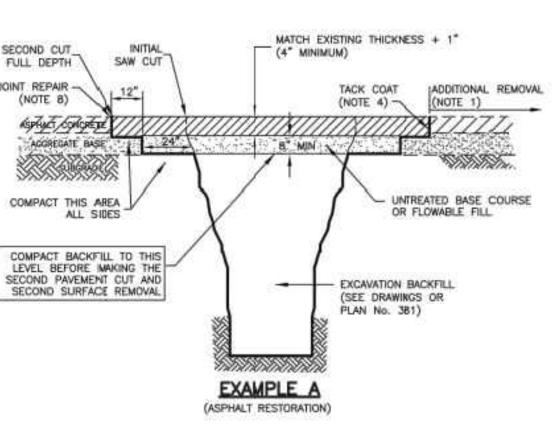
ALL SIDES

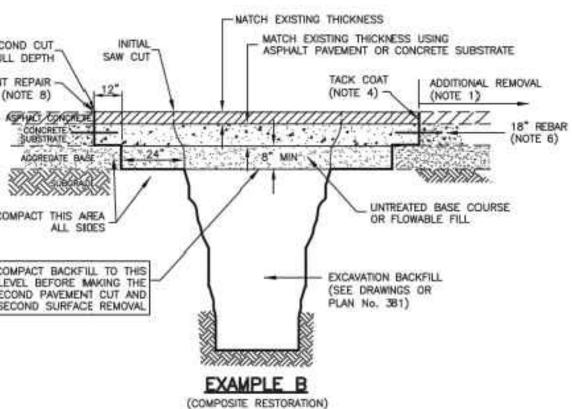
FULL DEPTH \

- C. Compact per APWA Section 31 23 26 to a modified proctor density of 95 percent or greater. Maximum lift thickness before compaction is 8 inches when using riding
- compaction equipment or 6 inches when using hand held compaction equipment. 3. FLOWABLE FILL: Provide 28 day 60 psi controlled low strength material as specified in APWA Section 31 05 15. Use fill material which flows easily and vibration is not required.
- Cure to initial set before placing aggregate base or asphalt pavement. Use flowable fill in excavations that are too narrow to receive compaction equipment. 4. TACK COAT: APWA Section 32 12 14. Full tack coat coverage on all vertical surfaces.
- 5. ASPHALT PAVEMENT: Use asphalt concrete specified in APWA Section 33 05 25. A. Install in lifts no greater than 3 inches after compaction. B. Compact to 94 percent of ASTM D 2041 (Rice Method) plus or minus 2 percent.
- 6. REINFORCEMENT: ASTM A 615, Grade 60, No. 5 galvanized or epoxy coated deformed steel 24 inches on center.
- A. Required if existing concrete thickness is 6 inches or greater.
- B. Not required if (1) existing concrete is less than 6 inches thick, (2) existing concrete is deteriorating, (3) excavation is less than 3 feet square, (4) asphalt pavement is substituted for concrete substrate.
- 7. CONCRETE SUBSTRATE: Class 4000 per APWA Section 03 30 04. Place concrete per APWA Section 03 30 10. Cure to initial set before placing new asphalt concrete patch. 8. JOINT REPAIR: If a crack occurs at the "T" patch connection to existing pavement or at any
- street fixture, seal the crack per APWA Section 32 01 17. 9. PATCH REPAIR: Repair the asphalt pavement patch if any of the following conditions occur
- A. Pavement surface distortion exceeds 1/4 inch deviation in 10 feet. Repair option: Plane off surface distortions. Coat planed surfaces with a cationic or anionic emulsion that complies with APWA Section 32 12 03 and provide sand blotter.
- B. Cracks at least 1-foot long and 1/4 inch wide occur more often than 1 in 10 square feet. Repair option: Crack seal.
- C. Asphalt raveling is greater than 1 square foot per 100 square feet. Repair option: Mill

DEEP EXCAVATION

(MORE THAN 48 INCHES FROM PAVEMENT SURFACE TO BOTTOM OF EXCAVATION)





EMBANKMENT, BORROW, AND BACKFILL

SECTION 02056

C.

B

C.

D.

A.

GENERAL PART 1

- 1.1 SECTION INCLUDES
 - A. Embankment, backfill, and bridge approach embankments.

1.2 RELATED SECTIONS

- A. Section 02721: Untreated Base Course (UTBC)
- B. Section 03575: Flowable Fill

1.3 REFERENCES

- A. AASHTO M 145: Classification of Soils and Soil-Aggregate Mixtures for Highway Construction Purposes
- AASHTO T 11: Materials Finer than 75 µm (No. 200) Sieve in Mineral B Aggregates by Washing
- C. AASHTO T 27: Sieve Analysis of Fine and Coarse Aggregates
- AASHTO T 99: Moisture-Density Relations of Soils Using a 2.5 kg (5.5-lb) D. Rammer and a 305 mm (12 inch) Drop
- AASHTO T 180: Moisture-Density Relations of Soils Using a 4.54 kg (10lb) Rammer and a 457 mm (18 inch) Drop
- F. UDOT Materials Manual of Instruction
- G UDOT Minimum Sampling and Testing Requirements

1.4 DEFINITIONS

- A. Borrow material imported material for use in a constructed fill or backfill.
- B. Embankment material - suitable material from project roadway excavation or other excavation for use in a constructed fill or backfill.

Embankment, Borrow, and Backfill 02056 - Page 1 of 8

2025 Standard Specifications Latest Revision: September 14, 2023

PART 2 PRODUCTS

2.1 GENERAL

Provide materials free of contamination from chemical or petroleum products for embankment, borrow, and backfill placements. Materials may include recycled Portland Cement Concrete Do not include asphalt pavement materials.

2.2 MATERIALS

- A. Borrow
- Classifications A-1-a through A-4. Refer to AASHTO M 145.
- Granular Borrow
- Classification A-1-a. Refer to AASHTO M 145.
- Non-plastic. Meet the gradation requirements of Table 1

resolution of

Table 1 Granular Borrow Gradation Sieve Size Percent Passing		
3 inch	90 - 100	
1 inch	60 - 100	
1/2 inch	30 - 80	
No. 4	25 - 65	
No. 10	0 - 50	
No. 40	0 - 30	
No. 200	0 - 15	

UTBC meeting the requirements of Section 02721, may be used, at no additional cost to the Department, upon authorization of the Engineer.

Granular Backfill Borrow

- Classification A-1-a. Refer to AASHTO M 145.
- Well-graded, 2 inch maximum.
- Free-Draining Granular Backfill Meet the gradation requirements of Table 2:

Embankment, Borrow, and Backfill 02056 - Page 3 of 8

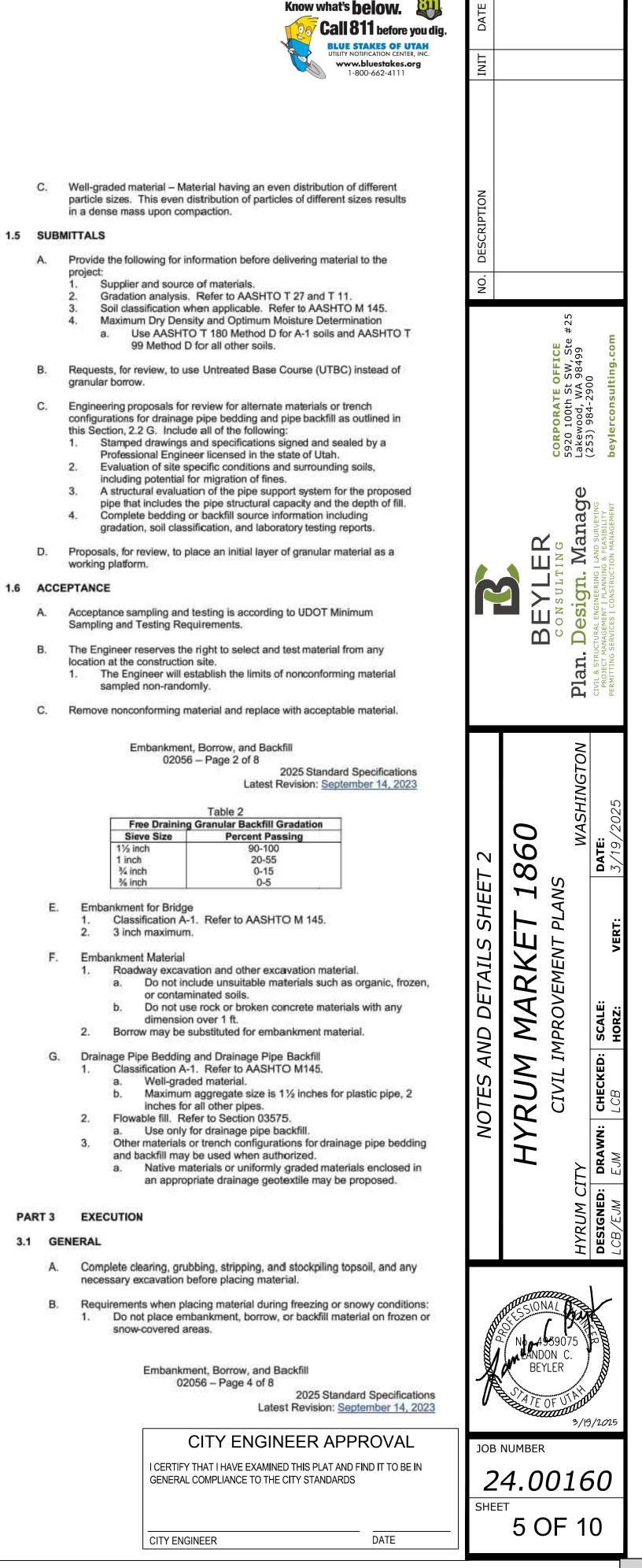
2025 Standard Specifications Latest Revision: September 14, 2023

Asphalt concrete "T" patch

Plan No.

255

Drawing 2 of 2



- Remove snow and frozen material and furnish specified а. materials that can be compacted to the specified density. 1) Measure removed material and provide quantities to
 - the Engineer. The Department does not pay for removed material or material replacement when it would otherwise meet
- specification requirements if unfrozen. Do not deliver or use frozen material.
- Use appropriate compaction equipment adjacent to pipes, abutments, C. back walls, approach slabs, wing walls, retaining walls, and other structures.
 - Expand the width of the trench to accommodate necessary 1
 - compaction equipment.
 - 2. Compact by hand areas where compaction equipment cannot compact the soil.
- D. Compaction Requirements

2.

- Borrow, Drainage Pipe Bedding, Embankment Material, Embankment for Bridge, Granular Backfill Borrow and Granular Borrow
 - Compact each lift to a minimum average of 96 percent of maximum laboratory density with no single determination lower than 92 percent.
 - 1) Use AASHTO T 180 Method D for A-1 soils and AASHTO T 99 Method D for all other soils to establish
 - maximum laboratory density. Maintain appropriate moisture for compaction during processing.
- 2. Drainage Pipe Backfill
- Compact each lift to a minimum average of 92 percent a. maximum laboratory density with no single determination less than 90 percent.
- Use AASHTO T 180 Method D for A-1 soils. Maintain appropriate moisture for compaction during processing.
- Meet the pavement section material density requirement for pipes that encroach into the pavement section or use flowable fill.
- 3. Material with more than 30 percent retained on the 3/4 inch sieve Compact each lift to 100 percent of the developed field a. density.
 - The Department develops a field density compaction curve according to UDOT Materials Manual of Instruction Section 989.
 - Embankment, Borrow, and Backfill
 - 02056 Page 5 of 8 2025 Standard Specifications Latest Revision: September 14, 2023
 - SECTION 02705

CONCRETE AND ASPHALT CUTTING

PART 1 GENERAL

- 1.1 SECTION INCLUDES
 - A. Saw or cut existing pavements, curb and gutter, sidewalk, and any appurtenances as required to provide a smooth surface to match.
 - Does not apply to new Portland cement concrete pavement (PCCP) joint sawing. Refer to Section 02752.
- 1.2 RELATED SECTIONS
 - A. Section 02748: Prime Coat/Tack Coat
 - Section 02752: Portland Cement Concrete Pavement B.
- 1.3 REFERENCES Not Used
- 1.4 DEFINITIONS Not Used
- 1.5 SUBMITTALS Not Used
- PART 2 PRODUCTS Not Used
- PART 3 EXECUTION
- 3.1 PROCEDURE CONCRETE SURFACES
 - Saw cut vertically in a straight line through the full depth of the surface. A.
 - Make cuts so the defective surface can be removed where the edge of the B existing surface is cracked, broken, or deteriorated. Verify that the entire deficient areas are removed and will not propagate.
 - Do not allow traffic or construction equipment to cross the cut edge. C.

Concrete and Asphalt Cutting 02705 - Page 1 of 2

2025 Standard Specifications Latest Revision: November 18, 2021

E. 2

4

section.

A.

C.

- excavation shown. 100 concrete.
- Maintain Drainage D.

 - full depth of the surface.
- Make cuts so the defective surface can be removed where the edge of the existing surface is cracked, broken, or deteriorated. Verify that the entire deficient areas are removed and will not propagate. C. Do not allow traffic or construction equipment to cross the cut edge.

Free-Draining Granular Backfill Compact each lift to 100 percent of the developed field density

- The Department develops a field density compaction curve according to UDOT Materials Manual of Instruction Section 989.
- Place an initial layer of granular material to act as a working platform over soft, wet ground when authorized by the Engineer.
 - Density requirements do not apply to the working platform except as specified in this Section, Paragraph 3.2 B.
 - Meet density requirements for embankment, borrow, or backfill placed above the working platform.
 - Do not place initial layer of embankment, borrow, or backfill until the Engineer inspects and verifies the working platform or foundation.

3.2 EMBANKMENT MATERIAL AND BORROW PLACEMENT

- Place embankment material or borrow or both in the embankment section with the highest quality material in the top portion of the embankment
- Scarify and compact the top eight inches of the working platform or foundation to at least 90 percent of maximum laboratory density when the embankment height is 6 ft or less.
- Break and scarify all underlying concrete pavement surfaces so that pieces do not exceed 1 ft² before placing material over an existing concrete pavement surface that is outside the limits of removal or
 - Remove other pavement surfaces that are not portland cement

Grade and maintain the roadway to provide adequate drainage. Maintain drainage pipes and drainage ditches or provide temporary facilities when interrupting items such as irrigation systems, sewers, and under-drains.

Embankment, Borrow, and Backfill

02056 - Page 6 of 8 2025 Standard Specifications Latest Revision: September 14, 2023

3.2 PROCEDURE – ASPHALT SURFACES

- A. Use any method that provides a vertical cut in a straight line through the
 - Saw cut if the method of cutting does not produce a smooth, nonbroken vertical edge.

D. Apply a tack coat to the cut edge before placing asphalt pavement when appropriate. Refer to Section 02748.

END OF SECTION

- Spread material uniformly in layers not exceeding 1 ft (uncompacted depth) and compact to the density requirements. Reduce the lift thickness or modify operations if tests show 1
 - unsatisfactory density. Distribute larger particles so space exists for placing and
 - compacting remaining material. Do not place rocks or broken concrete larger than 4 inches within 1 ft of the subgrade surface.
- F. Finish subgrade surface within ±0.2 ft of line and grade.
- Do not use compacting equipment that causes shear failure in the G. constructed fill or backfill.

3.3 GRANULAR BORROW, GRANULAR BACKFILL BORROW, AND BACKFILL PLACEMENT

- Α. Compact material in maximum 6 inch layers (uncompacted depth) to the density requirement.
- Finish surface within ± 0.1 ft of line and grade.
- Backfill catch basins, cleanout boxes, manholes, drainage boxes, and diversion boxes with Granular Backfill Borrow unless otherwise specified or shown.

3.4 DRAINAGE PIPE FOUNDATION, BEDDING, AND BACKFILL PLACEMENT

- Place in 6 inch layers (uncompacted depth) and compact to the density A. requirement
- Place uniform layers of drainage pipe backfill on both sides of the pipe and compact to the density requirement before placing successive lifts.
- C. Fully compact the haunch areas.
- 3.5 EMBANKMENT FOR BRIDGE PLACEMENT
 - Construct bridge approach embankments from the existing ground up with the specified material to the limits defined in this Section and according to GW Series Standard Drawings.
 - Approach Embankments Place embankment for bridge beneath the bridge except a.
 - riprap or other described materials used for MSE walls.
 - Embankment, Borrow, and Backfill
 - 02056 Page 7 of 8 2025 Standard Specifications
 - Latest Revision: September 14, 2023

SECTION 02721

UNTREATED BASE COURSE (UTBC)

GENERAL PART 1

1.1 SECTION INCLUDES

1.

A. Production, construction, and compaction of UTBC used for pavements, shoulders, and incidental construction.

1.2 RELATED SECTIONS

A. Section 01572: Dust Control and Watering

1.3 REFERENCES

- AASHTO T 11: Materials Finer than 75-µm (No. 200) Sieve in Mineral A. Aggregates by Washing
- AASHTO T 19: Bulk Density ("Unit Weight") and Voids in Aggregate B.
- C. AASHTO T 27: Sieve Analysis of Fine and Coarse Aggregates
- AASHTO T 89: Determining the Liquid Limit of Soils D.
- AASHTO T 90: Determining the Plastic Limit and Plasticity Index of Soils
- AASHTO T96: Resistance to Degradation of Small-Sized Coarse F. Aggregate by Abrasion and Impact in the Los Angeles Machine
- AASHTO T 180: Moisture-Density Relations of Soils Using a 4.54 kg (10 G. lb) Rammer and 457 mm (18 in) Drop
- AASHTO T 193: The California Bearing Ratio H.
- AASHTO T 255: Total Evaporable Moisture Content of Aggregate by Drying
- AASHTO T 335: Determining the Percent of Fracture in Coarse J. Aggregate

Concrete and Asphalt Cutting

02705 - Page 2 of 2 2025 Standard Specifications Latest Revision: November 18, 2021

Untreated Base Course (UTBC) 02721 - Page 1 of 5

> 2025 Standard Specifications Latest Revision: June 8, 2023

TE OFFICE h St SW, Ste WA 98499 -2900

כסגויטיא. 5920 100th Lakewood, (253) 984-:

Φ

Гa

an

Б

ASHINGTON

DAT

 $\mathbf{\Omega}$

 \bigcirc

9

8

R

A

Σ

Σ

 $\mathbf{\gamma}$

JOB NUMBER

SHEET

24.00160

6 OF 10

0

2

3/19/202

SHE

AIL

DШ

5



- Place embankment for bridge to extend at least 150 ft from the centerline of the bridge abutment as measured along the approach roadway alignment and on the inside of abutments.
- Use the described material throughout the length of the walls where retaining walls are located beyond this delineation. Intersecting Roadway Embankments
- Place embankment for bridge along the intersecting roadway alignment(s) at least 150 ft from the abutment centerline station as measured along the approach and intersecting alignments.

Spread embankment for bridge uniformly in layers not exceeding 1 ft (uncompacted depth) and compact to the specified density requirements before placing the next laver. Reduce the lift thickness if tests show unsatisfactory density.

C. Finish surface within ±0.2 ft of line and grade.

3.6 FREE-DRAINING GRANULAR BACKFILL PLACEMENT

Compact material in 1 ft maximum layers.

2.

B....

1.4 DEFINITIONS

1.5 SUBMITTALS

B.

В.

1.6 ACCEPTANCE

3.

4.

Finish surface within ±0.2 ft of line and grade

END OF SECTION

Embankment, Borrow, and Backfill

02056 - Page 8 of 8 2025 Standard Specifications Latest Revision: September 14, 2023

Not Used

A. Written report for approval for each aggregate class and source, a minimum of five working days before placement. Include the following: Aggregate suitability. Refer to this Section, Part 2.

Name of supplier and location of source. Maximum Dry Density and Optimum Moisture Content and associated test result data. Refer to AASHTO T 180, Method D. Job mix gradation including single values for each sieve size, No. 4 and finer. The target values must be within the gradation limits of Table 2.

Job-mix gradation changes Refer to this Section, Article 3.2.

A. Type I Placement – Pavement Section

Use Class A aggregate, Table 1.

The Engineer takes random samples from the grade and tests for moisture, gradation, and laboratory density and performs in-place density determinations.

Meet gradation limits and applicable tolerances of Table 2 for each gradation test. Evaluate each sublot separately and do not average with

other sublots. Meet minimum density test average of 97 percent of maximum laboratory density with no test less than 94 percent.

Type II Placement - Incidental includes placement for Curb, Curb and Gutter, Driveways, Pedestrian Access Ramps, Sidewalk, Waterways, Flatwork, and other items of work in the contract to which UTBC is included and not measured or paid for separately. Use Class A aggregate, Table 1.

The Engineer takes random samples from the grade and tests for moisture, gradation, and laboratory density and performs in-place

density determinations. Meet gradation limits and applicable tolerances of Table 2 for each gradation test.

 Each sublot will be evaluated separately and not averaged with other sublots.

Meet minimum density test average of 95 percent of maximum laboratory density with no test less than 92 percent.

> Untreated Base Course (UTBC) 02721 - Page 2 of 5

2025 Standard Specifications Latest Revision: June 8, 2023

CITY ENGINEER APPROVAL

I CERTIFY THAT I HAVE EXAMINED THIS PLAT AND FIND IT TO BE IN GENERAL COMPLIANCE TO THE CITY STANDARDS

CITY ENGINEER

- Type III Placement Shoulder C. Use Class A or B aggregate, Table 1.
- Adjust moisture content before compaction Material not meeting the gradation requirements may be allowed to remain D.
 - in-place at the discretion of the Engineer provided density requirements are met. Additional lots may not be placed until the deficiencies are 1 addressed and corrected.
- Correct material that does not meet the specified criteria by scarifying, E. placing additional material, re-mixing, reshaping, and re-compacting when determined by the Engineer.
- F. Do not place additional material on any unaccepted layer.

PART 2 PRODUCTS

2.1 AGGREGATES

Well-graded, clean, hard, tough, durable, and sound mineral aggregates A. consisting of crushed stone, crushed gravel, or crushed slag, free of organic matter and contamination from chemical or petroleum products, according to Table 1. Table d

Aggre	gate Propert	ties		
÷ 288	Aggreg	ate Class		
	A	B		
Dry Rodded Unit Weight	Not less that	n 75 lb/ft ³	AASHTO T 19	
Liquid Limit/Plastic Index	Non-plastic PI ≤ 6		AASHTO T 89 AASHTO T 90	
Aggregate Wear	Not to exceed 50 percent		AASHTO T 96	
Gradation	Table 2		AASHTO T 11 AASHTO T 27	
CBR with a 10 lb surcharge measured at 0.20 inch penetration	70% Minimum	N/A	AASHTO T 193	
Two Fractured Faces	50% Min	N/A	AASHTO T 335	

Untreated Base Course (UTBC) 02721 - Page 3 of 5

2025 Standard Specifications Latest Revision: June 8, 2023

	G.	AASHTO T 90: Determining the Plastic Limit and Plasticity Index of Soils		2,	The maxin 16 or No.
	н.	AASHTO T 96: Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine		3.	The maxin 200 sieve
	l.	AASHTO T 104: Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate		4.	No target of section.
	J.	AASHTO T 112: Clay Lumps and Friable Particles in Aggregate	D.	joint	rband – an 8 t of final riding Engineer
	К.	AASHTO T 176: Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test	E.		duction Day -
	L.	AASHTO T 195: Determining Degree of Particle Coating of Asphalt Mixtures	F.		P – Recycled have been re
	M.	AASHTO T 209: Theoretical Maximum Specific Gravity and Density of Asphalt Mixtures	G.	Thir inch	n Overlay Pav les.
	N.	AASHTO T 255: Total Evaporable Moisture Content of Aggregate by Drying	н.	long	e-Leveling – [\] itudinal varia regate size to
	О.	AASHTO T 304: Uncompacted Void Content of Fine Aggregate	22	10.00	Malety When I
	Ρ.	AASHTO T 335: Determining the Percentage of Fracture in Coarse Aggregate	l.	the	file leveling - roadway. Dep ded to correc
	Q.	UDOT Materials Manual of Instruction 1.5	SUB	MITT	ALS
	R.	UDOT Minimum Sampling and Testing Requirements	Α.		design for ve erials Manual
	S.	UDOT Quality Management Plans	-		
1.4	DEF	INITIONS	В.	Cha 1.	inges in job m Submit a v design
	A.	Longitudinal Joint – Any new asphalt lift abutting an existing paving lift. This includes joints created by echelon paving and new asphalt placed against a milled asphalt edge.			a. Allo min b. Allo
	В.	Lot – The amount of Asphalt Mix placed in a single Production Day.		2.	of a Include do
	C.	Minor Target Change – A change from the verified mix design gradation target on a maximum of two sieves with the following limitations.			target cha a. Acc Cor
		 The maximum change from the verified target gradation on the No. 8 or any coarser sieve is limited to 3 percent passing per sieve. 		3.	Submit sa Instruction

Asphalt Mix 02741 - 2 of 22

2025 Standard Specifications Latest Revision: November 18, 2021

B.

Sieve Size

1½ inch 1 inch ¾ inch 1/2 inch 3% inch No. 4 No. 16 No. 200

PART 3 EXECUTION

3.1 PREPARATION

	Α.	Remove 1. Pr	
3.2	INS	TALLATION	I
	Α.	Provide n	no

1.	Proc	edures
2	1.	Subr by th
e:	Plac	e in lav

Establish the job mix (target) gradation for the 3/4 inch sieve and finer within the gradation limits.

- The Job Mix Gradation Tolerance is the allowable deviation from the job mix (target) gradation on the applicable sieves. All other percents passing will be within the gradation limits. Refer
- to AASHTO T 11 and AASHTO T 27.

- 0	Gradation Limits	5
3	Job Mix Gradation Target Band	Job Mix Gradation Tolerance
	100	
	90 - 100	±9.0
	70 - 85	±9.0
	65 - 80	±9.0
	55 - 75	±9.0
	40 - 65	±7.0
	25 - 40	±5.0
	7 - 11	±3.0

Percent passing based on total aggregate (dry weight) and fine and coarse aggregate with approximately the same bulk specific gravities.

- egetation before Type III placement. Refer to Section 02231. tect existing delineators in place.
- pisture content of ± 2 percent of optimum at the time of placement. Refer to AASHTO T 180, Method D and AASHTO T 255.
 - for Changing the Job-Mix Gradation mit changes in writing 24 hours before placement for approval the Engineer.
- C. Place in layers of uniform thickness and compact each layer to a thickness not to exceed a 6 inch depth. Do not place on any frozen surface. Refer to Section 01572.
 - Untreated Base Course (UTBC) 02721 - Page 4 of 5

2025 Standard Specifications Latest Revision: June 8, 2023

mum change from the verified target gradation on the No. 50 sieves is 2 percent passing per sieve. mum change from the verified target gradation on the No. is 0.5 percent passing. change may violate the mix design requirements in this

I inch protective asphalt coating sealing the longitudinal ing surface, as proposed by the contractor and approved by 1.6

- A 24 hour period in which Asphalt Mix is being placed.

Asphalt Pavement. Crushed or milled asphalt materials emoved from pavements for recycling.

avement – New Asphalt Mix design thickness less than 2

Variable depth paving to correct minor rutting and iations in the roadway. Depth varies from the maximum to the depth needed to correct variations.

Variable depth paving to correct minor profile variations in epth varies from the maximum aggregate size to the depth ect variations.

erification and approval before paving according to UDOT al of Instruction Section 960.

mix design

- written request for any proposed change in the job-mix
- llow at least 12 hours for approval before incorporating a inor target change into production. llow at least six working days for verification and approval
- any other change. ocumentation supporting correlation between suggested anges and mix design volumetric requirements. ceptable documentation may include Department or
- ontractor testing data. amples according to the UDOT Materials Manual of Instruction 960 for a volumetric mix design verification for anything other than approved minor target changes.

Asphalt Mix

02741 - 3 of 22

2025 Standard Specifications Latest Revision: November 18, 2021

- D. Finish to a uniform line and grade with surface deviations no more than 3/8 inch in 10 ft in any direction.
 - Correct any profile deviations greater than % inch. Rework minimum of 4 inch lift to achieve homogeneous а.
 - density Determine limits of correction based on extent of deviation.
- Continue finishing until existing deviation is less than 3/4 inch. C. E. Maintain optimum moisture content ± 2 percent during compaction.
- Use appropriate compaction equipment adjacent to abutments, backwalls, approach slabs, wing walls, retaining walls, and other structures. Use a minimum of two passes with a roller for Type III placement or
- as directed by the Engineer.

END OF SECTION	1.2	REL	ATED SECTIONS
		Α.	Section 01456:
		В.	Section 02701:
		C.	Section 02742S
		D.	Section 02745:
		E.	Section 02746:
		F.	Section 02748:
	1.3	REF	ERENCES
		Α.	AASHTO M 323
		В.	AASHTO R 35:
		C.	AASHTO T 11: Aggregates by
		D.	AASHTO T 19:
		E.	AASHTO T 27:
		F.	AASHTO T 89:

Untreated Base Course (UTBC) 02721 - Page 5 of 5

> 2025 Standard Specifications Latest Revision: June 8, 2023

	C.		ctive action plan for approval according to this Section, Article 3.3, raph C2 and Article 3.4, paragraph A4b.	2.	Dens a.
	D.		to this Section, Article 3.4 for laboratory correlation submittals for nation.		b,
	E.	Mat jo	pint layout plan to the Engineer for review before placement.		
.6	ACC	EPTAN	CE		C.
	Α.		otance sampling and testing of material is according to UDOT num Sampling and Testing Requirements.	3.	Thick
	В.	Crad	tion and conholt hinder content		requi
	Б.	1.	ation and asphalt binder content The Engineer evaluates a lot on the test results of four or more samples, except when only three samples can be taken.		pave a.
		2.	Evaluate the lot using the number of tests "n" in Table 3.		
		3.	The Engineer informs the Contractor of the time and place of		
			sampling not more than 15 minutes before sampling.		
		4.	Increase sample sizes to accommodate validation or third-party testing as required.		b.
	C.	Dens	ity and Thickness		
		1.	Obtain cores from the mat and longitudinal joint within two calendar		
			days after the pavement is placed and according to UDOT		
			Materials Manual of Instruction, Section 984. a. The Engineer marks coring location for in-place mat density		C.
			and longitudinal joint density cores.		
			b. Fill core holes with Asphalt Mix, SMA or high-asphalt-content		
			cold mix and compact in thin lifts within 24 hours and before		
			c. The Department witnesses the coring operation, takes		
			 The Department witnesses the coring operation, takes possession of the cores immediately, and begins testing the 		
			cores within 24 hours for density acceptance.		2.64
					d.

Asphalt Mix 02741-4 of 22

> 2025 Standard Specifications Latest Revision: November 18, 2021

CORPORATE OFFICE 5920 100th St SW, Ste : Lakewood, WA 98499 (253) 984-2900

age

Ia

0

an

Б

WASHINGTON

DAT

Υ

Ω

 \bigcirc

Q

 $\widetilde{\mathbf{O}}$

R

5

Σ

Σ

 $\boldsymbol{\mathbf{Y}}$

JOB NUMBER

SHEET

24.00160

7 OF 10

0

R

3/19/202

SHEE

D D

 \Box

AN

10



SECTION 02741

ASPHALT MIX

GENERAL

PART 1

Α.

Β.

1.1 SECTION INCLUDES

additives.

Flexible pavement consisting of one or more layers of an asphalt mixture comprised of aggregate, asphalt binder, hydrated lime, and other

An option to incorporate Reclaimed Asphalt Pavement (RAP) materials into Asphalt Mix.

NS

: Materials Dispute Resolution

: Pavement Smoothness

2S: Project Specific Surfacing Requirements

5: Asphalt Material

3: Hydrated Lime

3: Prime Coat/Tack Coat

323: Superpave Volumetric Mix Design

35: Superpave Volumetric Design for Asphalt Mixtures

Materials Finer Than 75 µm (No. 200) Sieve in Mineral / Washing

Bulk Density ("Unit Weight") and Voids in Aggregate

: Sieve Analysis of Fine and Coarse Aggregates

: Determining the Liquid Limit of Soils

Asphalt Mix 02741 - 1 of 22

2025 Standard Specifications Latest Revision: November 18, 2021

nsity Requirements

- The target for in-place density for the mat is 93.5 percent of Theoretical Maximum Specific Gravity except for thin overlay pavements.
- The target for in-place density for the longitudinal joint is 91.5 percent of the Theoretical Maximum Specific Gravity
- The target for in-place density is 92.5 percent of theoretical maximum specific gravity for thin overlay pavements. Do not take longitudinal joint cores for thin overlay
- pavements. ckness is evaluated with mat density cores. The thickness uirement may be waived when matching up to existing
- vement, curb and gutter for Pavement in or next to intersections. The Department accepts a lot for thickness when:
- 1) The average thickness is not more than 1/2 inch greater or 1/4 inch less than the total design thickness
- specified. 2) No individual sublot shows a deficient thickness of
- more than 1/2 inch. Excess Thickness - The Engineer may allow excess
- thickness to remain in place or may order its removal.
- 1) The Department pays for 50 percent of the mix for material in excess of the +1/2 inch tolerance when excess thickness is allowed to remain in place.
- Deficient Thickness Place additional material where lots or sublots are deficient in thickness.
- 1) The Department pays for material necessary to reach specified thickness.
- 2) The Department pays for 50 percent of the mix for additional material over specified thickness necessary to achieve minimum lift thickness.
- Minimum compacted lift is 3 times the nominal maximum aggregate size.
- Thickness tolerances established above do not apply to leveling courses.
- 1) Check final surfaces in staged construction. e. Check thickness regularly with a depth probe during placement and take corrective action as necessary.

Asphalt Mix 02741 - 5 of 22

> 2025 Standard Specifications Latest Revision: November 18, 2021

> > **CITY ENGINEER APPROVAL**

I CERTIFY THAT I HAVE EXAMINED THIS PLAT AND FIND IT TO BE IN GENERAL COMPLIANCE TO THE CITY STANDARDS

CITY ENGINEER

Longitudinal Joint 4.

- a. The edge of a new asphalt mat may be removed for the
 - purpose of meeting longitudinal joint density requirements. The material wasted is still included in the payment.
 - Up to 3 inches for a confined edge is allowed. 2)
 - Up to 6 inches for an unconfined edge is allowed. 3)

D. The Department applies one Incentive/Disincentive for the lowest dollar value for Gradation/Asphalt Content, one Incentive/Disincentive for In-Place Mat Density, and one Incentive/Disincentive for Longitudinal Joint Density. The Engineer computes Incentives/Disincentives as follows for each lot

- 1. Compute incentive/disincentive for Gradation/Asphalt Binder and In-place Mat Density and Longitudinal Joint Density according to Table 1.
- Base the incentive/disincentive on Percent within Limit (PT) 2. computation using Tables 2, 3, and 4.
- Use lowest single PT value combined for gradation (each of the sieves) and asphalt binder content for calculating the gradation/asphalt binder content incentive/disincentive.
- Use Tables 2, 3, and 4 to determine PT for in-place Mat Density 4 and Longitudinal Joint Density.
- Meet PT of 88 or greater for in-place mat density or the Department does not pay incentives on joint density or gradation/asphalt binder content except for lane-leveling material.
- The Department pays or assesses the longitudinal joint density 6. incentive/disincentive per ton of Asphalt Mix placed adjacent to. and on the hot side of the longitudinal joint for each lift:
 - a. The incentive/disincentive will be calculated from the core densities taken from all abutting joints if the Asphalt Mix mat has a longitudinal joint on more than one side.
- E. The Department applies incentive/disincentive for smoothness according to Section 02701.
 - Refer to Section 02701 for smoothness requirements.

F. The Department rejects lots:

- 1. If the PT for any individual gradation measurement is less than 52 percent as shown in Table 1.
- If the PT for asphalt binder content or mat density measurement is 2. less than 60 percent as shown in Table 1.

Asphalt Mix 02741-6 of 22

2025 Standard Specifications

Latest Revision: November 18, 2021

Use the appropriate "number of tests" column and round down to the nearest value. Quality Index Values (QU or QL) for Estimating Percent Within Limits										
PU or PL	n=3	n=4	n=5	n=6	n=7	n=8	n=10	n=12	n=15	n=20
100	1.16	1.50	1.75	1.91	2.06	2.15	2.29	2.35	2.47	2.56
99	1.16	1.47	1.68	1.79	1.89	1.95	2.04	2.09	2.14	2.19
98	1.15	1.44	1.61	1.70	1.77	1.80	1.86	1.89	1.93	1.97
97	1.15	1.41	1.55	1.62	1.67	1.69	1.74	1.77	1.80	1.82
96	1.15	1.38	1.49	1.55	1.59	1.61	1.64	1.66	1.69	1.70
95	1.14	1.35	1.45	1.49	1.52	1.54	1.56	1.57	1.59	1.61
94	1.13	1.32	1.40	1.44	1.46	1.47	1.49	1.50	1.51	1.53
93	1.12	1.29	1.36	1.38	1.40	1.41	1.43	1.43	1.44	1.46
92	1.11	1.26	1.31	1.33	1.35	1.36	1.37	1.37	1.38	1.39
91	1.10	1.23	1.27	1.29	1.30	1.31	1.32	1.32	1.32	1.33
90	1.09	1.20	1.23	1.24	1.25	1.25	1.26	1.26	1.27	1.27
89	1.08	1.17	1.20	1.21	1.21	1.21	1.21	1.21	1.22	1.22
88	1.07	1.14	1.16	1.17	1.17	1.17	1.17	1.17	1.17	1.17
87	1.06	1.11	1.12.	1.12	1.12	1.13	1.13	1.13	1.13	1.13
86	1.05	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08
85	1.03	1.05	1.05	1.05	1.05	1.04	1.04	1.04	1.04	1.04
84	1.02	1.02	1.02	1.01	1.01	1.01	1.00	1.00	1.00	1.00
83	1.00	0.99	0.98	0.97	0.97	0.96	0.96	0.96	0.96	0.96
82	0.98	0.96	0.95	0.94	0.94	0.93	0.93	0.92	0.92	0.92
81	0.96	0.93	0.92	0.91	0.90	0.90	0.89	0.89	0.89	0.88
80	0.94	0.90	0.88	0.87	0.86	0.86	0.85	0.85	0.85	0.85
79	0.92	0.87	0.85	0.84	0.83	0.83	0.82	0.82	0.82	0.81
78	0.89	0.84	0.82	0.81	0.80	0.79	0.79	0.78	0.78	0.78
77	0.87	0.81	0.79	.0.78	0.77	0.76	0.76	0.75	0.75	0.75
76	0.84	0.78	0.76	0.75	0.74	0.73	0.72	0.72	0.72	0.72
75	0.82	0.75	0.73	0.72	0.71	0.70	0.69	0.69	0.69	0.68
74	0.79	0.72	0.70	0.68	0.67	0.67	0.66	0.66	0.66	0.65
73	0.77	0.69	0.67	0.65	0.64	0.64	0.62	0.62	0.62	0.62
72	0.74	0.66	0.64	0.62	0.61	0.61	0.60	0.59	0.59	0.59
71	0.71	0.63	0.60	0.59	0.58	0.58	0.57	0.56	0.56	0.56
70	0.68	0.60	0.58	0.56	0.55	0.55	0.54	0.54	0.54	0.53
69	0.65	0.57	0.55	0.54	0.53	0.52	0.51	0.51	0.51	0.50
68	0.62	0.54	0.52	0.51	0.50	0.50	0.48	0.48	0.48	0.48
67	0.59	0.51	0.49	0.48	0.47	0.47	0.46	0.45	0.45	0.45
66	0.56	0.48	0.46	0.45	0.44	0.44	0.43	0.42	0.42	0.42
65	0.53	0.45	0.43	0.42	0.41	0.41	0.40	0.40	0.40	0.39
64	0.49	0.42	0.40	0.39	0.38	0.38	0.37	0.37	0.37	0.37
63	0.46	0.39	0.37	0.36	0.35	0.35	0.35	0.34	0.34	0.34
62	0.43	0.36	0.34	0.33	0.33	0.33	0.32	0.31	0.31	0.31
61	0.39	0.33	0.31	0.30	0.30	0.30	0.29	0.29	0.29	0.28
60	0.36	0.30	0.28	0.27	0.26	0.26	0.25	0.25	0.25	0.25
59	0.32	0.27	0.25	0.25	0.24	0.24	0.24	0.23	0.23	0.23

Asphalt Mix 02741 - 10 of 22

2025 Standard Specifications Latest Revision: November 18, 2021

3. Section 01456. b.

G.

H.

1. visually.

1.7 DISPUTE RESOLUTION

A. acceptance tests.

Table 3 Continued										
PU/PL	n=3	n=4	n=5	n=6	n=7	n=8	n=10	n=12	n=15	n=20
58	0.29	0.24	0.23	0.22	0.21	0.21	0.21	0.21	0.21	0.20
57	0.25	0.21	0.20	0.19	0.19	0.19	0.18	0.18	0.18	0.18
56	0.22	0.18	0.17	0.16	0.16	0.16	0.16	0.16	0.15	0.15
55	0.18	0.15	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13
54	0.14	0.12	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10
53	0.11	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
52	0.07	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05
51	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Definitio
Term
Target Value (TV)

Average (AVE)

Standard Deviations (s)

Upper Limit (UL)

Lower Limit (LL)

Upper Quality Index (QU) Lower Quality Index (QL) Percentage of Lot Within UL (PU) Percentage of Lot Within LL (PL)

Total Percentage of Lot Within UL and LL (PT) Incentive/Disincentive

The Engineer may accept a reject or non-conforming lot. Refer to A price reduction of 35 percent of the pay item or \$20 per ton, whichever is greater, will be assessed.

The lot will not be eligible for any incentive. The Engineer may elect to accept material on visual inspection according to the Minimum Sampling and Testing Requirements.

Incentives/Disincentives are not applied to material accepted

The Engineer reserves the option of conducting any acceptance tests necessary to determine that the material and workmanship meets the project requirements.

Meet production control requirements of Table 9. Material placed within the Cease Production Limit in Table 9 is not eligible for incentives.

Refer to Section 01456 when disputing the validity of the Department's

Table 1 Incentive/Disincentive for Asphalt Binder Content, and Mat Density Incentive/Disincentive (Dollars/Ton) PT Based on Min. Four Samples 2.00 96-99 1.50 92-95 1.00 88-91 0.00 84-87 -0.26 80-83 -0.60 76-79 -0.93 72-75 -1.27 68-71 -1.60 64-67 -1.93 60-63 -2.27 <60 Reject Incentive/Disincentive for Gradation Incentive/Disincentive (Dollars/Ton) PT Based on Min. Four Samples 2.00 1.50 96-99 92-95 1.00 0.00 88-91 84-87 -0.26 80-83 -0.60 76-79 -0.93 72-75 -1.27 -1.60 68-71 64-67 -1.93 -2.27 -5.00 60-63 56-59 52-55 -10.00 <52 Reject Incentive/Disincentive for Longitudinal Joint Density PT Based on Min Four Samples Incentive/Disincentive (Dollars/Ton) 2.00 1.50 96-99 1.00 92-95 88-91 0.00 84-87 -0.26 80-83 -0.60 76-79 -0.93 72-75 -1.27 -1.60 68-71 -1.93 64-67 -2.27 60-63 56-59 -2.60 52-55 -5.00 <52 Apply \$5 penalty and Overband Longitudinal Joint if Final Surface Lift

Asphalt Mix 02741 - 7 of 22 2025 Standard Specifications

Latest Revision: November 18, 2021

	Table 4
ons, A	bbreviations, and Formulas for Acceptance
	Explanation
	The target values for gradation and asphalt binder content are given in the Contractor's volumetric mix design. See this Section, Article 1.6 for density target values.
	The sum of the lot's test results for a measured characteristic divided by the number of test results-the arithmetic mean.
s (s)	The square root of the value formed by summing the squared difference between the individual test results of a measured characteristic and AVE, divided by the number of test results minus one.
	The value above the TV of each measured characteristic that defines the upper limit of acceptable production. (Table 2)
	The value below the TV of each measured characteristic that defines the lower limit of acceptable production. (Table 2)
(QU)	QU = (UL - AVE)/s
(QL)	QL = (AVE - LL)/s
/ithin	Determined by entering Table 3 with QU.
/ithin	Determined by entering Table 3 with QL.
Lot T)	PT = (PU + PL) - 100

Determined by entering Table 1 with PT or PL.

Asphalt Mix 02741 - 11 of 22

2025 Standard Specifications Latest Revision: November 18, 2021

Asphalt Mix 02741 - 8 of 22

2025 Standard Specifications Latest Revision: November 18, 2021

PART 2 PRODUCTS

2.1 ASPHALT BINDER

- A. Project Specific Surfacing Requirements Refer to Section 02742S.
- Asphalt Material Refer to Section 02745 and Quality Management Plan 509: Asphalt Binder.

2.2 AGGREGATE

- A. Crusher produced virgin aggregate material consisting of crushed stone, gravel, or slag.
- B. Refer to Table 5 to determine the suitability of the aggregate. 1. Coarse aggregates
 - Retained on No. 4 sieve, AASHTO T 27 Fine aggregates
 - Clean, hard grained, and angular Passing the No. 4 sieve, AASHTO T 27 b.

C. Meet the gradation requirements in Table 6. (AASHTO T 11, AASHTO T 27)

Test Method One Fractured Face Two Fractured AA Faces Fine Aggregate Angularity Flakiness Index (E L.A. Wear Sand Equivalent alte pre Plasticity Index AA Unit Weight A/

Soundness (sodium sulfate)

Clay Lumps and Friable Particles

Natural Fines

Asphalt Mix 02741 - 12 of 22

2025 Standard Specifications Latest Revision: November 18, 2021

Section 5. Item A.



Table 2	
Upper and Lower Limit I	
Parameter	UL and LL
% inch sieve for ½ inch Asphalt Mix No. 4 sieve for % inch Asphalt Mix	Target Value ± 6.0%
No. 8 sieve	Target Value ± 5.0%
No.50 sieve	Target Value ± 3.0%
No. 200 sieve	Target Value ± 2.0%
Asphalt Binder Content	Target Value ± 0.35%
Mat Density	Lower Limit Target Value - 2.0% Upper Limit Target Value + 4.0%
Longitudinal Joint Density	Lower Limit Target Value - 2.0% Upper Limit Target Value + 6.0%

Asphalt Mix	
02741 - 9 of 22	
	2025 Standard Specifications
Late	st Revision: November 18, 2021

Aggregate	Properties - Asphalt	Mix	
Test No.	75 Design Gyrations and Greater	Less Than 75 Design Gyrations	
ASHTO T 335	95% minimum	90% minimum	
ASHTO T 335	90% minimum	90% minimum	
ASHTO T 304	45 minimum	45 minimum	
DOT MOI 933 ased on % inch we and above)	17% maximum	17% maximum	
ASHTO T 96	35% maximum	40% maximum	
ASHTO T 176, ernate method 2, e-wet method est the sample in e wet condition).	60 minimum	45 minimum	
ASHTO T 89 and 90	0	0	
ASHTO T 19	minimum 75 lb/ft ³	minimum 75 lb/ ft ³	
ASHTO T 104	16% maximum loss with five cycles	16% maximum loss with five cycles	
ASHTO T 112	2% maximum	2% maximum	
N/A	0%	10% maximum	

Table 6

dations (Percen	t Passing by Dry Weig	ght of Aggregate)	
Size	½ inch	¾ inch	
¾ inch	100.0		
1/2 inch	90.0 - 100.0	100.0	
¾ inch	< 90	90.0 - 100.0	
No. 4		< 90	
No. 8	28.0 - 58.0	32.0 - 67.0	
No. 200	2.0 - 10.0	2.0 - 10.0	
	Size ³ / ₄ inch ¹ / ₂ inch ³ / ₄ inch No. 4 No. 8	¾ inch 100.0 ½ inch 90.0 – 100.0 ¾ inch < 90	

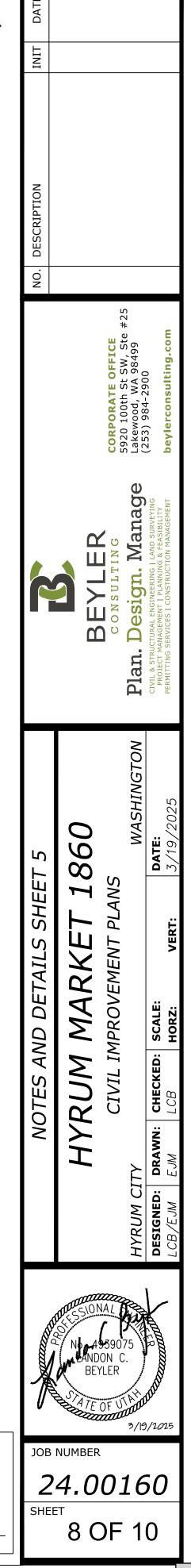
Asphalt Mix 02741 - 13 of 22

2025 Standard Specifications Latest Revision: November 18, 2021

CITY ENGINEER APPROVAL

I CERTIFY THAT I HAVE EXAMINED THIS PLAT AND FIND IT TO BE IN GENERAL COMPLIANCE TO THE CITY STANDARDS

CITY ENGINEER



3.8 LIMITATIONS

- A. Do not place Asphalt Mix on frozen base or subbase or during adverse climatic conditions such as precipitation or when roadway surface is icy or wet
- Use a release agent that does not dissolve asphalt and is satisfactory to B. the Engineer for all equipment and hand tools used to mix, haul, and place the Asphalt Mix.
- C. Place Asphalt Mix from April 15 through October 15, and when the air temperature in the shade and the roadway surface temperature are above 50 degrees F. The Department determines if it is feasible to place Asphalt Mix 1.
 - outside these dates and temperature limits. 2. Obtain authorization from the Engineer before paving outside these requirements.

END OF SECTION

	1100	application of, e chip seal cover
1.2	REL	ATED SECTIONS
	A.	Section 027425
	В.	Section 02745:
	C.	Section 02748:
1.3	REF	ERENCES
	A.	AASHTO T 11: Aggregates by
	в.	AASHTO T 19:
	C.	AASHTO T 27:
	D.	AASHTO T 96: Aggregate by A
	E.	AASHTO T 104 Magnesium Sul
	F.	AASHTO T 278 Tester
	G.	AASHTO T 279 Wheel
	Н.	AASHTO T 335 Aggregate

C.

D.

E.

PART 3 EXECUTION

3.1 PREPARATION

Α.

C.

D.

2

3.2 LIMITATIONS

Asphalt Mix 02741 - 22 of 22

2025 Standard Specifications Latest Revision: November 18, 2021

2.6 EQUIPMENT

- Use distributor trucks with the following: A.
 - Tachometer, pressure gauges, accurate volume measuring devices or a calibrated tank, and a thermometer for measuring temperatures of the tank contents. Insulated tanks capable of storing the binder at temperatures that
 - allow the binder to remain consistent with the appropriate viscosity for proper application rates. a. Use tanks equipped with baffles to prevent pressure surges
 - resulting from the asphalt sloshing in the tank when starting and stopping. Use trucks equipped with devices to provide for accurate
 - control of the amount of bituminous material being applied. Constant volume circulation pumps and heaters to maintain a 3.
 - pressurized system so binder will be uniformly heated. Circulation pump must spray a constant volume for the entire a. length of the spray bar for each application.
 - Spray bar and nozzles designed to provide an appropriate fan width 4. to provide uniform transverse distribution without corrugation or
 - streaking. Adjust the spray bar height to provide uniform distribution of binder across the application width and triple lapping of the binder on the pavement surface.
 - Use a fully circulating spray bar with a positive shutoff valve. Computerized rate control system allowing the operator to control 5
 - all distributor operations from the cab to include: a. Pressure regulation of the material application and automatic rate control adjustment to the unit ground speed.
 - 1) Hydrostatic system capable of maintaining a tolerance of ± 0.03 gal/yd2.
 - Spray bar height and width adjustment and shut off of b. individual spray bar sections.

В. Use a self-propelled aggregate (chip) spreader specifically designed and manufactured for chip seal operations, equipped with the following: Computerized controls that will apply a uniform, even layer of

- aggregate across the full width of the binder and adjust output to the unit ground speed. Use gates adjustable to drop the correct amount of
- aggregate plus or minus 1 lb/yd2. Variable width spreader with hydraulic control extension and
- 2. adjustable discharge gates. Spreading hopper with a minimum capacity to cover a full lane of
- travel plus 1 ft/pass. Spinner broadcast type of aggregate spreader not allowed.
 - Chip Seal Coat
 - 02785 Page 4 of 9

2025 Standard Specifications Latest Revision: February 15, 2024

SECTION 02785

CHIP SEAL COAT

1.1 SECTION INCLUDES

GENERAL

PART 1

A.

Materials and procedures for applying emulsified asphalt, followed with an either a standard chip seal cover material or lightweight material and bituminous flush coat.

S: Project Specific Surfacing Requirements

- Asphalt Material
- Prime Coat/Tack Coat
- Materials Finer Than 75 µm (No. 200) Sieve in Mineral Washing
- Bulk Density (Unit Weight) and Voids in Aggregate

Sieve Analysis of Fine and Coarse Aggregates

Resistance to Degradation of Small Size Coarse Abrasion and Impact in the Los Angeles Machine

Soundness of Aggregates by Use of Sodium Sulfate or Ifate

8: Surface Frictional Properties Using the British Pendulum

9: Accelerated Polishing of Aggregates Using the British

Determining the Percentage of Fracture in Coarse

Chip Seal Coat 02785 - Page 1 of 9

2025 Standard Specifications Latest Revision: February 15, 2024

Use at least three articulating type pneumatic rollers for rolling operations. Use rollers weighing between 8 tons minimum and 12 tons maximum with a minimum width of 6 ft.

- Use rollers with pneumatic tires of equal size diameter and having treads satisfactory to the Engineer.
- Inflate tires so that the entire roller width area is compacted by the rear-axle tires and the front-axle tires.
- a. Inflate tires to 90 lb/in², or lower with permission from the Engineer.

Maintain tire pressure within 5 lb/in².

Apply blotter material using a truck mounted spinner broadcast

Sweeping Equipment

Use rotary brooms with nylon or steel bristles or pickup or vacuum brooms for pavement cleaning or brooming operations.

Blotter Material Equipment

spreader.

Clean the road surface of all dirt, sand, dust, and other objectionable material to the satisfaction of the Engineer.

Protect structures including but not limited to guardrail, guideposts, concrete barriers, drains, and parapets.

Protect manholes, valve boxes, drop inlets, and other service utility entrances before placing any chip seal coat.

Stockpile blotter material with a quantity of at least 0.25 lb/yd² for the

production day. Blotter material must be ready to be spread within 20 minutes of a road section being chip sealed. Use blotter material, as needed to cover up oil if it bleeds through the new chip seal.

A. Complete all work between May 15, and August 31.

Do not place chip seal coat if surface moisture is present.

Chip Seal Coat 02785 - Page 5 of 9

2025 Standard Specifications

Latest Revision: February 15, 2024

UDOT Materials Manual of Instruction (MMOI) 1.4 DEFINITIONS Not Used

1.5 SUBMITTALS

- Test reports for information that the cover material and emulsion meets requirements of this Section, Part 2.
- Equipment Calibration information including verifying asphalt application Β. rates and chip application for information.
- Documentation verifying daily asphalt application rates and chip application for information.
- D. Vendor's bill of lading upon delivery for each emulsion used on the project for information This bill of lading should certify if the emulsion was diluted or not according to this Section, Part 2.

PART 2 PRODUCTS

2.1 CATIONIC EMULSIONS

- A. CRS-2A according to Section 02745.
- B. CRS-2P according to Section 02745.
- C. LMCRS-2 according to Section 02745.

2.2 HIGH FLOAT EMULSIONS

- A. HFRS-2P according to Section 02745.
- HFMS-2 according to Section 02745.
- C. HFMS-2P according to Section 02745.

2.3 FLUSH COAT

A. Use the emulsion as specified in Special Provision 02742S, diluted two parts concentrate to one part water by the manufacturer.

Chip Seal Coat 02785 - Page 2 of 9

2025 Standard Specifications Latast Davisian: Eshavany 15, 2024

		Latest Revision: February 15, 2024				
	C.			3.4 ASPHALT MATER		IATERIAL/COV
		 Place when the pavement temperature is between 70 and 136 degrees F. Place when the air temperature is between 50 and 110 degrees F. Do not apply after 6:00 pm if the temperature is expected to be below 50 F during the night. Place when the forecasted temperature is not expected to be below 40 degrees F within 3 days after placement. 		A.	embe after r 1.	asphalt materia dment before th olling operation. Adjust applicat existing conditi
	E.	Do not open to traffic the same day chip seal cost is placed on interritate		В.	Apply	the asphalt emi
	Exc	Do not open to traffic the same day chip seal coat is placed on Interstate routes. 1. Sweep chip seal to remove unbound aggregates prior to opening to traffic.		C.		t apply asphalt i utor in a uniform
	F.	Allow at least 48 hours after completing application of cover material before applying bituminous flush coat material. 1. Apply bituminous flush coat material when the air temperature in the shade is at least 50 degrees F and the pavement temperature		D.		building paper a g each spraying Maintain the co and cut- off.
		 is at least 70 degrees F. Do not apply bituminous flush coat material during fog, rain, or other adverse conditions. 		E.	Locate 1. 2.	e longitudinal joi Construct mee passes. Do not place a
3.3	COV	ER MATERIAL STOCKPILE			6	Do not place a
	A.	 Construct individual 500 ton stockpiles for aggregates. Construct on a clean base to minimize contamination. Construct to facilitate uniform dampening. Avoid excess moisture. 		F.		ate the spreade cessary to comp Maintain a dist distributor and Maintain the ch

- Combining, altering, or moving accepted stockpiles may require 4 retesting by the Engineer before use.
- Notify the Engineer at least seven calendar days before placement in В. order for the initial stockpiles to be sampled and tested for acceptance.
- Obtain the Engineer's acceptance of a stockpile before use. C.
- D. Rework or remove material not meeting specifications from the stockpile area. Identify stockpiles that will be reworked.

Chip Seal Coat 02785 - Page 6 of 9

2025 Standard Specifications Latest Revision: February 15, 2024



2.4 COVER MATERIAL

2.

Test

*Unit Weight

Face

Faces

LA wear

Soundness

Stripping Polishing

Sieve

Size

1/2 in % in

No. 4

No. 8

No. 16

No. 200

Α.

Sta

Typ

10

0 -

Flakiness Index

One Fractured

Two Fractured

Meet the requirements of Table 1

Use crusher processed virgin aggregate consisting of natural stone, gravel, or slag for standard chips. Use crusher-processed rotary-kiln lightweight expanded shale chips for lightweight chips.

Chip Seal Cover	Material Properties	
Test Method	Standard Chip Seal Type I & II	Lightweight Chip Sea Type I &II
AASHTO T 19	100 lb/ft ³ , max	60 lb/ft ³ , max
AASHTO T 335	95% minimum	N/A
AASHTO T 335	90% minimum	N/A
AASHTO T 96	30% maximum	30% maximum
AASHTO T 104	10% maximum	10% maximum
Materials MOI 933	17 maximum	25 maximum
Materials MOI 945	10% maximum	10% maximum
AASHTO T 278, T 279	31 minimum	31 minimum

This requirement may performance as determined by the Engineer

Meet gradation limits in Table 2. Refer to AASHTO T 27 and T 11.

	Grad	ation Limits	
		Percent Passing	
andard	Aggregate	Lightweig	ht Aggregate
pe I	Type II	Type I	Type II
	100 - 98	100	100 - 90
00	69 - 91	80 - 100	55 - 80
15	0 - 11	5 - 40	0 - 10
	0-6	0 - 20	0-3
	0.00000	0 - 10	
1	0 - 1.5		0 - 2

2.5 BLOTTER MATERIAL

Refer to Section 02748.

Chip Seal Coat 02785 - Page 3 of 9

2025 Standard Specifications Latest Revision: February 15, 2024

ATERIAL/COVER MATERIAL APPLICATION

asphalt material at a rate sufficient to obtain 50 percent chip ment before the rolling operation and 70 percent chip embedment olling operation.

- Adjust application rates throughout the project depending on existing conditions.
- he asphalt emulsion at a minimum temperature of 145 degrees F.
- apply asphalt material if material does not spray through the utor in a uniform way and remain in place on the roadway.
- ouliding paper adjacent to the transverse construction joint before each spraying operation. Maintain the control valve to act instantaneously both at start-up
- longitudinal joints within 6 inches of the traffic lane line location. Construct meet lines with no skip or voids between adjacent
- Dasses. Do not place a double thickness of cover material.

te the spreader at the beginning of each day and as often essary to comply with Table 3.

- Maintain a distance of less than 150 ft between the distributor and the chip spreader.
- Maintain the chip spreader speed so that chips do not bounce or roll during application.

Chip Seal Coat 02785 - Page 7 of 9

2025 Standard Specifications Latest Revision: February 15, 2024

CITY ENGINEER APPROVAI

I CERTIFY THAT I HAVE EXAMINED THIS PLAT AND FIND IT TO BE IN GENERAL COMPLIANCE TO THE CITY STANDARDS

CITY ENGINEER

DATE

TE OFFICE h St SW, Ste WA 98499 -2900 **CORPORAT** 5920 100th Lakewood, 1 (253) 984-2 Φ ag Ω Гa \mathbf{m} an Б ASHINGTON \bigcirc 9 DAT 6 8 SHEE AIL R DШ Y 0 Σ ЛM A 19 F O 5 Σ 2 3/19/202 JOB NUMBER 24.00160 SHEET

9 OF 10

	Approximate Spread Rates		
	Unit Weight Ibs/ft ³	Application Rate Ibs/yd ²	
Lightweight Type I Chip Seal	45 - 50	9.6	
	50 - 55	10.6	
	55 - 60	11.6	
Lightweight Type II Chip Seal	45 - 50	11.8	
	50 - 55	13.1	
	55 - 60	14.3	
Standard Chip Seal	60 - 65	17.0	
	65 - 70	18.4	
	70 - 75	19.8	
	75 - 80	20.7	
	80 - 85	22.1	
F	85 - 90	23.5	
	90 - 95	24.9	
	95 - 100	25.8	

3.5 SURFACE ROLLING

A. Use at least three pneumatic-tire rollers in a longitudinal direction to roll surface after the cover material has been spread.

B. Roll at least three passes to seat the cover material. 1. A pass is defined as traveling in one direction only.

Control bleeding with blotter material and as determined by the Engineer. C.

D. Set the roller speed to prevent bouncing or skidding.

Do not exceed 5 mph. Reduce roller speeds during directional changes to prevent surface 2. tearing.

E. Synchronize the speed of the distributor and chip spreader with that of the rolling operation.

- Begin initial rolling, consisting of one complete coverage, 1.
- immediately behind the chip spreader. Begin secondary rolling, consisting of second and third coverage, 2.
- immediately after completing initial rolling.
- Synchronize all operations to keep rolling operations within 2,500 3. feet of the ongoing chip seal application.

Chip Seal Coat 02785 - Page 8 of 9

> 2025 Standard Specifications Latest Revision: February 15, 2024

- F. Sweep excess cover material off the roadway after the emulsion has set.
 - before opening the roadway to traffic. Keep downward pressure of broom to a minimum.
 - Use water as requested by the Engineer if excessive dust is
 - generated during sweeping operations. of the shoulder.
 - 5. roadway.

G. Repair all damage to the seal coat before opening the roadway to traffic.

3.6 BITUMINOUS FLUSH COAT APPLICATION

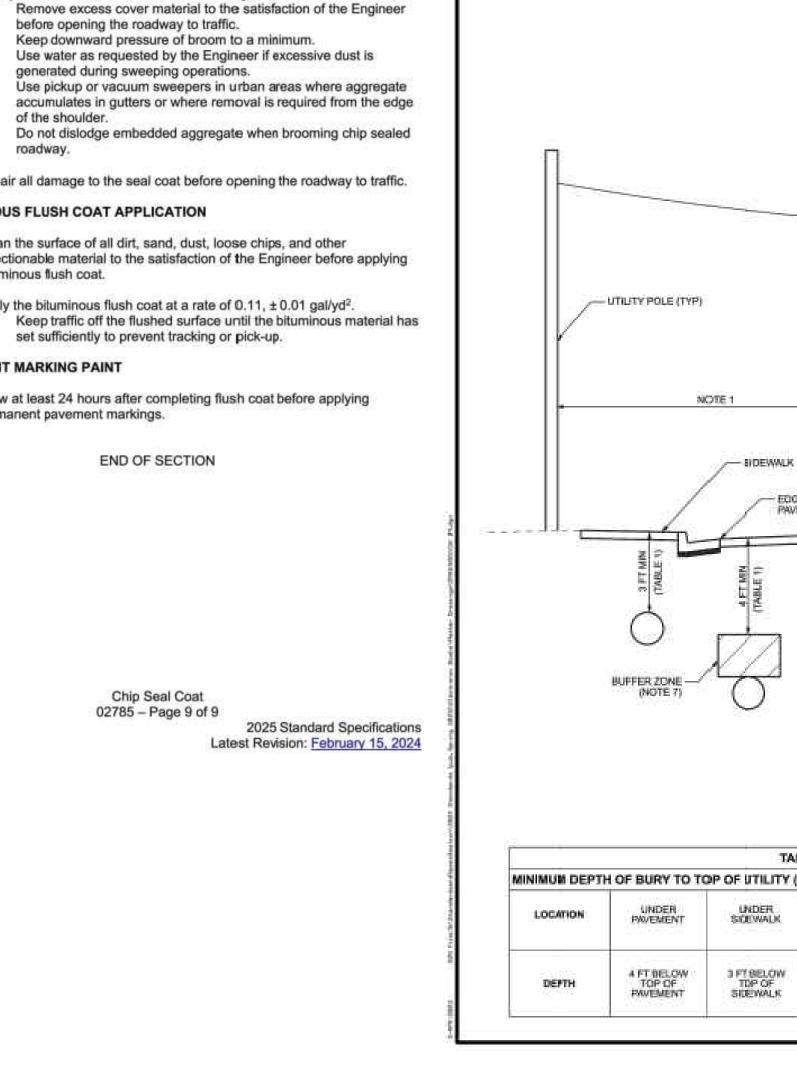
- A. Clean the surface of all dirt, sand, dust, loose chips, and other objectionable material to the satisfaction of the Engineer before applying bituminous flush coat.
- B. Apply the bituminous flush coat at a rate of 0.11, ±0.01 gal/yd². set sufficiently to prevent tracking or pick-up.

3.7 PAVEMENT MARKING PAINT

A. Allow at least 24 hours after completing flush coat before applying permanent pavement markings.

END OF SECTION

Chip Seal Coat 02785 - Page 9 of 9



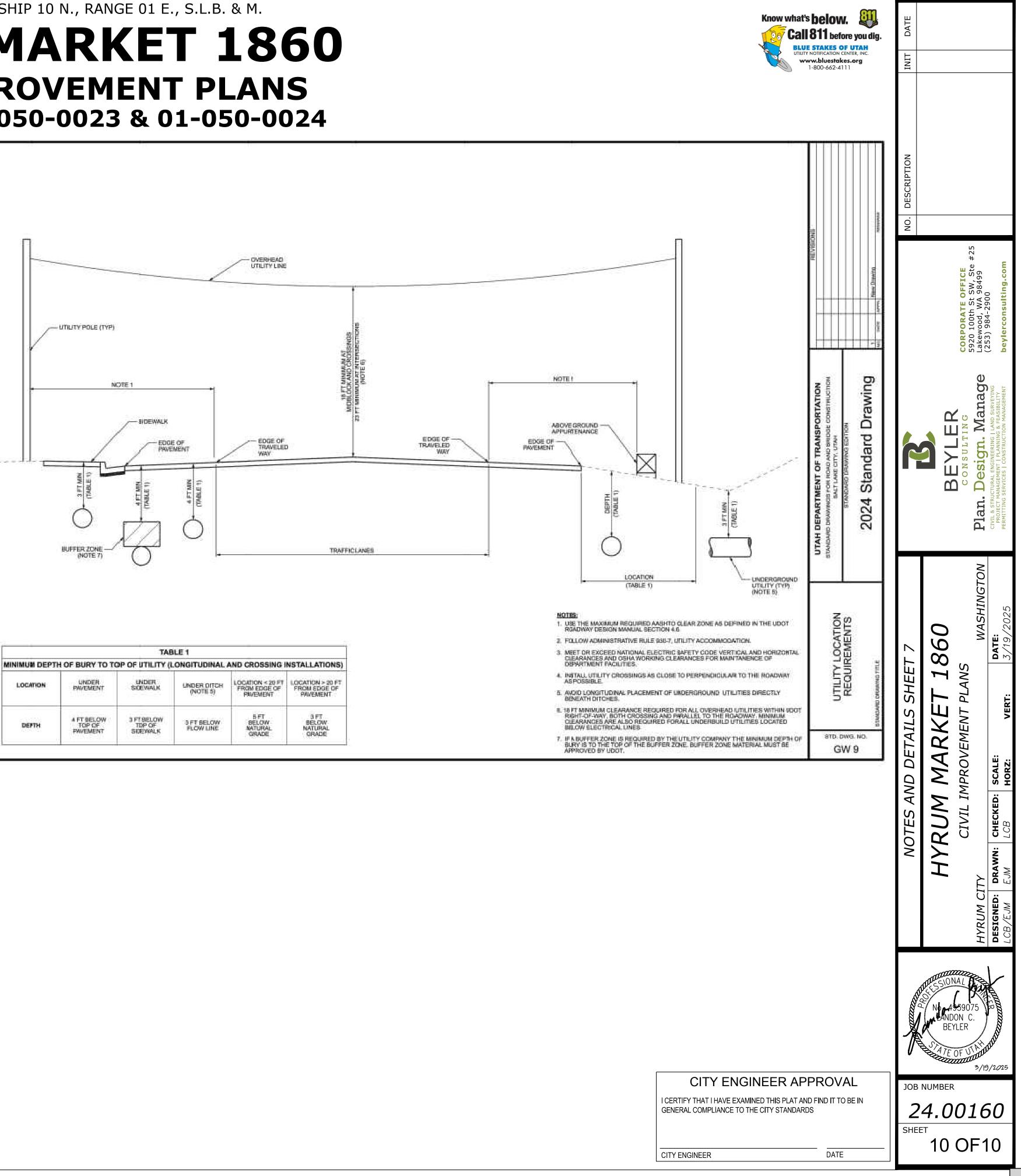
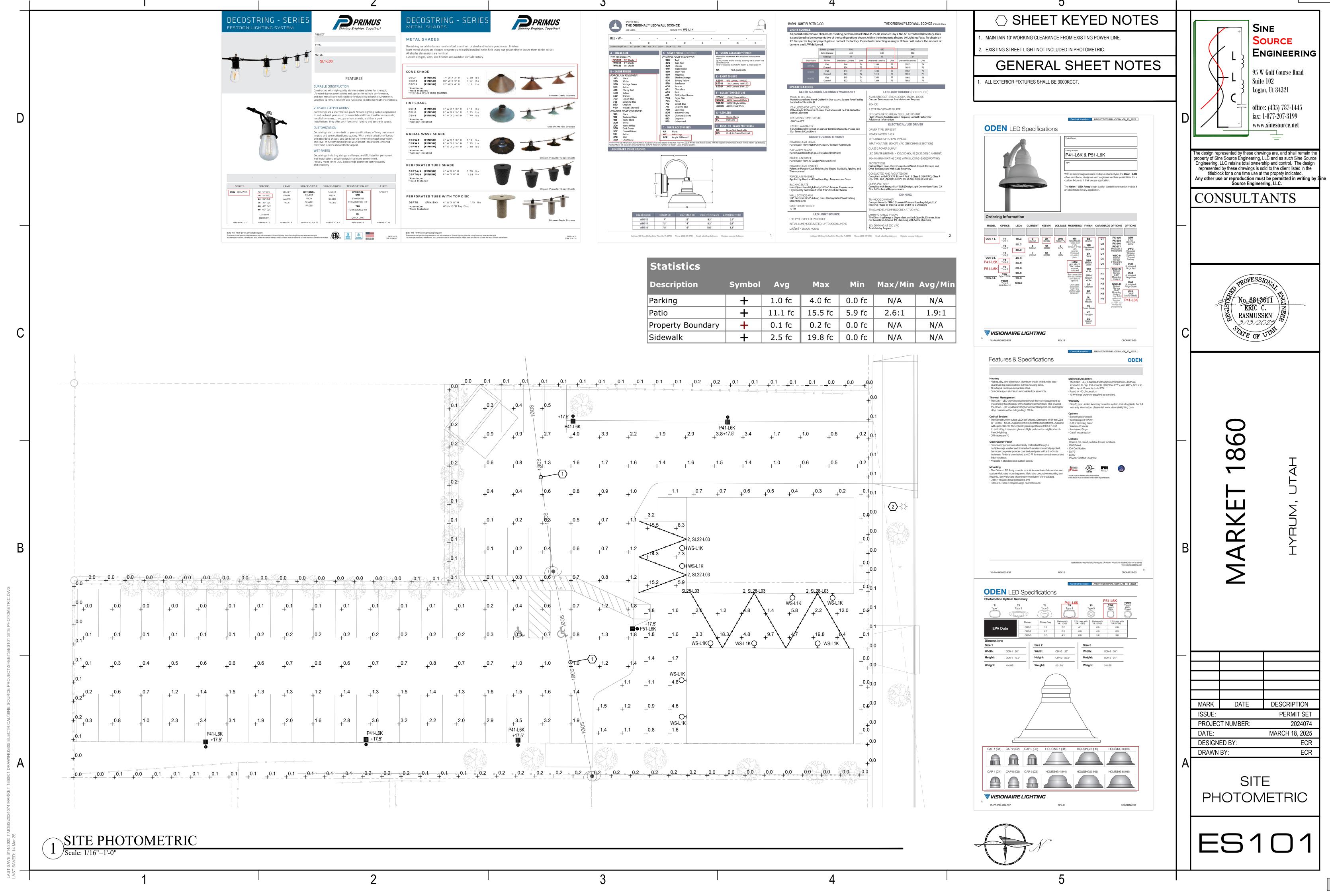
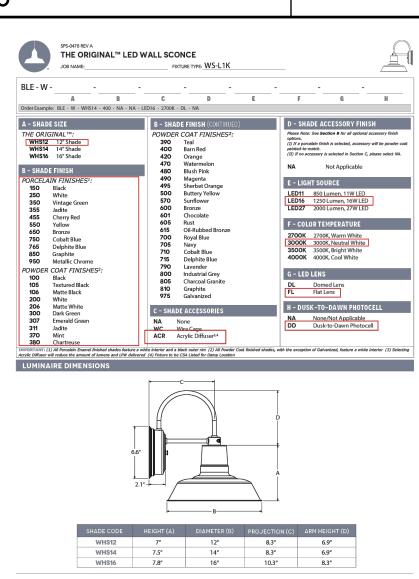
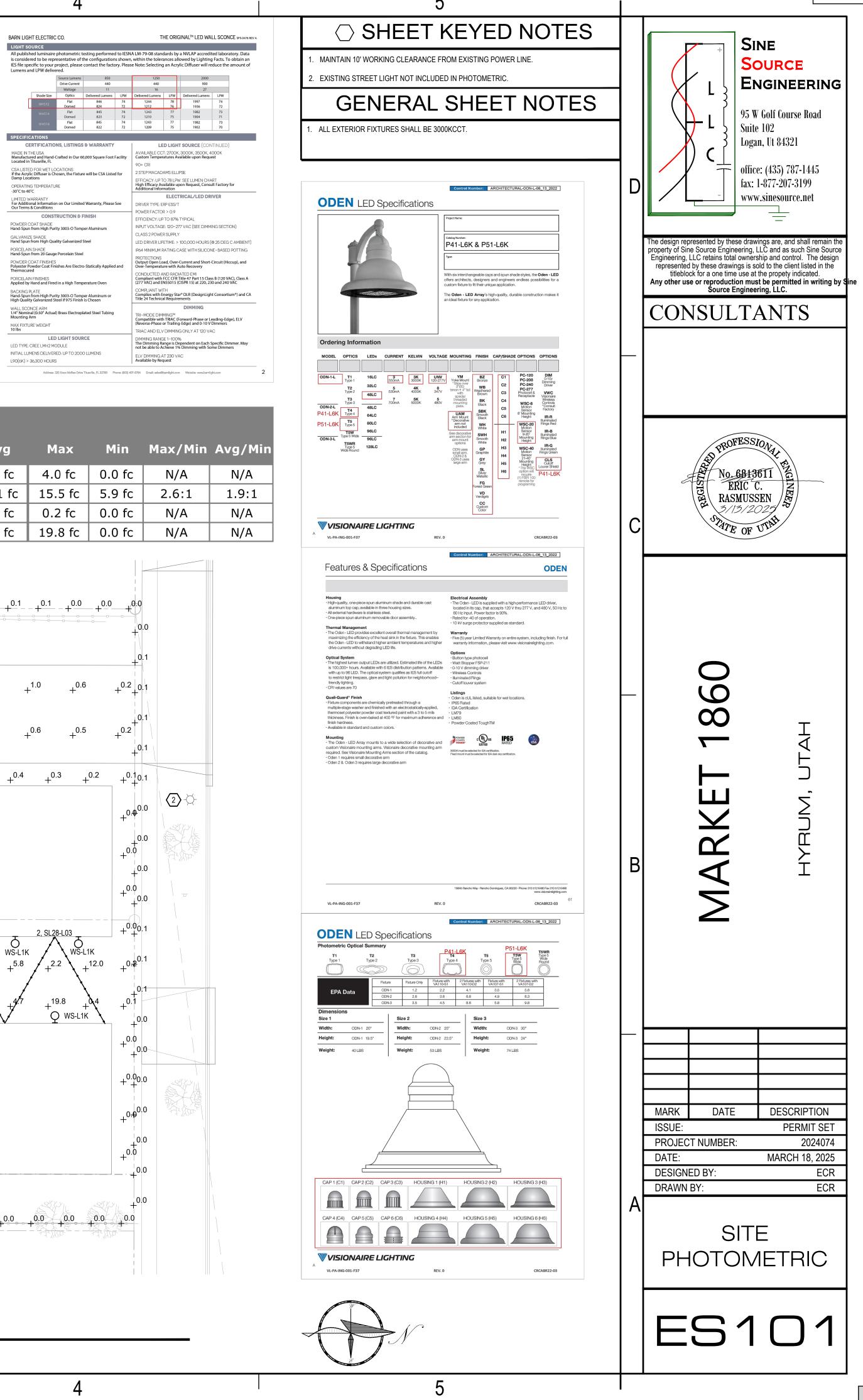


TABLE 1								
MINIMUM DEPTH OF BURY TO TOP OF UTILITY (LONGITUDINAL AND CROSSING INSTALLATION								
LOCATION	UNDER PRVEMENT	UNDER SICEWALK	UNDER DITCH (NOTE 5)	LOCATION < 20 FT FROM EDGE OF PRVEMENT	LOCATION > 20 FT FROM EDGE OF PW/EMENT			
DEFTH	A FT BELOW TOP OF PWVEMENT	3 FT BELOW TOP OF SIDEWALK	3 FT BELOW FLOW LINE	S-FT BELOW MATURAL GRADE	3 FT BELOW NATURAL GRADE			

Section 5. Item A.







Section 5. Item A.

Statistics									
Description	Symbol	Avg	Max	Min	Max/Min	Avg/			
Parking	+	1.0 fc	4.0 fc	0.0 fc	N/A	N/			
Patio	+	11.1 fc	15.5 fc	5.9 fc	2.6:1	1.9			
Property Boundary	+	0.1 fc	0.2 fc	0.0 fc	N/A	N/.			
Sidewalk	+	2.5 fc	19.8 fc	0.0 fc	N/A	N/.			